

# All NEMO proposal for the MCO Plan

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## Contents

|       |  |    |
|-------|--|----|
| 1     | INTRODUCTION .....   | 4  |
| 2     | DEFINITIONS .....  | 9  |
| 3     | GENERAL PRINCIPLES FOR THE NEMO COOPERATION.....                                     | 11 |
| 3.1   | Introduction .....   | 11 |
| 4     | ALL NEMO COMMITTEE .....   | 14 |
| 4.1   | All NEMO Cooperation Agreement (ANCA) .....  | 14 |
| 4.2   | All NEMO Committee: roles and responsibilities.....                                  | 14 |
| 5     | DAY AHEAD COOPERATION .....  | 17 |
| 5.1   | Implementation of the DA MCO Function: adoption of the PCR Solution.....             | 17 |
| 5.2   | Description of the DA MCO Function .....   | 18 |
| 5.2.1 | Operation .....  | 18 |
| 5.2.2 | NEMO Operational Roles .....   | 19 |
| 5.2.3 | Operational sequence of events in a Market Coupling session.....                     | 22 |
| 5.2.4 | Validation of the Day Ahead Market Coupling session results .....                    | 23 |
| 5.3   | The Price Coupling Algorithm and Products .....                                      | 23 |
| 5.4   | DA MCO Function systems .....  | 23 |
| 5.5   | Governance .....   | 24 |
| 5.5.1 | DA Incident Committee.....   | 24 |
| 5.5.2 | DA Operational Committee.....  | 25 |
| 5.5.3 | DA Steering Committee .....  | 26 |
| 5.5.4 | Change Control Procedure.....  | 26 |
| 5.6   | Financial Issues .....   | 27 |
| 5.6.1 | Common Cost related to DA MCO Function .....   | 27 |
| 5.6.2 | Common Cost share calculation .....  | 29 |
| 5.6.3 | Common Cost recovery.....  | 29 |
| 5.6.4 | Participation in historical costs .....  | 29 |
| 6     | INTRADAY COOPERATION .....   | 30 |
| 6.1   | Implementation of ID MCO Function: Adoption of the XBID Solution and timescale.....  | 30 |
| 6.1.1 | Contractual structure during Development Phase .....                                 | 31 |
| 6.1.2 | Contractual structure during Operational Phase.....                                  | 32 |
| 6.1.3 | Concept of the Local Implementation Projects (LIPs) (Not part of the MCO Plan) ..... | 33 |
| 6.1.4 | Timescale for implementation of the XBID System .....                                | 33 |
| 6.2   | Delivery of the ID MCO Function.....   | 34 |

|       |   |    |
|-------|---|----|
| 6.2.1 | Delivery of the ID MCO Function operation .....                           | 34 |
| 6.2.2 | ID Matching concept .....   | 37 |
| 6.2.3 | ID Systems .....  | 38 |
| 6.2.4 | ID Procedures .....   | 38 |
| 6.3   | Continuous trading matching algorithm and products .....                  | 39 |
| 6.4   | Governance .....  | 39 |
| 6.4.1 | ID NEMO Operational Roles .....   | 39 |
| 6.4.2 | ID Incident Committee .....   | 39 |
| 6.4.3 | ID Operations Committee .....   | 40 |
| 6.4.4 | ID Steering Committee .....   | 40 |
| 6.4.5 | Change Control Procedure .....  | 41 |
| 6.5   | Budget, cost reporting .....  | 41 |
| 6.5.1 | ID Financial issues. Cost sharing & recovery .....                        | 41 |
| 6.5.2 | The Development Phase Cost .....  | 43 |
| 6.5.3 | Participation in historical costs .....                                   | 45 |
| 6.5.4 | Reporting .....   | 45 |
| 7     | ANNEX 1 – Summary of Interim NEMO Cooperation Agreement .....             | 46 |
| 8     | ANNEX 2 – Summary of DA Contracts .....                                   | 48 |
| 8.1   | Summary of the draft NEMO DA Operational Agreement .....                  | 48 |
| 8.2   | Summary of contract with DA MCO Function service provider - Unicorn ..... | 53 |
| 8.3   | Summary of contract with DA MCO Function service provider – N-SIDE .....  | 55 |
| 8.4   | Summary of contract with DA MCO Function service provider – COLT .....    | 57 |
| 9     | ANNEX 3 – Summary of ID Contracts .....                                   | 59 |
| 9.1   | Summary of the draft NEMO ID Operational Agreement .....                  | 59 |
| 9.2   | Summary of NEMO Cooperation Agreement – XBID PCA .....                    | 62 |
| 9.3   | Summary of contract with ID MCO Function service provider – DBAG AG ..... | 65 |
| 9.4   | Summary of contract with ID MCO Function service provider – COLT .....    | 67 |

# 1 INTRODUCTION

Whereas:

1. This document is a common proposal developed by all Nominated Electricity Market Operators (the “**NEMOs**”) for a plan that sets out how NEMOs will jointly set up and perform the Market Coupling Operator (MCO) Functions (the “**MCO Plan**”) pursuant to article 7(2) of Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management (the “**CACM Regulation**”)
2. The MCO Functions comprise developing and maintaining the algorithms, systems and procedures for single day-ahead and intraday coupling, processing input data on cross-zonal capacity and allocation constraints provided by coordinated capacity calculators, operating the price coupling and continuous trading algorithms and validating and sending single day-ahead and intraday coupling results to NEMOs (the “**MCO Functions**”).
3. This MCO Plan takes into account the general principles and goals set in the CACM Regulation. In particular, this MCO Plan includes an explanation of the necessary draft agreements between NEMOs and with third parties; a proposed timescale for implementation, which is not longer than 12 months; a description of the expected impact of the MCO Plan on the objectives of the CACM Regulation; and, a description of the expected impact of the terms and conditions or methodologies on the establishment and performance of the MCO Functions.
4. This MCO Plan has been developed by all NEMOs according to the timescales set forth in article 7(3) of the CACM Regulation, whereby NEMOs are invited to submit the MCO Plan to all National Regulatory Authorities (“**NRAs**”) by eight months after entry into force of the CACM Regulation. In the process to develop the MCO Plan it has been discussed with NRAs as part of joint NEMO-NRA Coordination Group meetings. Furthermore, the MCO Plan takes into account comments provided by NRAs under the joint NRA-NEMO Coordination Group meetings.
5. Prior to the entry into force of the CACM Regulation, power exchanges initiated several voluntary regional projects to develop, implement and operate day-ahead and intraday market coupling solutions. These regional projects promoted the completion and efficient functioning of the internal market in electricity. For the efficient implementation of the MCO Plan we propose to build single day-ahead and intraday coupling on existing solutions developed as part of these projects:
  - A. Starting from June 2012, six power exchanges<sup>1</sup> entered into a cooperation for the development, implementation and operation of a single day-ahead coupling solution (the “**Price Coupling of Regions (PCR) Solution**”), based on the decentralised coordinated

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<sup>1</sup> June 2012 PCR Full Member: APX, BELPEX, EPEX SPOT, GME, Nord Pool, OMIE – joined later by OTE, OPCOM, TGE

calculation of market results taking into account the available interconnection capacity (the “**PCR Cooperation**”). This PCR Cooperation has been effected by:

- (i) an agreement vesting a co-ownership in respect of certain assets necessary for running the coupling phase of the initial EU day-ahead market coupling and establishing the rights and obligations of the Parties deriving from such co-ownership (the “**PCR Co-Ownership Agreement**”);
- (ii) an agreement providing the terms and conditions under which the coupling phase of the first EU day-ahead market coupling shall be implemented, performed and operated (the “**PCR Cooperation Agreement**”).

**B.** Starting from June 2014, six power exchanges<sup>2</sup> entered into a co-operation (the “**XBID Cooperation**”) for the design, development, implementation and operation of a European continuous implicit cross-border intraday trading solution - the “**XBID (Cross Border Intra Day) Solution**” - for the management of the continuous implicit intraday market. This XBID Cooperation has been effected by the EU XBID PX Cooperation Agreement (the “**XBID Agreement**”) and, involving Transmission System Operators (TSOs), through the XBID Market All Party Cooperation Agreement (the “**XBID APCA**”).

1. Power exchanges selected an IT service provider for the development, hosting and maintenance of the XBID Solution (the “**XBID System Supplier**”). This cooperation has been entered into by stipulating the EU XBID procurement selection procedure agreement<sup>3</sup>.
2. The XBID power exchanges as mentioned under B. and the XBID System Supplier signed the Master Service Agreement XBID Solution, which entered into force as of 1 March 2015 (the “**Master Service Agreement XBID Solution**”) and regulates the development, testing and operation of the XBID Solution through additional agreements (for development, license, hosting, and maintenance).

**C.** On the 3rd of March 2016 all designated NEMOs entered into the Interim NEMO Cooperation Agreement (the “**INCA**”) on a voluntary basis. The INCA establishes a contractual framework for governance and coordination of common European NEMO responsibilities by a NEMO Committee. The common European NEMO responsibilities include drafting and submitting an agreed MCO Plan. The INCA provides for a contractual framework for NEMOs to cooperate, pending the approval of the MCO Plan.

6. This MCO Plan proposes a governance structure for NEMOs to jointly set up and perform the DA MCO Function and the ID MCO Function, which builds on the contracts described in points (A) to (C) above. The governance structure proposed in this MCO Plan includes the following contracts: one “**All NEMO Cooperation Agreement**” (the “**ANCA**”), two “**NEMO Operational Agreements**” (one for the DA and one for the ID), plus a set of contracts between NEMOs and third party service providers needed for the delivery of the MCO Functions.

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<sup>2</sup> Initial XBID Power Exchanges: APX, BELPEX, EPEX SPOT, GME, Nord Pool, OMIE

<sup>3</sup> Entered into by APX, BELPEX, EPEX SPOT, Nord Pool, OMIE

7. The ANCA will be developed based on the INCA, and the principles set out in this MCO Plan and will be open to all NEMOs. In particular, the MCO Plan contains provisions to make necessary the signature of the ANCA by all designated NEMOs wishing to make use of the DA or ID MCO Function. As NEMOs are incorporated legal entities, each governed by the law of their country of incorporation, it is essential that any agreement to co-operate to meet the requirements of the CACM Regulation is enshrined not only in the MCO Plan, but also in a binding contract. It is envisaged that such contract will set out in detail the rights and responsibilities of each NEMO to the others with respect to the performance of the MCO Functions prescribed in articles 7 and 9(6) of the CACM Regulation. Such a contract will also be key in ensuring that the cooperation between NEMOs is strictly limited to what is necessary to perform the MCO Function, as required by Article 7(4) of the CACM Regulation.
8. The proposed operational governance for the DA MCO Function will be based on a revised version of the current PCR Cooperation Agreement (which includes rules for the provision of the MCO Functions by those NEMOs who choose to act as PCR Operators). The proposed operational governance for the ID MCO Function will be based on a revised version of the current XBID Agreements (which will be supplemented by a specific service contract with the XBID System Supplier for the provision of the ID MCO activity).
9. It is understood that this MCO Plan sets the basis for the NEMOs to enter into the contracts with the DA and ID service providers already in use at the time of the approval of this MCO Plan.
10. The contractual structure proposed by this MCO Plan is not identical for DA and ID for the following reasons:
  - Insofar as the ID MCO Function is concerned, the ID NEMO Operational Agreement will govern the operational requirements for all NEMOs, and a separate service provision contract will govern the operation of the ID MCO Function by the XBID System Supplier.
  - Insofar as the DA MCO Function is concerned, the DA NEMO Operational Agreement will deal with the operational requirements as well as the performance of the DA MCO Function, since a subset of the NEMOs will perform the DA MCO Function.
  - The different status of the two projects: the PCR Solution is already operational while the XBID Solution is still in the development and implementation phase.
  - The technical differences stemming from the different levels of centralisation and the fact that different entities provide the service in each timeframe. In particular, the ID MCO Function is operated largely by one service provider whereas the DA MCO Function operation is decentralised among NEMOs.
  - The ID service contract with the external provider includes two service items: the ID MCO Function, and the service provision to the TSOs. The contractual structure of ID involves a service provided to relevant TSOs by ID Operational NEMOs. As a consequence, this will also require the signing of a back-to-back agreement between ID Operational NEMOs and TSOs to ensure that TSOs and their explicit participants comply with the continuous intraday coupling system requirements and provisions to deal with

liabilities that may arise from the actions of the TSOs or the participants in the explicit auctions.

11. The DA MCO Function will be based on the PCR Solution which is already in use in MRC and 4MMC regions. The PCR Solution is a decentralized approach, allowing for parallel calculation of market results in the relevant bidding zones, using anonymised and aggregated order books per NEMO / bidding zone.
12. The PCR Cooperation is already open to all designated NEMOs and will be amended to facilitate its adoption as the solution for the Single Day Ahead Coupling. In particular, the requirement to become a co-owner of the PCR Assets in order to become an Operational NEMO is being removed (but is still required to be an Operator) and the rights of Serviced NEMOs are being extended.
13. The XBID Agreement is already open to all designated NEMOs and will be amended to facilitate its adoption as the solution for the Single Intraday Coupling.
14. This MCO Plan, covers the transition from the current arrangements to the future arrangements needed for the MCO Functions. The broader roadmap for regional extension of MRC and SIDC rollout including pre and post coupling, are the joint responsibility of the respective TSOs and NEMOs, and is outside the scope of the MCO Plan.
15. The expected impact of the MCO Plan on the objectives of the CACM Regulation is explained in points (a) to (d) below. The contractual architecture proposed in this MCO Plan will contribute to the achievement of the objectives of Article 3 of the CACM Regulation. The overall objective of the DA MCO Function and the ID MCO Function is to further optimise the allocation of cross-zonal transmission capacity.
  - a) The proposed DA MCO Function and ID MCO Function build on contractual arrangements, processes and systems that have already been established in the PCR Solution and the XBID Solution. The plan to build on existing solutions will minimise the time needed to deliver the MCO Functions. The fact that development and implementation of the PCR Solution and XBID Solutions has been undertaken together with TSOs will help to ensure operational security.
  - b) The PCR Solution and the XBID Solution support fair and non-discriminatory treatment of TSOs, NEMOs and market participants. The solutions have already been approved in many regional projects by the concerned NRAs, subscribed to by many NEMOs and (in the case of the DA) used to support operations. They are specifically designed to support a level playing field among NEMOs, to be open to the adherence of new parties, and to provide non-discriminatory access to cross-zonal capacity.
  - c) We propose to support and safeguard an efficient management of the DA MCO Function and ID MCO Function by clearly distinguishing the processes and bodies for operational decisions from high level decisions.
16. The NEMO arrangements explained in the MCO Plan necessary for the design, implementation and operation of the MCO Functions have to be complemented by additional “all NEMO - all TSO” agreements, similar to the current MRC DAOA and 4MMC Master Agreement and the “all

NEMO - all TSO" Intraday Operational Agreement, currently under development, as well as national and regional "NEMO and TSO" agreements, which are necessary for pre-coupling and post-coupling activities. These additional agreements are necessary for the operation of single day-ahead and intraday market coupling but are outside the scope of the MCO Plan, and have been listed below:

- a) Starting from June 2010 a cooperation involving TSOs and power exchanges to design, implement and operate a day-ahead market coupling covering the Central West Europe region, the Nordic-Baltic region and Great Britain, known as the NWE market coupling. The NWE Parties cooperated to implement day-ahead market coupling using the PCR Solution. The NWE Parties entered into the NWE Day-Ahead Operations Agreement (the "**NWE DAOA**") which went live on 4 February 2014, setting forth the main terms and conditions under which the NWE Parties jointly operate the NWE price coupling.
- b) Starting from September 2012, a cooperation involving TSOs and power exchanges to implement South West Europe ("SWE") price coupling using the PCR Solution.
- c) Starting from August 2013 under the name 4MMC (CZ-SK-HU-RO Market Coupling) with the aim to extend the CZ-SK-HU Market Coupling towards Romania and to implement the PCR Solution. Transmission system operators together with power exchanges supported by national energy regulators from the Czech Republic, Slovakia, Hungary and Romania collaborated within the project in order to develop and implement all necessary solutions which ensure technical and procedural compatibility of 4MMC with the target European solution which is already implemented in other coupled European regions. On 19 November 2014 the 4M MC was successfully launched.
- d) Starting the 4 February 2014 SWE entered into a common synchronized operating mode with NWE although the cross border capacity between NWE and SWE was zero until May 2014.
- e) Starting from April 2014, NWE Parties and SWE Parties (together called "**MRC**") entered into a Day-Ahead Operational Agreement replacing the NWE DAOA and SWE DAOA, and setting forth the main terms and conditions under which these Parties (the "**MRC Parties**") were to cooperate to operate the Multi Regional Price Coupling (the "**MRC Cooperation**").
- f) Starting from January 2014, a cooperation involving TSOs to implement the DA price coupling on the Italian borders using the PCR Solution (Italian Border Working Table-IBWT Cooperation). All the IBWT Parties joined the MRC Cooperation on 24 February 2015.
- g) Starting from May 2014, a cooperation involving Power Exchanges and TSOs to implement the flow-based DA price coupling in the Central East Europe region (the "**CEE Cooperation**") and to be coupled with MRC.

17. The official language for this MCO Plan is English. For the avoidance of doubt, where NEMOs are requested to translate this MCO Plan into their national language(s), in the event of



inconsistencies between the English version submitted in accordance with Article 9 (14) of the CACM Regulation and any version in another language, the interpretation of the English version submitted by NEMOs shall prevail.

## 2 DEFINITIONS

In this MCO Plan, the same definitions used in Commission Regulation EU 2015/1222 are applied, plus the following.

