SINGLE ELECTRICITY MARKET COMMITTEE

FASS: DASSA Top-Up Mechanism

Decision Paper

SEM-25-056

30 September 2025

EXECUTIVE SUMMARY

This paper sets out the SEM Committee's decision in relation to the putting in place of a DASSA Top-Up Mechanism under the FASS framework. This follows a period of consultation by the TSOs and the decision is made in the context of the TSOs' Recommendations paper which was submitted on 17 July 2025.

The workstream to determine potential options for a DASSA top-up mechanism was developed following the SEM Committee's decision on the DASSA detailed design[1]. TSOs submitted their recommendations on the detailed design on 31 July 2024. Overall, the SEM Committee considered that the TSOs had 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 did highlight concerns primarily relating to the proposal to include a mechanism to incentivise units who were unsuccessful in the DASSA to maintain their availability for service provision, called the Final Assignment Mechanism (FAM). The SEM Committee decided not to approve the use of the FAM due to it not fully aligning with the FASS High Level Design[2] (HLD).

However, in recognition of the TSOs' concerns around the risks associated with a volume deficit of available reserves when operating a constrained system, the SEM Committee indicated that it was open to the TSOs proposing alternative measures to incentivise availability closer to real time. If the TSOs considered such measures necessary, a workstream would need to be established to determine a path forward which aligned with the FASS HLD.

Following on from this, the TSOs indicated that they considered it necessary and two concurrent workstreams were established:

(i) To determine the needs case for additional availability of System Services over and above what is procured in the DASSA and secondary trading market, with the balancing market as a backstop;
(ii) To determine a FASS HLD compliant mechanism through which the above need would be addressed, if required.

These workstreams were subsequently established and the RAs worked alongside the TSOs to develop options for a top-up mechanism, while Afry were contracted by the TSOs to conduct a needs analysis. The outcomes of the needs assessment were included in a report published on the TSOs websites and summarised in the TSOs' recommendations paper.

[1] SEM-24-066 - link
[2] SEM-22-012 - link

The joint options assessment led to the development of nine options:

1. No additional procurement mechanism
2. Enhancements to the Grid Code to obligate units to make reserve available
3. Over procurement of volumes in the DASSA
4. Use of LPF to procure baseload services via auction without an availability commitment

4ii. Use of LPF to procure baseload services via auction with an availability commitment

5. Use of LPF to procure baseload services on contracts of shorter than six months
6. Use of LPF to procure baseload services on multi-year contracts
7. Reconciliation of real-time events via a top-up mechanism
8. Changes to Balancing Market Rules

Following engagement between the TSOs and RAs on the options, a further option, the introduction of the Residual Availability Mechanism (RAD), was identified, which looked at adopting elements of options 4ii and 7. Following agreement on the final set of options the TSOs commenced drafting their consultation paper which indicated a preference to proceed with the RAD and set out detailed recommendations on same.

Following the consultation period, the TSOs received 16 responses and proceeded with drafting their Recommendations paper. The ultimate recommendation was to implement the RAD, with some minor changes to some of the design elements following consideration of the responses.

The design elements of the RAD are summarised below:

- It will be a separate auction to the DASSA;
- It will procure the same products as procured in the DASSA with a similar bidding format and process i.e. pay as clear and allowing the inclusion of P/Q pairs;
- It will satisfy the same locational constraints as the DASSA;
- The RAD gate is recommended to close at the same time as the DASSA gate. This is a change from the consultation;
- Successful units will be determined based on real-time availability, economic merit and the RAD volume requirements; and
- The RAD volume requirements will be set as the difference between the real time requirements for each system service product minus the volume of available DASSA contract holders. Available DASSA contract holders are those who have been successful in the DASSA auction or taken on a DASSA contract through secondary trading and have not been declared unavailable as a result of a unit action or TSO action.

The Afry needs analysis does identify scenarios where there may be a potential shortfall in required volumes for System Services following redispatch of the system, however the SEM Committee considers that the needs assessment does not provide clear evidence that this cannot be addressed through the Balancing Market. Notwithstanding this, the SEM Committee

acknowledges the TSOs' responsibilities in ensuring security of supply, and the SEM Committee acknowledges that the TSOs consider there to be a need for an additional mechanism.

