

---

**Ireland and Northern Ireland TSOs' Day Ahead and Intraday amended proposal for arrangements concerning more than one Nominated Electricity Market Operator (NEMO) in the SEM Bidding Zone in accordance with Article 45 and 57 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management**

---

March 2018

## Table of Contents

Whereas: .....	3
Article 1 .....	6
Subject matter and scope .....	6
Article 2 .....	6
Definitions and interpretation .....	6
Article 3 .....	7
Day-ahead Pre- and Post-coupling Arrangements .....	7
Article 4 .....	10
PCR Multiple NEMO Arrangements .....	10
Article 5 .....	11
Intraday Arrangements.....	11
Article 6 .....	12
Decoupling and Fallback Arrangements.....	12
Article 7 .....	12
Implementation and timescales.....	12
Article 8 .....	14
Introduction of a new NEMO .....	14
Article 9 .....	15
Costs.....	15
Article 10 .....	15
Publication .....	15
Article 11 .....	15
Language.....	15

All relevant TSOs, taking into account the following:

**Whereas:**

- 1) Commission Regulation (EU) 2015/1222 establishes a guideline on capacity allocation and congestion management (hereinafter referred to as the “CACM Regulation”), which entered into force on 14 August 2015.
- 2) According to Article 36(4) of the CACM Regulation, NEMOs shall use already agreed solutions to efficiently implement the objectives of this Regulation where possible. In addition, the preamble of the CACM Regulation states the following:  

“14) For efficiency reasons and in order to implement single day-ahead and intraday coupling as soon as possible, single day-ahead and intraday coupling should make use of existing market operators and already implemented solutions where appropriate, without precluding competition from new operators.”
- 3) Article 4 (5) of the CACM Regulation states that:  

“A NEMO designated in one Member State shall have the right to offer day-ahead and intraday trading services with delivery in another Member State. The trading rules in the latter Member State shall apply without the need for designation as a NEMO in that Member State.”
- 4) NEMOs are obliged to carry out MCO functions which relate to the task of matching orders from the day-ahead and intraday market for different bidding zones and simultaneously allocating cross-zonal capacities. The MCO functions are defined in Article 7 (2) of the CACM Regulation.
- 5) This document is an amended proposal by the TSOs within the SEM bidding zone, regarding cross-zonal capacity allocation and other necessary arrangements in bidding zones where more than one NEMO is designated and/or offers trading services, as required by Article 45 and 57 of Regulation (EC) 2015/1222 on Capacity Allocation and Congestion Management (the “CACM Regulation”).
- 6) This document is consistent with the national regulatory authorities’ decision of 07 October 2015 on TSO obligations under the CACM Regulation, which has assigned the relevant TSOs tasks within Article 45 and 57 of the CACM Regulation.

- 7) EirGrid and SONI were designated as Nominated Electricity Market Operators by the NRAs on 2 October 2015.
- 8) Articles 45 and 57 of the CACM Regulation require that a proposal made thereunder should allow additional TSOs and NEMOs to join the proposed arrangements and this proposal makes provision for the proposed arrangements to accommodate new TSOs and NEMOs, the operator of which is a TSO or designated NEMO. This proposal is not however intended to place any obligations or implementation requirements on the configuration of any bidding zone other than the SEM bidding zone or shipping arrangements in relation to any bidding zone other than the SEM bidding zone.
- 9) This proposal contributes to the achievement of the objectives of Article 3 of the CACM Regulation. In particular, this proposal promotes effective competition in the generation, trading and supply of electricity in the SEM bidding zone as it;
  - a. promotes effective competition in the generation, trading and supply of electricity ensuring that the NEMOs and TSOs in the SEM bidding zone are able to participate fully in single day ahead and intraday coupling;
  - b. ensures optimal use of the transmission infrastructure by ensuring the efficient allocation of capacity for day-ahead and intraday coupling;
  - d. optimises the calculation and allocation of cross-zonal capacity by setting out arrangements that allow capacity to be allocated efficiently based on the optimal matching of energy trades via the single day ahead and intraday coupling algorithm, regardless of which NEMO the trades are associated with;
  - e. ensures fair and non-discriminatory treatment of TSOs, NEMOs and market participants as it lays down the roles and responsibilities of NEMOs and TSOs with regard to cross zonal capacity arrangements for the SEM-GB bidding zone border. This includes setting out arrangements for how NEMOs will be selected by TSOs where applicable and that affords market participants full access to the available cross zonal capacity, regardless of which NEMO they trade with;
  - f. enhances the transparency of information, (taking into account any confidentiality restrictions);

