Request for Information (RFI) for the Intraday Cross-Border Solution

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1 Introduction

1.1 Purpose and scope of the RFI

APX-ENDEX Power B.V., BELPEX NV, EPEX Spot SE, Nord Pool Spot AS, OMI Polo Español, S.A. and, OTE a.s (referred to as „PXs“ or „Issuer“.) are currently cooperating in view of the implementation of a Cross-Border Intraday Solution throughout Europe requiring the development of required technologies and ICT system (the “**XBID Solution**” and “**Trading Solution**”) as well as related services such as hosting, operation and consulting services as further described in 5.3 Annex no. 3 – XBID Solution High Level Concept (the “**ICT Development and Related Services**”).

The PXs are currently exploring the opportunities to either have the ICT Development and Related Services performed by one of the participating PXs or to assigning the provisions of the ICT Development and Related Services to a third party service provider and wish to further investigate what the possibilities are in that respect.

The PXs have decided to publish this Request for Information (RFI) to inform potential candidate service providers of their intention and to invite them to indicate their interest in a possible cooperation with the PXs for this project and to demonstrate their relevant qualifications, expertise and availability (“**Application**”).

Candidate third party service providers responding to the RFI (“**Applicant**”) by providing the information requested in this RFI (the “**Application**”) may, depending on their qualifications and expertise and at discretion of the PXs, be invited to formulate a binding proposal in respect of the ICT Development and Related Services further described in a Request for Proposal (“**RFP**”).

The purpose of this RFI is :

- To provide a prospective Applicant with the preliminary information required to understand the scope of the ICT Development and Related Services to be able to express its interest in being invited to make an offer and to demonstrate its qualification and expertise.
- To provide prospective Applicant further information on how the PXs intend to organise the process and proceed with the qualification of an Applicant (“**RFI Process”).**

1.2 RFI process

The Power Exchanges intend to organise the RFI Process as follows:

1. RFI is issued;
2. Interested Applicant submits its Application;
3. The PXs will examine the Applications;
4. The PXs will decide at their own discretion which Applicants are retained to make a binding offer based on the RFP that will be provided to them for that purpose.

1.3 General Terms

1.3.1 General

By submitting its Application, the Applicant explicitly agrees being submitted to the terms and provisions of this RFI.

This RFI is an invitation to provide a proposal for service provisions and does not constitute a binding offer in respect of the assignment of the ICT Development and Related Services. The envisaged service provision is subject to the signing of a written agreement with the selected service provider and the mere sending by an Applicant of its Application shall in no event be understood as such a written agreement to contract with the Applicant.

Any rights or obligations of the Applicant towards the PXs if any in the context of this RFI are governed by the provisions of this RFI. No other terms and conditions, including any standard, general or pre-printed terms and conditions made available or referred to by the Applicant shall apply in the context of this RFI.

The terms governing the RFP and the selection process of the service provider will be provided in RFP.

1.3.2 Adaptation and cancellation of the RFI Process

In the event that it becomes necessary to revise any part of this RFI, addenda will be provided to all Applicants.

The PXs are entitled, at their own discretion, to cancel the RFI process at any time or to amend the provided information at any time. In such event the Applicant shall not be entitled to any compensation whatsoever, including for expenses already made in relation to the Application.

1.3.3 Qualification for RFP

Information and data stated in this RFI and in named related documents outline essential Issuer requirements for qualification. Only Applications that comply with these requirements will be retained.

In case of non-compatibility of provided information among various parts of Application the Issuer reserves the right to consider information provided based on part “Instruction to Applicants” as superior to all other information.

In case of non-compatibility of provided information between electronic and printed version of the Application (if applicable), the Issuer reserves the right to consider information provided in printed version as superior to information provided in electronic form.

1.3.4 Confidentiality and use of provided information

Any materials submitted or information disclosed/exchanged by the PXs to the Applicants in connection with the RFI is confidential and may not be disclosed or used for any purpose other than this RFI, except where the PXs have themselves made this information publically available (by e.g. posting it on their website) or have explicitly expressed otherwise.

1.3.5 Participation of other PXs

It is possible that an Issuer - PX will provide an Application to the PXs in respect of the provision of the ICT Development and Related Services. By submitting its Application, the Applicant acknowledges and agrees that any information it provides in the context of the Application may be shared with such PX, except to the extent the Applicant acting reasonably and in good faith has indicated that the information is commercially sensitive.

