

Single Electricity Market

FINAL RECOMMENDATION REPORT

MOD_04_23 MODIFICATION PROPOSAL TO IMPLEMENT SEMC DECISION SEM-23-029

20 APRIL 2023

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Document History

Version	Date	Author	Comment
1.0	25 th May 2023	Modifications Committee Secretariat	Issued to Modifications Committee for review and approval
2.0	1 st June 2023	Modifications Committee Secretariat	Issued to Regulatory Authorities for final decision

Reference Documents

Document Name					
Trading and Settlement Code					
Modification Proposal Form					
Modification Proposal Form v2					
Presentation					

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1. MODIFICATIONS COMMITTEE RECOMMENDATION

RECOMMENDED FOR APPROVAL- UNANIMOUS VOTE

Recommended for Approval by Unanimous Vote								
Andrew Burke (Chair)	Renewable Generator Member	Approve						
Nick Heyward	Flexible Participant Alternate	Approve						
Eoghan Cudmore	Supplier Alternate	Approve						
Cormac Daly	Generator Member	Approve						
Andrew McCorriston	Generator Alternate	Approve						
Therese Murphy	Generator Alternate	Approve						
Sean McParland	Generator Alternate	Approve						
Robert McCarthy	DSU Member	Approve						
Bryan Hennessy	Supplier Member	Approve						
Eoin Murphy	Assetless Alternate	Approve						
David Caldwell	Supplier Alternate	Approve						
Colm Oireachtaigh	Supplier Member	Approve						

2. BACKGROUND

This Modification Proposal was raised by CRU and Uregni and received by the Secretariat on 5th April 2023 with a version 2 submitted on 14th April 2023. Version 2.0 of the Proposal was raised and voted on at Meeting 116 on 20th April 2023.

This change will implement SEMC Decision SEM-23-029¹ to extend the exemption from exposure to Non-Performance Difference Charges to units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity. The SEM Committee decided that "in-merit" should be defined based on a comparison of the Obligated Capacity Quantity Complex Price and the Imbalance Settlement Price. Availability is to be determined based on Actual Availability Quantity in the Trading and Settlement Code (TSC). This Modification will supersede Mod_12_22 in its entirety including the definition of in-merit in Mod_12_22.

Summary of Decision

¹ <u>https://www.semcommittee.com/publications/sem-23-029-applicability-reliability-option-non-performance-difference-charges</u>

To extend the exemption from exposure to Non-Performance Difference Charges to "*units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity*".

A unit is considered in-merit where its Obligated Capacity Quantity Complex Price is less than or equal to the Imbalance Settlement Price, where, per the Glossary definition, the Obligated Capacity Quantity Complex Price 'is the price associated with the Price Quantity pair corresponding to the Obligated Capacity Quantity, submitted in the Generator's Complex Bid Offer Data, for each Period, h'.

Supersedes Mod_12_22 entirely.

Proposed Implementation

- Delete rather than amend the implementation of MOD_12_22 in Appendix N as the new approach does not involve an SO flagging process.
- Replace System Operator with Market Operator as the responsible party.
- Implement a Settlement solution by way of a manual Market Operator intervention in Chapter F.18.6 Calculation of System Service Difference Quantities.
- Repurpose and redefine the System Service Flag (FSS).
- Remove reference to the System Service Flag (FSS) as an Imbalance Pricing Period variable all calculations now are on Imbalance Settlement Period.
- Reference to FSS in the calculation of FNDDS (Demand Side Non-Delivery Percentage) will be maintained pending a separate housekeeping mod to remove this obsolete calculation.
- No change to Appendix E Data Publication however worth noting that the value of FSS may change between indicative and initial reporting.
- PCQCOB_{uγ} definition not changed but the name re-ordered correctly based on original Capacity definition.
- New entry for PCQCOB_{uγ} added to the Glossary as that was missing in the previous Mod_12_22.
- Source Code: T&SC V27.0, Part B

3. PURPOSE OF PROPOSED MODIFICATION

3A.) JUSTIFICATION OF MODIFICATION

The justification for the proposal is to implement SEMC Decision SEM-23-029 to extend the exemption from exposure to Non-Performance Difference Charges to units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity.

The SEM Committee published a consultation paper (SEM-22-030²) in July 2022, regarding the applicability of Reliability Option Non-Performance Difference Charges (NPDCs) to available in-merit units. Feedback was requested from the TSOs and from market participants as to the circumstances in which Capacity Market Units can be available and in-merit, but not dispatched. The paper also set out several possible approaches to applying NPDCs to available in-merit units and requested stakeholders' views on these approaches, or others that they might identify. SEMC Decision SEM-23-029 set out the SEM Committee's decisions, having taken on board all feedback received.