On balance, the SEM Committee considers it prudent to allow the introduction of the RAD on a temporary basis, initially for a period of two years. Use of the RAD will be kept under review, and there will be a need for a robust reporting framework to ensure there is ongoing monitoring of the usage of the RAD. This reporting framework will provide information for each month on:

1. the number of trading periods in which the RAD was required;
   and for each of those;
   a. the total volume of all available reserves at BM gate closure (including providers without a DASSA contract) for each trading period for each product;
   b. the total volume of all available reserves at the end of the trading period for each product;
   c. the total volume of units which have maintained consistent reserve availability from BM gate closure through to the end of the trading period for each product for which the RAD was required;
   d. the volumes traded through the secondary market;
   e. the volumes procured through the secondary market by the TSOs in instances of volume insufficiency; and
   f. the volumes the TSOs sought to procure in the secondary market in instances of volume insufficiency but did not receive offers.
2. the total amount paid out to providers through the RAD;
3. the total ex-ante volumes procured through the DASSA for each trading period;
4. the real-time requirement for each trading period;
5. the volume of all DASSA contract holders who become unavailable as a result of their own actions for each trading period; and
6. the volume of all DASSA contract holders who become unavailable as a result of TSO actions for each trading period.
7. The volume of all LPF contract holders who became unavailable as a result of their own actions for each trading period
8. the volume of all LPF contract holders who become unavailable as a result of TSO actions for each trading period;
9. Trends in the RAD and DASSA clearing prices as they develop over time; and
10. Where the TSOs are recommending extending the use of the RAD for a further two years they shall include their plan and timeline to phase out the RAD.

Following a period of two years of DASSA operations, the TSOs will submit a report with a recommendation to discontinue the RAD, or robust evidence that there is a need to extend the operation of the RAD. The SEM Committee will conduct a review of the continued need for a top-up mechanism and may decide to allow the continued operation of the RAD for a further two-year

period. These reviews will be conducted by reference to the data included within the reporting framework set out above, along with any additional evidence presented by the TSOs

In terms of the proposals on the design elements of the RAD, the SEM Committee considers that they are well structured. The elements ensure that the RAD will procure the same products under the same technical definitions as the DASSA and bring the design for an ex-post mechanism in line with the HLD decision in terms of having a separate auction process to the DASSA. The SEM Committee acknowledges the concerns of stakeholders in relation to the proposals around a price cap. However, the SEM Committee considers that the TSOs' proposal aligns with previous SEM Committee decisions in terms of ensuring the primacy of the ex-ante market and discouraging the withholding of volumes from the DASSA. The SEM Committee has therefore decided that a price cap will be applied at the DASSA clearing price.

This Decision Paper should be read in conjunction with the TSOs' Recommendations Paper.

Contents

1 INTRODUCTION

The SEM Committee's Decision on the Future Arrangements for System Services (FASS) Phase III: Detailed Design & Implementation[3], published in December 2023 required the Transmission System Operators (TSOs), EirGrid and SONI, to develop a Phased Implementation Roadmap (PIR) for the delivery of a Day Ahead System Services Auction (DASSA) by December 2026. The paper also placed responsibility for leading consultation on the elements of the detailed design of the FASS with the TSOs.

The TSOs published the first iteration of the PIR in March 2024 and subsequently started work on the detailed market design of the DASSA. Following a public consultation, the TSOs submitted their recommendations on 31 July 2024. Overall, the SEM Committee considered that the TSOs 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 did highlight concerns primarily relating to the proposal to include a mechanism to incentivise units who were unsuccessful in the DASSA to maintain their availability for service provision, called the Final Assignment Mechanism (FAM). The SEM Committee decided not to approve the use of the FAM due to it not fully aligning with the FASS High Level Design (HLD).

The SEM Committee considered that the FAM, as proposed, did not appropriately incentivise units to actively establish an ex-ante System Services position, considering it more likely that any position taken by providers, without a DASSA contract, would be a consequence of energy market activities. Additionally, it did not consider the FAM to align with its previous decision to include a "top-up auction" as described under the HLD, as it did not allow units to set separate prices for the DASSA and FAM and did not propose to update volume requirements. As a result, the SEM Committee decided not to approve the use of the FAM.