- h. respects the need for a fair and orderly market and fair and orderly price formation by establishing a transparent mechanism enabling the matching of orders between multiple NEMOs operating in the SEM bidding zone and the delivery of a single clearing price for Ireland and Northern Ireland;
  - i. creates a level playing field for NEMOs by providing equal opportunity for all NEMOs to engage in single day ahead and intraday coupling activities in the SEM bidding zone;
  - j. provides non-discriminatory access to cross-zonal capacity by setting out arrangements that facilitate the implicit allocation of interconnector capacity as an integral step during the matching of all available orders via the single day ahead and intraday coupling algorithm, regardless of which NEMO such orders are associated with.
- 10) The roles and responsibilities of the relevant TSOs and NEMOs are set out in the SEM-GB agreements and are in accordance with the MRC day-ahead operational agreement (DAOA). The SEM-GB agreements will need to be modified to adhere to the updated DAOA and intraday operational agreement (IDOA) that will outline the rules and procedures for operating in the day-ahead and intraday timeframes.
- 11) On 17 January 2017, in accordance with CACM, Nord Pool sent a formal request to CRU (formerly CER) and UR informing of its intent to operate as a Nominated Electricity Market Operator in Ireland and Northern Ireland. This triggered Articles 45 and 57 of CACM, requiring TSOs to submit a proposal to relevant national regulatory authorities within four months of the formal request from Nord Pool.
- 12) On 5 July 2017, EirGrid and SONI submitted a proposal for Day ahead and Intraday Arrangements concerning more than one Nominated Electricity Market Operator (NEMO) to CRU and UR in line with Articles 45 and 57 of CACM Regulation 1222/2015. CRU and UR consulted on this proposal from 22 September until 2 November 2017. On 9 January 2018, CRU and UR informed of their decision to request amendments to the proposal for Day ahead and Intraday Arrangements concerning more than one Nominated Electricity Market Operator (NEMO) in the SEM bidding zone. This proposal amends the TSO proposal provided on 5 July 2017.

Submit the following amended proposal to the national regulatory authorities:

## **Article 1**

### **Subject matter and scope**

This document is, for the purposes of the SEM bidding zone, the amended proposal required by Article 45 and 57 of the CACM Regulation for the arrangements for the single day ahead and intraday market coupling process in bidding zones in which more than one NEMO is designated.

## **Article 2**

### **Definitions and interpretation**

1. Terms used in this proposal shall have the meanings defined in Article 2 of the CACM Regulation.

- a. ‘CACM Regulation’ means Commission Regulation (EU) 2015/1222, of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- b. ‘Capacity Calculation Methodology’ means the approach to calculating cross zonal capacity for day-ahead and intraday timeframes;
- c. ‘Capacity Management Module’ means a system containing up-to-date information on available cross-zonal capacity for the purpose of allocating intraday cross-zonal capacity;
- d. ‘Coordinated Capacity Calculator’ means the entity or entities with the task of calculating transmission capacity, at regional level or above;
- e. ‘MCO Plan’ means the plan contemplated by Article 7(3) of the CACM Regulation;
- f. ‘MRC’ means the Multi-Regional Coupling;
- g. ‘SEM-GB border’ means the bidding zone border between the SEM bidding zone and the GB bidding zone;
- h. ‘NEMO’ means an entity designated by the competent authority to perform tasks related to single day-ahead or single intraday coupling;
- i. ‘Price Coupling Algorithm’ means the algorithm used in single day-ahead coupling for simultaneously matching orders and allocating cross-zonal capacities;
- j. ‘PCR’ means the Price Coupling of Regions;
- k. ‘Scheduled Exchange’ means an electricity transfer scheduled between geographic areas, for each market time unit and for a given direction;

- l. Shared Order Book’ means a module in the continuous intraday coupling system collecting all matchable orders from the NEMOs participating in single intraday coupling and performing continuous matching of those orders;
- m. Single day-ahead coupling’ means the auctioning process where collected orders are matched and cross-zonal capacity is allocated simultaneously for different bidding zones in the day-ahead market;
- n. Single intraday coupling’ means the continuous process where collected orders are matched and cross-zonal capacity is allocated simultaneously for different bidding zones in the intraday market.”
- o. XBID’ means the cross border intraday solution to deliver the single intraday coupling.

