
3rd Report on the progress and potential problems with the implementation of Single Day- ahead and Intraday Coupling

August 2017

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1. Introduction

Article 82(2)(a) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter referred to as the “Regulation 2015/1222”) requires ENTSO-E to monitor the progress and potential problems with the implementation of the day-ahead and intraday coupling, including the choice of different available options in each country. To fulfil this requirement ENTSO-E has committed, under its Monitoring Plan¹, to provide ACER with a report (hereafter referred to as the “Report on the progress and potential problems with the implementation of Single Day-Ahead and Intraday Coupling”) six months after the delivery of the Monitoring Plan, and thereafter every six months or alternative intervals depending on ACER’s feedback on the FCA Monitoring Plan.

The [first report](#) was delivered in August 2016 specifically covering the period from the date of entry into force of the Regulation 2015/1222 (14 August 2015) onwards. The [second report](#) was made available in February 2017 building upon the first report with a special emphasis on the six months following the initial report delivery. This third report is to be delivered in August 2017 covering the six months after the delivery of the second report.

Market coupling allows for the allocation of cross-zonal capacities to be optimised via a coordinated calculation of prices for each bidding zone. The report takes stock of the progress achieved so far in the coupling of electricity markets through the different projects in place before the entry into force of the Regulation 2015/1222 and which become the starting point for implementing the Single Day-Ahead and Intraday Solutions following the entry into force of this Regulation. These are the day-ahead market coupling project (namely the Multi-Regional Coupling project (hereafter referred to as “MRC”) and the intraday market coupling project (namely the cross-border intraday project (hereafter referred to as “XBID”). The report also provides an account of the current state-of-play and the challenges in the implementation as well as recommendations for further development of single day-ahead and intraday coupling, in particular extensions and/or accessions, in line with Article 31(3)(h) of CACM. Moreover indicators for assessing and following in the longer term the efficiency of single day-ahead and intraday coupling are introduced as stipulated by Article 31(3)(g) of the Regulation 2015/1222.

The report is organised into the following four chapters: Chapter 2 introduces the transversal progress of the single day-ahead and intraday coupling based on the various tasks put upon all TSOs and all Nominated Electricity Market Operators (hereafter referred to as “NEMOs”). Chapter 3 recounts the progress made to date and the potential problems with the implementation of coupling day-ahead markets in Europe via the MRC project. Chapter 4 recounts the progress made to date and the potential problems in integrating intraday markets through the XBID project. Chapter 5 contains a concise summary of the previous chapters. A glossary is included at the end for convenience.

¹ Prepared and submitted by ENTSO-E to ACER on 12 February 2016 in accordance with Article 82(3) of the Regulation 2015/1222, hereafter referred to as the “Monitoring Plan”.

2. Transversal progress for single day-ahead and intraday coupling

The Regulation 2015/1222 requires TSOs and NEMOs to develop deliverables for the implementation of the single day-ahead and intraday coupling. Several of these deliverables progressed since the last report. This Chapter lists the state of play of the pan-European deliverables of all TSOs and NEMOs, including joint work of the TSOs and NEMOs. It also looks at selected regional deliverables.

2.1. All TSOs deliverables

Capacity Calculation Regions. Early 2017, all TSOs prepared a proposal for an amendment of the Capacity Calculation Regions (hereafter referred to as "CCR") as defined by ACER's [decision](#) of 17 November 2016 in accordance with article 15(3) of Regulation 2015/1222. The amendment proposes to add the HVDC interconnectors between the United Kingdom and Belgium (the Nemo Link) to the Channel CCR. The proposal was submitted for public consultation from 7 April to 8 May 2017, and submitted to all national regulatory authorities (hereafter referred to as "NRAs") for approval on 12 July 2017.