The paper recognised the TSOs' concerns around the risks associated with a volume deficit of available reserves when operating a constrained system. While noting that it considered the well-structured ex-ante framework developed by the TSOs to be sufficiently robust to enable accurate positions to be established by gate closure of the secondary market, with the balancing market acting as a back stop to ensure appropriate levels of reserves are scheduled to meet operational constraints, the SEM Committee indicated that it was open to the TSOs proposing alternative measures to incentivising availability closer to real time. If the TSOs considered such additional measures necessary a workstream would need to be established to determine a path forward which aligned with the FASS HLD.

[3] SEM-23-103

Following on from this, the TSOs indicated that they considered it necessary and two concurrent workstreams were established:

(iii) To determine the needs case for additional availability of System Services over and above what is procured in the DASSA and secondary trading market, with the balancing market as a backstop;
(iv) To determine a FASS HLD compliant mechanism through which the above need would be addressed, if required.

These workstreams were subsequently established and the RAs worked alongside the TSOs to develop options for a top-up mechanism through a joint options assessment, while Afry were contracted by the TSOs to conduct a needs analysis. The outcomes of Afry's needs assessment were included in a report published on the TSOs websites and summarised in the TSOs recommendations paper.

The joint options assessment led to the development of the DASSA top-up mechanism consultation paper, which was published by the TSOs on 24 March 2025. The paper set out nine options which were developed through the assessment:

1. No additional procurement mechanism
2. Enhancements to the Grid Code to obligate units to make reserve available
3. Over procurement of volumes in the DASSA
4. Use of LPF to procure baseload services via auction without an availability commitment
5. Use of LPF to procure baseload services via auction with an availability commitment
6. Use of LPF to procure baseload services on contracts of shorter than six months
7. Use of LPF to procure baseload services on multi-year contracts
8. Reconciliation of real-time events via a top-up mechanism
9. Changes to Balancing Market Rules

Following engagement between the TSOs and RAs on the options, a further option, the introduction of the Residual Availability Mechanism (RAD), was identified, which looked at adopting elements of options 4ii and 7. The consultation paper built on this through setting out detailed recommendations on the introduction of the Residual Availability Mechanism (RAD). Following the consultation period, the TSOs received 16 responses and proceeded with drafting their Recommendations paper. The ultimate recommendation was to implement the RAD, with some minor changes to some of the design elements following consideration of the responses.

The design elements of the RAD are summarised below:

- It will be a separate auction to the DASSA;
- It will procure the same products as procured in the DASSA with a similar bidding format and process i.e. pay as clear and allowing the inclusion of P/Q pairs

- It will satisfy the same locational constraints as the DASSA
- The RAD gate is recommended to close at the same time as the DASSA gate. This is a change from the consultation
- Successful units will be determined based on real-time availability, economic merit and the RAD volume requirements
- The RAD volume requirements will be set as the difference between the real time requirements for each system service product minus the volume of available DASSA contract holders. Available DASSA contract holders are those who have been successful in the DASSA auction or taken on a DASSA contract in secondary trading and have not been declared unavailable as a result of a unit action or TSO action.

This paper sets out the SEM Committee's decisions on the DASSA top-up mechanism, having consideration of previous SEM Committee decisions on FASS, the TSOs' recommendations and the views of stakeholders.

It is worth noting, in terms of the overall FASS framework, that ACER made a decision on the implementation of co-optimisation in the electricity price coupling algorithm methodology in September 2024[4]. This continues to be a developing area and 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 essential that sufficient flexibility is built into 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 in the future, without a significant overhaul of IT systems. The SEM Committee acknowledges that there remains a lack of clarity in the eventual outcome and detailed design of the co-optimisation workstream, however the principle of flexibility in the IT solution is of significant importance in any event.

[4] https://eepublicdownloads.entsoe.eu/clean-documents/nc-tasks/240923_ACER_Decision_11-2024_Algorithm_Methodology.pdf

2 Overview of TSO Recommendations

The TSOs recommendations paper sets out their position and recommendations in in relation to the needs assessment and joint options assessment for the introduction of a DASSA top-up mechanism. This section provides a summary of the needs assessment carried out by Afry, an overview of the different options which were developed as part of the joint options assessment and the key design elements of the TSOs' recommendations on the introduction of the RAD.

2.1 Needs Assessment

The TSOs developed a scope of work to contract for an assessment of the need for a DASSA top-up mechanism. The assessment set out to model how the DASSA (day ahead and secondary trading) would function within the existing energy market (ex-ante and balancing), concentrating on analysing the risk of a potential shortfall in real time operational reserve requirements, accounting for the impact of non-energy actions in the Balancing Market and the incentive to remain available for potential Balancing Market payments.