1.3.6 Applicable law – dispute settlement

The RFI procedure is governed by Belgian law. All disputes arising in connection with the RFI shall be settled exclusively by arbitration under the International Chamber of Commerce ("ICC") Rules of Arbitration.

1.4 Language

All correspondence regarding the RFI as well as the Application must be in the English language. Documents supporting the Application may be in another language, provided they are accompanied by an accurate translation of at least their pertinent passages in English, in which case, for the purpose of interpretation of the proposal, the translation shall prevail.

1.5 Cost of preparing the proposal

The Applicant participating in the RFI shall bear all costs associated with the preparation, submission and possible presentation of its Application and the PXs shall in no case be responsible or liable for those costs, regardless of the conduct, outcome or possible cancellation of the RFI Process.

If it is necessary for the issuer to visit a selected Applicant's site, the Issuer will be responsible for all costs associated with that travel.

1.6 Used terms & abbreviations

Capitalised terms in the RFI have the meaning attributed to them when first using them.
Abbreviations have the meaning set forth in attachment 5.4 Annex no. 4 – List of abbreviations.

2 Issuer

2.1 Issuer identification

The PXs indicated in the tables below are acting jointly as Issuer in the context of this RFI

Table 1: Issuer identification

Issuer Official Name	PX1: APX-ENDEX
Registered in the Commercial Register	n° 34153887
Legal form of the Business	limited liability company incorporated under the laws of the Netherlands
Registered Office	Hoogoorddreef 7, 1101 BA Amsterdam
Mailing Address	intraday@apxendex.com
Identification No.	n° 34153887
VAT identification No.	n° NL 809684639
Telephone	0031 20 305 40 00

Issuer Official Name	PX2: BELPEX NV
Registered in the Commercial Register	n° 0874978602
Legal form of the Business	limited liability company, incorporated under the laws of Belgium
Registered Office	Boulevard de l'Impératrice 66
Mailing Address	intraday@apxendex.com
Identification No.	n° 874978602
VAT identification No.	n° BE 0874 978 602
Telephone	0032 2 403 46 50

Issuer Official Name	PX3: EPEX Spot SE
Registered in the Commercial Register	Paris
Legal form of the Business	Societas Europea
Registered Office	5 boulevard Montmartre 75002
Mailing Address	
Identification No.	508010501
Tax identification No.	FR10508010501
Telephone	+33 1 73 03 96 00

Issuer Official Name	PX4: Nord Pool Spot AS
Registered in the	a company incorporated under the laws of

Commercial Register	Norway
Legal form of the Business	Limited company
Registered Office	Vollsveien 19, 1326 Lysaker, 0219 Baerum, Norway
Mailing Address	Vollsveien 17B, 1326 Lysaker, PO Box 121, Norway
Identification No.	984 058 098
Tax identification No.	NO 984 058 098 MVA
Telephone	0047 67 10 91 00

Issuer Official Name	PX5: OMI - Polo Español, S.A.
Registered in the Commercial Register	Madrid
Legal form of the Business	Sociedad Anónima
Registered Office	Alfonso XI, 6. 28014-Madrid (Spain)
Mailing Address	OMIE_ID@omie.es
Identification No.	ES-A86025558
Tax identification No.	ES-A86025558
Telephone	+34916598926

Issuer Official Name	PX7: OTE, a.s.
Registered in the Commercial Register	Prague Municipal Court in section B, file 7260, under the number 26463318
Legal form of the Business	joint-stock company
Registered Office	Sokolovská 192/79, 186 00 Prague 8, Czech Republic
Mailing Address	omaca@ote-cr.cz
Identification No.	26 46 33 18
Tax identification No.	CZ26463318
Telephone/	+420 296 579 199

2.2 Procurement Manager contact

The PXs have appointed the following company, represented by Milan Schwarzkopf the “**Procurement Manager**”) as sole contact person for all RFI related matters on behalf of all PXs:

Table 2: Procurement Manager contact

Contact name	Indra
Registered in the Commercial Register	Commercial Register at the Prague Municipal Court in section C, file 44352, under the number 65409981
Legal form of the Business	limited company
Address	Karolinská 650/1, 186 00 Prague 8, Czech

	Republic
E-mail	xbidprocmng@indracompany.com
Identification No.	65409981
Tax identification No.	CZ26463318
Telephone	+420 246 085 733
Fax	+420 246 085 701

All communications in respect of the RFI or in connection with the Application should be addressed to the Procurement Manager via the email address mentioned in the table above.