The responses received to the consultation indicated a broad range of scenarios in which units may not be dispatched and hence subject to Non-Performance Difference Charges, despite being available and in-merit. In particular, the TSOs provided a detailed list of the scenarios that they had identified. The

² <u>https://www.semcommittee.com/publications/sem-22-030-consultation-applicability-reliability-option-non-performance-difference</u>

scenarios included those in which units were not dispatched due to constraints of different kinds, but also due to decisions taken by the TSOs during the Scheduling and Dispatch process.

The Consultation paper set out 4 options for the circumstances in which units should be exempt from NPDCs. The majority of respondents supported Option 4, which would remove exposure to NPDCs for "units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity", with some supporting Option 3, which would remove exposure for "units that are bound by any constraints that limit the potential output of a unit, and not just the Replacement Reserve constraint".

Given that the approach of extending the exemption from exposure to NPDCs to "*units that are bound by any constraints that limit the potential output of a unit, and not just the Replacement Reserve constraint*" would still result in the exposure of units which are available and in-merit due to circumstances beyond their control, the SEM Committee decided to extend the exemption from exposure to NPDCs to "*units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity*".

3B.) IMPACT OF NOT IMPLEMENTING A SOLUTION

Not implementing this Modification Proposal would mean that the TSC would not reflect the policy decision set out in SEM-23-029.

3C.) IMPACT ON CODE OBJECTIVES

N/A

4. WORKING GROUP AND/OR CONSULTATION

N/A

5. IMPACT ON SYSTEMS AND RESOURCES

Mod_04_23 will be implemented via a manual workaround by the Settlement team anytime a price

event occurs and applied on the Initial run. This has, to date, been a rare occurrence and it is

expected to remain such with the current rules. The Settlement team will be able to carry out the task

with the current resources; however, should the frequency of these events increase due to rule

changes then the impact on resources will be reassessed. No system change is required therefore no

vendor input is necessary

6. IMPACT ON OTHER CODES/DOCUMENTS

No impact on other Codes.

7. MODIFICATION COMMITTEE VIEWS

MODIFICATIONS MEETING 116 – 20TH APRIL 2023

The Proposer gave a <u>presentation</u> on this Modification Proposal noting that it would implement the decision SEM-23-029 that had been made after consultation held in 2022/23. It was advised that there would be a manual workaround implemented using a flag applied by SEMO to identify units in merit.

The Proposer went through the changes to the Code and confirmed there would not be any system changes and the proposal would not remove existing functionality. MO Member confirmed the flag used

for this change has been repurposed completely and is no longer linked to system services; however, to avoid changes to both Market and Participant's systems, the name has been left as it was and the change explained in the Glossary definition. A Generator Member asked clarification that units that were exempt under Mod_12_22 were not excluded under this new Modifications. The Proposer confirmed that the previous Modification only covered a subset of the units covered under the new one. This Modification is expanding exemptions to additional units on top of those covered by the previous one.

It was also noted that the Modification Proposal could be implemented within a few days following RA decision.

8. PROPOSED LEGAL DRAFTING

As per Appendix 1.

9. LEGAL REVIEW

N/A

10. IMPLEMENTATION TIMESCALE

It is recommended that this Modification is implemented on a Settlement Day basis on the second Settlement Day following publication of RAs decision.

	1: MOD_04_2 SION SEM-23-		IFICATION PROPC)SA	L TO IMPLEMENT		
Proposer	Date of rece	ipt Type of Proposal			Modification Proposal ID		
(Company)	(assigned by Secr	etariat)	(delete as appropriate))	(assigned by Secretariat)		
RAs	14 th April 20	23	23 Standard		Mod_04_23 v2		
	Contact Deta	ails for Mo	odification Proposal Origina	ator			
Name	2	т	elephone number		Email address		
Gráinne Black, CRU				gbla	ack@cru.ie		
		Modificat	ion Proposal Title	<u> </u>			
Modification to implement SEMC Decision SEM-23-029							
Documents affected (delete as appropriate)		Section(s) Affected		,	Version number of T&SC or Agreed Procedure used in Drafting		
T&SC Pa Appendices Glossary P	Part B	F.18. Appendi Ap definiti	T&SC V27.0				
Explanation of Proposed Change (mandatory by originator)							
This change will implement SEMC Decision SEM-23-029 ³ to extend the exemption from exposure to Non-Performance Difference Charges to units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity. The SEM Committee decided that "in-merit" should be defined based on a comparison of the Obligated Capacity Quantity Complex Price and the Imbalance Settlement Price. Availability is to be determined based on Actual Availability Quantity in the Trading and Settlement Code (TSC). This Modification will supersede Mod_12_22 in its entirety including the definition of in-merit in Mod_12_22.							

