

Response to Feedback on SEM Ex-Ante Market Design For EU Re-Integration

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Contents

1. Introduction	2
1.1. Purpose.....	2
1.2. Reason for Change.....	2
1.3. Engagement to Date.....	2
2. Feedback Summary and Responses	4
2.1. Overall Plan, Transparency, and Stakeholder Communication.....	4
2.2. Impact of Change	5
2.2.1. Impact of Change to the Status Quo	5
2.2.2. Complexity and Effectiveness of the Design:	5
2.2.3. Existing Interconnector Usage	6
2.3. Benefits and Costs.....	6
2.3.1. Cost-Benefit Analysis	6
2.3.2. Costs to Market Participants	7
3. Conclusion	7

1. Introduction

1.1. Purpose

The paper provides SONI and EirGrid's, as Transmission System Operators (TSOs) and SEM Market Operators (MOs) (referred to in this paper collectively as "SONI and EirGrid")¹, responses to the feedback received on the future design of the SEM ex-ante markets due to EU integration.

Given the scope, scale, and complexity of coordination with European entities, having clarity and acceptance of the ex-ante market design in 2023 will help to mitigate the risks around delivery of the ex-ante market changes. Clarity now will help ensure sufficient time to complete detailed design, systems development, and testing in advance of the target go live date Q4 2026.

The intention is to take forward the target ex-ante design as specified in this paper as the working baseline for the development of the ex-ante markets, including engagement with vendors, service providers and European organisations responsible for enabling market coupling in Europe i.e., Single Day-ahead Coupling (SDAC) and Single Intraday Coupling (SIDC).

1.2. Reason for Change

The Celtic Interconnector is a planned 700MW DC interconnector linking the transmission systems in Ireland and France (FR). The target date for commissioning and market entry is Q4 2026.

The implementation of the Celtic Interconnector will physically connect the Single Electricity Market (SEM) to the European Energy Markets, following its isolation as a result of Brexit. SEM-FR coupling will need to be established in the SEM ex-ante and balancing markets, as well as in the corresponding French markets.

A revision of the current SEM structure is necessary to facilitate new cross-border trading opportunities between the SEM and France, whilst maintaining cross-border trading opportunities between SEM and Great Britain (GB). As the Celtic Interconnector will form part of the European Internal Energy Market there is a requirement to ensure the SEM arrangements comply with all relevant EU regulations.

1.3. Engagement to Date

The process of engagement on the ex-ante market design began in early 2023 with SONI and EirGrid evaluating potential options for the integration into Europe. This involved discussions with key European organisations including SDAC and SIDC, service providers, the French TSO RTE and SEM Regulators. Options were identified and evaluated qualitatively based on the legal compliance, technical feasibility, opportunities for trade, social welfare benefits, and costs and complexity of implementation and operation.

This analysis identified a number of potential options; however, not all of which were found to be legally compliant, or technically feasible, such that just one solution was identified as viable. This option and supporting analysis were summarised in an information paper² published on 29 May 2023 as the target ex-ante market design for EU integration. The information paper identified the single viable option and explained the underlying rationale.

The target ex-ante market design consists of six coupled auctions and a coupled continuous market. This design involves replacing the existing three local markets (Local SDAC, IDA3 and IDC³) with coupled markets with France, and the addition of two new coupled auctions into the SEM ex-ante market arrangements. There will be no change to the market coupling arrangements with GB as a result of this design. The proposed coupled market auctions, and changes from that currently in place in the SEM are summarised in the Figure below.

¹ It is the responsibility of SONI and EirGrid under their TSO and MO licences to implement and provide ex-ante markets

² [SEMO Market Message](#)

³ IDA3 is the local Intra-day auction, and IDC is the intra-day continuous trading market.