3 Instructions to Applicants – Administrative requirements in respect of the Application

3.1 Application

Applicant is requested to formulate its intention to participate to the RFP by submitting its Application before 29.10.2012 18:00 hours by e-mail, to the Procurement Manager as indicated in section 2.2 Procurement Manager contact and by sending the original to the Procurement Manager by regular post.

Faxed Applications will not be retained.

The Application should contain:

1) the letter referred to in 5.1 Annex no. 1 – Application Letter (to be put on letter head of Applicant) (the "**Application Letter**"), duly signed by a competent representative of Applicant
2) an initialled copy of the RFI;
3) the filled out response schedule attached as 5.2 Annex no. 2 – RFI Response Schedule (the "**RFI Response Schedule**") duly signed by a competent representative of Applicant and with all pages initialled by the same;
4) the NDA that will be provided upon written request to the Procurement Manager, duly signed by a competent representative of Applicant and with all pages initialled by the same. If the Applicant is retained for submitting a proposal, it will receive the counter-signed NDA back. The Procurement Manager shall not provide PXs access to any submitted offer based on the RFP until the NDA has been countersigned by or on behalf of the PXs;
5) proof of the power of such representative to represent Applicant.

The electronic version of the Application should be provided in .pdf format.

Once the RFI Response Schedule has been received, Applicant will automatically receive any addenda that are issued.

If a company is submitting a joint Application with another company, they will both be considered as joint Applicants and any offer made at a later stage on the basis of the RFP will be considered as made jointly and severally

3.2 Application Compliance

An Application will only be considered to the extent it is submitted in accordance with the terms outlined in this section and to the extent it complies in all respects with the provisions of this RFI.

3.3 Questions from Applicants

All questions regarding the RFI shall be addressed only in writing by e-mail to the Procurement manager.

Only email question received before 29.10.2012 18.00 hours are considered valid. Questions and answers will be shared with all potential Applicants.

3.4 Due Diligence

In addition to taking up client references PXs may conduct one to one interviews by telephone or in person with prospective Applicants in order to establish the suitability of services.

3.5 Instructions for completing the Application letter

Please send the application letter on the Applicant's letter head paper, and have it signed by a duly empowered representative of the Applicant.

3.6 Instructions for completing RFI Response Schedule

Please complete the RFI Response Schedule. The template is available in the Appendix, see 5.2 Annex no. 2 – RFI Response Schedule .

Type your responses in the RFI Response Schedule as instructed below. For every attachment there should be a reference in the electronic document.

The RFI Response Schedule consists of sections where Applicants are requested to provide information on their company and their capability to comply with general requirements and a section where Applicants are requested to provide information on their capability to comply with the system requirements. The latter part consists of mostly free-text description of proposed solution description.

There are three types of questions in the RFI Response Schedule:

- Choice question,
- Table question,
- Open question.

Whatever the type of question, the Applicant may append existing literature on company or products to support, but not replace, their answer.

This RFI Response Schedule was specially designed to be answered electronically. Please read the instructions below before responding to this RFI. The instructions assume that you are using Microsoft Word to type your answers.

3.6.1 Question types

3.6.1.1 Choice question

For each question marked yes/no, the Applicant must respond by stating yes/no only. Where appropriate, the additional field for comment is provided.

3.6.1.2 Table question

For each question, the Applicant must respond by checking or typing an answer in the white cells provided, as appropriate.

When values stated in “yes/no” column type and related “Any additional comment” column in one row are not logically consistent, then content of “Any additional comment” column won't be taken into consideration.

3.6.1.3 Open question

For each question, the Applicant must respond in full by typing an answer in the lines provided. The number of lines provided is not an indication of the length of the answer expected – Applicants should add more lines or pages as necessary.

3.7 Evaluation elements

The PXs intend to evaluate the Application taking into account amongst others the information provided in respect of the elements indicated in the next sections.

3.8 Response time

To be retained the Application should fulfil the following conditions:

- Submission of the Application before the RFI closing time,
- Format as per instructions is strictly adhered to,
- All required information is provided.