- [1]. **DA Market Coupling Operator (MCO) Function:** means the task of matching orders from the day-ahead markets for different bidding zones and simultaneously allocating cross-zonal capacities, as defined in Article 2.30 of the CACM Regulation.
- [2]. **Single Day Ahead Coupling (SDAC):** means the process defined in Article 2.26 of the CACM Regulation
- [3]. **Single Intraday Coupling (SIDC):** means the process defined in Article 2.27 of the CACM Regulation
- [4]. **EUPHEMIA:** means the algorithm realised within the PCR project for the MCO Function (a PCR Asset),
- [5]. **ID Market Coupling Operator (MCO) Function:** means the task of matching orders from the intra-day markets for different bidding zones and simultaneously allocating cross-zonal capacities, as defined in Article 2.30 of the CACM Regulation.
- [6]. **PCR Assets:** means the assets used for Single DA coupling co-owned by the parties to the PCR Co-ownership Agreement.
- [7]. **PMB:** means the PCR Matcher and Broker( a PCR Asset).
- [8]. **Four Markets market Coupling (4M MC):** means the mechanism where the market clearing prices and the net positions are determined in the day-ahead timeframe in a single step in accordance with the 4M Procedures using physical hourly ATC capacities between Parties in fully-fledged operations in Czech Republic, Slovak Republic, Hungary, and Romania.
- [9]. **Multi Regional Price Coupling (MRC):** means the mechanism where the market clearing prices and the net positions are determined in the day-ahead timeframe in a single step in accordance with the multiregional procedures using physical hourly ATC and/or Flow Based capacities between Parties in fully-fledged operations.
- [10]. **Nominated Electricity Market Operator (NEMO):** means an entity designated by the competent authority to perform tasks related to single day-ahead or single intraday coupling in accordance with Article 6 of the CACM Regulation.
- [11]. **PCR Co-Owners:** means all DA NEMOs which have entered into the PCR Co-Ownership Agreement and are not necessarily in common operation with other NEMOs.
- [12]. **Operational NEMO:** means
  - a. In DA: a DA NEMO whose orders are being matched by the DA MCO Function
  - b. In ID: an ID NEMO whose orders are being matched by the ID MCO Function
- [13]. **Operator:** means a DA NEMO performing the DA MCO Functions during the Market Coupling Phase, which provides the Coordinator information needed for the calculation of the market coupling results, participates in the actions convened by the Coordinator, complies with

commonly agreed decisions and accepts or rejects the market coupling results for its own results (plus those of any NEMO that it services).

- [14]. **Coordinator:** means a DA NEMO which, in addition to performing the tasks of an Operator, during the Market Coupling Phase is responsible for coordinating the operation of the Market Coupling Phase.
- [15]. **Backup Coordinator:** means a DA NEMO which in addition to performing the task as an Operator, is prepared, if necessary, to take over the Coordinator role at any moment.
- [16]. **Serviced NEMO:** means a NEMO which has delegated some of his MCO tasks to another NEMO, according to a bilateral service provision agreement.
- [17]. **Servicing NEMO:** means a NEMO acting in the name and for the account of a serviced NEMO in the delegated tasks.
- [18]. **Transitional PCR Cooperation Agreement:** means the amended PCR Co-operation Agreement, which will be effective during the day ahead transitional phase and will become the basis for the NEMO DA Operational Agreement.
- [19]. **XBID System Supplier:** means the entity providing the Intraday market coupling services according to the respective agreements signed with XBID power exchanges (currently assigned to DBAG).
- [20]. **XBID Solution:** means the solution (system, procedures, contract, etc.) to be implemented by the PXs and TSOs for implicit cross zonal continuous intraday capacity allocation and also explicit allocation within the scope of the Single Intraday Coupling according to the principles set forth in the CACM Regulation.
- [21]. **XBID System:** means the software and ICT applications (incl. hardware) to be used for the operation of the XBID Solution to interact with amongst others the Local Trading Systems of each PX, the TSOs systems and the explicit capacity allocation participants in borders where this possibility exists.
- [22]. **Global Products:** means all products set up in the XBID Solution and eligible to be matched in the XBID Solution are deemed as Global Products.
- [23]. **Local Products:** means all products not set up in the XBID Solution and not eligible to be matched in the XBID Solution are deemed as Local Products.
- [24]. **XBID Project:** means the implementation project of the XBID Solution.

## 3 GENERAL PRINCIPLES FOR THE NEMO COOPERATION

### 3.1 Introduction

1. The cooperation of the NEMOs for the implementation and delivery of the MCO Functions under articles 7(2) and 7(3) of the CACM Regulation and the definition of the relevant terms and methodologies under article 9(6) of the CACM Regulation will be managed through the following set of contracts<sup>4</sup>:
  - a. One “*ALL-NEMO Cooperation Agreement*” (ANCA), signed by all designated NEMOs, which will set out the rules for the cooperation of the NEMOs in accordance with article 9 of the CACM Regulation
  - b. Two “*NEMO Operational Agreements*” (one for the DA and one for the ID), signed respectively by all DA and ID Operational NEMOs and optionally by any NEMOs, which are not yet Operational NEMOs, which will set out the rules for the cooperation of NEMOs in accordance with article 7 of the CACM Regulation;
  - c. A set of contracts between NEMOs and third party service providers needed for the delivery of the MCO Functions.
2. Contracts provided under Article 3.1.1 of this MCO Plan shall:
  - a. Benefit from existing contractual arrangements for the development and operation of DA and ID;
  - b. Be extended via an adherence process to NEMOs that are not yet signatories
  - c. Reflect the fact that, while all NEMOs will have to sign the ANCA, not all NEMOs are Operational NEMOs in the DA and/or ID timeframes;
  - d. Support and safeguard the efficient management of the overall process by clearly distinguishing the responsibilities for operational decisions, from higher level decisions;
  - e. Set obligations for NEMOs to cooperate for the implementation and delivery of the MCO Functions.
3. To fulfil the designation criteria set under article 6 paragraph 1 point a) of the CACM Regulation, NEMOs shall enter into the relevant contracts described in the MCO Plan for the implementation and delivery of the MCO Functions which are necessary for the common, coordinated and compliant operation of DA and ID coupling.

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<sup>4</sup> Contracts among all NEMOs and all TSOs as well as national and regional agreements needed to set out the pre- and post-coupling phase/processes of the MCO functions in DA and ID are outside the scope of this MCO Plan.

4. The cooperation between NEMOs to implement the MCO Plan shall ensure that the joint performance of MCO Functions shall be based on the principle of non-discrimination and ensure that no NEMO can benefit from unjustified economic advantages arising from its role in the MCO Functions.
5. In accordance with article 7(4) of the CACM Regulation the cooperation among NEMOs shall be strictly limited to what is necessary for the joint delivery of the DA MCO Function and ID MCO Function, to enable the efficient and secure design, implementation and operation of single DA and ID coupling.
  - a. Therefore, apart from the provisions which are strictly necessary to coordinate their matching into a price coupling mechanism, each Party will keep its full independency and self-determination for its own business.
  - b. Furthermore, each NEMO is liable for its individual tasks only and does not bear any joint and several liability for the implementation and delivery of the MCO Functions.
6. It is understood that NEMOs shall be able to perform DA and/or ID coupling operations only if further agreements between NEMOs and TSOs for the availability of cross-border capacity and the provision of the cross-border shipping are set up. Such agreements are beyond the scope of this MCO Plan.
7. Under the contractual structure proposed in Article 3.1 of this MCO Plan, the following tasks related separately to DA and/or ID shall be managed by all NEMOs designated for DA and/or ID respectively:
  - a. Approval of budget, high-level investments and planning for further development of MCO Function;
  - b. Resolution on any issues escalated from the Operational NEMOs
  - c. Submission of external reporting and representation;
  - d. Management of stakeholder consultations.

Any decision needed to fulfil tasks performed by NEMOs designated for DA and/or ID respectively shall be taken by the All NEMO Committee as described in Article 4 of this MCO Plan.

8. Under the contractual structure proposed in Article 3.1 of this MCO Plan, the following tasks shall always be managed by the Operational NEMOs that have signed the relevant Operational Agreement as referred to in Article 3.1.1(b) of this MCO Plan:
  - a. Approval of relevant<sup>5</sup> rules and procedures for the operation of single DA and/or ID market coupling respectively;
  - b. Preparation<sup>6</sup> of proposals for investment, budget and planning for further development of MCO Function as referred to in Article 7 (a) of this MCO Plan;
  - c. Management of the change control process and its impact assessment and overseeing the implementation of changes.

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<sup>5</sup> Does not refer to the methodologies listed in CACM article 9.6.

<sup>6</sup> Only NEMOs affected by the budget shall participate in the decision taking.

Any decision needed to fulfil the tasks mentioned above shall be taken unanimously. The decision shall be escalated to the All NEMO Committee if no consensus can be reached among Operational NEMOs.

9. Under the contractual structure proposed in Article 3.1 of this MCO Plan, the following tasks shall always be managed by all NEMOs who are Coordinator, Backup Coordinator or Operators in DA or by Operational NEMOs in ID:
  - a. Maintenance and day to day operation of the MCO Function according to the agreed rules and procedures agreed by the Operational NEMOs;
  - b. Real time decisions related to application of the procedures in MCO operation;
  - c. Analysis of incidents incurred in the MCO operation;
  - d. Provide necessary support for analysis and testing related to further development of the MCO Function for any decision by the Operational NEMOs.

Any decision needed in order to fulfil the above-mentioned tasks shall be taken according to the agreed procedures.

10. In accordance with the Article 81 of the CACM Regulation a NEMO may delegate operational activities associated with the performance of the MCO Function to a Servicing NEMO. In such case:
  - a. The delegating NEMO (hereinafter Serviced NEMO) shall remain responsible for the performance of the MCO Function.
  - b. The delegation of operational activities under Article 3.1.9 from one NEMO to another will be managed through bilateral contracts entered into between Serviced NEMO and Servicing NEMO.
  - c. Without prejudice to the rights under Article 3.1.7 and 3.1.8 of this MCO Plan, the operational decision making under Article 3.1.9 is delegated by the Serviced NEMO to the Servicing NEMO.
11. NEMOs may apply different governance rules in DA and/or ID while complying with the general principles of non-discrimination and maintaining the level-playing field set by the CACM Regulation and by this MCO Plan.
12. The MCO Plan is based on the assumption that national arrangements for NEMO cost recovery have been established in each Member State by the relevant authority for all NEMOs by the time of approval of the MCO Plan.
13. Paying due regard to the objectives of CACM and applicable European legal provisions, MCO Function system and service providers shall be selected consistently with the principles of equal treatment, objectiveness of the selection criteria, transparency, economic efficiency, efficacy and timeliness, taking into consideration:
  - a. the principle of proportionality in respect of the overall value and the urgency of the contract; and
  - b. the uniqueness of the services to be provided due to technical reasons.

## 4 ALL NEMO COMMITTEE

### 4.1 All NEMO Cooperation Agreement (ANCA)

1. To be able to participate in the single day-ahead and intraday coupling under CACM all NEMOs shall become a party to the ANCA. An entity designated as a NEMO in at least one bidding zone of a Member State shall be entitled to become party to the ANCA and join the All NEMO Committee. An adhering NEMO may request an amendment of the ANCA.
2. The ANCA shall:
  - a. Set up the All NEMO Committee as further described in Article 4.2 of this MCO Plan;
  - b. Establish an escalation procedure to manage the cases of the refusal of any NEMO to sign or approve a revised version of the DA and/or ID Operational agreements;
  - c. Establish decision making rules for the All NEMO Committee based on article 9 of the CACM Regulation;
  - d. Provide an adherence process;
  - e. Be developed based on the INCA and approved by the All NEMO Committee unanimously.
3. An entity designated as a NEMO in a non-EU country shall be entitled to become party to the ANCA and join the All NEMO Committee if it meets the requirements of article 1(4) of the CACM regulation.
4. An entity designated as a NEMO in a non-EU country participating in single DA and/or ID coupling shall have rights and responsibilities equivalent to the rights and responsibilities of a NEMO designated in a Member State, in order to allow a smooth functioning of the single day-ahead and intraday coupling systems implemented at European Union level, and a level-playing field for all stakeholders.
5. One or more NEMO(s) may challenge a decision, or a failure to make a decision, in the All NEMO Committee, by requesting an NRA to seek a (non-binding) opinion by the Agency, or the support of NRAs for a proposed amendment to a term and condition or methodology in accordance with article 9 paragraph 13 of the CACM Regulation.

### 4.2 All NEMO Committee: roles and responsibilities

1. The All NEMO Committee shall have ultimate responsibility for the DA and/or ID MCO Functions and to facilitate cooperation between NEMOs for all common European tasks necessary for the efficient and secure design, implementation and operation of single day-ahead and intraday coupling.
2. To fulfil this role the All NEMO Committee shall be formed by the appointed representatives of each NEMO. Organisation and representation of the NEMOs shall be established in the

internal rules of All NEMO Committee as set out in the ANCA. The All NEMO Committee may create or dissolve working groups or task forces. In such event the All NEMO Committee shall determine the purpose, composition, organisational and governance arrangements for such task force or working group.

3. The All NEMO Committee shall publish approved summary minutes of its meetings.
4. The European Commission and the Agency shall be invited to participate in All NEMO Committee meetings as observers.
5. The All NEMO Committee shall be responsible for:
  - a. Facilitating the necessary cooperation between NEMOs for common European tasks required by the CACM Regulation.
  - b. All tasks associated with the development, consultation, approval, submission, implementation, publication and future amendment of the MCO Plan required by article 7 paragraph 3 of the CACM Regulation, and other terms and conditions or methodologies required by article 9 paragraph 6 of the CACM Regulation.
  - c. Necessary cooperation between NEMOs and TSOs, where TSOs are responsible for submitting or amending proposals for terms and conditions or methodologies specified in article 9 paragraph 6 of the CACM Regulation.
  - d. Determining changes to the governance framework, including the structure of committees set up under the DA Operational Agreement and ID Operational Agreement.
  - e. Further development of the DA MCO Function and ID MCO Function to be compliant with future terms and conditions or methodologies, including practical implications of article 63 of the CACM Regulation.
  - f. Submitting information and necessary reports to the Agency, ENTSO-E, regulatory authorities and the European Commission as required under the CACM Regulation. In particular, the All NEMO Committee shall report to:
    - i. The Agency on NEMO progress in establishing and performing the DA and ID MCO Functions in accordance with article 7 paragraph 5 of the CACM Regulation.
    - ii. The Agency, in cooperation with TSOs, to provide a review of the operation of the price coupling algorithm and continuous trading matching algorithm in accordance with article 37 paragraph 6 of the CACM Regulation
    - iii. Regulatory authorities, on the costs of establishing, amending and operating single day-ahead and intraday coupling in accordance with article 80 paragraph 1 of the CACM Regulation.
  - g. Providing information to ENTSO-E, if it has been requested jointly by the Agency and ENTSO-E, for the purpose of implementation monitoring, in accordance with article 82 paragraph 6 of the CACM Regulation.
  - h. Ensuring that the MCO Function assets (i.e. rules, procedures and specifications) meet the requirements of the CACM Regulation and the approved terms and conditions or methodologies.
  - i. Setting the criteria for decisions relating to change of the assets or providers.

- j. Establishing a process for the All NEMO Committee to act as an escalation body for the committees under the DA Operational Agreement and the ID Operational Agreement, where they have not been able to reach agreement on the basis of unanimity. In such cases the DA Operational Committee or the ID Operational Committee shall provide a written report to the All NEMO Committee. Disputes regarding the execution of contracts shall not be subject to escalation to the All NEMO Committee but shall be governed by the relevant provisions in each contract.
- k. Establishing a process for the classification and approval of change requests associated with the development of the MCO Function assets, including informing and consulting stakeholders on change to the MCO Function assets. To facilitate this, the All NEMO Committee shall agree an approach to classifying MCO Function asset changes, building on the following classification:
  - i. Non-notifiable change – no impact on market parties
  - ii. Notifiable change – non-discretionary changes likely to impact stakeholders
  - iii. Consulted change – discretionary change likely to have a material impact on stakeholders
  - iv. Methodology amendment – change requires amendment to an approved term and condition or methodology; made in accordance with CACM article 9

The All NEMO Committee shall maintain a public register of all on-going changes and shall be responsible for organising necessary and appropriate stakeholder consultation for those changes.

- l. Providing an annual report to stakeholders on progress with the implementation and the operational performance of the DA MCO Function and the ID MCO Function
  - m. Approving the proposed budget related to All NEMO responsibilities as described in this Article. A process shall be established to update this budget over the course of the relevant year.
  - n. Acting as a joint point of contact for regulatory authorities, the Agency, ENTSO-E and the European Commission in relation to the design, implementation, operation and amendment of the DA and ID MCO Functions. This includes any process launched by the Commission to consult NEMOs on amendments to the CACM Regulation. The All NEMO Committee may delegate this responsibility to the DA Operational Committee and the ID Operational Committee.
  - o. External communication related to the DA MCO Function and ID MCO Function and promoting the role and position of NEMOs.
6. The decision making rules of the All NEMO Committee shall be based on the requirements of article 9 paragraph 2 of the CACM Regulation.
7. For the avoidance of doubt, DA-related decisions shall be taken only by NEMOs designated for day-ahead, and similarly ID-related decisions shall be taken only by NEMOs designated for intraday.



8. Costs related to activities of the all NEMO Committee can be classified as Common Costs as long as:
  - a. such cost are resulting from the coordinated activities of all NEMOs.
  - b. resources associated to fulfil this requirement are jointly controlled by all NEMOs.
  - c. the incurrence of such costs is jointly controlled by all NEMOs.