Common Grid Model Methodology. All TSOs submitted to their NRAs the amended [Common Grid Model](#) (hereafter referred to as "CGM") methodology by 11 March 2017. On 11 May 2017, the amended Common Grid Model Methodology (CGMM) pursuant to Regulation 2015/1222 was approved by NRAs. This triggers the countdown to the CGM process becoming operational the deadline is now set for 11 June 2018. The CGMM and the associated Generation and Load Data Provision Methodology (GLDPM) are also required by Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (hereafter referred to as "Regulation 2016/1719"). These revised versions of both methodologies were approved by "All TSOs" and submitted to all NRAs by 11 July 2017; NRAs therefore have until 11 January 2018 to make a decision on these methodologies. The objective of the revised methodologies is to cover the longer-term time-frames of month-ahead and year-ahead whereas the CGMM and GLDPM pursuant to Regulation 2015/1222 address the preparation of the (D-2) and (D-1) CGMs. The CGMM and GLDPM set out a number of implementation tasks which remain to be completed by the TSOs before the CGM process can go live. A first package of these implementation tasks was completed in November 2016; work on the remaining tasks is ongoing and is on track to be completed by the relevant deadlines.

Congestion Income Distribution. On 14 February 2017, all NRAs requested amendments to the all TSOs proposal for a [Congestion Income Distribution methodology](#), developed in accordance with Article 73 of Regulation 2015/1222. All TSOs submitted the amended methodology by 21 April 2017. On 14 June 2017 all Regulatory Authorities have agreed to request the Agency to adopt a decision on this methodology pursuant to 9(12) Regulation 2015/1222 for the following reasons. All NRAs consider that the TSOs have not sufficiently and properly taken into account the NRA's request for amendment of 24 January 2017. All NRAs also agreed that the proposed CID Methodology should not include a number of additional provisions that were only introduced after the NRA's request for amendment, and, therefore, were not addressed in the all NRA's initial request for amendment.

Day-ahead firmness deadline. On 15 May 2017 all NRAs unanimously approved the all TSOs proposal for the [day-ahead firmness deadline](#). All NRAs therefore will issue their national decisions, on the basis of this agreement, by 19 June 2017. Following national decisions by all NRAs, all TSOs will be required to publish the DAFD on the internet in line with Article 9.14 of Regulation 2015/1222, and must meet the implementation deadlines required by Article 4 of the DAFD proposal.

Intraday cross-zonal gate opening and gate closure times. On 14 June 2017 all NRAs requested amendments to the all TSOs proposal for [intraday cross-zonal gate opening and gate closure times](#), developed in accordance with Article 59 of Regulation 2015/1222. Each Regulatory Authority have taken the decision by 28 June 2017. All TSOs are in the process of amending their initial proposal for submission at the latest by 28 August 2017.

Calculation of scheduled exchanges resulting from single intraday and day-ahead coupling. On 14 December 2016, all relevant TSOs submitted to their NRAs for approval the all TSOs proposals for calculating scheduled exchanges resulting from single [day-ahead](#) and [intraday](#) coupling, developed in accordance with respectively Articles 43 and 56 of the Regulation 2015/1222. All NRAs have informed that they will ask all TSOs to resubmit the methodologies. Details on the process have not been shared yet.

Intraday Capacity Pricing. All TSOs proposed a single methodology for pricing intraday cross-zonal capacity, in accordance with Article 55 of Regulation 2015/1222, which is based on implicit auctions complementing continuous trading mechanism on European level. The draft methodology was submitted for public consultation from 11 April to 12 May 2017. All TSOs shall submit the final methodology to their respective NRAs at the latest by 14 August 2017.

2.2. NEMOs deliverables

The above draft all NEMO deliverable proposals, except for the plan of the market coupling operator function, are available on the [NEMO Committee website](#).

Plan for the market coupling operator function. On 14 February 2017, NRAs requested amendments to the NEMOs to already amended proposal for the setting-up and performance of the market coupling operator (hereafter referred to as “MCO”) function, developed in accordance with Article 7(3) of Regulation 2015/1222. All NEMOs submitted a further amended proposal on 13 April 2017 which was approved by all NRAs on 26 June 2017.