4 Instructions to Applicant - requested information

4.1 General information

4.2 Applicant

Please provide required information described in next paragraphs, regarding your organization, into the RFI Response Schedule.

4.2.1 Applicant identification

Applicant should be a commercial company.

Please fill in your company registered information such as your Company Official Name, Registered in the Commercial Register, Legal form of the Business, Registered Office, Mailing Address, Statutory Body – Name and Surname of the Executives, Identification No., Tax identification No. and Telephone/fax.

4.2.2 Applicant contact

Enter into the RFI Response Schedule the name, position and contact information of all persons responsible for responding to this RFI (name, phone, email), specifying which section they are responsible for. This information will help us contact the appropriate person for future follow-ups.

4.2.3 Applicant business profile

Please fill out into appropriate section of the RFI Response Schedule your company short business profile description.

The description shall have at least 1 page and shall not be longer than 2 pages.

4.2.4 Financial viability

Discuss the financial strength of your company. Please provide documentation that substantiates the financial strength of your company (a.o. the annual accounts).

The Applicant must have an average annual turnover (defined as annual earnings, expressed in its equivalent of a defined currency) as a contractor over the last 3 years of at least Euros 10 Million equivalents. Applicant is requested to provide its annual accounts of the last 3 years.

4.2.5 Applicant history

Briefly discuss Applicant's company's history with indication when Applicant's organization was established. Describe the products and services that Applicant has offered to date.

The description shall have at least 1 pages and should not be longer than 2 pages.

4.2.6 Legal assessment

Applicant should confirm that all work will be performed within standard policies, professional and state of the art standards and guidelines which relate to development, project management, change requests etc. This is strict requirement that must be kept without any deviances.

Please provide information on the general policies of Applicant in that respect.

To be retained Applicants must agree to be legally and financially responsible for the performance of their personnel and / or third parties to whom they would subcontract certain parts if the ICT Development and Related Services.

Subcontracting will be subject to prior approval of the PXs. Only certain services may be subcontracted and core services should remain with the service provider. Any subcontracting will be under full responsibility and liability of the service provider.

Please provide a description of the legal structure under which the service provision would be provided.

4.2.7 Insurance

The successful Applicant will be responsible for its work and every part thereof, and for all materials, tools, equipment, appliances, and property of any and all descriptions issued in connection with this RFI and the RFP.

Applicant must be able to provide, upon awarding of contract and prior to beginning work, proof of insurance.

Please indicate in this section the kind of insurances that Applicant has to cover the risks linked to its performance of the ICT Development and Related Services.

4.2.8 Applicant resources

Once the contract awarded, the Applicant must have the below mentioned resources free of ongoing obligations and/or pending contract awards.

Functional key experts
Technical key experts

In order to prove its expertise the Applicant is requested to provide further information on the persons that would be dedicated to the team responsible for the cooperation with indication of their expertise.

4.3 Services Provision Capabilities details

Please explicit your capabilities on the following fields

- System implementation
  - Description of system implementation capability
  - Location of the team

- Application management
  - Description of application management capability
  - Location of the team

- High performance, security, 24/7 data center operation
    - Description of capability
    - Location

- If you plan to outsource part of Services to partner, please state
    - Description of activity outsourced
    - Name of partner and detailed contact data

- Any Quality Certification

4.4 Project information

4.4.1 The Implicit Intraday Target System implementation objectives and key principles

The objective of the tendered systems and services is to establish a common cross border implicit continuous Intraday trading solution across Europe, where all the cross border capacities are allocated, after the process of European wide Day-Ahead Market coupling. This solution would have an initial phase (Interim solution), that would coexist with explicit allocation. It aims at evolving towards a solution where the trading possibilities and products would be enhanced.

This functional scope of the tender is only the Interim solution (which includes the explicit access to the capacities on the borders, where regulators decide that this possibility should be allowed). However the capacity of the solution to evolve will be considered in the evaluation.