In this proposal, unless the context requires otherwise:

- a. the singular includes the plural and vice versa;
- b. the table of contents and headings are inserted for convenience only and do not affect the interpretation of this proposal;
- c. references to the words “include” and “including” shall be construed without limitation;
- d. references to an “Article” are, unless otherwise stated, references to an Article of this proposal; and
- e. any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

### **Article 3**

#### **Day-ahead Pre- and Post-coupling Arrangements**

1. An interim Capacity Calculation Methodology will be applied for the SEM-GB bidding zone border until the enduring Capacity Calculation Methodology required by Article 21 of the CACM Regulation is approved and in effect by no later than Q4 2018.
2. From the time where the Coordinated Capacity Calculator has been established according to the CACM Regulation Article 27(2), the relevant TSOs shall ensure that the Coordinated Capacity Calculator provides the cross-zonal capacity and allocation

constraints to the NEMOs, so that the NEMOs in turn can adhere to Article 7(2) of the CACM Regulation requiring them to include the cross zonal capacity and allocation constraints in the day-ahead coupling process via the order books.

3. The detailed roles and responsibilities of the relevant TSOs and Coordinated Capacity Calculator in the pre-coupling phase are provided in the IU Capacity Calculation Methodology that sets out the process for calculating the cross-zonal capacity, providing the cross zonal capacity to the NEMOs.
4. All relevant NEMOs can collect the cross zonal capacity and allocation constraints data from the Coordinated Capacity Calculator in accordance with Article 30(3), thereby ensuring equal access to this data for all relevant NEMOs.
5. The relevant TSOs shall enter into agreement from time to time with a relevant NEMO, or any person designated as a NEMO by the NRAs in any other Member State to perform day ahead trading activities in an interconnected bidding zone, for the purposes of one or more of the following:
  - a. submitting to the price coupling algorithm the day ahead cross zonal capacity and allocation constraints in accordance with Article 46 of the CACM Regulation;
  - b. delivering the single day ahead results to the relevant TSO in accordance with Article 48(1) of the CACM Regulation;
  - c. acknowledgement of the NEMO task of central counter-party for the exchange of energy between bidding zones in respect of the single day ahead coupling process in accordance with Article 68(3) of the CACM Regulation;
  - d. undertaking the activity of shipping in respect of the single day ahead coupling process in accordance with Article 68 of the CACM Regulation; and
  - e. (save as otherwise agreed with the relevant TSO) collecting all congestion income arising from the single day ahead coupling process and transferring such income to the relevant TSO in accordance with Article 68(7) and 68(8) of the CACM Regulation.
6. The arrangements in place as at the date of the NRA's approval of this proposal for undertaking any one or more of the activities described in paragraph 5 of this Article 3 in relation to existing arrangements on the SEM-GB border shall, subject to Article 7, continue in full force and effect in accordance with the contractual terms pertaining to such existing arrangements, but shall be subject to amendment as necessary based

on all regulations in force and on any relevant decisions made by regulatory or other competent authorities prior to or following the approval of this proposal.

7. For the purposes of entering into an agreement for the performance of the activities described in paragraph 5 of this Article 3, in any case where such agreement:
  - a. is intended to replace an existing arrangement or any agreement on its expiry or termination; or
  - b. relates to the performance of one or more activities described in paragraph 5 of this Article 3 in circumstances where such activity has not already been made the subject of any agreement;

the relevant TSO shall invite each relevant NEMO to make a proposal for undertaking any one or more of the activities described in such invitation, albeit on the understanding that any such proposal shall not include fees for processes that are defined as NEMO obligations within the CACM Regulation unless and until required by a binding decision of the NRA's. Each relevant NEMO shall be invited on the same basis (and with reference to the same activities) as every other relevant NEMO.

8. Under the CACM Regulation Article 7(1g) NEMOs shall be responsible for acting as central counter parties for clearing and settlement for the exchange of energy between bidding zones. This proposal does not contain a proposal on cross-border clearing and settlement arrangements that is subject to approval by the NRA's under Article 77(2) of the CACM Regulation, such arrangements to be proposed separately by the relevant NEMOs.
9. The shipper is responsible for providing cross-border nominations and scheduled exchanges to the TSOs. In addition, the shipping agent shall collect the congestion income and distribute it to the TSOs.
10. When requesting terms from relevant NEMOs, relevant TSOs shall ensure a transparent process for entering into such an agreement with a relevant NEMO, for example by providing a list of criteria which may be taken into consideration including the following:
  - a. Congestion income payment arrangements;
  - b. Technical solutions;
  - c. Terms for associated services (for example market coupling results validation);
  - d. Any specific contractual terms.

In coming to a decision on the acceptance of terms from a relevant NEMO, TSOs shall objectively assess and review the suitability of the terms offered by each relevant NEMO with reference to the applicable criteria.