Summary of Decision

³ <u>https://www.semcommittee.com/publications/sem-23-029-applicability-reliability-option-non-performance-difference-charges</u>

To extend the exemption from exposure to Non-Performance Difference Charges to "*units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity*".

A unit is considered in-merit where its Obligated Capacity Quantity Complex Price is less than or equal to the Imbalance Settlement Price, where, per the Glossary definition, the Obligated Capacity Quantity Complex Price 'is the price associated with the Price Quantity pair corresponding to the Obligated Capacity Quantity, submitted in the Generator's Complex Bid Offer Data, for each Period, h'.

Supersedes Mod_12_22 entirely.

Proposed Implementation

- Delete rather than amend the implementation of MOD_12_22 in Appendix N as the new approach does not involve an SO flagging process.
- Replace System Operator with Market Operator as the responsible party.
- Implement a Settlement solution by way of a manual Market Operator intervention in Chapter F.18.6 Calculation of System Service Difference Quantities.
- Repurpose and redefine the System Service Flag (FSS).
- Remove reference to the System Service Flag (FSS) as an Imbalance Pricing Period variable all calculations now are on Imbalance Settlement Period.
- Reference to FSS in the calculation of FNDDS (Demand Side Non-Delivery Percentage) will be maintained pending a separate housekeeping mod to remove this obsolete calculation.
- No change to Appendix E Data Publication however worth noting that the value of FSS may change between indicative and initial reporting.
- $PCQCOB_{u\gamma}$ definition not changed but the name re-ordered correctly based on original Capacity definition.
- New entry for PCQCOB_{uy} added to the Glossary as that was missing in the prev Mod_12_22.
- Source Code: T&SC V27.0, Part B

Legal Drafting Change

(Clearly show proposed code change using **tracked** changes, if proposer fails to identify changes, please indicate best estimate of potential changes)

F.18 DIFFERENCE CHARGES

F.18.6 Calculation of System Service Difference Quantities

- F.18.6.1 For any Capacity Market Unit which represents an Interconnector, the provisions of section F.18.6 do not apply.
- F.18.6.2 For each Imbalance Pricing-Settlement Period, γφ, the MarketSystem Operators shall determine a System Service Flag (FSS_{uγ}FSS_{uφ}) for each Generator Unit, u, in respect of that Imbalance Pricing-Settlement Period, γφ, as set out in paragraph 2 of Appendix N: "Flagging and Tagging"F.18.6.4.
- F.18.6.3 For each Imbalance Pricing Period, φ, the System Operators shall submit the System Service Flag (FSS_{uφ}) for all Generator Units, u, for that Imbalance Pricing Period, φ, to the Market Operator in accordance with Appendix K: "Other Market Data Transactions".Intentionally blank
- F.18.6.4 If the System Service Flag (FSS_{uφ}) for a Generator Unit has a value equal to zero for any Imbalance Pricing Period, φ, within the Imbalance Settlement Period, γ, the Market Operator shall set the System Service Flag (FSS_{uy}) for that Generator Unit, u, in that Imbalance Settlement Period, γ, to a value equal to zero. Otherwise, the Market Operator shall set the System Service Flag (FSS_{uy}) to a value equal to one for that Imbalance Settlement Period.

The Market Operator shall set the System Service Flag (FSS_{uv}) to zero for each Imbalance Settlement Period, y, in which a Generator unit, u, has an Obligated Capacity Quantity Complex Price (PCQCOB_{uv}) less than or equal to the Imbalance Settlement Price (PIMB_v); else, the System Service Flag (FSS_{uv}) for Generator Units, u, will be set to one in the relevant Imbalance Settlement Period, y.