The ICT Development and Related Services that the PXs envisage to procure concern different elements of the Implicit Intraday Target System:

- The XBID Solution (Shared Order Book/Capacity Management Module) where bids will be matched in a continuous manner, respecting the cross border capacities. The XBID solution should allow also for explicit access to cross border capacity obligations by end users
- An optional software for a Trading Solution, that will be used only by those PXs that do not want to interface their existing Trading Solutions to the common XBID Solution through an API.
- Hardware and hosting of the common XBID Solution and operations of the XBID Solution 24/7
- Hardware and hosting of the optional Trading Solution and operations of the optional Trading Solution 24/7

PXs are requesting a quote for each of the above mentioned elements, but each of the elements could also be awarded to different providers. It is also possible that the different elements are contracted to the provider under different contracts, signed by some or all the PXs. It is important that the contractual scheme be extendable to any PXs that would want to adhere to the cooperation at a later stage.

The provider of the common XBID Solution would be requested to include as part of the deliverables the integration testing of the XBID Solution connected to the Trading Solution of each PX and to one or several instances of the optional Trading Solution provided as part of the supply.

Key principles of the Implicit Intraday Target System implementation are:

The common XBID Solution would be centrally installed in a hosting facility and centrally operated, while the different PXs, using or not the optional Trading Solution would connect to it through an API.

A retained Applicant will need to include, as part of the proposal of the common XBID Solution, how the equal treatment of all bids that appear in any of the Trading Solution is guaranteed.

The project is further explained in 5.3 Annex no. 3 – XBID Solution High Level Concept .
To be retained Applicants are requested to provide information on its capabilities to provide ICT Development and Related Services that meet the aforementioned technical requirements.

Only the high level information is to be provided as a response to this RFI. We thus assume that there will be no detailed technical specification provided. Any technical specifications that may be provided as part of this RFI, shall not be returned by Issuer therefore.

4.5 Project Implementation place

The Applicant must be able to provide the ICT Development and Related Services during the business hours and days of the Issuer to the exclusion of the services related to production, which must be provided 24/7. The Applicant should have its team installed and operational in Europe or at a maximum distance of 3 hours by plane from Brussels.

4.6 High-level project schedule

Issuers have set indicative deadlines for delivering each phase. Only Applicants that are able to meet these deadlines and provide sufficient guarantees of availability and capacity to achieve these deadlines in that respect will be retained.

Table 3: Indicative schedule

Phase	Deadline
RFI published	18.10.2012
RFI responses from Applicants	29.10.2012
RFP published – tender start	Early November
System delivery	End of Q1 2013

Issuer reserves right to change the deadlines stated above.

4.7 Solution references (software)

4.7.1 Solution reference implementation

Please provide us with 2 to 4 relevant successful solution implementations as a contractor (prime or subcontractor). Reference implementation has to demonstrate solution readiness to implementation of the same size and for the same industry/similar company. Please provide us with references in two levels of details as specified in next sections.

The references must demonstrate:

- At least one reference that will prove the Applicant's ability to implement and maintain solution that can provide functionality of the continuous trading with spot energy instruments supporting shared order book functionality (bidding across several bidding areas) as highlighted in the 5.3 Annex no. 3 – XBID Solution High Level Concept.
- At least one reference that will prove the Applicant's ability to implement and maintain solution that can provide functionality of the continuous capacity management module functionality as highlighted in the 5.3 Annex no. 3 – XBID Solution High Level Concept.

- At least one ref erence that will prove the Applicant's ability to provide solution with the performance and availability specified in the 5.3 Annex no. 3 – XBID Solution High Level Concept.

4.7.2 Solution reference list

Please fill in at least 2 to 4 solution references in the form of client name, year when implementation took place and short implementation description successfully implemented.

4.7.3 Solution reference details

Please provide following details to each solution reference listed in previous table:

- Client name,
- In operation since
- Project duration,
- Period when implementation took place,
- Description including implemented modules and components,
- Explanation on why the reference is relevant
- Range of value (€)
- Client's contact for validating reference (name, address, telephone, e-mail),
- Country(s) where implementation took place.
- How many parties (multi customer project) involved

4.8 References related to Services

Please provide us with minimum of 1 to 3 relevant successful services reference as a contractor (prime or subcontractor). Reference implementation has to demonstrate solution readiness to implementation of the same size and for the same industry/similar company. Please provide us with references in two levels of details as specified in next sections.

The references must demonstrate:

- At least one reference that will prove the Applicant's ability to provide hosting services specified in the 5.3 Annex no. 3 – XBID Solution High Level Concept.
- At least one reference that will prove the Applicant's ability to provide services specified in the 5.3 Annex no. 3 – XBID Solution High Level Concept.