Coupled Market		
SEM-GB	SEM-FR	Local
	SDAC	SDAC
	EUIDA1 ⁴	
IDA1		
	EUIDA2	
IDA2		
	EUIDA3	IDA3
	SIDC ⁵	IDC

Figure 1: Proposed Coupled Market Auctions

A further illustration of the timing of these auctions and the proportion of the trading day they relate to is provided in the figure below.

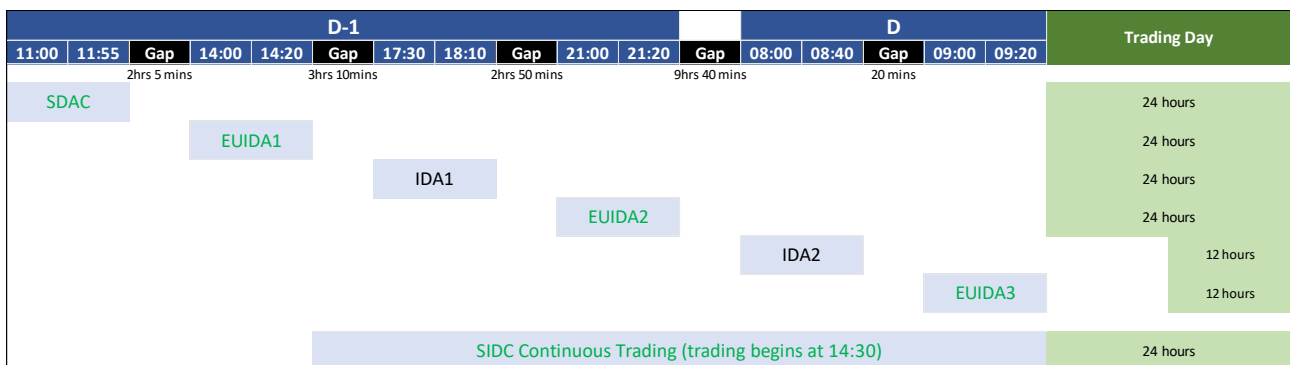


Figure 2: Proposed Ex-Ante Market Design for EU Integration

An online workshop with over 90 attendees was held on 12 June, 2023, to provide an opportunity for market participants to better understand the proposal and to further discuss the target design. Following on from this workshop feedback from market participants was requested by 20 July 2023. SONI and EirGrid received five responses from market participants. Four from individual organisations⁶ and one from the representative body the Electricity Association of Ireland (EAI).

SONI and EirGrid would like to thank market participants for their valuable insights and input into the process thus far as well as the feedback received on the information paper.

This feedback, and the questions and concerns raised by the participants, is the subject of this response paper.

The proposed target design, participant comments and conclusions have been shared with the Commission for the Regulation of Utilities (CRU) and the Utility Regulator Northern Ireland (UR) (together the “Regulatory Authorities” (RAs)).

⁴ EU IDAs - refers to the European Intraday Cross-Border Auctions scheduled for implementation in Europe in Q2 2024.

⁵ SIDC - refers to the Intraday Cross-Border Continuous trading platform (formally known as XBID). As shown in Figure 2 the continuous market opens at 14:30 Irish Time and will continue through the intraday timeframe for the same delivery day.

⁶ ESB Generation and Trading, Mutual Energy Ltd, SSE, and Energia.

2. Feedback Summary and Responses

Generally, the respondents appreciated the open and early engagement process on the ex-ante market design as well as the opportunity to provide feedback.

The feedback received from market participants included some questions and concerns. In this paper SONI and EirGrid will address the three key themes that were present in the feedback. The three key themes were related to stakeholder communication, impact of change, and benefits and costs.

In addressing these questions and concerns, SONI and EirGrid acknowledge the challenges that this level of change may bring to market participants. However, the principles of EU integration are set out by the Regulatory Authorities through the decisions of the Single Electricity Market Committee (SEMC) including the SEM Energy Trading Decision⁷, and there are certain EU mandated obligations that SONI and EirGrid have under the Capacity Allocation and Congestion Management guideline (CACM)⁸ and associated approved methodologies such as Single Intraday Coupling Auctions⁹. As such comments or concerns raised in respect of such previously determined matters are out of scope.