## 5 DAY AHEAD COOPERATION

### 5.1 Implementation of the DA MCO Function: adoption of the PCR Solution

1. The MCO Plan covers the delivery of the DA MCO Function by the NEMOs which, in accordance with article 36(4) of the CACM Regulation, will be based on the PCR Solution. The MCO Plan assumes no significant technical or operational changes are required to PCR (for example, arising from new products or algorithm requirements, or arrangements to support multiple NEMOs) and on this basis the principal implementation task to deliver the DA MCO Function concerns changes to the governance and contracts.
2. The “**Operational Phase**” begins at the point when the SDAC formally begins operating. The start of the SDAC needs to be determined by NRAs, and will be dependent on the delivery of specific CACM-related tasks by other entities, such as TSOs and NRAs. As such, NEMOs can only be held responsible for the delivery of tasks required for the operation of the MCO Function (the focus of this MCO Plan) and which are under their full control, and shall not be held liable under the CACM Regulation if the implementation of other tasks necessary for the operation of the MCO Function are delayed due to factors outside the NEMOs’ control.
3. The period prior to the Operational Phase is called the “**Transition Phase**”. During the Transition Phase NEMOs shall:
  - a. Finalise the ANCA and complete the signature process by all NEMOs.
  - b. Modify the existing PCR Cooperation Agreement<sup>7</sup> to create the Transitional PCR Cooperation Agreement, which will later become the NEMO DA Operational Agreement in the Operational Phase and finalise the signature process of such revised agreements. All DA designated NEMOs are entitled to become parties to the Transitional PCR Cooperation Agreement.
  - c. As necessary, amend agreements with parties providing the DA MCO Function, including the current PCR Co-ownership Agreement and the agreements with PCR service providers, and finalise the signature process of such revised agreements.
4. These contractual changes will be complete and ready twelve (12) months following the approval by NRAs of the MCO Plan.

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<sup>7</sup> Such changes include *inter alia*: a) the elimination of the obligation to sign PCR co-ownership agreement in order to sign the PCR cooperation agreement; b) the provision of the NEMO Committee as escalation body for issues unsolved at the Steering Committee level; c) the qualification of the attendance principles and voting rights in the different bodies for the serviced NEMOs.

5. NEMOs that are PCR Co-owners will remain responsible for managing the relationship with the DA MCO Function service providers and for managing the process to implement any changes agreed by the All NEMO Committee, with the DA MCO Function service providers. The PCR Co-owners will undertake to follow the decision of the All NEMO Committee with regard to change requests or other matters regarding the DA MCO Function service providers. The costs and liabilities associated with following such All NEMO Committee decisions are not borne by the PCR Co-owners but will be passed through to all DA NEMOs.
6. During the Transition Phase the general governance framework will be set by the INCA until the ANCA is signed by all NEMOs and enters into force. Upon entry into force of the ANCA, the general governance framework shall be set by the ANCA. Specifically, under the ANCA, decisions by signatories to the Transitional PCR Cooperation Agreement relating to the implementation of the SDAC, will be taken based on unanimity, and shall be escalated to the All NEMO Committee when unanimity cannot be reached.
7. From an operational perspective, during the Transition Phase the Day Ahead coupling operations shall continue to be regulated by the existing PCR framework (along with the Multi Regional Coupling Day Ahead Operational Agreement (MRC DAOA) and 4MMC Master Agreement).
8. Becoming a party to the PCR Co-Ownership Agreement remains open to any NEMO subject to bearing an equal share of the historical cost in accordance with the current PCR Co-Ownership Agreement and in line Article 80.5 of CACM.
9. During the Transition Phase NEMOs shall use best efforts to provide deliverables under paragraph 3 as soon as possible.

## 5.2 Description of the DA MCO Function

### 5.2.1 Operation

1. The price coupling algorithm is operated in a decentralised manner, combining all the advantages of a centralised process and all the advantages of a decentralised process and shall be based on the following principles:
  - d. One single algorithm;
  - e. One single set of input data for the whole coupled area;
  - f. One single set of results for the whole coupled area;
  - g. Input data to the algorithm is prepared and collected by each NEMO according to local Regulations and/or market contracts in a common format;
  - h. The responsibility for the input data content is allocated to the respective input data provider (TSO or Market Participant) according to local regulations and/or market contracts;
  - i. The complete input data file is received by the Coordinator/Backup Coordinator and all Operators (in an anonymised manner). This guarantees the transparency of the process since all parties guarantee that the same input data is used in the DA MCO results calculation process;
  - j. Each Operator has the opportunity to compute the results in parallel;

- k. The single results of the DA MCO process, prior to each NEMO finally validating them, are validated and accepted by each responsible party (TSO and/or Market Participant) according to local regulations and/or market contracts;
  - l. The responsibility over the results (and liability) is decentralised to each NEMO, since each NEMO has the opportunity (directly or together with its Servicing NEMO) to validate its results. The Servicing NEMO may share the relevant DA MCO results with the Serviced NEMO for the purposes of validation (including validation by each responsible party (TSO and/or Market Participant) according to local regulations and/or market contracts);
  - m. Once results are finally accepted by all NEMOs they are absolutely firm and there is no possibility for any NEMO to contest the accepted results or to claim the other NEMOs including the Coordinator;
  - n. The DA MCO results are reproducible and auditable.
2. Decoupling in compliance with the agreed procedures is not considered a default nor a contractual breach by the Parties. Such decoupling is an agreed backup procedure and as a consequence it does not lead in itself to any indemnification obligation for damages incurred by the decoupling.

#### 5.2.2 NEMO Operational Roles

1. The roles, principles and rules related to the execution of operational roles performed by NEMOs including the performance of DA MCO Function will be set in the DA Operational Agreement.
2. With respect to the DA MCO Function, Operational DA NEMOs must perform according to one of the following roles:
  - a. Coordinator or Backup Coordinator, whose responsibilities are explained in Article 5.2.2.1. below;
  - b. Operator, whose responsibilities are explained in Article 5.2.2.2 below; or
  - c. Serviced NEMO, whose responsibilities are explained in Article 5.2.2.3.
3. To perform the daily operations one NEMO is appointed as Coordinator and one NEMO is appointed as Backup Coordinator. The Backup Coordinator monitors the NEMO acting as Coordinator and is always prepared to take over the Coordinator role at any moment in case any problem appears in the Coordinator activities (“hot backup”). All other Operators may perform in parallel the same processes can also take over from the Coordinator the role if necessary (“warm backup”).
4. The roles of Coordinator and Backup Coordinator are rotated according to a rotation calendar. To be a Coordinator/Backup Coordinator, a NEMO must be a PCR Co-owner and satisfy specific technical requirements established by the DA Operations Committee and ratified by the All NEMO Committee in order to guarantee safe and reliable operation of the DA market coupling.. The NEMOs playing the role receive remuneration from all the benefiting NEMOs whose prices are formed during each DA Market Coupling session according to Article 5.6.

5. The Coordinator tasks are established in the NEMO DA Operational Agreement so that the Coordinator does not assume any additional liability versus that of an Operator. Each NEMO is responsible for validating the individual results for its respective bidding areas. The transfer of the responsibility from the NEMOs to the corresponding TSO or Market Party is done according to local regulations and/or market contracts. Only Coordinator, Backup Coordinator and Operators may access the PMB.
6. In order to properly perform their tasks, in particular to manage correctly the maintenance of the MCO operational assets (currently the PCR assets), Coordinators, Backup coordinators and Operators are required to co-own the MCO operational assets based on equal and non-discriminatory terms. In particular, all PCR Co-owners bear an equal share of the historic development costs as further described in art 5.6.4. The PCR Co-owners will be in charge of the contractual relationship with the service providers working on the MCO operational assets. It is understood that the main services regarding the MCO operational assets are the Algorithm maintenance, Matcher and Broker maintenance and the MPLS services.

#### *5.2.2.1 Coordinator/Backup Coordinator*

1. A Coordinator is responsible for the following tasks during the operation of the DA MCO Function:
  - a. Coordinate the operation of the DA MCO Function;
  - b. To perform the calculation of the market coupling results (this includes calculating the results, according to the operational procedures, by using the applied MCO operational assets and by using and processing the data on cross-zonal capacity as well as the bids received daily from all Operational NEMOs);
  - c. Act as single point of contact between the Operators and MCO service providers;
  - d. Intervene in the event of an incident and perform necessary coordinating actions;
  - e. File report summarizing the performed steps.
2. A Backup Coordinator is responsible for the following tasks during the DA Market Coupling Phase:
  - a. Be ready to take over the Coordinator tasks at any moment during the Market Coupling Phase;
  - b. To perform the calculation the market coupling results (that includes calculating the results, according to the operational procedures, by using the applied PCR assets and by using and processing the data on cross-zonal capacity as well as the bids received daily from all Operational NEMOs) and indicates any irregularity it may become aware of to the Coordinator;
  - c. To provide towards the NEMO acting as Coordinator the needed information and support.

#### *5.2.2.2 Operator*

1. Operators perform the following main responsibilities:
  - a. Provide all other Operators, including the Coordinator with the information needed for the calculation of the market coupling results for its markets or any serviced markets;
  - b. Where it is calculating in parallel the market coupling results, to indicate any irregularity it may become aware of towards the Coordinator;

- c. To participate to the actions convened by the Coordinator and comply with commonly agreed decisions;
  - d. To accept or reject the market coupling results for its own markets and serviced markets.
2. Any NEMOs can perform the Operator role provided it (a) is a PCR Co-owner, and (b) satisfies specific technical requirements established by the DA Operations Committee and ratified by the All NEMO Committee in order to guarantee safe and reliable operation of the DA market coupling.

#### *5.2.2.3 Serviced NEMO: delegation of tasks assigned to NEMOs in the Day Ahead Market Coupling*

1. According to CACM Article 81, NEMOs have the possibility of delegating tasks assigned under the CACM Regulation. The NEMO DA Operational Agreement will:
- a. Entitle a NEMO to procure MCO Function tasks under 5.2.2.2 from an Operator according to a bilateral service provision agreement; and,
  - b. Establish the rights and limitations for this service to be performed by one NEMO (the Servicing NEMO) for another NEMO (the Serviced NEMO) in the DA Operations environment. The servicing provision agreement includes also precise operational requirements to be performed by the Servicing NEMO towards the Serviced NEMO.
  - c. It is for the Serviced and Servicing NEMOs to agree the precise scope of functions to be outsourced and the associated procedures and liabilities applying between them.
2. The main characteristics of this service provision are:
- a. Only PCR Co-owners who can perform at least Operator role in their own right can provide services to other NEMOs. A Serviced NEMO must be a signatory of the NEMO DA Operational Agreement.
  - b. The services that Servicing NEMOs provide to Serviced NEMOs must respect what both parties have signed as part of the NEMO DA Operational Agreement.
  - c. The Servicing NEMO collects all the network constraints and order information from the serviced NEMO and will perform all the MCO Function operational steps described under article 5.2.3 in the name and on behalf of the serviced NEMO. These steps include sending the required information and validating the Day Ahead Market Coupling results in the name of the and on behalf of the Serviced NEMO. In this regard, the Servicing NEMO is entitled to send the relevant market coupling results to the Serviced NEMO in order for it to perform its validation prior to the Servicing NEMO indicating the preliminary validation.
  - d. During the operation of the Day Ahead Market Coupling sessions there will be no direct communication between a serviced NEMO and Operators, other than through its Servicing NEMO.
  - e. The Serviced NEMO delegates at least his representation for operational decisions to the Servicing NEMO. Therefore, the Servicing NEMO will act in the name of the Serviced NEMO in the Operational Committee and the Incident Committee.
  - f. The Serviced NEMO is not entitled to raise any operational claim towards any other NEMO than its Servicing NEMO.
  - g. The same liability regime applies to all NEMOs under the NEMO DA Operational Agreement whether serviced or not.

3. It is not the intention that such outsourcing of services by the Serviced NEMO should otherwise impact its rights and obligations under the MCO Plan and CACM Regulation (reference Art 81).

### 5.2.3 Operational sequence of events in a Market Coupling session

1. A market coupling session consists of a sequence of process steps that need to respect agreed timings:
  - a. At an agreed time Operational NEMOs receive the network constraints from the corresponding TSOs. This reception process is decentralized and performed according to National Regulations and/or Market Contracts
  - b. The bid reception process is performed by all Operational NEMOs, including the opening and closing of the order acceptance period in a decentralised way according to their local regulations and/or market contracts. For operational reasons there might be exceptionally delays in this bid reception process.
  - c. At an agreed time all Operational NEMOs submit to each other the set of network constraints (received from TSOs according to local regulation or market contracts) and the anonymised orders that they are responsible for.
  - d. The results calculation process is started at a predefined moment by the Coordinator, the Backup Coordinator and all other Operators that want to do it.
  - e. When results are obtained by the Coordinator they are shared with all Operators for NEMOs to validate them, potentially by comparing the Coordinator results with the results of their own run of the algorithm.
  - f. Once this step is done, preliminary prices are published to the market, at a common time (unless the process has been delayed).
  - g. Each NEMO can now disclose to its own market participants their specific results; where required by local regulations and/or market contracts, these should be used by them to perform a validation of the results.
  - h. NEMOs disclose to relevant TSOs the information necessary for them to perform a validation of the results according to local regulations and/or contracts.
  - i. Once the final validation is done, and shared with all other NEMOs by each NEMO, the results are declared firm and net position and area prices cannot be modified in any way.
2. The NEMO DA Operational Agreement will include a precise set of procedures describing each step in the market coupling process performed by Operational NEMOs. This includes backup mechanisms, information messages to participants and TSOs and reports that are generated in normal cases and in case there is any kind of incident. The NEMO DA Operational Agreement will also include provisions of how to update and to modify the procedures.
3. As part of the CACM deliverables that NEMOs need to produce in cooperation with TSOs, there will be a Day Ahead Operational Agreement (DAOA) (signed by all participating NEMOs and TSOs) that will include the detail set of procedures to be followed by NEMOs and TSOs to receive the capacity information, to deliver results and to validate them by TSOs establishing the liabilities in a proper manner.

4. As most fall back and backup procedures will involve TSOs, they will also form part of the future deliverables to be presented jointly by NEMOs and TSOs and are not part of this MCO Plan.

#### 5.2.4 Validation of the Day Ahead Market Coupling session results

1. There are two types of validation:
  - a. The validation inherently performed by the Price Coupling Algorithm, to ensure that network constraints and orders characteristics are respected by the results
  - b. The validation performed by all NEMOs, either alone or with a TSO and market participants, to assign appropriate liability for the results.
2. These validations are done according to local regulations and/or market contracts.

#### 5.3 The Price Coupling Algorithm and Products

1. The Price Coupling Algorithm to be used as part of the DA MCO Function will be described in a separate methodology to be submitted, following a stakeholder consultation, by NEMOs to NRAs for approval according to the process and requirements set out in article 9 and article 37 of the CACM Regulation. The algorithm methodology will propose the Price Coupling Algorithm based on NEMO and TSO requirements, and a process to control and manage future changes to the Price Coupling Algorithm, including appropriate stakeholder consultation. The TSO requirements will be established in the Algorithm methodology.
2. The products that can be taken into account by NEMOs in the DA MCO Function and the Single Day-Ahead Coupling will be subject to a separate methodology to be submitted, following a stakeholder consultation, by NEMOs to NRAs for approval according to the process and requirements in article 9 and article 40 of the CACM Regulation. The Products methodology will propose the products to be included in single day-ahead coupling and how future changes to the products will be controlled and managed, including appropriate stakeholder consultation and the technical criteria on which to evaluate and decide changes.
3. The MCO operational assets may have to be amended to implement the approved Algorithm methodology and Products methodology.

#### 5.4 DA MCO Function systems

1. The systems needed to perform the DA MCO Function comprise the PCR Matcher Broker (PMB); which in turn is comprised of two core sub-modules (the Broker and the Matcher) and the Algorithm (described above)
  - a. The Broker module acts as the interface to every other PMB (to share data via a dedicated and secured cloud) and with local NEMO IT systems.
  - b. The Matcher module makes all the data received from the Broker module available to the Price Coupling Algorithm and activates the Price Coupling Algorithm. This module also receives the results of the price coupling from the algorithm and forwards to the results to the Broker module.

2. In normal operational mode, the Broker module performs its actions automatically (files interchange, keep-alive messages, etc.). However, if necessary, the Broker module allows an Operator to manually launch all of these actions.
3. NEMOs use a dedicated and secured cloud-based communication solution (“MPLS Cloud”) to exchange data between each PMB. Each PMB connects to the Cloud through the PCR Broker.
4. All operational MCO Function systems shall comply with the performance and disaster recovery requirements as decided by the NEMOs under the NEMO DA Operational Agreement.

## 5.5 Governance

1. The NEMOs DA operational agreement shall set out the NEMOs cooperation for the performance of the DA MCO Function provided under Article 7 of the CACM Regulation. This contract will govern the NEMOs cooperation in respect of:
  - a. The daily management of the DA coupling operations;
  - b. The different operational options of the NEMOs (operating NEMOs vs serviced NEMOs) and the technical requirements to satisfy in order to be operator;
  - c. The contractual management of MC operational liabilities and results acceptance;
  - d. The rules for participation in the bodies established under the contract;
  - e. The management of cost reporting;
  - f. The rules for the selection of the service providers.
2. Decision making for the day-to-day operation and development of the DA MCO Function shall be via the following bodies: the Incident Committee (IC) and the DA Operational Committee.

### 5.5.1 DA Incident Committee

1. During the daily operation, in case of an operational issue, the IC will be convened by the NEMO acting as Coordinator, according to the operational procedures, to assess the situation and identify and agree on further actions in accordance with the applicable operational procedures. Depending on the nature of the operational issue, the impacted TSOs will also be invited to participate.
2. Only the Coordinator, the Backup Coordinator and the Operators are entitled to attend the IC. Serviced NEMOs will be legally represented by their Servicing NEMO (acting in the name of the Serviced NEMO). A Serviced NEMO will be allowed to attend as a non-participating observer.
3. The decisions making of the IC will be based on the following main principles:
  - a. Only Coordinator, Backup Coordinator and Operators are entitled to vote in the IC
  - b. The decisions shall be taken by unanimous consent of all participants on the IC.
  - c. The IC decisions will be transmitted (ex post) to the All NEMO Committee and to the DA Operations Committee. On the basis of an IC decision, the All NEMO Committee is entitled to request a change to the DA Operations Committee for an amendment of the procedures/DA Operational Agreement.