F.18.6.5 The Market Operator shall calculate the System Service Difference Quantity $(QDIFFCSS_{u\gamma})$ for each Generator Unit, u, in each Imbalance Settlement Period, γ , as follows:

 $QDIFFCSS_{uy} = Max((qAA_{uy} \times DISP) - Max(QEX_{uy}, QD_{uy}), 0) \times (1 - FSS_{uy})$

where:

(a) $qAA_{u\gamma}$ is the Actual Availability Quantity for Generator Unit, u, in Imbalance Settlement Period, γ ;

(b) QEX_{uy} is the Ex-Ante Quantity for Generator Unit, u, in Imbalance Settlement Period, γ ;

(c) $QD_{u\gamma}$ is the Dispatch Quantity for Generator Unit, u, in Imbalance Settlement Period, γ ;

DISP is the Imbalance Settlement Period Duration; and (d) (e) FSSuy is the System Service Flag for Generator Unit, u, in Imbalance Settlement Period, y. **APPENDIX K: OTHER MARKET DATA TRANSACTIONS** INTRODUCTION 1. This Appendix K outlines the detailed Data Record requirements for Data Transactions sent by the System Operator to Market Operator and by the Interconnector Administrator to the Market Operator, which are not defined in other Appendices, and the associated high-level Data Transaction Submission Protocols. DATA TRANSACTIONS 2. The Data Transactions in this Appendix K include: Data Transactions from System Operator to Market Operator System Parameters (FCLAF) (a) (b) Loss Adjustment Factors (FTLAF and FDLAF) **Generator Unit Technical Characteristics** (c) Short Term Reserves (qSTR and qORR) (d) System Operator Flags (FSO and, FNM and FSS) (e) (f) Demand Control (QDC) System Characteristics (FRQAVG and FRQNOR) (g) **Dispatch Instructions** (h) SO Interconnector Trades (i) SO Interconnector Physical Notifications (i) Annual Load Forecast (k) Four Day Load Forecast (I) Wind and Solar Power Unit Forecast (m) Uninstructed Imbalance Parameters (FPUG, FDOG, FUREG, TOLMW, (n) TOLENG) **Testing Tariffs** (0) Strike Price Parameters (PCARBON, PFUELNG and PFUELO) (p) DS3 System Services Provider Flag (p2)

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System Operator Flags Data Transaction

13. The Data Records for the System Operator Flags Data Transaction are described in Table 10 and the Submission Protocol in Table 11.

Table 10 – System Operator Flags Data Transaction Data Records

Trading Day

Imbalance Pricing Period

Participant Name

Unit ID

System Operator Flag (FSO_{up})

Non-Marginal Flag (FNMuq)

System Service Flag (FSSupp)

Table 11 – System Operator Flags Data Transaction Submission Protocol

Sender	System Operators			
Recipient	Market Operator			
Number of Data Transactions	One, containing a System Operator Flag (FSO _{up}) and, a Non-Marginal Flag (FNM _{up}) and a System Service Flag (FSS _{up}) for each Generator Unit for the Imbalance Pricing Period.			
Frequency of Data Transactions	Imbalance Pricing Period			
First Submission time	After end of Imbalance Pricing Period			
Last Submission time	Prior to Imbalance Price Calculation. As required to resolve a Settlement Query or a Dispute where the Data Records in the Transaction are discovered to be in error.			
Permitted frequency of resubmission prior to last submission time	Unlimited			

Valid Communication Channels Type 3 (computer to computer) Process for data validation None APPENDIX N: FLAGGING AND TAGGING SYSTEM OPERATOR AND NON-MARGINAL FLAGGING 1. For each Imbalance Pricing Period, φ , the System Operators shall use information from the most recent Indicative Operations Schedule to identify whether a Generator Unit's scheduled output is bound by the presence of an Operational Constraint with the exception of those Operational Constraints relating to upper MW limits on the Transmission System and where they determine that the Generator Unit is so bound, shall set the System Operator Flag (FSO_{up}) for that Generator Unit, u, equal to zero for that Imbalance Pricing Period, φ. Otherwise, the System Operators shall set the System Operator Flag (FSO_{up}) for that Generator Unit, u, equal to one for that Imbalance Pricing Period, φ. 2. Intentionally blankFor each Imbalance Pricing Period, ϕ , the System Operators shall: (1)where the Generator unit, u, (1) is listed by the TSO in its latest published Operational Constraints Update as a resource providing Replacement Reserve; and, (2) its Capacity Obligated Complex Price (PCQCOB₄₀) \leq Strike Price (PSTR_m). then the System Service Flag (FSSun) for that Generator Unit, u, shall be set equal to zero for that Imbalance Pricing Period, Where: (1) PCQCOB is the Capacity Obligated Quantity Complex Price for that unit in that Imbalance Pricing Period, ... (2) PSTR_m is the Strike Price for Month, m, which contains Imbalance Settlement Period, y (2)Where not covered by (i), the System Operators shall set the System Service Flag (FSS_{up}) for that Generator Unit, u, equal to one for that Imbalance Settlement Period