Afry were contracted to conduct the needs analysis. Their approach was to model an 'unconstrained' DASSA and DAM and to compare this to modelled 'constrained' dispatch runs for the years 2027 and 2030. This modelling highlights how reserve provision may change from the day-ahead stage closer to real time.

The needs analysis is set out in a report published on the TSOs' respective websites. It sets out that, without sufficient incentives:

- There will be a real-time reserve 'deficit' of more than 100 MW for each reserve product for 10% of periods (i.e. more than two hours per day on average) of the modelled year 2027.
- While the TSOs will endeavour to manage such deficits in the BM, there will be no explicit compensation for reserve. There will therefore be a risk, in the absence of an incentive, that service providers will not make themselves available above the mandated Grid Code requirement of 5% of capacity.
- The minimum reserve service provision as mandated by the Grid Code will not be sufficient for system security.

2.2 Joint Options Assessment

In terms of the joint options assessment, a number of options were developed and assessed jointly by the TSOs and RAs. These are summarised in the table below.

Option	Key Features
1: No Additional Procurement Mechanism	This option proposed that the DASSA would be the only procurement mechanism for reserve services, with no other mechanism to procure additional volume to meet real time system service needs. • DASSA is the only means of procuring reserve services. • DASSA is the only means of payment for service providers, therefore they are incentivised to participate in the DASSA and secondary trading. • No additional top-up mechanism.
2: Grid Code Enhancements	Option 2 proposed that the Grid Code be enhanced such that service providers would be required to declare and make available their full technical system service capability to the TSOs to meet any additional real-time system service requirement above that procured in the DASSA. There would be no procurement mechanism other than the DASSA and service providers would not be remunerated for providing any volume above any awarded DASSA volume. Service providers would not be obligated to withhold from other markets (including energy markets). • Grid Code updated to require all service providers to declare and make available their full technical system services capability. • All available system services capability will be accessible by the TSOs in real-time. • Service providers will not be rewarded for being available for additional volumes.
3: Over Procure in DASSA	Under this approach, the TSOs would significantly over-procure in the DASSA so that sufficient additional volumes would be available to ensure real-time system needs would be met. The DASSA would remain the only procurement mechanism for system services. • Over procure system service volume. • DASSA is the only means of procuring system services. • DASSA is the only means of payment for service providers. • No additional top-up mechanism.
4: Procure Baseload Services via LPF Auction	Option 4 proposed that a baseload volume of system services would be procured on a monthly, quarterly or bi-annual basis (through an LPF auction) ahead of the DASSA, with an obligation on a service provider to be available for any awarded volume, supported by an incentive regime. The DASSA would remain the primary procurement mechanism in terms

	of service volume, with the procured baseload volumes aimed at meeting additional real-time system requirements. • Monthly/quarterly/bi-annual auctions for TSO-defined system services volumes. • Auctions in advance of DASSA, procuring “baseload” volumes i.e. a certain volume of system service. • DASSA remains primary auction. • Regular procurement auction cycles.
4ii: LPF with Availability Commitment	Under this option, the TSOs would procure additional system service volumes on a monthly, quarterly or bi-annual basis (through an LPF auction) ahead of the DASSA. Service providers would be able to participate in other markets but would be required to make available any residual volumes to be utilised in real-time. Service providers awarded contracts under this mechanism would receive payments irrespective of eventual availability. The DASSA would remain the primary procurement mechanism for services. • Monthly/quarterly/bi-annual auctions for TSO-defined system services volumes. • Contracted service providers maintain volumes not cleared in other markets available. • DASSA remains primary auction. • Regular procurement auction cycles.
5: Procure Baseload Services via LPF Contracts <6 Months	Option 5 proposed that a baseload volume of system services would be procured competitively via fixed contract arrangements of up to six months in duration, with an obligation on a service provider to be available for any awarded volume, supported by an incentive regime. The DASSA would remain the primary procurement mechanism in terms of service volume, with the procured baseload volumes aimed at meeting additional real-time system requirements. • Contractual arrangement for volumes procured prior to the DASSA. • Volumes procured competitively via Request for Proposal (RFP) every <=6 months. • DASSA remains the primary mechanism for procurement of reserve.
6: Procure Baseload Services via LPF	Option 6, like Option 5, proposed that a baseload volume of system services would be procured competitively via fixed contract arrangements, with an obligation on a service provider to be available for any awarded