- d. Each NEMO shall retain its right to decouple from the SDAC according to the agreed procedures.
4. The IC shall reports towards the DA Operational Committee.

#### 5.5.2 DA Operational Committee

1. The *DA Operational Committee* will be the body established under the NEMO DA Operational Agreement responsible for:
  - a. Developing, maintaining and operating the DA MCO Function according to the rules, procedures and specifications approved by all NEMOs that have signed the relevant NEMO DA Operational Agreement and within the budget and scope approved by All NEMO Committee.
  - b. Assessing regularly the performance of the market coupling, including the eventual cases of unusual situations and reports on the evolutions;
  - c. Identifying and assessing the needs for changes and developments required in relation with the development, maintenance and operation of the DA MCO Function (including, but not limited to , system, processes, framework, procedures) and formulating proposals for changes and development
  - d. Assuring and supporting the implementation of the decisions related to the above mentioned topics and reports on the related evolution;
  - e. Monitoring the evolution and prepares reports (e.g. related to costs performance, changes etc.).
2. Only the Coordinator, the Backup Coordinator and the Operators are entitled to vote in the DA Operational Committee while the Serviced NEMOs will be represented by their Servicing NEMO for operational decisions related to safeguarding of the continuity of the day to day operations. For decisions not related to safeguarding of the continuity of the day to day operations and affecting the Co-owners that are not Coordinator, Backup Coordinator or Operator, all Co-owners shall be allowed for decision taking.
3. The scope of the DA Operational Committee includes the 4MMC and MRC, and Operators/Coordinators/Backup Coordinators from both are entitled to attend and vote. Only members directly impacted may vote on a particular decision. The DA Operational Committee may establish a 4MMC subgroup, open to all operational NEMOs in 4MMC.
4. The decisions of the DA Operational Committee will be taken by unanimous consent of all voting participants. Should unanimity not be reached, the DA Operational Committee shall escalate the decision to the DA Steering Committee or to the All NEMO Committee where the responsibility has been taken over by the All NEMO Committee according to Article 5.5.3(6) - which will then decide according to the voting rules relevant for such Committee.
5. The DA Operations Committee is entitled to create sub-committees or working groups within its areas of responsibility.
6. The working of DA Operations Committee is transparent to all NEMOs.

7. Operational issues, not related to safeguarding continuity of day to day operations, require approval of the Operational NEMOs.

### 5.5.3 DA Steering Committee

1. A DA Steering Committee will be retained at least during the transition phase following the modifications of the PCR Cooperation Agreement as described in Article 5.1.8, replacing the PCR Steering Committee.
2. Signatories to the Transitional PCR Cooperation Agreement (which will become later the NEMO DA Operational Agreement), are entitled to attend the DA Steering Committee (DASC).
3. This DA Steering Committee is established when the Transitional PCR Cooperation Agreement enters into force and has the following roles:
  - a. Approve changes to the NEMO DA Operational Agreement.
  - b. Approval of budget, investment decisions, planning and change management decisions within the limits provided by the All NEMO Committee.
  - c. Approve rules, procedures and specifications proposed by the DA Operational Committee
  - d. Acting as escalation body for the DA Operational Committee.
4. The decisions of the DA Steering Committee will be taken by unanimity. Should unanimity not be reached, the DA Steering Committee shall escalate the decision to the All NEMO Committee which would then decide according to the voting rules set in article 9 paragraph 2 of the CACM Regulation. Disputes regarding the execution of contracts shall not be subject to escalation to the All NEMO Committee but shall be governed by the relevant provisions in each contract.
5. The DA Steering Committee reports to the All NEMO Committee and assures the implementation of the decisions taken by All NEMO Committee.
6. The role and responsibilities of the DA Steering Committee may be taken over in their entirety by the All NEMO Committee by decision of the All NEMO Committee

### 5.5.4 Change Control Procedure

1. Any change to the PCR Assets such as Euphemia, the PMB, the operational procedures etc., any relevant changes to the connected local systems, as well as any changes to the format or nature of the input data to the market coupling system that may cause a risk of malfunction, a performance degradation or a problem for the continuity of operations, is subject to a DA Market Coupling change control procedure.
2. The impact of a change request must be assessed by the DA Operational Committee, before signoff for implementation can be given. The DA Steering Committee, or the body delegated by

this DA Steering Committee to execute the task of change control and implementation, is responsible to set acceptance criteria for implementation and to approve changes

3. All NEMOs are entitled to request a change for their single use, or for the use by a subset of NEMOs, provided they finance the change to the registered PCR Assets and provided they meet the acceptance criteria for implementation and the approval by the DA Steering Committee. Only the NEMOs that have financed the change are entitled to use the newly developed features. Should any NEMO wish to use the changed features financed by another NEMO, then the original financing NEMO (or subset of NEMOs as the case may be) shall be compensated a historical share.

## 5.6 Financial Issues

### 5.6.1 Common Cost related to DA MCO Function

1. The cost incurred in relation to establishing, updating or further developing the price coupling algorithm for the single day-ahead coupling and cost incurred in relation to operating single day-ahead coupling include only the costs relating to the organization and operation of the DA MCO Function and not costs related to any pre- or post- coupling activity. NEMOs shall not bear any share in costs related to the above-mentioned pre- or post- coupling activities.
2. Costs related to organization and operation of MCO Function can be classified as Common Costs as long as:
  - a. such costs are related to the coordinated activities of all NEMOs participating in the single day-ahead coupling;
  - b. resources associated to fulfil this requirement are jointly approved by all NEMOs;
  - c. the incurrence of such costs is jointly approved by all NEMOs; and,
  - d. in case of costs being connected to establishing, updating or further developing the price coupling algorithm for the single day-ahead coupling and cost incurred in relation to operating single day-ahead coupling and being jointly approved by the TSOs and NEMOs such costs shall be first shared between costs attributable solely to NEMOs and costs attributable solely to TSOs. Such NEMO share of these costs will be considered as Common Costs.
3. The NEMOs shall ensure that the incurrence of Common Costs shall be adequately and effectively monitored by the All NEMO Committee. All costs shall be tracked by NEMOs in compliance with article 80 paragraph 2 of the CACM.
4. Common Costs related to the organization and operation of the DA MCO Function shall include following categories:
  - a. Costs associated with further developing the MCO Function which are the costs related to the further development and testing of the resources needed to perform the MCO Function (such as algorithm, other IT systems and processes).
  - b. Common maintenance and support costs, which are the costs related to the support in case of testing, further development, and change requests and needed in order to keep the MCO Function working over the time and update it.

- c. Administrative costs, which are the costs related to ordinary administrative tools or administrative manpower provided either by internal resources of the NEMOs or by third parties and incurred for the common benefit of the MCO Function (such as but not limited to PMO costs, costs of teleconferencing tools, costs associated with governance bodies and regular working group leaders costs).
  - d. Online maintenance and support costs, which are the costs related to the real time operational support (such as 24/7 help-desk, 24/7 support in case of critical incidents).
  - e. Operations fee which are the costs related to the common operation of the MCO Function in terms of remuneration of Coordinator and Backup Coordinator role. All NEMOs who are using or plan to use the DA MCO Function for the calculation of the price on their DA market shall contribute to the Common Cost referred to in paragraphs 2 and 4 above. The respective share of each NEMO shall be calculated in accordance with article 80.3 of CACM.
5. NEMOs not yet using the DA MCO Function for the calculation of the price on their DA market shall not be obliged to contribute to the costs referred to in paragraph 4(d) and (e) above.
6. NEMOs who are using PCR for the calculation of the price on their DA market but have not yet joined single day-ahead coupling shall not be obliged to contribute to the costs referred to in paragraph 4(e) above.
7. Common Costs as referred to in paragraph 4(a), (b) and/or (c) above related to work or services performed by internal staff of a NEMO or of its subsidiary or its parent company shall only be invoiced at a single standard daily man rate (8h/day) that shall be set up by the All NEMO Committee on a yearly basis.
8. Common Costs as referred to in paragraph 4(e) above related to performance of Coordinator and Backup Coordinator shall only be invoiced at a single standard daily man rate (8h/day) that shall be set up by the All NEMO Committee on a yearly basis. Since it is expected that the number of days a party will act as Coordinator and as Backup Coordinator will be the same, only the Coordinator role will be remunerated, including in this remuneration acting as Backup Coordinator one day for each day the party acts as Coordinator.
9. Common Costs related to work or services performed by external contractors or advisors of a NEMO shall be taken into account at cost.
10. The invoicing and payment of Common Costs among relevant NEMOs shall be performed with a frequency that shall be agreed upon by the All NEMO Committee.
11. The non-operational Common Costs as referred to in paragraph 4(a),(b), and (c) above incurred within the period between CACM entering into force and MCO Plan approval by all relevant NRAs will be re-invoiced in 6 months after approval of MCO Plan among all DA NEMOs.
12. The Common Costs as referred to in paragraph 4(d) and (e) above are to be classified as the operational costs. The Common Costs as referred to in paragraph 4(a) and (b) above are to be

classified as the development costs. The Common Costs as referred to in paragraph 4(c) above are to be classified on case by case basis and based on the decision of the All NEMO Committee and according to the characteristic of the task or work performed.

13. The budget of the DA MCO Function related costs is subject to approval by the All NEMO Committee.
14. The budget shall be created by taking into account only costs that shall be assessed as reasonable, efficient and proportionate. Each task or performance expected to be recovered as a Common Cost shall be categorized in accordance with paragraph 4, including its classification as development or operational cost according to principles set by paragraph 13 and the month in which such cost will most probably incur.
15. According to CACM article 7.1(i), the cost forecast and cost information approved by the All NEMO Committee shall be submitted to the competent regulatory authorities for information.

#### 5.6.2 Common Cost share calculation

1. The share of Common Cost related to the organization and operation of the MCO Function of each NEMO in each Member State shall be calculated in accordance with CACM Article 80.3 and further guidance to be provided in due time by the relevant NRAs.

#### 5.6.3 Common Cost recovery

1. Each NEMO is entitled to fully recover its share of Common Cost related to the organization and operation of the MCO Function.
2. In the case where there is only one NEMO operating in a Member State that NEMO is entitled to full Common Cost recovery.
3. In the case where there is more than one NEMO operating in a Member State, the full Common Cost recovery mechanism in each Member State shall always guarantee non-discrimination between competitive NEMOs operating in the Member States.
4. In the case where the NEMO is operating in more than one Member State, the recovery mechanism in each Member State should be coordinated to guarantee full Common Cost recovery of the NEMO.

#### 5.6.4 Participation in historical costs

1. Participation in historical costs in accordance with CACM Article 80.5, incurred prior to entry into force of the CACM Regulation, is governed by the PCR Co-Ownership Agreement.

## 6 INTRADAY COOPERATION

### 6.1 Implementation of ID MCO Function: Adoption of the XBID Solution and timescale

1. The MCO Plan covers the delivery of the ID MCO Function by the NEMOs which, in accordance with article 36(4) of the CACM Regulation, will be based on the XBID Solution. As currently the XBID Solution is not operationally ready, the tasks to deliver the ID MCO Function comprise implementation, testing and go-live of XBID Solution, as well as changes to the governance and contracts.
2. The “**Operational Phase**” is the point when the Single Intraday Coupling formally begins operating. The precise date of the start of the Operational Phase will be dependent on the delivery of specific CACM-related tasks by other entities, such as TSOs and NRAs. As such, NEMOs can only be held responsible for the delivery of tasks required for the operation of the ID MCO Function (the focus of this MCO Plan) and which are under their full control, and shall not be held liable under the CACM Regulation if the implementation of other tasks necessary for the operation of the ID MCO Function are delayed due to factors outside NEMOs control.
3. The period prior to the Operational Phase is called the “**Development Phase**”. During the development phase NEMOs shall:
  - a. Finalise the ANCA and complete the signature process by all NEMOs
  - b. Prepare the XBID Solution for implementation and operation
  - c. Transform the existing PCA Agreement into NEMO ID Operational Agreement and finalise the signature process of such revised agreement.
  - d. Amend, if necessary and finalise the presently entered into or negotiated contracts with XBID System Supplier and complete the signature process by all ID NEMOs.
  - e. Cooperate jointly with TSOs in order to provide relevant services to TSOs, supported by the XBID System Supplier.
4. These contractual changes are meant to be complete and ready twelve (12) months following the approval by NRAs of the MCO Plan, to include approval of national arrangements for NEMO cost recovery.
5. During the Development Phase the general governance framework will be set by the INCA until the ANCA is signed by all NEMOs and enters into force. Upon entry into force of the ANCA, the general governance framework shall be set by the ANCA. Specifically, under the ANCA, decisions by signatories to the PCA Agreement related to the implementation of the Single Intraday Coupling, will be taken based on unanimity, and shall be escalated to the All NEMO Committee when unanimity cannot be reached.
6. During the Development Phase the XBID Solution development shall continue to be regulated by the existing XBID contractual framework.

7. During the Development Phase the PCA agreement and contracts with the XBID System Supplier will be modified to align with the enduring agreements to the extent possible, but including the right of all designated NEMOs to become parties to the modified PCA agreement and contracts with the XBID System Supplier.
8. During the Development Phase NEMOs shall use best efforts to provide deliverables under Article 6.1.3 of this MCO Plan as soon as possible.

#### 6.1.1 Contractual structure during Development Phase

1. During the Development Phase, NEMO cooperation will be based on the following contractual framework:
  - f. PXs Cooperation Agreement (“PCA”)
  - g. All Party Cooperation Agreement - between NEMOs and TSOs (“APCA”)
  - h. Back to back agreement between NEMOs and TSOs
  - i. Contracts with ID MCO Function service providers
    - i. Master Service Agreement and Deliverable Service Agreements (DSAs) with the XBID System Supplier
    - ii. Contract with MPLS Service Provider
    - iii. Contract with PMO Service Provider
2. The PCA is open to all NEMOs that want to participate in the XBID Solution and will set forth the terms of the cooperation among NEMOs, during the development phase of the XBID Project, for the development and the implementation of the XBID Solution. Adherence to the PCA is conditioned on support of the relevant TSO or NRA (this will evolve to being designated as a NEMO for Intraday) and participation in historical costs. Decision making is based on unanimity.
3. According to the PCA all participating NEMOs agree to develop and implement all elements of the XBID Solution; enter into agreements to coordinate with TSOs wishing to participate in the XBID Solution; and to cooperate to steer, prioritise and manage development and implementation of the XBID Solution. A summary of the PCA is included in Annex 7 of this MCO Plan
4. The NEMOs and TSOs participating in the XBID System development have entered into an APCA. NEMOs consider that the APCA shall be open to all NEMOs designated for Intraday that want to participate in the XBID Project. Terms for adherence to the APCA are currently being defined together with TSOs and will (at least) require an agreement on cost sharing. Decision making under the APCA is based on unanimity.
5. The APCA identifies the roles and responsibilities of NEMOs and TSOs to design and develop the XBID Solution during the Development Phase. Pursuant to the APCA, NEMOs shall engage suitable ID MCO function service providers for the delivery of the XBID Solution, while adhering to the planning and budget agreed with the TSOs. The APCA provides for TSOs to define requirements and to monitor and test that such requirements are implemented. The APCA also provides for the interfaces with the local implementation projects (the “LIPs”) and pre- and post-

coupling procedures. The LIPs will be developed on a regional or local basis, and are not part of this MCO Plan.

6. The back to back agreement between NEMOs and TSOs, who are parties to APCA, reflects the fact that only NEMOs have entered into a contract with the XBID System Supplier for developing the XBID Solution. During the Development Phase TSOs will test and accept functionalities without being a party to the contract with the XBID System Supplier. The purpose of the back to back agreement is to regulate the access of the TSOs to the XBID Solution and the cooperation and information exchange between PXs and TSOs, and to pass through liabilities that may arise from any actions or omissions of the TSOs. At the time of submitting the MCO Plan the back to back agreement is in the signature process.

#### 6.1.2 Contractual structure during Operational Phase

1. During the Operational Phase, NEMO cooperation will be based on the following contractual framework:
  - a. NEMO ID Operational Agreement among all participating NEMOs
  - b. Intra-day Operational Agreement between all participating NEMOs and all participating TSOs
  - c. Back to back agreement between all participating NEMOs and all participating TSOs – potentially to be combined with b)
  - d. Contracts with ID MCO Function service providers, including the XBID System Supplier, MPLS communication system supplier and co-location service supplier.
2. The NEMOs and TSOs participating in the operation of the XBID System will enter into an Intra-Day Operational Agreement, which will identify the roles and responsibilities of NEMOs and TSOs in the operation of the XBID Solution.
3. The back to back agreement between NEMOs and TSOs will reflect the fact that only NEMOs have entered into a contract with the XBID System Supplier for the provision of the XBID Solution. The purpose of the back to back agreement is to ensure that TSOs or their explicit participants comply with the continuous intraday coupling system requirements and to pass through liabilities that may arise from any actions or omissions of the TSOs or their explicit participants, or XBID System Supplier liability.

##### 6.1.2.1 NEMO ID Operational Agreement

1. The NEMO ID Operational Agreement shall be open to all NEMOs designated for Intraday who are using or plan to use the ID MCO Function, and will set forth the terms of the cooperation among NEMOs for the operation of the XBID Solution. The NEMO ID Operational Agreement will be based on the PCA. The main terms of this contract summarised in Annex 6 of this MCO Plan.
2. The NEMO ID Operational Agreement shall set out the NEMOs cooperation for the performance of ID MCO Function tasks provided under CACM Article 7. This contract will govern the NEMOs cooperation in respect of:
  - a. The daily management of the ID MCO Function operations;
  - b. The contractual management of the operational liabilities and results acceptance;
  - c. The rules for participation in the bodies established under the contract;
  - d. The management of cost reporting;
  - e. The rules for the selection of the XBID System Supplier.