## **Article 4**

### **PCR Multiple NEMO Arrangements**

1. The approach to facilitating multiple NEMOs in the SEM bidding zone will be based on the functional requirements for the coupling part of the single day-ahead coupling capable to facilitate multiple NEMOs per bidding zone as required by CACM.
2. The day-ahead coupling process steps are as follows:
  - a. Orderbooks are received from different NEMOs in the SEM bidding zone. PMB writes orderbook data in Euphemia database input tables. Euphemia calculations can then start. TSO data on cross zonal capacity and allocation constraints is also received via the NEMOs who in turn have received it from the Coordinated Capacity Calculator;
  - b. Orderbooks are aggregated on SEM bidding zone level;
  - c. Prices and Volumes for the SEM bidding zone are computed;
  - d. Orders are disaggregated where results are calculated on Nemo Trading Hub level. Indeterminacy problems are solved. NEMO Trading Hub level exact results are written in the database;
  - e. Indeterminacy problems are solved;
  - f. Flows between bidding zones are calculated, in both flow based and ATC network. As in previous versions of Euphemia, bi-directional flows on bidding zone lines are avoided.
  - g. Flows between NEMO Trading Hubs are calculated, keeping earlier calculations on flows between bidding zones fixed.
3. The calculation of the flows between SEM and other bidding zones is provided in the Scheduled Exchange Methodologies developed by all TSOs.
4. The calculation of the flows between the NEMO Trading Hubs, both within the SEM bidding zone and cross zonal, are under NEMO governance.

## Article 5

### Intraday Arrangements

1. An interim Capacity Calculation Methodology will be applied for the SEM-GB bidding zone border until the enduring Capacity Calculation Methodology required by Article 21 of the CACM Regulation is approved and in effect by no later than Q1 2020.
2. An interim Intraday solution is being put in place for the SEM-GB bidding zone border and will remain in effect until the SEM-GB bidding zone border is in the single intraday coupling.
3. Non-discriminatory arrangements concerning more than one NEMO in the SEM bidding zone will need to be developed as part of the interim Intraday solution until such time as the SEM-GB bidding zone border is in XBID and joined the single intraday coupling (SIDC). These arrangements will need to be agreed and included in the SEM-GB agreements however, as these arrangements do not deal with the intraday solution under the CACM Regulation i.e. cross zonal continuous trading, they are outside the scope of this proposal.
4. Once the SEM-GB bidding zone border is in XBID, the relevant TSOs will provide the cross zonal capacity to the Capacity Management Module (CMM), which contains up-to-date information on available cross zonal capacity for the purpose of allocating intraday cross zonal capacity. The CMM then makes the capacity available for the NEMOs in each bidding zone. This operation is independent of number of NEMOs within a bidding zone.
5. The Coordinated Capacity Calculator will ensure that the NEMOs will have cross zonal capacity and allocation constraints available at the same time and at the latest 15 minutes before gate opening as stated in the CACM Regulation Article 58.
6. The Shared Order Book allows for the simultaneously matching of all orders received by the NEMOs active in the single intraday coupling solution, regardless of how many NEMOs are active within a single bidding zone.
7. The shipping module (SM) contains information on cross zonal flows on each bidding zone border to be sent to the assigned shipper.

## **Article 6**

### **Decoupling and Fallback Arrangements**

1. Fallback procedures shall be initiated in accordance with Article 50 of the CACM Regulation.
2. In the event of failure of the day ahead price coupling algorithm to complete single day ahead coupling within the necessary timescales there are a number of decoupling scenarios, such as full decoupling (where there are no allocation results for any bidding zone border), or partial decoupling (where only some bidding zone borders have a capacity allocation result).
3. The processes to be followed in the event of decoupling of the SEM bidding zone from neighbouring bidding zones is set out in the Day ahead Fallback methodology, approved by NRAs on 14 June 2017 and in accordance with Article 44 of the CACM Regulation.