2.1. Overall Plan, Transparency, and Stakeholder Communication

Throughout the responses there was a common theme of market participants wanting to know more about the scope and timelines of market and system operations changes that are envisaged over the next few years, and how these translate into resource and IT requirements for market participants. Participants requested that SONI and EirGrid consider the stakeholder engagement strategy as these projects progress to ensure frequent engagement and a clear workstream and schedule.

SONI and EirGrid note that generally the concerns and requests around further information pertain to the scope and timelines for the wider programme of change to facilitate full integration of the SEM into EU markets as well as changes to trading on the SEM GB border driven by the UK/EU Trade and Cooperation Agreement, and that they were not necessarily related specifically to the target ex-ante market design.

SONI and EirGrid has commenced work to define the scope and project plans for the programme of work required with both EU and GB integration. This includes other changes that may be in scope e.g. Capacity Calculation Region, Individual and Common Grid Models, new Balancing Platforms (TERRE/MARI), Forwards Markets, and System and Market Operator system changes, etc.

In this wider programme of work SONI and EirGrid acknowledge the need for clarity on the scope and timing and are looking to provide clarity in the near future. SONI and EirGrid will be able to provide further details on the impacts on the market and system operator systems as the scope of the programme develops. This should help inform market participants on their own resource and IT requirements.

SONI and EirGrid will also consider the comments provided on the appropriate forums to be used for such communications and commit to provide further details on the communication channels in due course. It is expected that there will be a need for various working groups, or the extension of existing groups e.g. the Market Operator User Groups (MOUGs).

While the full details of the scope of delivery of the wider programme of work is currently being developed the expectation is that it will include training, testing and market trial activities to assist market participants with their readiness.

The focus of this response and the original information paper is on the design of the ex-ante markets to facilitate EU integration.

⁷ [SEMC High Level Design Decision Paper](#)

⁸ [Capacity Allocation and Congestion Management Guideline](#) (CACM)

⁹ [ACER approved methodology for SIDC-EU-IDAs](#)

2.2. Impact of Change

2.2.1. Impact of Change to the Status Quo

Market participants expressed concern with the level of change that EU integration will bring for them. SONI and EirGrid acknowledge that the full integration of the SEM with the EU market does bring about a degree of change for market participants. As was outlined in the original paper and the associated workshops, central to the design of the ex-ante markets has been to minimise the additional complexity for market participant, while ensuring full technical and legal compliance with the EU market. A robust set of trading arrangements is needed as the power generation landscape is highly dynamic, with movements in liquidity that are difficult to predict. As an example, the recent impact of GB solar on prices and demand has changed the direction of energy across SEM-GB interconnectors in a way that was not foreseen. The availability of a robust set of trading options to quickly adapt to the changing market and power generation dynamics provides the best possible environment for market participants.

2.2.2. Complexity and Effectiveness of the Design:

Market participants raised questions around the complexity of the design, its effectiveness, the consideration of partial adoption of EU auctions, and the timings of auctions going forward. As discussed earlier, SONI and EirGrid have consulted with the relevant European entities regarding the legal and technical requirements for SDAC, EU IDAs and SIDC. These investigations have confirmed the strong legal requirement, and limited technical flexibility in the implementation options, for EU integration.

The decision to fully integrate with the EU auctions and timings is considered a must do for compliance reasons. There is no scope for derogation from the existing EU framework. Extensive discussion with the Regulatory Authorities and European entities has indicated that all efforts should be made to deliver full compliance with EU regulations. Whilst the market changes proposed in the target ex-ante market design are mandated by EU requirements, SONI and EirGrid also believe this is the best approach for the SEM.