- f. The rules under which NEMOs will act towards XBID System Supplier
  - g. The rules under which NEMOs will act towards TSOs in the context of the agreements signed among all participating NEMOs and participating TSOs for the XBID Solution.
3. The NEMO ID Operational Agreement is supplemented by specific contracts for the provision of the ID MCO Function with service providers that require to be signed by all participating ID NEMOs. These contracts will be the ones presently entered into, or being negotiated by the ID NEMOs party to the XBID Cooperation.
  4. The contracts with XBID System Supplier, as a service provider to the NEMOs that are signatories of those contracts, will regulate the development, use, operation and maintenance of the XBID System. The contracts will include obligations to ensure equal treatment of the NEMOs and maintaining a level playing field between them. The contracts with XBID System Supplier will also include liability limitations linked with the contract value.
  5. Since the contracts with XBID System Supplier include features related to the CMM and the SM, but are not directly signed by TSOs, a contract amongst all participating TSOs and all participating NEMOs (the back to back agreement, that will be possibly included in the NEMO ID Operational Agreement signed amongst TSOs and NEMOs) will need to be signed to ensure that TSOs and their explicit participants comply with the XBID System requirements and to regulate the liability that may arise from any actions or omissions of the TSOs, their explicit participants and the behaviour and results of the XBID System, in what relates to the CMM and SM parts of it that, as indicated, have been contracted to the XBID System Supplier to provide a service to TSOs.

#### 6.1.3 Concept of the Local Implementation Projects (LIPs) (Not part of the MCO Plan)

1. The NEMO Local Trading Solutions (“LTSS”) will be implemented in local implementation projects (LIPs). The LIPs are national and/or regional in scope and are therefore not part of this MCO Plan. However, readiness of a LIP is a pre-condition to join Single Intraday Coupling operations.

#### 6.1.4 Timescale for implementation of the XBID System

1. The XBID System implementation timescale is divided into phases.
  - a. The Development Phase of the project involves the development of the required technology and IT systems to be used for the XBID System.
  - b. The SOB and CMM test phase that consists of
    - i. Factory Acceptance Test (FAT) with monitoring role of NEMOs,
    - ii. Integration Acceptance Test (IAT) with a leading role of NEMOs to ensure that LTSS are compatible with XBID System,
    - iii. User Acceptance Test (UAT) with a leading role of NEMOs to validate all functionalities and technical parameters of XBID System.
  - c. SM Test Phases similar to those above but to be performed by the involved NEMOs and TSOs to guarantee the quality of the SM development.
  - d. Go-live preparation to ensure readiness of the operational staff, readiness of XBID System for the start of the operation, and readiness of the LIPS (which are not part of this MCO Plan).

2. The XBID System implementation timescale foresees two parallel streams to allow for a development of
  - a. the SOB and CMM and
  - b. the SM.

The XBID System implementation timescale foresees to align both streams prior start of User Acceptance Test.

3. As indicated below, the XBID System implementation timescale does not include implementation of some requirements of the CACM Regulation that are not part of the initial phase of the XBID Solution.
4. Any change to the XBID System implementation timescale is subject of the change management process established for the XBID Project in line with the decision making process described in the Article 6.4 of this MCO Plan.
5. Any change to the XBID System after XBID Solution has been put into operation is not subject of the XBID System implementation timescale.

## 6.2 Delivery of the ID MCO Function

### 6.2.1 Delivery of the ID MCO Function operation

#### 6.2.1.1 Introduction

1. The XBID Solution provides functionalities to perform the continuous matching of orders as well as the TSO functionalities in respect of capacity allocation taking into account the relevant available intraday cross-zonal capacity, as well as the shipping and settlement calculations for TSOs and central counterparties to ship and settle cross-zonal, cross-delivery area and cross-central counter party trades.
2. The XBID System is a centralised system supporting 24/7 trading of Global Products. Global Products are eligible for matching in the XBID System, as opposed to Local Products, which are matched solely in the respective LTS.
3. The ID MCO Function will build on the XBID System, which consists of the following modules:
  - a. Shared Order Book (the “SOB”) that supports the collection and matching of ID orders from all connected NEMOs Local Trading Systems (“LTS”) via Public Message Interface (“PMI”).
  - b. Capacity Management Module (the “CMM”) that collects directly from TSOs the Cross-Zonal Capacity available at any instant for ID implicit trading, and ensures that the concluded ID trades respect such capacities. It also supports explicit cross-zonal capacity allocation function where it is requested by relevant NRAs.
  - c. Shipping Module (the “SM”) that computes the shipping and settlement calculations for TSOs and central counter parties to ship and settle cross-zonal and cross-delivery area and cross- central counter party trades, where relevant.
4. The Intraday cross-zonal matching shall be based on the following principles:
  - a. First-come first-served where the orders with highest buy price and the lowest sell price get served first given that also the cross zonal capacity constraints are respected if the Orders are in separate bidding zones.

- b. Cross zonal capacities and order books (OBK) are simultaneously updated in the CMM and SOB respectively on a continuous basis based on latest matching of orders and creation, modification and deletion of orders as well as capacity upgrades by TSOs.
  - c. In addition, such simultaneous updates per bidding zone and towards the individual NEMOs LTS connected to XBID are exclusively provided via the central XBID System.
  - d. Input data (orders) to the matching submitted from the various NEMO LTSs is centralised in one SOB to enable full cross matching between the connected OBKs and combined with, where existing, explicit capacity allocation requests when it comes to utilization of cross zonal capacities available via CMM.
  - e. Input data in the form of intraday cross zonal capacities between bidding zones to the matching is made available by the TSOs in CMM.
  - f. All input data regarding bids/offers coming from the respective NEMOs individual LTSs are shared in the SOB in a fully anonymised manner to ensure both that competing NEMOs do not know which market participants connected to another NEMOs LTS are placing the individual orders and in general to protect the confidentiality of individual market participants' orders.
5. The XBID Solution also requires implementation of interfaces between the XBID System and other NEMO and TSO systems. This includes the following interfaces:
- a. With NEMOs' LTSs. The SOB processes anonymised orders with support of the CMM:
    - i. Market participants do not connect to the SOB directly, but via one or more LTSs of NEMOs, to trade Global Products.
    - ii. Orders for Global Products are entered in NEMOs LTSs, which in turn connect to the SOB via the public message interface only by means of the XBID dedicated MPLS network to transmit orders for Global Products and to receive global trades.
    - iii. Matching of global orders is performed in the SOB, irrespective of whether the global orders have been entered for the same bidding zone, or for different delivery areas.
    - iv. Matching of local orders is performed in NEMOs LTSs and does not form part of the XBID System or the ID MCO function.
    - v. The SOB module maintains a consolidated order book for all global orders (not local orders).
  - b. With TSOs in order for TSOs to provide and receive relevant information for pre-coupling and post-coupling processes.
  - c. With market participants to perform explicit allocation of cross-zonal capacities, where it is requested by relevant NRAs.
  - d. With central counter parties acting under the responsibility of the NEMOs to ensure clearing and settlement of the matched orders as specified in the CACM Article 68.
6. Finally each NEMO that is active in the Single Intraday Coupling shall be provided with access/connection to the SOB from the LTS of its own choosing via an PMI/API solution that secures equal access to and performance towards the SOB/CMM order matching process.
7. The CMM is provided as a contractual service to all TSOs active in the Single Intra-Day Coupling.
8. The explicit capacity allocation function is also provided as a contractual service to all TSOs active in the Single Intraday Coupling. It allows the allocation of available cross-zonal capacity by TSOs to those participants that request it, where this arrangement is requested by NRAs

pursuant to article 64 of the CACM Regulation. This function may be removed in the future pursuant to article 65 of the CACM Regulation.

9. The current XBID System and therefore the XBID Solution does not cover functionalities related to the future requirements, in particular: flow based capacity allocation, cross-zonal capacity pricing, support of Hub to Hub shipping and settlement, incorporation of losses, matching complex products. NEMOs will aim to implement such changes once approved according to the CACM Regulation, subject to technical feasibility and agreement on full cost recovery.

#### *6.2.1.2 Cross-border matching during the continuous trading period*

1. Trading period consists of a sequence of process steps that need to respect agreed timings:
  - a. All NEMOs connected to the SOB/CMM via the common API and the LTS of its own choosing will be able to continually feed orders into the SOB and modify such orders as long as the instrument is open for trading.
  - b. Cross-zonal ID capacities are continually made available by the corresponding TSOs via the CMM from the cross zonal gate opening time until an agreed time for each bidding-zone to bidding-zone border when cross-zonal ID capacities cannot be changed any more for the delivery period.
  - c. All instruments on XBID System are traded continuously on every calendar day in accordance with the matching rules.
  - d. All NEMOs agree to respect the execution conditions available on the XBID System, these will be further specified according to Article 6.3 of the MCO Plan and implemented and transparently detailed by the XBID System Supplier.
  - e. At regular intervals the SM computes and sends net positions and cross-zonal and delivery areas information to the relevant parties in order to enable settlement.
  - f. Each TSO individually, or in co-ordinated manner with other TSOs, runs its own procedures required for cross-zonal scheduling (Bidding Zone to Bidding Zone or intra Bidding Zone where there are multiple Delivery Areas within a Bidding Zone). Scheduling is based on the output of SM and/or the CMM and should respect the matched orders.

#### *6.2.1.3 Validation of the Intraday Market Coupling results*

1. The validation inherently performed by the matching algorithm makes sure that all the network constraints and the characteristics (price, volume, duration, etc.) and matching rules for the orders, are respected when matching of orders and pricing results are determined.

#### *6.2.1.4 Delegation of tasks assigned to NEMOs in the Intraday Market Coupling*

1. According to article 81 of the CACM Regulation, NEMOs have the possibility of delegating tasks assigned under the CACM Regulation. Although this possibility has not been developed yet in the XBID Project, it is envisioned that the NEMO ID Operational Agreement could allow for this possibility and could establish the rights and limitations of this kind of services to be performed by one NEMO (the Servicing NEMO) for another NEMO (the Served NEMO) in the ID Operations environment. This kind of service will need to respect the legal and technical requirements in the applicable contracts.

## 6.2.2 ID Matching concept

1. Matching in continuous trading
  - a. Matching process in the continuous trading matching algorithm is deterministic.
  - b. The term order matching is used to describe the creation of a trade, based on a buy and a sell order with compatible execution characteristics.
2. Execution Priority - execution of orders is based on the price-time-priority principle:
  - a. Price - orders are always executed at the best price. The best buy order is always executed against the best sell order first (the best price for buy orders is the highest price, for sell orders it is the lowest price).
  - b. Time - when an order is entered into a SOB, it is assigned a timestamp. This timestamp is used to prioritize orders with the same price limit. Orders with earlier timestamps are executed with a higher priority than orders with a later timestamp.
3. Price determination
  - a. The price at which two orders are matched is the price of a trade.
  - b. When two orders are matched in continuous trading, one of these orders must always be a newly entered or a modified existing order.
  - c. The trade price is the order price of the best order which is already in the SOB:
    - i. If a newly entered buy order is matched against an existing sell order, the limit price of the sell order becomes the trade execution price.
    - ii. If a newly entered sell order is matched against an existing buy order, the limit price of the buy order becomes the trade execution price.
4. Matching process
  - a. The matching process usually starts with an order entry. A newly entered order is executed immediately if another order with the opposite side, for the same contract and crossed price within the price limit setup for the exchange already exists in the SOB. Otherwise it is, depending on the order's execution restriction, either deleted or entered into the SOB. When an order is matched in a trade, its quantity is reduced by the trade quantity.
  - b. If an order can be executed, it may not necessarily be executed at a single price, but may sequentially generate multiple partial transactions at different prices against multiple different orders that already exist in the SOB. When an order was executed against the total available quantity (in other words: against all orders that were entered with this price limit) at a given price level, the next best price level becomes best and the newly entered order continues to be matched against orders entered at this price level. This process continues as long as the incoming order remains executable and has a positive order quantity. Subsequently the order is either deleted (if the order quantity has reached zero or depending on the execution restriction) or entered into the order book with its remaining quantity.
  - c. The matching process can also be triggered by events leading to a crossed order book which may occur when TSOs release additional cross-zonal capacity or when cross-zonal trades release cross-zonal capacity. In such cases, all matchable orders will be matched at once by means of a matching process, with the calculation of a single price at which all orders are matched.

### 6.2.3 ID Systems

1. The primary ID Systems that are part of ID XBID System are SOB, CMM, SM, and the PMI/API, e.g. for connecting the NEMOs LTSs to the SOB.
  - a. The SOB is designed to enable matching of all order types that from time to time are permissible in XBID Solution and submitted via the common PMI/API as part of the anonymized OBK per bidding zone from each of the NEMOs via the LTS of its choice. The matching of orders in the SOB, which represents the sum of all separate NEMOs OBKs, is done continually for all periods open for trading and respects both the capacity constraints given by the TSOs to the CMM, and the matching rules to combine the Implicit (NEMOs) OBKs with the separately given explicit cross zonal capacity orders.
  - b. The CMM refers to a capacity allocation module which offers the ability to continually allocate cross zonal capacity to the at any given point in time best orders available in the SOB of either Implicit (bidding zone based from NEMO OBKs) or explicit (cross zonal capacity request) type.
  - c. The SM provides information from the relevant trades concluded within XBID Solution to each NEMO(s) involved in the trade perform the required shipping and settlement as part of the post-coupling process. The SM receives data from the SOB about all trades concluded between two (or more) bidding zones, as well as between multiple delivery areas within a bidding zone wherever that applies and between central counterparties within one bidding zone. Based on that information the SM ensures that information on the physical shipping from “source to sink” is transferred within given time stipulations to involved NEMOs and their central counterparties, shipping agents and TSOs, as well as necessary information to make financial handover between central counterparties.
  - d. The API/PMI is the common protocol/interface that enables each NEMO to connect to the SOB on equal terms, as well as separately is done for the explicit cross zonal capacity requests.

### 6.2.4 ID Procedures

1. The NEMO ID Operational Agreement will include a precise set of procedures that establish how all steps in the Single Intraday Coupling process are performed and how unexpected incidents are handled by each NEMO connected to the XBID System, and how it is secured in accordance with equal treatment and performance requirements by the XBID Service Provider. The NEMO ID Operational Agreement will also include provisions of how, and when necessary why, to update and to modify the procedures.
2. It is important to note that there will be an IDOA, signed by all participating NEMOs and all participating TSOs that should be aligned and coherent with the NEMO ID Operational Agreement for the Single Intraday Coupling to be able to be performed. This IDOA is not part of the MCO Plan since it needs to be developed and agreed together with TSOs. The IDOA between NEMOs and TSOs will cover completely the services provided by NEMOs to TSOs in the ID Coupling which are the CMM and most of the elements of the SM.
3. The NEMO ID Operation Agreement and IDOA will establish process to develop and modify procedures (NEMO procedures and NEMO-TSOs procedures respectively), which will describe how the functionalities of the XBID system will be used in order to perform market operation processes.

### 6.3 Continuous trading matching algorithm and products

1. The continuous trading matching algorithm will be subject to a separate methodology to be submitted, following consultation with stakeholder, by NEMOs and subject to NRA approval according to article 37(5) of the CACM Regulation. This will provide explanation of the NEMO and TSO basic requirements and how future changes to the continuous trading matching algorithm will be controlled and managed (including stakeholder consultation where appropriate).
2. The ID products that can be taken into account by NEMOs will be subject to a separate methodology to be submitted, following stakeholder consultation, by NEMOs and subject to NRA approval according to article 40 of the CACM Regulation. This will provide explanation of the anticipated ID products and how future changes to the ID products will be controlled and managed (including stakeholder consultation where appropriate).
3. The XBID System may have to be amended to implement the approved algorithm methodology and products methodology.

### 6.4 Governance

#### 6.4.1 ID NEMO Operational Roles

1. Decision making for day to day operation of the ID MCO Function shall be the responsibility of each Operational NEMO via its participation in the following bodies: the ID Incident Committee, the ID Operations Committee and the ID Steering Committee, at least during the Development Phase.

#### 6.4.2 ID Incident Committee

1. During the daily operation, in case of an operational issue (unexpected situation), the *ID Incident Committee* is convened with participation of all operational NEMOs and XBID System Supplier, according to the operational procedures, for assessment of the situation, identification and agreeing on further actions in compliance with the applicable operational procedures. Depending on the matter of the operational issue, the impacted TSOs are also invited to participate according to the procedures to be developed together with TSOs.
2. The decisions making of the *ID Incident Committee* will be based on the following main principles:
  - a. The decisions shall be taken by unanimous consent.
  - b. Decisions can be taken if all operational NEMOs affected by the issue are represented in the IC (deemed acceptance applies in case a NEMO does not connect to the IC according to the established procedures). IC decisions can also be taken, according to the procedures, when NEMOs not affected by the operational issue are not participating in the meeting/call.
  - c. The IC decisions are transmitted (ex post) to the All NEMO Committee and to the ID Operations Committee. On the basis of an IC decision, the All Nemo Committee is entitled to propose to the ID Operations Committee a change to the ID Operational Agreement or procedures.
  - d. During an incident, each NEMO retains the sole right to temporarily decouple from Single Intraday Coupling operation at any moment, in accordance with the NEMO ID

Operational Agreement procedures. Later on, according to the ID Operational Agreement procedures, a complete report will be produced with all relevant information, including the reasons why the respective NEMO decided to temporarily decouple.