4.8.1 Services reference list

Please fill in at least 1 to 3 solution references in the form of client name, year when service took place and short service description successfully provided.

4.8.2 Services reference details

Please provide following details to each solution reference listed in previous table:

- Client name,
- Service duration,

- Period when services took place,
- Description of the services provided
- Explanation on why the reference is relevant
- Range of value (€)
- Client’s contact for validating reference (name, address, telephone, e-mail),
- Country(s) where services took place.
- How many parties (services to multi customer) involved

5 Annexes

5.1 Annex no. 1 – Application Letter (to be put on letter head of Applicant)

[Please substitute this line by Issuer contact's address]

Dear procurement manager,

Having examined the Request for Information for the Cross Border Intraday Solution (the "RFI") we are interested in applying for the provision of the ICT Development and Related Services in accordance with the provisions of the RFI.

Please find attached to this letter:

1. the duly filled out RFI Response Schedule, duly signed and all pages initialled;
2. an initialled version of the RFI;
3. the duly signed NDA with all pages initialled;
4. proof that the person having signed and initialled the above documents has the power to represent our company.

We acknowledge to have understood the terms and provisions of the RFI and agree that our Application and the evaluation thereof by the Issuer is governed by its terms and provisions.

We confirm that our Application is made in good faith and that we have not communicated with any other party the details of the Application.

Yours sincerely

Signed for and on behalf of [Applicant's company name]

Signature..

Print name..

Position...

Date...

5.2 Annex no. 2 – RFI Response Schedule

See associated web-link

5.3 Annex no. 3 – XBID Solution High Level Concept

5.3.1 Power Intraday Market

Intraday markets are an important tool for Market Participants to keep positions balanced as demand and supply conditions may change between the day-ahead stage and real time operations. The growth of intermittent generation capacity makes Intraday markets efficiency even more relevant. The possibility for Market Participants to trade out their imbalances would be much improved if they could not only benefit from the national available Intraday liquidity, but also from the available liquidity in other areas, provided there are cross border capacities available. Efficient cross border Intraday markets do not only benefit Market Participants but also Transmission System Operators (TSOs): in addition to the increased efficiency in respect of the capacity utilization, a well-functioning cross border Intraday market is also expected to have a positive effect on the overall control area imbalance, as the Market Participants have more competitive liquidity at their disposal to trade out imbalances themselves.

5.3.2 European Framework

The 3rd Energy Package defines a new European regulatory framework with Framework Guidelines and related Network Codes to address certain topic areas for the integration of EU electricity and gas markets, enabling cross border trades and competition to develop energy markets across EU. It also establishes an EU Agency for the Cooperation of Energy Regulators (ACER) that will focus on cross border and internal markets.
The process for developing these Network Codes is stipulated in the legislation and includes the elaboration by ACER of the Framework Guidelines.
The Framework Guideline on Capacity Allocation and Congestion Management (CACM) between the areas in the EU electricity markets deals with the integration, coordination and harmonisation of the congestion management regimes in compliance with Electricity Regulation 714/2009.
Based on the Framework Guideline on CACM, the related Intraday Network Code will set out the necessary legal framework for the implementation of a pan-European Intraday market based on a continuous trading mechanism – called Target Model

5.3.3 Target Model

The Target Model consists on

- One European integrated solution referred further as XBID Solution, handling the trading (Shared Order Book, SOB) and the capacity allocation (Capacity Management Module, CMM) functions
- The solution will be provided with the orders submitted to all participating Power Exchanges and real-time information on all available transmission capacity submitted by all participating TSOs
- Power Exchanges are in charge of both functions (SOB/CMM) using a single IT provider
- Power Exchanges will need to use this SOB/CMM solution to offer cross-border trading to their market participants