SONI and EirGrid believe that given the rapid change and uncertainty of the electricity generation and demand portfolios across Europe and GB, that a full implementation of the ex-ante trading options, matching those available throughout the rest of the EU markets would serve SEM participants best. Pursuing an option of gradual implementation carries the risk that SEM participants may be disadvantaged if trading in certain market timeframes is not yet available to SEM participants. Full implementation of all ex-ante arrangements minimises the risks of missing out on the most beneficial trading opportunities, provides the most flexible and reactive market, and is the only fully compliant option.

One of the principles while evaluating the options was to minimise complexity for the market participants while ensuring compliance with relevant regulations. To this end the proposal was to repurpose IDA3 to EUIDA3, couple the existing DAM and Intraday Continuous (IDC) markets with the European markets through France and add only two new auctions, EUIDA1 and EUIDA2.

The proposal to repurpose the IDA3 was a concern for some respondents who would prefer to retain the IDA3 as it provides for the ability to trade positions closer to delivery over the evening peak.

The local IDA3 currently accounts for only ~0.2% of all trades in the SEM ex-ante markets. SONI and EirGrid's view is that aligning the IDA3 auction with the European auction rather than maintaining a separate local auction is the best approach. This is due to the EUIDA3 being coupled with the European markets through France while SEM and European market participants will also have the continuous market available close to real time. This will facilitate the pooling of liquidity in the continuous market. Should it be found after a time of operation that reinstatement of the local IDA3 is seen as advantageous then this could be considered.

A further respondent suggested adjusting the timing of the EUIDA3. As stated previously there is no option to pursue derogations nor ability to change the timing of EUIDA3 as this is part of an ACER decision on the European Intraday Auctions¹⁰.

With regard to the timing of SEM-GB IDA2 and moving this to 7am from its current 8am gate closure, there was limited responses on this topic. The main concern from participants seemed to be the extended trading hours required with a 7am gate closure rather than a concern about having the results of SEM-GB IDA2 just before the EUIDA3 gate closure. Given these concerns, noting that there is no scope to amend the EUIDA3 gate closure timing, and that there is no guarantee that GB parties would agree to an earlier SEM-GB IDA2 timing, SONI and EirGrid intend to continue on the basis that the SEM-GB IDA2 will remain at 8am for the time being. A change in timing could be considered at a later point if deemed necessary and would, from a technical point of view, be relatively quick to implement once all relevant parties had agreed.

The information paper also outlined the delivery of the essential ex-ante elements needed for market coupling first, with additional EU requirements following soon after including SEM Multiple Nemo Arrangements (MNA). There were no comments made by respondents on this approach. EirGrid and SONI are in the process of reviewing the timing of the MNA implementation and will provide an update on this in due course.

2.2.3. Existing Interconnector Usage

Some respondents raised questions about how the full integration with Europe will impact on the flows on the three interconnectors between SEM-GB. Concerns were expressed that full integration with Europe will result in a change in utilisation of the SEM-GB interconnectors. While this may well be an outcome of full coupling with EU markets, it will be the consequence of competition between generators in the interlinked jurisdictions. Given the terms of the UK/EU Trade and Cooperation Agreement there is currently no opportunity to merge the SEM-GB and internal EU markets, although Multi-Regional Loose Volume Coupling (MRLVC) is being looked at as an option to achieve further efficiency. Given the current situation there is always going to be a case of one set of coupling arrangements having to go first. Given the constraints that exist with GB power exchanges as well as EU defined trading timelines for the various auctions, the target ex-ante market design is, as previously outlined, the only currently viable option.

SONI and EirGrid note the concern this change may bring for Interconnector Owners (ICOs) and other market participants, but full integration of the SEM into EU markets has always been the intent of the SEM market design. As noted in Section 1 above, the implementation of the Celtic Interconnector will physically connect the SEM to the European Energy Market, following its isolation as a result of Brexit, and SEM-FR coupling needs to be established in the SEM ex-ante and balancing markets, as well as in the corresponding French markets.