## **Article 7**

### **Implementation and timescales**

1. The implementation of arrangements concerning more than one Nominated Electricity Market Operator (NEMO) in the SEM Bidding Zone in accordance with Article 45 of the CACM Regulation is linked to a number of developments:
  - a. NRA approval of this proposal to cater for multiple NEMOs in the SEM bidding zone, expected in May 2018;
  - b. Technical readiness of the PCR multiple NEMO solution expected in June 2018;
  - c. Introduction of the single day-ahead coupling and day-ahead operational agreement (DAOA), required 12 months following the approval of the MCO Plan; expected in June 2018;
  - d. All NRA approval of the Scheduled Exchange Methodology for day-ahead, expected in August 2018 with implementation dependent on the day-ahead market coupling operator function developed in accordance with Article 7(3) of the CACM Regulation, and the Price Coupling Algorithm in accordance with Article 37 (5) of the CACM Regulation;
  - e. Implementation of the Capacity Calculation Methodology and establishment of the Coordinated Capacity Calculator, expected in Q4 2018;

- f. The following steps can only commence, following approval of this proposal as the agreed way forward on implementing arrangements with more than one NEMO:
    - i. Creation and agreement of SEM-GB pre- and post-coupling arrangements (including the SEM-GB Operating Agreement, Clearing and Settlement Agreement, Shipping Agreement etc) for day-ahead that would require modifications to the existing clearing and settlement arrangements approved by the NRAs;
    - ii. Development of local arrangements;
    - iii. Testing of local arrangements with the PCR MNA solution;
    - iv. Development of a go-live plan and deployment.
2. The implementation of arrangements concerning more than one Nominated Electricity Market Operator (NEMO) in the SEM Bidding Zone in accordance with Article 57 of the CACM Regulation is linked to a number of developments:
- a. NRA approval of this proposal to cater for multiple NEMOs in the SEM bidding zone, expected in May 2018;
  - b. Introduction of the single intraday coupling and intraday operational agreement (IDOA), required 12 months following the approval of the MCO Plan; expected in June 2018;
  - c. All NRA approval of the Scheduled Exchange Methodology for intraday, expected in August 2018;
  - d. Implementation of the Capacity Calculation Methodology and establishment of the Coordinated Capacity Calculator, expected in Q1 2020;
  - e. Go-live of XBID, expected in June 2018, and inclusion of the SEM-GB bidding zone border in the second wave (expected in Q1/Q2 2019) or more likely the third wave, date to be determined but likely to be Q1/Q2 2020;
  - f. The following steps can only commence, following approval of this proposal as the agreed way forward on implementing arrangements with more than one NEMO:
    - i. Creation and agreement of SEM-GB pre- and post-coupling arrangements (including the SEM-GB Operating Agreement, Clearing and Settlement Agreement, Shipping Agreement etc) for intraday that would require modifications to the existing clearing and settlement arrangements approved by the NRAs;

- ii. Development of local arrangements, in particular the set-up of a local implementation project (LIP) required to start the process for inclusion in XBID;
  - iii. Testing of local arrangements with the XBID solution on go-live and updated solutions post XBID go-live (i.e. Shipping Module);
  - iv. Development of a go-live plan and deployment.
3. The need to introduce improved interim arrangements to cater for more than one NEMO in SEM post I-SEM go-live in May 2018, but in advance of implementation of the multiple NEMO arrangements provided for in this proposal required by the CACM Regulation, may also impact on the start date for an enduring solution in line with this proposal to cater for multiple NEMOs in SEM.

## **Article 8**

### **Introduction of a new NEMO**

1. NEMOs shall cooperate with each other and with other NEMOs participating in the single day ahead and intraday coupling to accommodate any person becoming a NEMO in relation to:
  - a. the development and operation of the day-ahead and intraday coupling algorithm; and
  - b. the establishment of efficient clearing and settlement arrangements in respect of the SEM-GB bidding zone border.
2. If at any time an additional person becomes a NEMO, that person shall accede to the relevant SEM-GB agreements. In order to facilitate the accession of a new NEMO to the SEM-GB agreements the new NEMO shall, prior to acceding to the SEM-GB agreements, be afforded access to such agreements (and associated procedures) in their entirety provided that it enters into a confidentiality agreement with the existing parties.
3. The relevant NEMOs and TSOs that are each party to the SEM-GB agreements shall cooperate with each other in making any required amendments to accommodate the new NEMO.

## **Article 9**

### **Costs**

Costs should be dealt with within the wider framework of cost recovery and cost sharing in the CACM Regulation for single day-ahead and intraday coupling.

## **Article 10**

### **Publication**

TSOs shall publish this amended proposal without undue delay following NRA approval or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 9 (10), Article 9(11) and 9(12) of the CACM Regulation.

## **Article 11**

### **Language**

1. The reference language for this proposal shall be English.
2. For the avoidance of doubt, where TSOs need to translate this proposal into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 9(14) of the CACM Regulation and any version in another language, the relevant TSOs shall be obliged to eliminate any inconsistencies by providing a revised translation of this amended proposal to their relevant NRAs.