3. The ID Incident Committee reports to the ID Operations Committee.

#### 6.4.3 ID Operations Committee

1. The *ID Operations Committee* is the body set under the NEMO ID Operational Agreement responsible for:
  - a. Developing, maintaining and operating the ID MCO Function compliant with the rules, procedures, specifications approved by the All NEMO Committee.
  - b. Assessing regularly the performance of the market coupling, including the eventual cases of unusual situations and reports on the evolutions.
  - c. Identifying and assessing the needs for changes and developments required in relation with the development, maintenance and operation of the ID MCO Functions (including, but not limited to, system, processes, framework, procedures) and formulates proposals for change or development.
  - d. Assuring and supporting the implementation of the decisions related to the above mentioned topics and reports on the related evolution.
  - e. Monitoring the evolution and prepares reports (e.g. related to costs performance, changes etc.).
2. The governance rules of the ID Operations Committee will be consistent with the following principles:
  - a. Only Operational NEMO will have right to vote in the ID Operations Committee.
  - b. NEMO designated for Single Intraday Coupling that are not yet Operational NEMO are entitled to participate in the ID Operations Committee as observers without voting rights.
  - c. The ID Operations Committee is entitled to create sub-committees or working groups if delegated with authority by All NEMO Committee or by own decision in case a specific topic requires it.
3. The decision making of the *ID Operations Committee* will be based on the following main principles:
  - a. The decisions of the ID Operations Committee will be taken by unanimous consent of all voting participants. Should unanimity not be reached, the ID Operations Committee shall escalate the decision to the All NEMO Committee which will then decide according to the voting rules set in article 9 paragraph 2 of the CACM Regulation.
  - b. Disputes regarding the application of contracts shall not be subject to escalation to the All NEMO Committee but shall be governed by the relevant provisions in each contract.

#### 6.4.4 ID Steering Committee

1. An ID Steering Committee will be retained at least during the Development Phase.
2. Signatories to the PCA and in future signatories to the NEMO ID Operational Agreement are entitled to attend the ID Steering Committee.
3. This ID Steering Committee has the following roles:
  - a. Approve changes to the PCA Agreement.



- b. Approval of budget, investment decisions, planning and change management decisions within the limits provided by the All NEMO Committee.
  - c. Approve rules, procedures and specifications proposed by the PCA Agreement
- 4. The decisions of the ID Steering Committee will be taken by unanimity. Should unanimity not be reached, the Steering Committee shall escalate the decision to the All NEMO Committee. Disputes regarding the execution of contracts shall not be subject to escalation to the All NEMO Committee but shall be governed by the relevant provisions in each contract.
- 5. The ID Steering Committee reports to the All NEMO Committee and assures the implementation of the decisions taken by All NEMO Committee.
- 6. The role and responsibilities of the ID Steering Committee may be transferred in their entirety to the All NEMO Committee by decision of the All NEMO Committee.

#### 6.4.5 Change Control Procedure

- 1. ID change control procedures will be adopted broadly in line with the principles of the DA change control procedure, adapted to the particular circumstances of the SIDC.

### 6.5 Budget, cost reporting

#### 6.5.1 ID Financial issues. Cost sharing & recovery

- 1. The cost incurred in relation to establishing, updating or further developing the Single Intraday Coupling and cost incurred in relation to operating Single Intraday Coupling include the costs relating to the organization and operation of the ID MCO Function.
- 2. Costs related to organization and operation of MCO Function can be classified as Common Costs as long as:
  - a. such costs are related to the coordinated activities of all NEMOs participating in the SIDC;
  - b. resources associated to fulfil this requirement are jointly approved by all NEMOs;
  - c. the incurrence of such costs is jointly approved by all NEMOs; and,
  - d. in case of costs being connected to establishing, updating or further developing the XBID Solution for the SIDC and cost incurred in relation to operating XBID Solution and being jointly approved by the TSOs and NEMOs such costs shall be first shared between costs attributable solely to NEMOs and costs attributable solely to TSOs. Such NEMO share of these costs will be considered as Common Costs.
- 3. The NEMOs shall ensure that the incurrence of Common Costs shall be adequately and effectively monitored by the All NEMO Committee. All costs shall be tracked by NEMOs in compliance with article 80 paragraph 2 of the CACM.
- 4. Common Costs related to the organization and operation of the MCO Function shall include following categories:
  - a. Costs associated with further developing the MCO Function which are the costs related to the further development and testing of the resources needed to perform the MCO function (such as algorithm, other IT systems and processes).

- b. Common maintenance and support costs, which are the costs related to the support in case of testing, further development, and change requests and which are needed in order to keep MCO function working over time and to update it.
  - c. Administrative costs, which are the costs related to ordinary administrative tools or administrative manpower provided either by internal resources of the NEMOs or by third parties and incurred for the common benefit of MCO Function (such as but not limited to PMO costs, costs of teleconferencing tools, costs associated with governance bodies and regular working group leaders costs).
  - d. Online maintenance and support costs, which are the costs related to the real time operational support (such as 24/7 help-desk, 24/7 support in case of Critical Incidents).
  - e. Operations fee which are the costs related to the common operation of MCO Function for single intraday coupling.
5. All NEMOs who are using or plan to use the ID MCO Function shall contribute to the Common Cost referred to in paragraph 4.
  6. By the exception to paragraph 5 above the NEMOs not yet using the MCO function for the calculation of the trades on their ID market shall not be obliged to contribute the costs referred to in paragraph 4(d) and (e).
  7. Common Costs as referred to in paragraph 4(a), 4(b) and/or 4(c) related to work or services performed by internal staff of a NEMO or of its subsidiary or its parent company shall only be invoiced at a single standard daily man rate (8h/day) that shall be set up by the All NEMO Committee on a yearly basis.
  8. Common Costs related to work or services performed by external contractors or advisors of a NEMO shall be taken into account at cost.
  9. The invoicing and payment of Common Costs among relevant NEMOs shall be performed with a frequency that shall be agreed upon by the All NEMO Committee.
  10. The Common Costs as referred to in paragraph 4(a), (b) and (c) above incurred within the period between CACM entering into force and MCO Plan approval by all relevant NRAs will be re-invoiced in 6 months after approval of MCO plan among all ID designated NEMOs.
  11. The Common Costs as referred to in paragraph 4(d) and (e) are to be classified as the operational costs. The Common Costs as referred to in paragraph 4(a) and (b) are to be classified as the development costs. The Common Costs as referred to in paragraph 4(c) are to be classified on case by case basis and based on decision of the All NEMO Committee and according to the characteristic of the task or work performed.
  12. The budget of all MCO Function related costs is approved by the All NEMO Committee.

13. The budget shall be created by taking into account only costs that shall be assessed as reasonable, efficient and proportionate. Each task or performance expected to be recovered as a Common Cost shall be categorised in accordance with paragraph 4, including its classification as development or operational cost according to principles set by paragraph 13 and the month in which such cost will most probably incur.
14. The budget approved by the All NEMO Committee shall be submitted to Agency for information purpose.

#### *6.5.1.1 Common Cost share calculation*

1. The share of Common Cost related to the organization and operation of the MCO Function of each NEMO in each Member State will be calculated in accordance with CACM Article 80.3 and further instruction provided in due time by the relevant NRAs.

#### *6.5.1.2 Common Cost recovery*

1. Each NEMO is entitled to fully recover its share of Common Cost related to the organization and operation of the ID MCO Function.
2. In the case where there is only one NEMO participating in a Member State that NEMO is entitled to full Common Cost recovery.
3. In the case where there is more than one NEMO participating in a Member State, the full Common Cost recovery mechanism in each Member State shall always guarantee non-discrimination between competitive NEMOs operating in the Member States.
4. In the case where the NEMO is participating in more than one Member State, the recovery mechanism in each Member State should be coordinated to guarantee full Common Cost recovery of the NEMO.

#### *6.5.2 The Development Phase Cost*

1. Following description reflects the current budget for the XBID Project and current agreement NRAs for the full cost recovery and will apply until new approach is agreed according to Article 6.5.1 of the MCO Plan.
2. The Development Phase budget in relation to establishing the single intraday coupling includes only the costs relating to the design, development, testing and go-live preparation of the central system referred to as XBID Solution, is understood as the element being governed by CACM Article 9 Paragraph 6, and therefore it is subject of this MCO Plan.
3. The Development Phase budget covers cost of the NEMOs participating in the development of XBID Solution. The Development Phase budget consists of four cost categories:
  - a. NEMO Common Costs related to the EU XBID Cooperation
    - i. 3rd Party Common Cost, i.e. costs incurred as a result of services provided by 3rd parties which are related to the fulfilment of services or works that benefit to all NEMOs (e.g. cost of the service providers for the design and development of the XBID Solution)
    - ii. Doing cost, individual costs incurred by a NEMO (as a result of making available of its own staff or contractors) for works performed to the benefit of all NEMOs.

- iii. Any new NEMO that adheres XBID Project has to bear the share of costs and future costs in accordance with established cost sharing principle set out in CACM, unless such share has already been paid according to Section 6.5.1, paragraph 10.
    - iv. These costs need to be jointly approved by all XBID participating NEMOs for them to be subject to recovery.
  - b. Individual NEMO Costs related to the EU XBID NEMO Cooperation
    - i. The costs of NEMOs that are related to the common project such as revisions of the documents (technical and contractual), attendance to the meetings, individual testing of the XBID Solution up to individual testing of the API (test scenarios and test plan revisions).
    - ii. These costs are not shared among NEMOs, although they are subject of cost recovery.
  - c. NEMO's share of Common Costs related to the Joint ID Organisation representing costs referred to in Article 6.5.1 paragraph 4 (c)
    - i. 3rd Party Common Cost for Joint ID Organisation, i.e. cost incurred as a result of the 3rd parties supporting Intraday Steering Committee, Intraday Coordination Team and Ad'hoc groups, PMO and legal support costs and meeting rooms costs. The Joint ID Organisation Common Costs are to be shared by NEMOs and TSOs. Only NEMOs' share cost the XBID Project budget.
    - ii. Any new NEMO that adheres XBID Project has to bear the share of costs and future costs in accordance with established cost sharing principle set out in CACM, unless such share has already been paid according to Section 6.5.1, paragraph 10.
  - d. Individual Costs related to the Joint ID Organisation
    - i. The costs of NEMOs that are related to the Joint ID Organisation such as revisions of the documents (technical and contractual), attendance to the meetings etc.
    - ii. The Individual Costs are not shared among NEMOs, although they are subject of cost recovery.
- 4. The cost excluded from the Development Phase budget:
  - a. Any budget in relation to establishing the single intraday coupling including the costs relating to the functional specification, development, testing and go-live preparation of the local trading systems as well as implementation of the local implementation projects, is understood as the element being governed by CACM Article 9 paragraph 7, and therefore it is excluded from this MCO Plan.
- 5. Development Phase budget covers cost of the Development Phase for XBID Solution defined for an initial activities and functionalities of the XBID Solution. The activities and functionalities which are not included in the initial XBID Solution are excluded from Development Phase cost. The excluded activities cost of, but are not limited to:
  - a. Performance optimisation options, other functional requirements including requirements from CACM such as capacity pricing, and flow based capacity allocation or non-standard intra-day products.

- b. Future requirements (e.g. Support of Hub to Hub shipping, Incorporation of Losses and Transit Zones) which may also require potential changes in the functional and technical infrastructure.
  - c. Changes in the project and XBID Solution due to adhering of new NEMOs
6. The activities and functionalities referred to in the article 4 are subject of the separate project cost and cost recovery process.

#### 6.5.3 Participation in historical costs

1. Participation in historical costs in accordance with CACM Article 80.5, incurred prior to entry into force of the CACM Regulation, is governed by the XBID Project agreements.

#### 6.5.4 Reporting

1. Reporting of the XBID Project is aligned with the requirements set out by the regulatory authorities in the cost recovery letter. It implies reporting on XBID Project progress and XBID Project budget.
2. Reporting of XBID Project progress:
  - a. On the monthly basis toward TSOs and regulatory authorities with specification of main deliverables and activities in the particular project phase and with:
    - i. planned activities and completed activities
    - ii. explanation of the status of the activities and potential deviations.
3. Reporting of XBID Project budget
  - a. On the monthly basis towards TSOs and regulatory authorities for
    - i. NEMOs Common Costs related to the EU XBID Cooperation
    - ii. Common Costs related to the Joint ID Organisation – for NEMOs cost share
  - b. On the predefined basis toward TSOs and/or regulatory authorities and through different channels according to the regulatory situation of each NEMO for:
    - i. Individual NEMO Costs related to the EU XBID PX Cooperation
    - ii. Individual Costs related to the Joint ID Organisation.

## 7 ANNEX 1 – Summary of Interim NEMO Cooperation Agreement

| Terms of the contract             |  |
|-----------------------------------|--|
| <b>Object</b>                     | Contractual framework for governance and coordination of common European NEMO responsibilities by a NEMO Committee   |
| <b>Scope</b>                      | <p>To establish an interim framework to facilitate the necessary cooperation between designated NEMOs with respect to the performance of all common tasks that need to be performed in connection with:</p> <p>a) the development and submission of the MCO Plan in accordance with article 7 (3) of the CACM Regulation;</p> <p>b) the development and submission of other appropriate terms and conditions and/or methodologies required in accordance with article 9 (6) of the CACM Regulation;</p> <p>c) the development of the Enduring Cooperation Agreement as proposed in the MCO Plan.</p> <p>d) any additional tasks as may be agreed unanimously from time to time by the Parties.</p> |
| <b>Parties</b>                    | All designated NEMOs as of 3rd March 2016:<br>APX Commodities Ltd., APX Power B.V, Belpex SA,<br>BSP Regional Energy Exchange LLC,<br>Croatian Power Exchange Ltd,<br>EirGrid plc, EPEX SPOT SE,<br>EXAA Abwicklungsstelle für Energieprodukte AG,<br>Gestore dei Mercati Energetici S.p.A,<br>Hungarian Power Exchange Ltd,<br>Independent Bulgarian Energy Exchange EAD,<br>Operator of Electricity Market S.A (LAGIE),<br>Nord Pool AS, OKTE a.s.,<br>OMI Polo Español S.A.,<br>Operatorul Pieței de Energie Electrică și de Gaze Naturale “OPCOM” SA,<br>OTE, A.S., SONI Limited, Towarowa Giełda Energii SA   |
| <b>Date of signature</b>          | 3 <sup>rd</sup> March 2016   |
| <b>Obligations of the parties</b> | <p>Best effort obligation and good faith cooperation for the achievement of the Scope of the INCA</p> <p>Cooperation based on the principles of non-discrimination and subsidiarity</p>  |
| <b>Costs</b>                      | <p>Costs related to the performance of the Scope shall be:</p> <ul style="list-style-type: none"> <li>- Proposed as Common Costs for the purpose of the CACM Regulation,</li> <li>- Adequately and effectively monitored by the Committee.</li> <li>- Tracked and reported to competent NRAs by Parties in compliance with article 80 of the CACM Regulation</li> </ul>  |

| <b>Applicable law</b>               | Belgian law   |
|-------------------------------------|---|
| <b>Dispute resolution</b>           | <ul style="list-style-type: none"> <li>- Amicable settlement by referring the matter in Dispute to the Committee established by the INCA</li> <li>- In the event of failure, the Committee shall solicit ACER for a non-binding opinion on the Dispute and</li> <li>- At last resort, arbitration under the ICC Rules of Arbitration in Brussels</li> </ul> |
| <b>Intellectual Property Rights</b> | All works, preparations, creations, studies, etc. jointly elaborated by the Parties or by a subset of them within the Scope of the INCA shall become the joint property of the Parties or of the relevant subset of them as they are developed, at no additional cost or remuneration.  |
| <b>Confidentiality</b>              | No right to disclosure except in exceptional cases and to internal and external representatives.  |
| <b>Liability</b>                    | In the event of a breach by a Party caused by gross misconduct or negligence, affected Parties are in aggregate entitled to claim compensation or indemnification within the cap 100.000 € per calendar year for all incurred direct losses, damages, charges, fees or expenses.  |

## 8 ANNEX 2 – Summary of DA Contracts

### 8.1 Summary of the draft NEMO DA Operational Agreement

#### 1. Purpose

The NEMO DA Operational Agreement (“**NEMO DAOA**”) shall be entered into by all DA Operational NEMOs, including Serviced NEMOs. Entering into the NEMO DAOA is a precondition for being an Operational NEMO.

The purpose of the NEMO DAOA is to set forth the main principles of cooperation between Operational NEMOs in respect of DA MCO Function for Single Day Ahead Coupling, and the terms and conditions under which the parties will:

- Design, test and request changes to the DA MCO Function operational assets (including the PCR assets, subject to the PCR Co-ownership Agreement); and,
- Secure performance and operation of the DA MCO Function

The NEMO designation and the signature of the ANCA will be conditions for becoming a Party to the NEMO DAOA.

#### 2. General principles

- Participation in Single Day Ahead Coupling is based on the following options. An Operational NEMO may participate as:
  - a Coordinator/Backup Coordinator/Operator;
  - only an Operator; or,
  - a Serviced NEMO.
- As a consequence of the fundamental principle of subsidiarity and the agreed decentralised approach: (i) the operation and results of a NEMO’s own trading platform and of the common NEMO DAOA market coupling systems remain the individual responsibility of each NEMO (ii) necessary arrangements with TSOs, NRAs and third parties to have cross-border capacities made available and to ensure the related cross-border shipping are the local responsibilities of NEMOs.
- Congestion revenue shall be reattributed to TSOs or to NRAs in accordance to applicable legal provisions.
- The Parties agree to evaluate the performance of the NEMOs DAOA at least every two years.
- Delegation is possible by one NEMO to another NEMO of MCO Functions in accordance with the MCO Plan and CACM Article 81.

#### 3. Cooperation in respect of PCR Assets and Individual Assets

- The Parties to the NEMO DAOA jointly make proposals on the design and development of the PCR Assets that are effectively developed and maintained by the PCR Co-Owners under the PCR Co-ownership Agreement.