Contracts >13 Months	volume, supported by an incentive regime. However, in this case the contracts would be for periods greater than 13 months. The DASSA would remain the primary procurement mechanism in terms of service volume, with the procured baseload volumes aimed at meeting additional real-time system requirements. • Contractual arrangement for volumes procured prior to the DASSA. • Volumes procured competitively via Request for Proposal (RFP) every >13 months. • Must be re-procured/renewed every 13 months. • DASSA remains the primary mechanism for procurement of reserve.
7: Reconciliation of Real-Time Needs	Option 7 proposed that an analysis of real-time system needs be performed ex-post to identify any additional volumes that needed to be procured via an ex-post reconciliation mechanism. Service providers would be paid a reconciliation payment if in merit (which would be determined based on DASSA bid submissions) in addition to any DASSA Order payment. • Identify real-time system needs not procured in the DASSA (residual needs). • Identify assets that meet real-time needs and assign volumes. • Determine the remuneration rate applicable for residual needs. • Remunerate assets providing residual needs.
8: Changes to BM Rules	With this approach, the Balancing Market rules would be amended such that simple offers rather than complex offers would be used for reserve services. The effect of this change would be that service providers would be remunerated on a pay-as-clear basis in the Balancing Market if repositioned to provide services. The DASSA would remain the primary procurement mechanism. Service providers would not be required to withhold capacity from other markets. • No additional top-up mechanism. • Use simple instead of complex BM offers for system services. • DASSA remains the primary means of procuring system services. • Reserve re-positioning remunerated pay-as-clear instead of pay-as-bid.

Following engagement between the TSOs and RAs on the options, a further option, the introduction of the Residual Availability Mechanism (RAD), was identified, which looked at adopting elements of options 4ii and 7. The RAD features an ex-ante submission of bids ahead

of the Auction Timeframe and an ex-post clearing based on RAD submissions, service provider availability, and real-time volume requirement. Payment is made for any residual availability from service providers, net of any other markets, with no commitment obligation to be available.

Ultimately, the outcome of the joint options assessment was that the TSOs would recommend the introduction of the RAD in a consultation paper on the DASSA top-up mechanism.

2.3 The Residual Availability Determination (RAD)

Below is a summary of the design elements of the RAD:

- The RAD is aimed at incentivising service providers to make any residual capacity – net of other market commitments, including the DASSA – available in real-time. There will not be a commitment obligation for service providers to set aside capacity for system services provision (unlike the DASSA).
- The RAD will be a separate auction to the DASSA: service providers may submit offers into both the RAD and/or DASSA.
- The RAD will procure the same system services as will be auctioned in the DASSA, including upward and downward reserve, also reflecting any requirements for dynamic service provision and other service qualities to be defined.
- The RAD will satisfy the same locational constraints as the DASSA i.e. consistent with the Locational Methodology.
- There will be a dedicated RAD Gate Window (Opening and Closing Window) associated with each Auction Timeframe, i.e. an operational day from 23:00 D-1 to 23:00 D, which aligns with the DASSA Auction Timeframe.
- RAD Offers will be submitted in advance of the target Auction Timeframe and cannot be updated following the RAD Gate Closure.
- Ex-post, the mechanism will determine the real-time availability of DASSA Order Holders and determine any additional volume required (above that procured in the DASSA) to meet real time system needs. The RAD volume requirement per service will be made up of:
    - System service needs in real-time
      MINUS
      DASSA service volume requirement (as procured in the DASSA)
      PLUS
      System service volumes that were cleared in the DASSA but unavailable due to self-lapsed DASSA Orders which were not traded in the secondary market, TSO-lapsed DASSA Orders and service providers who were unavailable in real time.
- The ex-post RAD auction to award service providers in merit at the RAD clearing price, which is to be pay-as-clear.
- A RAD default price of zero will apply to service providers that did not submit ex-ante bids into the RAD but nonetheless made themselves available in real time.
- Service providers will be obligated to declare their availability to provide a service to the TSOs if they are technically capable of doing so, irrespective of whether they hold a

DASSA Order for the service volume; this requirement will be set out in the Grid Code or System Services Code, as appropriate.