With this in mind, SONI and EirGrid believe that providing the greatest flexibility and highest number of trading opportunities for market participants will provide the most benefit to the SEM.

2.3. Benefits and Costs

2.3.1. Cost-Benefit Analysis

Some respondents expressed a desire for SONI and EirGrid to undertake further cost-benefit analysis of the market design options along with an analysis of the benefit to industry and the consumer of full integration of the SEM to EU markets.

The decision on the adopting the EU target model for market coupling through the SEM Trading Arrangement Decision by the Regulatory Authorities, and the approval of funding and licencing of the first of the SEM-Continental Europe linked interconnectors have already identified the value that integration provides. SONI

¹⁰ [ACER approved methodology for SIDC-EU-IDAs](#)

and EirGrid’s role is to implement the trading arrangements defined under the SEM Committee decisions and the related EU regulations in order to facilitate the benefits envisaged from market coupling.

2.3.2. Costs to Market Participants

Some respondents raised concerns at the additional cost to market participants in the implementation and participation in the operation of the new auctions that will become available. The target ex-ante market design has looked to minimise the costs of implementation and operation to market participants while still complying with EU obligations. This includes minimising the number of additional auctions by repurposing existing auctions where possible, minimising the trading hours each day and intending to utilise existing trading systems for order submission and retrieval.

Additionally, there is no obligation on market participants to engage in any particular auction or continuous market where they do not see benefits themselves.

3. Conclusion

SONI and EirGrid believe the target ex-ante design as proposed and specified below is the best performing option to progress to implementation.

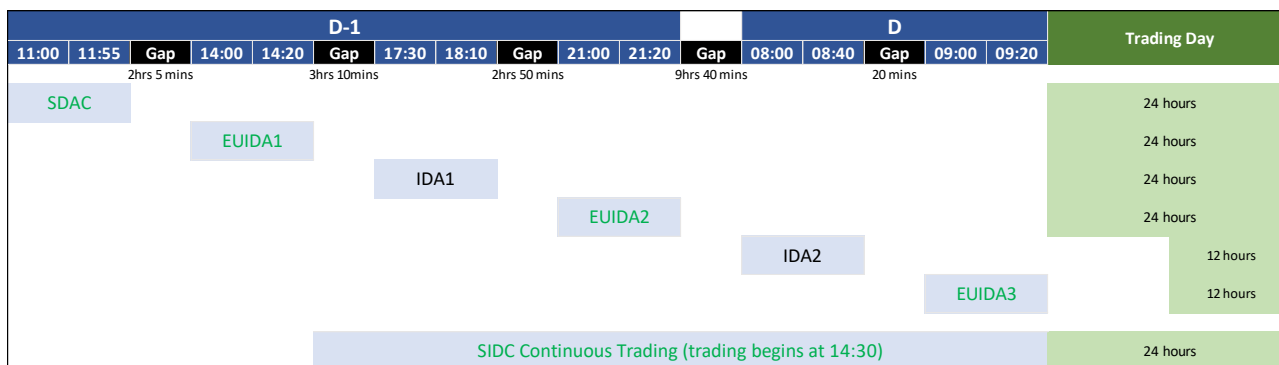


Figure 3: Target Ex-Ante Market Design for EU Integration

This design satisfies legal compliance and technical feasibility requirements, while also providing opportunities for trade for participants, and benefits to market participants and end consumers as well as taking account of market participants views where possible.

The proposed target ex ante market design, participant comments and conclusions have been shared with the Regulatory Authorities and are in keeping with the previously made SEM market design decisions.

SONI and EirGrid will begin engagement with the relevant European organisations to ensure the timely incorporation of the SEM into the EU trading arrangements and initiate the local implementation projects.

SONI and EirGrid acknowledge the questions market participants have on the scope and timelines for the wider market changes needed as part of EU integration. These will be addressed in due course as a wider programme of future market changes is defined, scoped, and planned.