- The PCR Assets, developed and maintained by the PCR Co-owners, are provided “as is” without any warranty of fitness for any particular purpose.
- Any proposal of changes to the PCR Assets shall be subject to the NEMO DAOA change control procedures.
- The budget/costs and scope of any proposal of changes to the PCR Assets required for the SDAC is agreed by the parties to the PCR Co-ownership Agreement and approved by the All NEMO Committee.
- The PCR Assets (the hardware excluded) shall only be put in operation after fulfilment of the acceptance criteria regarding testing and simulation set by the DA Operational Committee of the NEMO DAOA.

#### **4. Daily operation**

- The designated Coordinator coordinates for a given day and supervises the operation of the Single DA Coupling MCO Function operations. The Coordinator and Backup Coordinator will daily perform simultaneously these operations in accordance with the NEMO DAOA Operational Manual. Operators have the right to perform the Single DA Coupling price calculation operations in shadow mode.
- Each Party for whom Single DA Coupling operations is Operational provides, if applicable and not assigned to another Party: (i) the network features from the relevant TSOs to take into account for market coupling and (ii) the anonymous and aggregated order books per Bidding Zone related to the orders market participants have submitted on its trading platforms
- The Market Coupling Results calculated by the Coordinator shall always prevail once accepted by each Operator (including the Coordinator itself and the Backup coordinator). However each party acting as Operator has the right to accept or reject the Market Coupling Results according to the NEMO DAOA Operational Manual. No reaction from a Party is considered as a deemed acceptance of the Market Coupling Results. Market Coupling Results cannot be published prior to an agreed time in the Procedures. Each Operator, Coordinator or Backup Coordinator has the right to reject the Market Coupling Results and decouple in compliance with the agreed procedures, but this should be a last resort solution.
- Decoupling in compliance with the agreed procedures is not considered a default nor a contractual breach by the parties to the NEMO DAOA. Such decoupling is an agreed backup procedure and as a consequence it does not lead in itself to any indemnification obligation for damages incurred by the decoupling.
- No Party may undertake to any third party that the SDAC is conducted under an obligation of result.
- In case of an incident, the Coordinator shall convene a call with the Backup Coordinator and Operators to jointly take a decision to solve the incident in accordance with the procedures in the NEMO DAOA Operational Manual. Such emergency calls shall be recorded.
- If the Coordinator fails to perform, the Backup Coordinator takes over the Coordinator role. Parties can decide to suspend a Party as Coordinator/Backup Coordinator.

- Each Party shall participate as Coordinator/Backup Coordinator on an equal shared number of days and on a rotating basis provided that the technical conditions established in the NEMO DAOA and in the Operational Manual for acting as Coordinator and Backup Coordinator are fulfilled.
- A Party acting as a Coordinator/Backup Coordinator will be remunerated as a Common Cost.
- The NEMO DAOA Operational Manual will establish the full operational processes and procedures.

## **5. Adherence**

- Adherence to NEMO DAOA by a NEMO is subject to:
  - written evidence of its designation as NEMO;
  - signature of the ANCA
- Costs incurred by other parties due to the accession/geographic extension of the SDAC shall be recoverable from the adhering NEMO

## **6. Confidentiality and communication to third parties**

- All information under this Agreement (including Market Data of the Parties) is Confidential Information unless otherwise specified. Market Data provided by NEMOs to the MCO, market prices and matched orders remain the exclusive property of the providing NEMO (or as otherwise established under relevant national regulation).
- NEMOs are not entitled to access or analyse Market Data of other NEMOs except for the strict purpose of operational or performance management or development where this is undertaken as part of jointly controlled process under the Steering Committee
- NEMOs may use the Market Data of other NEMOs for the purposes of performing simulations on their own markets provided that this does not prejudice competition between NEMOs. NEMOs may publish the results of their simulations in terms of prices and net positions of their own markets.
- Taking into account confidentiality, Parties shall be free to express written or oral positions or opinions about all NEMO DAOA related matters in their own name, provided they do not prejudice or negatively affect the collective and/or individual interests or the reputation of the other Parties
- Commonly agreed communication after an incident in coordinated matching however each Party being liable for its own order book, and is, as such free to communicate with its clients/customers provided that such communication does not impair the commonly agreed position and uses as much as possible the commonly agreed communication.

## **7. Liability**

- Since the Coordinator, the Backup Coordinator and Operator(s) (i) have access at the same time to the required information to assess due performance of Single DA Coupling MCO Function operations and have the possibility to intervene to ensure due performance of those operations, and (ii) have the possibility to run or check in shadow mode in real time the matching algorithm, and (iii) have the right to Decouple itself and/or Decouple its Serviced NEMOs; all Operational NEMOs waive any right or remedy against each other for any financial compensation for damages incurred by a wrongful act or omission under the Coordinator, Backup Coordinator or Operator role.
- Overall liability under this Agreement including hold harmless is capped per calendar year for all damages with certain exceptions.
- No joint and several liability.
- Waiver of any rights to request financial compensation for damages related to the production of Market Coupling Results such as, but not limited to, damages deriving from:
  - a wrongful act or omission under the Coordinator, Backup Coordinator or Operator role;
  - any error or malfunctioning of PCR Assets;
  - the absence of Market Coupling Results;
  - decoupling;
  - any decision taken within the Incident Committee.

## **8. Entry into force, Term and Termination**

- The Agreement shall enter into force when signed by all the Parties for an indefinite period.
- Full termination of the Agreement is possible by mutual agreement only.
- A Party may exit from the Agreement in the following circumstances:
  - With 12 months' notice without any motivation being due
  - With 6 months' notice in case of failure to reach an agreement motivated by a change due to regulatory reasons
- The parties may terminate this Agreement in respect of a party:
  - In the event of bankruptcy, material breach of this Agreement and subsequent non-compliance, cease of business etc.
  - in the event the party is no longer designated as a NEMO for day-ahead
- The exiting Party shall use its best efforts to mitigate the damage of the termination and shall assist and cooperate in measures of continuity for the remaining parties.

## **9. Governing law and Dispute resolution**

- Governing law: Belgian law.
- Amicable settlement by the CEOs (within 1 month).

- If the matter falls under the scope of competence of the All NEMO Committee, it may be escalated to the all NEMO Committee.
- In other cases:
  - amicable settlement by the parties
  - ACER nonbinding opinion
  - mediation
  - ICC arbitration

## **10. Key points of the PCR Co-ownership Agreement**

- The PCR Co-Ownership Agreement governs the rights pertaining to the PCR Assets. The PCR Co-Ownership Agreement is an Agreement open to all NEMOs, subject to payment of equal share of the historical costs as the existing PCR Co-Owners, without it being a condition for NEMO DAOA membership.
- All PCR Assets and modifications to the PCR Assets are co-owned by the parties to the PCR Co-Ownership Agreement.
- If one or a subset of NEMOs asks for a specific functionality to be added in to given PCR Assets which other NEMOs for the time being do not wish to use but which is compatible with the CACM/MCO Plan requirements, the other NEMOs will allow for its implementation provided that the costs are borne by the requesting NEMO(s) and that there are no adverse impacts in the common functionalities, including for the price calculation algorithm. This functionality shall be co-owned by all PCR Co-owners. A NEMO wishing to use this functionality at a later stage will then have to also pay to the original requesting NEMO(s) its own share in the development costs, previously duly accounted.

## 8.2 Summary of contract with DA MCO Function service provider - Unicorn

| Terms of the contract                           |   |
|---|---|
| <b>Whereas</b>                                  | Following the PCR cooperation for the implementation of the PCR Market coupling, PCR Power exchanges became co-owners of IPR regarding the PCR Matcher, Broker and Helper applications (PMB). Following the contract with Unicorn for development services and the delivery of the PMB the PCR Power exchanges also appointed Unicorn to provide Maintenance and Support services.                |
| <b>Object</b>                                   | <i>The Maintenance and Support Contract sets forth the terms &amp; conditions under which Unicorn shall provide the Maintenance and Support Services to the benefit of PCR Power exchanges.</i>   |
| <b>Parties</b>                                  | APX Power BV (in its name and for the account of all other PCR Power Exchanges), Unicorn  |
| <b>Date of signature</b>                        | 01/03/2013  |
| <b>Obligations of the parties</b>               | <p><u>Obligations of Unicorn</u><br/>           Unicorn shall provide the PCR Power Exchanges with the following services against payment of agreed remuneration:<br/>           Deliverables MS Services;<br/>           Incident Management Services;<br/>           Change Request Services; and<br/>           Extended Testing Phase Services.</p> <p>These are best effort obligations.</p> |
| <b>Remuneration</b>                             | <p>Maintenance and Support Services are provided in 2 different modes:<br/>           Basic Deliverables: Fixed costs for the maintenance and support services of the PMB.<br/>           Normal Deliverables: Incident Management Services<br/>           → Remuneration depends on the number of brokers in operation (virtual brokers count as 1)</p>  |
| <b>Date of entry into force and termination</b> | <p>Entered in force at the signature by both parties: 01/03/2013.<br/>           Fixed term of 3 years : 01/03/2016<br/>           First amendment entered in force 01/11/2015, renewal for two years (01/03/2018)</p>  |

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| <b>Applicable law</b>               | The laws of Netherlands   |
| <b>Dispute resolution</b>           | Amicable dispute resolution under ICC mediation rules   |
| <b>IPR</b>                          | All works and developments made by Unicorn to the PMB will become the property of the PCR parties for free.   |
| <b>Confidentiality</b>              | Standard non-disclosure obligations   |
| <b>Liability</b>                    | Unicorn is liable for all damages and costs incurred related to or caused by a breach of its commitments and shall hold PCR Power exchanges harmless against any third-party claim,<br>Liability of APX Power BV capped to 50k€ (except in case of intentional misconduct or gross negligence)<br>Liability of Unicorn towards PCR Power exchanges capped to 1 year remuneration (except in case of intentional misconduct or gross negligence)   |
| <b>Incident Management Services</b> | Unicorn shall provide Incident Management Services via incident resolution and incident analysis.<br>Incidents of Coordinator or Backup Coordinator shall be handled with priority. Unicorn shall ensure that the Help Desk can be accessed by phone and email, according to schedule or via JIRA helpdesk in case of non-critical issue. An expert is available each day of the year and Hotfix service is available 24/7 for Critical Incidents.<br>Service levels are based on the number of decoupling per month, response time in case of change request or incident and amount of defects in case of new release.<br>Penalty mechanism applies should the Services Levels not be met. |

### 8.3 Summary of contract with DA MCO Function service provider – N-SIDE

| Terms of the contract                           |  |
|---|--|
| <b>Whereas</b>                                  | <p>Following the PCR cooperation for the implementation of the PCR Market coupling, PCR Power exchanges became co-owners of IPR regarding the EUPHEMIA algorithm. Following the contract with N-SIDE for development services and the delivery of the algorithm's prototype, PCR Power exchanges confirmed the assignment for the development of the industrialized version/executable software with the Development contract.</p> <p>The MSSA contract relates to the deliverables under the Development contract towards each of the PCR Power exchanges, also considering that in the first period of the PCR Market Coupling's operations and relevant enhancements could more frequently occur. .</p> |
| <b>Object</b>                                   | <i>The Maintenance and Support Contract sets forth the terms &amp; conditions under which N-Side shall provide the Maintenance and support services to the benefit of PCR Power exchanges.</i>   |
| <b>Parties</b>                                  | EPEX SPOT (in its name and for the account of all other PCR Power Exchanges), N-SIDE   |
| <b>Date of signature</b>                        | 17/12/2013   |
| <b>Obligations of the parties</b>               | <p><u>Obligations of N-side</u><br/>           N-side will deliver the following services:<br/>           Deliverables MS Services;<br/>           Incident Management Services;<br/>           Change Request Services; and the<br/>           Consulting Services.<br/>           These are best effort obligations.</p>   |
| <b>Remuneration</b>                             | <p>3 blocks and a standard scale of charges<br/>           Block 1: Fixed costs for the maintenance and support services including infrastructure<br/>           Block H1 : Incident Management Services up to 50 bidding areas or 8 MSSA Services PXs<br/>           Block H2 : Incident Management Services<br/>           → Remuneration depends on the number of bidding zones</p>   |
| <b>Date of entry into force and termination</b> | Entered in force at the signature by both parties: 17/12/2013.<br>Fixed term of 2 years : 17/12/2015   |

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|                                     | First amendment entered in force 04/08/2015, renewal for one year (17/12/2016)   |
| <b>Applicable law</b>               | French law   |
| <b>Dispute resolution</b>           | Amicable dispute resolution under ICC mediation rules  |
| <b>IPR</b>                          | All works and developments made by N-side to the algorithm will become the property of the PCR parties for free.   |
| <b>Confidentiality</b>              | Standard non-disclosure obligations  |
| <b>Liability</b>                    | <p>N-Side liable for all damages and costs incurred related to or caused by a breach of its commitments,<br/> Hold PCR Power exchanges harmless against any third-party claim,<br/> Liability of EPEX SPOT capped to 50k€ (except in case of intentional misconduct or gross negligence)<br/> Liability of N-Side towards PCR Power exchanges capped to 1 year remuneration (except in case of intentional misconduct or gross negligence)</p>   |
| <b>Incident Management Services</b> | <p>N-Side commits to respond to any incident call according to the conditions set out hereafter. N-Side shall ensure that the Help Desk can be accessed by phone and email, according to schedule. An expert is available each day of the year and Hotfix service is available 24/7 for Critical Incidents.<br/> Service levels are based on the number of decoupling per year (0) and the response time in case of change request or incident. Penalty mechanism applies should the Services Levels not be met, in particular 100% of the monthly fee in case of decoupling, up to two months.<br/> Bonus: 5% if no decoupling happens.</p> |



#### 8.4 Summary of contract with DA MCO Function service provider – COLT

| Terms of the contract                           |  |
|---|--|
| <b>Whereas</b>                                  | The General T&C apply to any provision of services or sale of equipment by Colt indicated in the order to EPEX SPOT.<br>The SLA sets out the SLA metrics and service credit regime for various services and covers Off-Net Services <i>only where specifically referenced</i> .  |
| <b>Object</b>                                   | The Service Level Agreement covers the following services :<br><i>Service Delivery Agreement</i><br><i>Fault Handling Agreement</i><br><i>Service Availability Agreement</i><br><i>Service Quality</i><br><i>Packet loss agreement</i><br><i>Jitter level agreement</i><br><i>Round trip delays</i><br><br><i>The Contract sets forth the terms &amp; conditions under which COLT FRANCE shall provide the services to the benefit of PCR Power exchanges. EPEX SPOT is entitled with a PoA.</i> |
| <b>Parties</b>                                  | EPEX SPOT SE (in its name and for the account of all other PCR Power Exchanges), COLT FRANCE   |
| <b>Date of signature</b>                        | Latest Service Level Agreement is dated November 2015 (with applicable General Terms and Conditions dated July 2015)   |
| <b>Obligations of the parties</b>               | Colt warrants that the service shall be provided in accordance with the Order using reasonable skill and care. In case of the service not fulfilling the requirements Colt shall remedy in accordance with the SLA.<br>Colt, as a data processor, shall take measures against unauthorized or unlawful processing of personal data.  |
| <b>Price, conditions of payment</b>             | Charges set out in the Order, if not, current standard charges of Colt apply   |
| <b>Date of entry into force and termination</b> | Initial Term: date of Order confirmation.<br>Termination : 12 months from the date that the service is ready to use but automatically renewed for 12 months unless   |

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|                            | terminated by Parties   |
| <b>Applicable law</b>      | Law of the country where COLT is registered (French law)  |
| <b>Dispute resolution</b>  | Exclusive jurisdiction of the courts of Paris   |
| <b>IPR</b>                 | EPEX SPOT is not granted any IP rights unless otherwise expressly agreed by Colt.   |
| <b>Confidentiality</b>     | Standard non-disclosure obligations   |
| <b>Liability</b>           | <p>No limitation of liability in case of loss caused by fraud or death/injury caused by gross negligence and in cases provided by law.</p> <p>Colt and affiliates' annual aggregate liability limited to 100% of charges actually paid to Colt under this Order in that contractual year</p> <p>Colt and affiliates' not liable for any direct or indirect loss of profits, revenue, anticipated savings, business opportunity, goodwill or injury or reputation, loss of, damage to or corruption of data or any indirect and consequential loss</p> |
| <b>Incident Management</b> | The SLA provides for all services targets for execution (ex: target delivery lead time, target time to repair for service-affecting results, target service availability). If such targets are not met, EPEX SPOT has the right to claim service credits: a percentage off the charges due by EPEX SPOT.  |

## 9 ANNEX 3 – Summary of ID Contracts

### 9.1 Summary of the draft NEMO ID Operational Agreement

#### 1. Purpose

- The ID Operational Agreement is an agreement to be entered into by all NEMO's performing the ID MCO function.
- It sets forth the main principles of cooperation in respect of ID MCO Function for Single Intraday Coupling (cross border implicit intraday continuous trading to be implemented in EU countries and electrically connected countries in accordance with the Agreement, hereafter XBID) setting the terms and conditions under which the Parties will:
  - Design, test and request changes to the ID MCO Function IT assets, and
  - Operate the ID MCO Function
  - Connect their Trading Systems to the XBID System
- The NEMO designation and the signature of the ANCA will be conditions for becoming a Party to the NEMO IDOA.
- The NEMO IDOA also regulates the relationship of the NEMOs:
  - with the common service providers, and
  - with the TSOs for the XBID Solution.

#### 2. General principles

- The NEMO IDOA is open to any designated NEMO having signed the ANCA.
- Equal treatment amongst market participants, NEMOs, TSOs and their explicit participants.
- All parties to the NEMO IDOA shall enter into the relevant service agreements with the common service providers.
- The Parties agree to evaluate the performance of the NEMOs IDOA at least yearly.