3 KEY RESPONSE THEMES

In terms of the responses received, the majority of respondents acknowledged the importance of a DASSA top-up mechanism in supporting the continued procurement of sufficient system services, such that system security is maintained. There were several themes identified in review of the responses. Primarily several respondents raised concerns with the lack of industry involvement in the joint options assessment, and the majority of responses raised significant concerns with proposals to set a RAD price cap at the DASSA clearing price. Additionally, the proposed RAD Gate Closure timing was viewed by a number of respondents as misaligned with existing operations and potentially restrictive.

The SEM Committee acknowledges the points made by respondents in terms of the need for engagement on the joint options assessment. While there is a clear preference for the RAD set out in the TSOs' consultation paper, the RAs had not ruled out any of the other developed options at the time of the consultation. The consultation process represented an opportunity for stakeholders to engage with all the identified options, and the SEM Committee notes that while some responses did critique some of the other options, a significant amount of responses focused primarily on the RAD.

In terms of the RAD price cap, the SEM Committee acknowledges the concerns raised by stakeholders. The SEM Committee notes that the recommendation of the TSOs is consistent with previous SEM Committee decisions on FASS in terms of maintaining the primacy of the ex-ante market. The SEM Committee considers that given the likelihood that there will not be significant volumes procured through the RAD, combined with the lack of commitment obligations, the RAD clearing price is unlikely to exceed that of the DASSA. Additionally, given that units will not know if they are successful in the RAD until after real-time dispatch providers will not need to recover opportunity costs in the RAD. The SEM Committee has therefore decided that a price cap at the DASSA clearing price will apply to the RAD.

The SEM Committee acknowledges the comments on the RAD Gate Closure, and notes that the TSOs have made revised recommendations to move gate closure in alignment with the DASSA gate closure. The SEM Committee notes concerns raised under previous consultations on FASS around the ability of some technology types to take on a commitment obligation at the day ahead stage given uncertainty around their final position. The SEM Committee considers that all providers should be capable of participating in the RAD given the lack of risks associated with commitment obligations.

4 SEMC DECISIONS

This section sets out the SEM Committee's considerations and decisions having reviewed the TSOs' recommendations, previous SEM Committee decisions in this area and the stakeholder responses. The SEM Committee's considerations are broken down into the following areas:

1. Needs Assessment and Reporting Requirements
2. RAD Design Parameters
3. Real Time Requirements

4.1 Needs Assessment and Reporting Requirements

The EU Target Model creates a clear distinction between:

- Balancing Capacity procured ahead of the Balancing Market; and
- The activation of balancing energy in the Balancing Market.

This creates incentives for market participants to be available in the Balancing Market so that they can provide, and be paid for, balancing energy.

To cover the possibility that there is insufficient balancing energy available to the TSOs in a given trading period, the EU Target Model provides for the procurement of Balancing Capacity (i.e. reserves) to ensure a minimum volume of balancing energy is available to the TSOs in the Balancing Market.

The DASSA will procure balancing capacity at the day-ahead stage. Additionally, the HLD provides for the TSOs to procure balancing capacity before the day-ahead stage through the LPF.

Where units lapse their DASSA orders (i.e. will not be able to meet their obligations to provide reserves) prior to secondary market gate closure this contract can be traded in the Secondary Market.

Market participants providing balancing capacity then compete in the Balancing Market with all market participants (i.e. including those without a DASSA order) to provide balancing energy.

While not a feature of the EU target model, the HLD did also provide for the temporary use of a top-up mechanism.

The RAD will cover the possibility that market participants will lapse their DASSA orders, that these contracts are not traded in the Secondary Market, and that the shortfall is greater than the availability of balancing energy in the Balancing Market from market participants without a DASSA order.

Where this shortfall in the Balancing Market is due to market participants having costs, over and above those that could be recovered through their balancing market bids, such that they do not have an incentive to be available in the Balancing Market, the RAD will allow them to recover these costs.

Having reviewed the needs assessment conducted by Afry, along with the views of the TSOs and previous SEM Committee decisions on the DASSA detailed design and the FASS HLD, the SEM Committee's position remains that the well-structured ex-ante DASSA framework developed by the TSOs is sufficiently robust to enable accurate positions to be established by gate closure of the secondary market, with the balancing market acting as a back stop to ensure appropriate levels of reserves are scheduled to meet operational constraints.