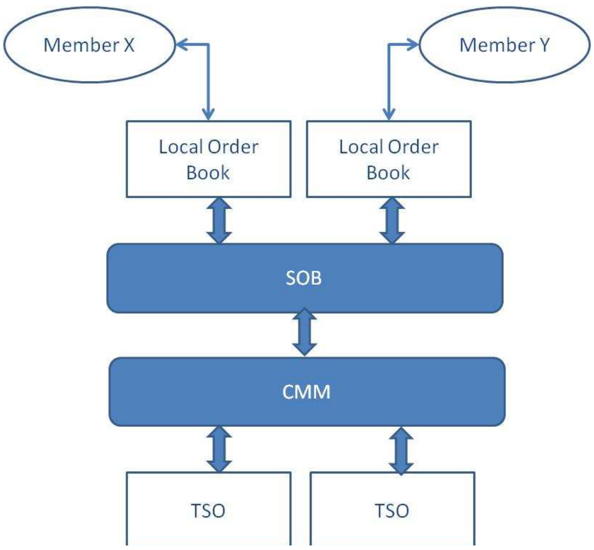

Figure 1: SOB-CMM

5.3.4 System Scope of the RFP

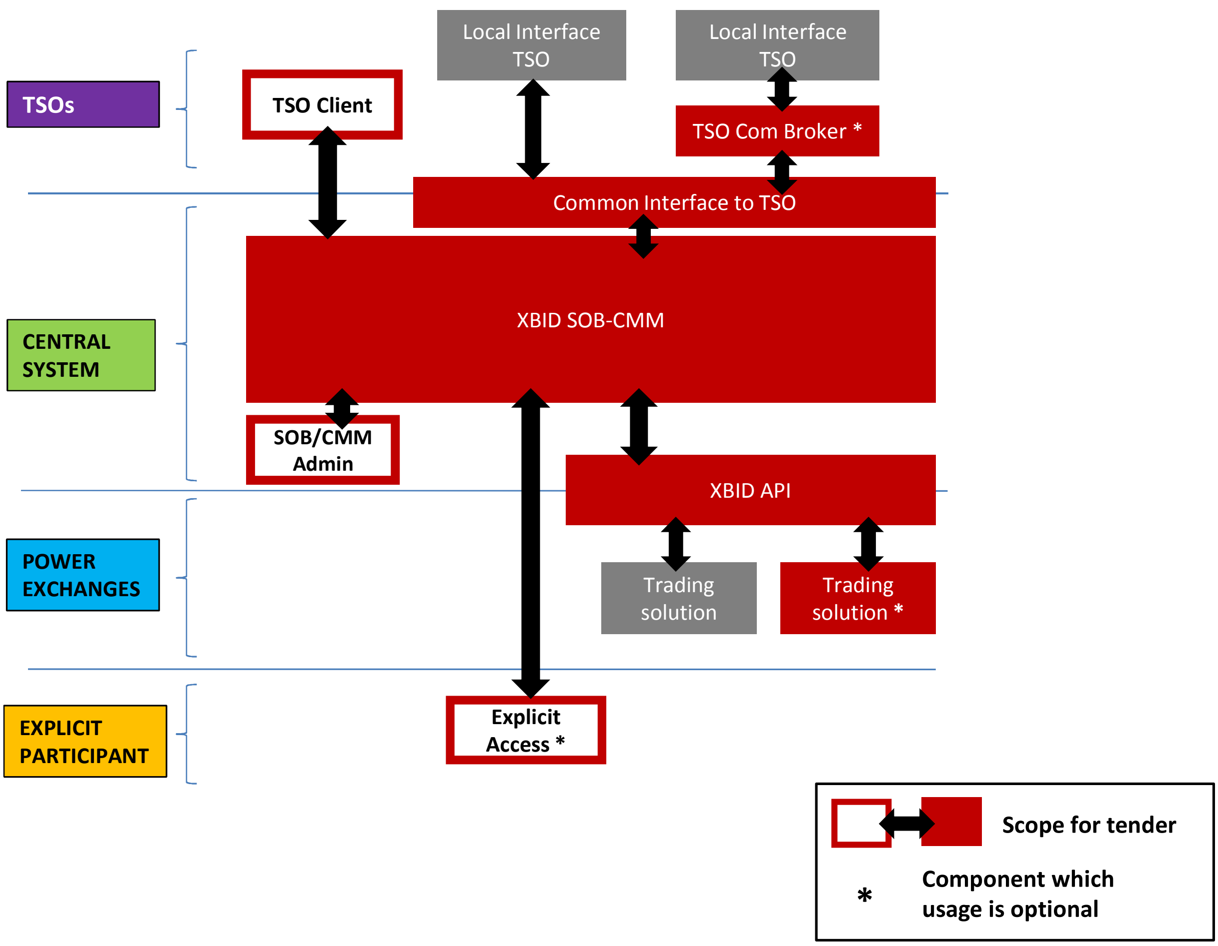

Figure 2: System scope

The system scope of the RfP covers

- **XBID Solution** i.e the solution aiming at being used by the Power Exchanges of Europex in the context of their operation of the cross border Implicit intraday Continuous Trading to fulfill the European wide Target Model. The system must contain the necessary functionalities to perform the continuous matching of orders as well as the necessary functionalities in respect of capacity allocation allowing it to take into account the relevant available intraday interconnection capacities when performing the matching. It includes:
  - TSO Client – Client GUI delivered as part of the XBID Solution provided to TSOs for execution of TSO related functions.
  - Common TSO Interface – Interface enabling TSOs to communicate and execute predefined types of technical transactions in the XBID SOB-CMM.
  - TSO Communication Broker – Extended TSO interface enabling TSOs to connect and execute predefined types of technical transactions with support of extended data formats that are not included in Common TSO Interface.
  - XBID SOB-CMM – Central system composed by SOB, CMM, Order Matching and Other Directly Connected Components.
  - SOB/CMM Admin Client – Client GUI providing set of functions for management of SOB and CMM.
  - XBID API – Application Programming Interface enabling Power Exchanges that are using Trading Solution to connect to and execute predefined types of technical transactions in the XBID SOB-CMM.
  - Explicit access client - Client GUI provided to the Explicit participants for execution of Explicit allocation.
- And optionally a **Trading Solution**. It will be possible for the Power Exchanges to either use their current Trading Solution or the one provided by the provider of the XBID Solution. Among other the Trading Solution will offer a Client GUI provided to the market participants of Power Exchange to submit their orders and also an API

5.3.5 Performance and Availability Overview

XBID Solution must provide high system availability at least 99.8% including planned maintenance windows excluding new release maintenance.

The system must handle approximately 20.000-30.000 orders and 8.000-15.000 transactions per day. In the peak load moments the system must handle up to 100 transactions per second. The system must handle cross-border transactions dealing with capacity update.