Glossary

Obligated Capacity	is the price associated with the Price Quantity pair corresponding to the Obligated Capacity Obligated Quantity, submitted in the Generator's Complex Bid Offer Data,
Obligated	for each Period, h.
Quantity Complex Price	

System Service Flag	means a the flag used since [insert effective date] to in the calculation of Non-	
	performance Difference Charges following the introduction of Mod_XX_23.	
	identify Generator Units that are bound by an Operational Constraint relating	
	to specific system services as described in paragraph 2 of Appendix N.For	
	clarity, this flag has been repurposed and is no longer associated with System	
	Services.	

Topic:	Element:	Long Name:	Definition/Description:	Units:
Variable	FSSuφ, FSSuγ	System Service Flag	The System Service Flag for a Generator Unit, u, in an Imbalance Pricing Period, φ , or an Imbalance Settlement Period, γ , as applicable, to identify units that are bound <u>meet</u> by an Operational Constraint relating to specific system services. the criteria set out in F.18.6.4.	Factor
Variable	QDIFFCSSuy	System Service Difference Quantity	The System Service Difference Quantity for a Generator Unit, u, in an Imbalance Settlement Period, γ, representing the proportion of the unit's Obligated Capacity Quantity which is deemed to be satisfied through the according to the criteria set out in F.18.6.4. unit being identified as being bound by Operational Constraints relating to specific system services.	MWh
Variable	ΡϹQCOΒ _{υγ}	Obligated Capacity	The Obligated Capacity Quantity Complex Price for a Generator Unit, u, in an	€

Quantity Complex Price	Imbalance Settlement Period, γ, corresponding to the unit's Obligated Capacity Quantity in that unit's Complex Bid Offer Data.	
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Modification Proposal Justification

(Clearly state the reason for the Modification)

The justification for the proposal is to implement SEMC Decision SEM-23-029 to extend the exemption from exposure to Non-Performance Difference Charges to units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity.

The SEM Committee published a consultation paper (SEM-22-030⁴) in July 2022, regarding the applicability of Reliability Option Non-Performance Difference Charges (NPDCs) to available in-merit units. Feedback was requested from the TSOs and from market participants as to the circumstances in which Capacity Market Units can be available and in-merit, but not dispatched. The paper also set out several possible approaches to applying NPDCs to available in-merit units and requested stakeholders' views on these approaches, or others that they might identify. SEMC Decision SEM-23-029 set out the SEM Committee's decisions, having taken on board all feedback received.

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The Consultation paper set out 4 options for the circumstances in which units should be exempt from NPDCs. The majority of respondents supported Option 4, which would remove exposure to NPDCs for "*units that are available and in-merit to the extent that their available capacity meets their Obligated Capacity Quantity*", with some supporting Option 3, which would remove exposure for "*units that are bound by any constraints that limit the potential output of a unit, and not just the Replacement Reserve constraint*".

Given that the approach of extending the exemption from exposure to NPDCs to "*units that are bound by any constraints that limit the potential output of a unit, and not just the Replacement Reserve constraint*" would still result in the exposure of units which are available and in-merit due to circumstances beyond their control, the SEM Committee decided to extend the exemption from exposure to NPDCs to "*units that*

⁴ <u>https://www.semcommittee.com/publications/sem-22-030-consultation-applicability-reliability-option-non-performance-difference</u>

are available	and	in-merit	to	the	extent	that	their	available	capacity	meets	their	Obligated	Capacity
Quantity" .													

Code Objectives Furthered

(State the Code Objectives the Proposal furthers, see Section 1.3 of Part A and/or Section A.2.1.4 of Part B of the T&SC for Code Objectives)

Implication of not implementing the Modification Proposal

(State the possible outcomes should the Modification Proposal not be implemented)

Not implementing this Modification Proposal would mean that the TSC would not reflect the policy decision set out in SEM-23-029.

Working Group (State if Working Group considered necessary to develop proposal)	Impacts (Indicate the impacts on systems, resources, processes and/or procedures; also indicate impacts on any other Market Code such as Capacity Market Code, Grid Code, Exchange Rules etc.)				
No	Implementation to be manual. No impact on other Codes.				
Please return this form to Secretariat by email to balancingmodifications@sem-o.com					