However, the SEM Committee acknowledges the role of the TSOs in ensuring security of supply on the transmission system, and the concerns of the TSOs in terms of their ability to continue to ensure security of supply on a constrained system without a top-up mechanism for System Services. Therefore, on balance, and considering that the new arrangements do represent a significant change for the TSOs and for industry, the SEM Committee considers it prudent to proceed with the introduction of a DASSA top-up mechanism. It is noted that the HLD envisaged that where a top-up mechanism was implemented it would be phased out over time.

On this basis, the SEM Committee has decided that the TSOs will implement the RAD framework to act as a top-up mechanism as part of the overall DASSA design. In the context of uncertainty around the need for the RAD, it will remain under review for a period of two years and a robust reporting framework will be put in place to ensure there is ongoing monitoring and transparency around its use. Having consideration for commercially sensitive information, the SEM Committee will endeavour to make information contained within these reports publicly available where feasible.

SEMC Decision 1: The TSOs will implement the Residual Availability Determination (RAD) Framework to act as a top-up mechanism as part of the overall DASSA Design. The RAD will remain in place for a period of two years. This may be extended by further two-year periods by the SEM Committee where the need remains.

SEMC Decision 2: A review on the usage of the RAD will be conducted by the TSOs after a period of two years of DASSA operations, by reference to the data included in the reports set out under Decision 3 below. Thereafter, if there is evidence that a two-year extension of the RAD is necessary, the TSOs will submit a report to the SEM Committee, at least once every two years, with a recommendation to discontinue the RAD or to retain it for an additional two years with robust evidence required to justify further extensions.

SEMC Decision 3: A reporting framework will be put in place. Under this, the TSOs will submit monthly reports to the RAs which include the following information:

1. the number of trading periods in which the RAD was used; and for each of those;
    a. the total volume of all available reserve at BM gate closure (including providers without a DASSA contract) for each trading period for each product;
    b. the total volume of all available reserves at the end of the trading period for each product;

c. the total volume of units which have maintained consistent reserve availability from BM gate closure through to the end of the trading period for each product for which the RAD was required;
d. the volumes traded through the secondary market;
e. the volumes procured through the secondary market by the TSOs in instances of volume insufficiency; and
f. the volumes the TSOs sought to procure in the secondary market in instances of volume insufficiency but did not receive offers.

2. the total amount paid out to providers through the RAD;
3. the total ex-ante volumes procured through the DASSA for each trading period;
4. the real-time requirement for each trading period;
5. the volume of all DASSA contract holders who become unavailable as a result of their own actions for each trading period; and
6. the volume of all DASSA contract holders who become unavailable as a result of TSO actions for each trading period.
7. The volume of all LPF contract holders who became unavailable as a result of their own actions for each trading period;
8. the volume of all LPF contract holders who become unavailable as a result of TSO actions for each trading period;
9. Trends in the RAD and DASSA clearing prices as they develop over time; and
10. Where the TSOs are recommending extending the use of the RAD for a further two years they shall include their plan and timeline to phase out the RAD.

4.2 RAD Design Parameters

The SEM Committee considers that the majority of the proposed design parameters of the DASSA are sensible proposals. Holding a separate auction with different bids and clearing price aligns with the HLD decision on having a top-up auction. Additionally, the recommendation that the auction procure the same products as the DASSA and have the same technical parameters is a sensible approach.

The alignment of the RAD gate closure with DASSA gate closure is a reasonable change from the initial proposals. The lack of commitment obligations will enable the participation of technology types who may not be willing to take on the risk of commitment obligations in the DASSA.

The SEM Committee considers that given the likelihood that there will not be significant volumes procured through the RAD, combined with the lack of commitment obligations, the RAD clearing price is unlikely to exceed that of the DASSA. Additionally, given there will be no guarantee of revenues through the RAD, the majority of providers will not be able to rely on it to recover their opportunity costs. The SEM Committee has therefore decided that a price cap at the DASSA clearing price will apply to the RAD.

The SEM Committee considers it important that the primacy of the DASSA is maintained, in terms of not introducing potential incentives to withhold capacity from the DASSA to avail of potentially higher RAD prices. The SEM Committee also considers that, given the lack of commitment obligations, and the likelihood that units will not have factored potential RAD payments into interaction in other markets, it is unlikely that the TSOs recommendation would have a significant impact on providers.