The system must process orders, transactions and provide relevant outputs as close as possible to the real time.

5.3.6 Service Overview

Expected services related to the implementation of the XBID Solution and its support and maintenance during operation phase are mainly:

- Project Management
- Change Management
- Specifications
- Application Development and Customization
- Release and Deployment Management
- Service Asset and Configuration Management

- Service Validation and Testing
- User documentation and training
- Application Management Services
    - Application Development and Bug Fixing
    - Application Incident Management
    - 2nd level Problem Management (24/7 helpdesk)
    - Regular Maintenance (Updates, etc.)
    - Other Application Management related services
- The provider of the common XBID Solution will include as part of the deliverables the support of the
    - Integration testing of the XBID Solution
        - with the local Trading Solution of each PX and with one or several instances of the optional Trading Solution provided as part of the supply and
        - with the Local TSO interfaces
    - Rollout of the XBID Solution and Trading Solution (though XBID Solution is a central system the launch of particular PXs/TSOs may be organized in particular time slots as well as testing procedures).

5.3.7 Hosting services

The Applicant must be capable to offer hosting services. However PXs reserve the right to purchase them or not .

Expected services related to the hosting services are mainly

- Data center services
- Hardware provision
- Environment provision and setup

- Project Management
- Change Management
- Specifications
- Application Development and Customization
- Release and Deployment Management
- Service Asset and Configuration Management
- Service Validation and Testing
- User documentation and training
- Application Management Services
    - Application Development and Bug Fixing
    - Application Incident Management
    - 2nd level Problem Management (24/7 helpdesk)
    - Regular Maintenance (Updates, etc.)
    - Other Application Management related services

5.4 Annex no. 4 – List of abbreviations

Table 4: List of abbreviations

Abbreviation	Description
ACER	Agency for the Cooperation of Energy Regulators
API	Application Programming Interface
CMM	Capacity Management Module
EU	European Union
HW	Hardware
ICT	Information and communication technology
IT	Information Technology
PDF	Portable Document Format
PX	Power Exchange
SOB	Shared Order Book
SW	Software
TR	Technical Requirement
TSO	Transmission System Operator
XBID	Cross Border Intraday