#### 3. Cooperation in respect of ID MCO Function Assets and Individual Assets

- The Parties jointly design the ID MCO Function Assets. Any changes to the ID MCO Function Assets are subject to the change control procedure, approval by the relevant Committee.
- Local trading systems are defined as Individual Assets. A Party may contract the development of specific functionalities of a trading system connected to the XBID System and developed by the XBID System Supplier provided that:
  - the XBID System Supplier has undertaken appropriate commitments to ensure that (a) the granting of rights by the XBID System Supplier shall in no way prevent the other NEMOs to be granted at least the same rights in the specific functionalities; and (b) NEMOs who have procured or wish to procure a trading system connected to the XBID System and developed by the XBID System Supplier are treated in a fair and non-discriminatory manner by the XBID System Supplier in respect of the costs charged for and the terms and modalities applicable to any granted rights.
  - The possibility is guaranteed towards other parties to convert upon agreement of all parties such rights into a joint license or joint ownership.

- The costs incurred in the context of the design, development, testing, implementation and maintenance of the ID MCO Function Assets shall be approved by the relevant Committee.
- The ID MCO Function systems shall only be put in operation after fulfilment of the acceptance criteria regarding testing and simulation.

### **3. Permanent operation of the XBID System**

- The Agreement shall at least include detailed procedures for
  - stopping and restarting the XBID System, including for connection of Local Trading Solutions; and
  - Incident Committee (comprising Operational NEMOs and the XBID System Supplier).

### **4. Adherence**

- Any NEMO designated for Intraday having signed the ANCA is entitled to adhere subject to participation in the historical costs.
- NEMOs shall have an observer status (without any voting right related to operation decision) until operations are allowed by the other parties according to objective technical parameters.

### **5. Governance**

- The Parties shall setup governance structure in order to discuss and decide on any matter related to the Agreement. Changes to the Agreement can only be done by the legal representatives of the Parties following approval by unanimous decision.
- Decisions will be taken by unanimity. In case of disagreement on certain issues, an escalation procedure to the All NEMO Committee is foreseen.

### **6. Confidentiality and communication to third parties**

- All information under this Agreement (including Market Data of the Parties) is Confidential Information unless otherwise specified. Market Data provided by NEMOs to the ID MCO Function, market prices and matched orders remain the exclusive property of the providing NEMO (or as otherwise established under relevant national regulation).
- NEMOs are not entitled to access or analyse Market Data of other NEMOs except for the strict purpose of operational or performance management or development where this is undertaken as part of jointly controlled process under the relevant committee.
- Taking into account confidentiality, Parties shall be free to express written or oral positions or opinions about all IDOA related matters in their own name, provided they do not prejudice or negatively affect the collective and/or individual interests or the reputation of the other Parties.
- NEMOS shall commonly agree communication after an incident in coordinated matching. However each Party is liable for its own order book, and is, as such free to communicate with its clients/customers provided that such communication does not impair the commonly agreed position and uses as much as possible the commonly agreed communication.

### **7. Liability**

- No joint and several liability
- Incidental, indirect or consequential damages are excluded

- The total indemnification obligation of a party shall be limited to an amount of 100.000 € per calendar year, with certain exceptions for third party claims, such as the claims raised by common service providers.

#### **8. Entry into force, Term and Termination**

- The Agreement shall enter into force when signed by all the Parties for an indefinite period
- Full termination of the Agreement is possible by mutual agreement only
- A Party may exit from the Agreement in the following circumstances:
  - With 8 months' notice without any motivation being due
  - With 6 months' notice in case of failure to reach an agreement motivated by a change due to regulatory reasons
- The parties may terminate this agreement in respect of a party:
  - In the event of such party bankruptcy, material breach of this Agreement and subsequent non-compliance, cease of business etc.
  - In the event of a party is no longer designated as a NEMO for Intraday.
- The exiting Party shall use its best efforts to mitigate the damage of the termination and shall assist and cooperate in measures of continuity for the remaining parties.

#### **9. Governing law and Dispute resolution**

- Governing law: Belgian law
- For contractual disputes, a dispute resolution process will be established.
- Certain matters may be escalated to All NEMO Committee.

## 9.2 Summary of NEMO Cooperation Agreement – XBID PCA

| Terms of the contract             |  |
|-----------------------------------|--|
| <b>Whereas</b>                    | In the light of the 2014 European Integrated Electricity Market Target, Parties intend to enter into an agreement with the ICT service provider previously selected for the development of the XBID system.  |
| <b>Object</b>                     | Determine the terms and conditions of their EU XBID PX cooperation for the further design, the development, the implementation and the operation of the XBID Solution in compliance with the XBID Model.   |
| <b>Parties</b>                    | APX POWER BV, BELPEX NV, APX Commodities Ltd, EPEX SPOT SE, GME SPA, NORD POOL AS, OMIE SA   |
| <b>Adherence</b>                  | Adherence to the PCA is conditioned on support of the relevant TSO or NRA (this will evolve to being designated as a NEMO for Intraday) and participation in historical costs.   |
| <b>Date of signature</b>          | 5 <sup>th</sup> June 2014  |
| <b>Obligations of the parties</b> | <ul style="list-style-type: none"> <li>- Parties commit to:               <ul style="list-style-type: none"> <li>o Jointly steer, prioritize and manage the design and development of the Joint PX Components and the performance of the Parties in compliance with the XBID Solution</li> <li>o Ensure the development, implementation, operation and maintenance of the Joint PX Components in compliance with the XBID Solution</li> <li>o Cooperate to couple their Own Intraday Continuous Market Places in accordance with the XBID Model and the XBID Solution</li> </ul> </li> <li>- Cooperate closely and actively, taking into account their mutual interests, with a view of the XBID Solution and exercise their rights and perform their obligations in good faith and transparently</li> <li>- Best effort obligations</li> <li>- Keep full independency and self-determination</li> <li>- Non-discrimination regarding adherence</li> <li>- Compliance with Legal provisions</li> <li>- Use of XBID Solution by a Party solely for the operation for the operation of its Own Intraday Continuous Market Places</li> <li>- Use of exchanged information or material only within the framework and purpose of the EU XBID Cooperation</li> <li>- Take appropriate measures and actions to promote the XBID Solution as the solution for the harmonized European cross border implicit intraday continuous trading</li> </ul> |

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| <b>Price, conditions of payment</b>             | Cost Sharing for Common Costs that are budgeted and approved by the SC or any other body designated by the SC. Share in accordance with the sharing key of costs incurred for the selection process, the design and development of the Joint PX Components  |
| <b>Date of entry into force and termination</b> | Entry into force : date of signature by all Parties – 5 <sup>th</sup> June 2014<br>Duration : Indefinite  |
| <b>Applicable law</b>                           | Belgian law   |
| <b>Dispute resolution</b>                       | System of Dispute Settlement Request : <ul style="list-style-type: none"> <li>- conciliation with or without appointment of a DS chairman and,</li> <li>- in case amicable settlement not reached, solicit ACER for non-binding legal regulatory opinion</li> <li>- in the event of failure, external independent mediator and,</li> <li>- at last resort, arbitration under the ICC Rules of Arbitration in Brussels</li> </ul>  |
| <b>IPR</b>                                      | <p>Joint PX Components</p> <ul style="list-style-type: none"> <li>- Automatic co-ownership by all Parties of joint PX Components and the rights including IPR, title and interest in them as developed by one or more Parties or developed on their joint behalf. No right of use or third party use for Parties that have not paid the costs incurred for the development of such joint PX Component</li> <li>- Grant of a License by a service provider must be entered into by all Parties</li> <li>- Management and commercialization of rights (including licensing) requires the consent of all Parties</li> <li>- Non-exclusive, non-sublicensable right to use, reproduce, distribute, commercialize and further develop subject to prior notification of other Parties to perform analysis, operate within the Anticipated Scope of the Cooperation in isolated mode without capacity allocation. For any other purpose, remuneration agreed upon by the Parties.</li> </ul> <p>Local Trading System</p> <ul style="list-style-type: none"> <li>- Joint license with a subset to all Parties of rights including IPR pertaining to the Optional Local trading system</li> <li>- Rights to use, commercialize and sub-license granted under the license may be exercised independently by the Parties, does not require joint decision making</li> <li>- Access, use, related costs, rights and obligations related to the license limited to the Parties that have contracted such license. Non participating Parties entitled to adhere to the Agreement</li> <li>- Party contracting with the Service Provider for the development of specific functionalities for the Optional</li> </ul> |

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|                        | <p>Trading System or for another Local Trading System connected to the XBID System and developed by the Service Provider is entitled to enter into a separate individual agreement as long as it does not prevent other PXs from being granted the same rights and treats the Parties in a non-discriminatory manner.</p> <ul style="list-style-type: none"> <li>- Possible for parties to convert to a joint license and joint ownership rights granted to a Party by the Service Provider (related to Optional Trading Solution), subject to payment by other Parties of their share in the costs</li> </ul>   |
| <b>Confidentiality</b> | No right to disclosure except in exceptional cases and to internal and external representatives.   |
| <b>Liability</b>       | <p>Liability limited to loss that the Defaulting party foresaw or could be reasonably be expected to have foreseen at the time of conclusion of contractual obligation. Subject to a cap of 100k€, including in case of gross misconduct.</p> <p>Uncapped in case of fraud, intentional misconduct, delay or default in Payments.</p> <p>In case of breach of the IPR or Confidentiality obligations, lump sum+ 5k€ per non-defaulting Party</p> <p>Hold harmless obligation and indemnify in case of third party claim: cap of 100k€ per year. Uncapped in case of a third party claim from a service provided jointly contracted by the parties or from a TSO. In respect of TSOs the foregoing provision shall, no longer apply as soon as the Parties and the TSOs have entered into an agreement governing their relationship during the Operational Phase.</p> |



### 9.3 Summary of contract with ID MCO Function service provider – DBAG AG

| Terms of the contract            |   |
|----------------------------------|---|
| <b>Whereas</b>                   | <p>The XBID Power Exchanges are currently cooperating in respect of the design, implementation and the operation of the XBID System in the context of the set-up of an European continuous implicit cross border intraday market, in line with the target model based on a continuous implicit cross border intraday market operated through a single Capacity Management Module and a Shared Order Book within a one-to-one relationship endorsed by the ACER in the CACM Framework Guidelines on 29th of July 2011;</p> <p><u>The Contract consists of the following services:</u></p> <ul style="list-style-type: none"> <li>• <i>XBID-Master Services Agreement (XBID-MSA) - signed</i></li> <li>• <i>XBID-DSA Development - signed</i></li> <li>• <i>XBID-DSA License - signed</i></li> <li>• <i>XBID-DSA Maintenance - subject of negotiation</i></li> <li>• <i>XBID- DSA Hosting - subject of negotiation (main body and annexes for 3<sup>rd</sup> party support are signed)</i></li> </ul> |
| <b>Object</b>                    | <p>The XBID-MSA sets forth the main terms and conditions under which the XBID Power Exchanges assign the provision of the Services to DBAG as described in more detail in the XBID-DSAs and under which DBAG accepts to provide such Services to the XBID Power Exchanges.</p>  |
| <b>Parties</b>                   | <p><u>Vendor:</u> Deutsche Börse AG (DBAG)</p> <p><u>XBID Power Exchanges :</u> APX Power B.V., APX Commodities Ltd., BELPEX NV, EPEX Spot SE, Nord Pool AS, OMI, Polo Español, S.A., and Gestore dei Mercati Energetici S.P.A.</p> <p>Contract will be extended to include all NEMOs designated for Intraday</p>   |
| <b>Date of signature</b>         | <p>Electronically signed versions of XBID-MSA, XBID-DSA Development and XBID-DSA License were exchanged on 8<sup>th</sup> June 2015; signature process of hard copies was finalized on 31th July 2015.</p>  |
| <b>Obligations of the Vendor</b> | <p>DBAG will deliver the XBID System, as described in the Contract. The XBID System needs to meet the criteria as set up in the Contract. The Vendor grants the License to the XBID System and provides (hosts) the necessary environments for the testing and use the XBID System.</p> <p>The Contract for maintenance is being negotiated.</p> <p>Obligation related to equal treatment and level playing field of</p>  |

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|   | Power Exchanges.  |
| <b>Remuneration</b>                             | Price of the XBID System and additional services consists of fixed price components, which will be paid after completion of the respective milestone, and time and material based remuneration.   |
| <b>Date of entry into force and termination</b> | The XBID-MSA and attached Exhibits entered into force with retroactive effect as of 1 March 2015.   |
| <b>Applicable law</b>                           | Belgian law   |
| <b>Dispute resolution</b>                       | The XBID-MSA contains provisions regarding dispute resolution, with aim to find amicable settlement among parties. This dispute process may involve external independent mediator, who will be nominated and will work in accordance with the ICC Mediation Rules.  |
| <b>IPR</b>                                      | Any intellectual property right and any other rights including any and all intellectual and industrial property rights remains with the party who provided the software, service or documents and are not transferable.   |
| <b>Confidentiality</b>                          | Standard non-disclosure obligations   |
| <b>Liability</b>                                | Each Party is only liable in the event of a breach or a non-performance (including delay of performance) of an obligation under or arising out of the XBID-MSA and XBID-DSAs, committed by such Party or its subcontractors or any person acting for or on behalf of such party.<br><br>Liability caps are linked to the contract value, with certain exceptions. |
| <b>Incident Management Services</b>             | Subject of negotiation under Hosting/Maintenance DSA  |

## 9.4 Summary of contract with ID MCO Function service provider – COLT

| Terms of the contract |   |
|-----------------------|---|
| <b>Whereas</b>        | <p>MPLS Communication Network provides an equal and secure communication network between XBID System and Local Trading Solutions (LTSS), regardless of the location of the LTSS. The General Terms and Conditions and the contract annexes apply to any provision of services by COLT; including equipment delivered by COLT, as indicated in the order form for each NEMO (LTS end point) and for central point represented by XBID System</p> <p>The SLA sets out the SLA metrics and service credit regime for various services and covers Off-Net Services only where specifically referenced.</p>  |
| <b>Object</b>         | <p>The contract shall allow implementation and maintenance of the MPLS Network. The Service Provider shall provide to each NEMO (for the LTS end point) and jointly to all NEMOs (for XBID System) the following services:</p> <ul style="list-style-type: none"> <li>a) during implementation period <ul style="list-style-type: none"> <li>1. the services related to project management</li> <li>2. installation services</li> </ul> </li> <li>b) during maintenance period <ul style="list-style-type: none"> <li>1. operational MPLS Communication Network Services to be provided on recurrent basis throughout the duration of the Service Contract on the basis of agreed SLAs with following services: <ul style="list-style-type: none"> <li><i>i. Service Delivery Agreement</i></li> <li><i>ii. Fault Handling Agreement</i></li> <li><i>iii. Service Availability Agreement</i></li> <li><i>iv. Service Quality</i></li> <li><i>v. Packet loss agreement</i></li> <li><i>vi. Jitter level agreement</i></li> <li><i>vii. Round trip delays</i></li> </ul> </li> </ul> </li> </ul> <p>The Contract sets forth the terms &amp; conditions under which COLT shall provide the services to the benefit of NEMOs.</p> |
| <b>Parties</b>        | <p>Vendor: COLT FRANCE</p> <p>Initially the following power exchanges: APX Power B.V., APX Commodities Ltd., BELPEX NV, EPEX Spot SE, Nord Pool AS, OMI, Polo Español, S.A., and Gestore dei Mercati Energetici S.P.A.,</p>   |

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|   | Contract will be extended to include all NEMOs designated for Intraday  |
| <b>Date of signature</b>                        | The signature process of the Contract is ongoing. Date of signature will be the date of the last Party signing the contract. The signature process is expected to be finalized in April 2016.   |
| <b>Obligations of the supplier</b>              | COLT warrants that the service shall be provided in accordance with the contract using reasonable skill and care. In case of the service not fulfilling the requirements COLT shall remedy in accordance with the SLA.<br>COLT, as a data processor, shall take measures against unauthorized or unlawful processing of personal data.  |
| <b>Price, conditions of payment</b>             | Charges set out in the Contract, if not, current standard charges of COLT apply.  |
| <b>Date of entry into force and termination</b> | Initial Term: Service Contract is entered into for an Initial Term starting from the acceptance of the Order Form and lasting four (4) years following the ready for use (RFU) date.<br>Termination : Each NEMO has the possibility to terminate, without any court intervention, its Service Contract for convenience and in particular (but without limitation) in the event of termination of its participation to the NEMO cooperation or in the event of the termination of its Services Contract with XBID System Supplier, subject to a termination fee. |
| <b>Applicable law</b>                           | French law  |
| <b>Dispute resolution</b>                       | Exclusive jurisdiction of the courts of Paris.  |
| <b>IPR</b>                                      | NEMOs are not granted any IP rights unless otherwise expressly agreed by COLT.  |
| <b>Confidentiality</b>                          | Standard non-disclosure obligations.  |
| <b>Liability</b>                                | COLTS's liability <ol style="list-style-type: none"> <li>1. COLT's aggregate indemnification obligation to a NEMO for liability for all Non-Performances occurring in a calendar year, is limited in aggregate to an amount equal to 100% of the monies paid and/or payable.</li> <li>2. COLT shall not be liable to a NEMO for any loss of profits;</li> <li>3. COLTS shall not be liable to the NEMOs for any Non-Performance caused by an event of force majeure as</li> </ol>   |

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|                                   | <p>defined by applicable law.</p> <p>Liability of a NEMOs</p> <ol style="list-style-type: none"> <li>1. A NEMO' indemnification obligation to the Service Provider for liability for all Non-Performances occurring in a calendar year, is limited in aggregate to an amount equal to 100% of the monies paid and/or payable.</li> <li>2. A NEMO shall not be liable to the Service Provider for any loss of profits;</li> <li>3. A NEMO shall not be liable to the Service Provider for any Non-Performance caused by an event of force majeure as defined by applicable law.</li> </ol> |
| <p><b>Incident Management</b></p> | <p>The SLA provides for all services targets for execution (ex: target delivery lead time, target time to repair for service-affecting results, target service availability). If such targets are not met, NEMO shall have the right to claim service credits: a percentage off the charges due by NEMOs.</p>   |