Units will not be obligated to participate in the RAD, but for units which have acceded to the FASS arrangements, a default price will be ascribed. The TSOs set out that the default price will need to be defined by the RAs. The SEM Committee has decided that the default price for the RAD will be set to a bid of zero. This will ensure that all participants are encouraged to actively bid in the RAD, if they do not wish to be a price-taker in the RAD.

SEMC Decision 4: The SEM Committee has decided that the RAD will have the following design parameters:

- The RAD is aimed at incentivising service providers to make any residual capacity – net of other market commitments, including the DASSA – available in real-time. There will not be a commitment obligation for service providers to maintain their contracted capacity for system services provision (unlike the DASSA).
- The RAD will be a separate auction to the DASSA: service providers may submit separate offers into the RAD and/or DASSA.
- The RAD will procure the same system services as will be auctioned in the DASSA, including upward and downward reserve, also reflecting any requirements for dynamic service provision and other service qualities to be defined.
- The RAD will satisfy the same locational constraints as the DASSA i.e. consistent with the Locational Methodology.
- There will be a dedicated RAD Gate Window (Opening and Closing Window) associated with each Auction Timeframe, i.e. an operational day from 23:00 D-1 to 23:00 D, which aligns with the DASSA Auction Timeframe.
- RAD Offers will be submitted in advance of the target Auction Timeframe and cannot be updated following the RAD Gate Closure.
- RAD Gate Closure will align with DASSA gate closure i.e. 15:30 D-1.
- Ex-post, the mechanism will determine the real-time availability of DASSA Order Holders and determine any additional volume required (above that procured in the DASSA) to meet real time system needs. The RAD volume requirement per service will be made up of:
    - System service needs in real-time
      MINUS
      DASSA service volume requirement (as procured in the DASSA)
      PLUS

System service volumes that were cleared in the DASSA but unavailable due to self-lapsed DASSA Orders which were not successfully traded in the secondary market, TSO-lapsed DASSA Orders and service providers who were unavailable in real time.

- The ex-post RAD auction to award service providers in merit at the RAD clearing price, which is to be pay-as-clear.
- A price cap will apply to the RAD and be set at the DASSA clearing price for each trading period.
- A RAD default price of €0/£0 will apply to service providers that did not submit ex-ante bids into the RAD but nonetheless made themselves available in real time.
- Service providers will be obligated to declare their availability to provide a service to the TSOs if they are technically capable of doing so, irrespective of whether they hold a DASSA Order for the service volume; this requirement will be set out in the Grid Code or System Services Code, as appropriate.

4.3 Real Time Requirements

The RAD Design Parameters set out that the determination of any RAD volumes will be set by reference to the real time requirements for each System Services product. It is important that these real-time requirements have clear definitions so there is clarity on how they will be set. Based on reporting under the Regulated Arrangements and a review of the transmission constraint groups, accordingly, the SEM Committee's expectation is that the defined real time requirements for all reserve products should be consistent with how the TSOs operate the system. If the TSOs intend to amend how they measure real time requirements post DASSA go-live relative to the approach set out under their Current System Services Volume Requirements Information Paper[5] this will need to be clearly set out.

The SEM Committee has decided that the TSOs should submit a summary of how the real time system requirements for each of the reserve based System Services products are currently procured and if the TSOs will propose changes to this under the DASSA, so that the RAs can review and determine if this remains appropriate.

SEMC Decision 5: Real Time Requirements for reserve based System Services to remain consistent with how the TSOs currently operate the system until such a time as the TSOs propose otherwise.

5 https://cms.eirgrid.ie/sites/default/files/publications/DS3_System_Services_Current_System_Services_Volume_Requirements_Information_Paper.pdf

SEMC Decision 6: TSOs to submit a summary of how they propose to define the real time requirements for reserve based System Services for the safe operation of the system under the DASSA and RAD for RA review by end November 2025.

5 NEXT STEPS

Following this SEMC Decision Paper the TSOs will commence work on implementation of the RAD. The TSOs and RAs will be engaging in the coming months on the Parameters and Scalars workstream and the SEM Committee will be making a decision on this in October. This decision will include a determination on the RAD Price Cap. The SEM Committee will publish definitions for the real time requirements of each System Services product following review of a TSO submission on same.

5.1 Next Steps

Should stakeholders have any queries or comments please contact Dylan Ashe (dashe@cru.ie) or Bronagh McKeown (bronagh.mckeown@uregni.gov.uk).