Day-ahead and intraday algorithms. All NEMOs submitted to their NRAs on 14 February 2017 the proposal for price coupling and continuous trading matching algorithms for the day-ahead and intraday markets in accordance with Article 37 of the Regulation 2015/1222.

Maximum and minimum prices. All NEMOs submitted to their NRAs on 14 February 2017 their proposal on harmonised maximum and minimum clearing prices to be applied in all bidding zones which participate in single day-ahead and intraday coupling, in accordance with Articles 41 and 54 of Regulation 2015/1222.

Back-up methodology. All NEMOs submitted to their NRAs on 14 February 2017 their back-up methodology in accordance with Article 36 of Regulation 2015/1222.

Products accommodated. All NEMOs submitted to their NRAs on 14 February 2017 their proposal on products that can be taken into account in the single day-ahead and single intraday couplings, in accordance with Articles 40 and 53(4) of Regulation 2015/1222.

All NRAs have until 14 August 2017 to approve or request amendments to the submitted proposals in accordance with Regulation 2015/1222.

2.3. Joint work of the TSOs and NEMOs

Extension of the non-disclosure agreement. The non-disclosure agreement that came into effect in February 2016 to allow the exchange of confidential information between all TSOs and NEMOs for the implementation of the single day-ahead and intraday coupling under the Regulation 2015/1222 welcomed a new interconnector operator, taking stock of the upcoming commissioning of new lines in the European Union and their consequent participation into the single day-ahead and intraday coupling.

Day-to-day management of the single day-ahead and intraday coupling. All NEMOs and all TSOs are in the process of setting-up a governance framework for the day-to-day management of the single day-ahead and intraday coupling, in accordance with Article 10 of Regulation 2015/1222.

3. Progress, challenges and current status of single day-ahead coupling and the way forward

3.1 Background

The aim of the MRC project is to create a cross-zonal day-ahead market in Europe. The MRC project is the basis for the implementation of the pan-European single day-ahead coupling under Regulation 2015/1222. Currently, the MRC project covers 23 countries², representing over 85% of the European electricity consumption. This is illustrated in Figure 1 below.

MRC makes use of a common price coupling algorithm, called PCR EUPHEMIA, to calculate electricity prices across Europe and to implicitly allocate auction-based cross-border capacity.

Under the single day-ahead coupling, two approaches for calculating cross-zonal capacity inputs for an implicit capacity allocation are possible pursuant to Regulation 2015/1222: coordinated³ net transmission capacity (hereafter referred to as “CNTC”) and flow-based (hereafter referred to as “FB”). Up until 2015, all single day-ahead market coupling projects applied the net transmission capacity (hereafter referred to as “NTC”) methodology. In May 2015 the CWE region introduced FB in MRC operations which was extended to cover Austria in November 2016.⁴

In parallel, the 4M Market Coupling project (hereafter referred to as “4M MC”) which also applies PCR EUPHEMIA, went live in November 2014. This day-ahead, price coupling project based on NTC covers the Czech, Slovak, Hungarian and Romanian markets as well as the borders between these bidding zones. 4M MC markets are planned to couple with MRC under the Core Flow-Based Market Coupling Project.

PCR EUPHEMIA algorithm is currently operated with one power exchange per Bidding Zone⁵. Additional functionalities such as enabling inclusion of multiple NEMOs are currently being designed and implemented.

Figure 1 below provides an illustration of the current state-of-play in the coupling of European day-ahead electricity markets as of January 2017. Greece, Ireland and Northern Ireland are highlighted as progressing towards market coupling, reflecting the ongoing work in these countries (e.g. electricity market reform in line with Regulation 2015/1222 requirements).

² The 23 countries are Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, Luxembourg, Norway, Poland, Portugal, Slovenia, Spain, Sweden, The Netherlands, GB, and Poland. Croatia and Bulgaria are full members of MRC and connected to the MRC calculation via PCR EUPHEMIA but without interconnector capacities. MRC JSC approves the status change of PSE from Observer to Full Member on 09 May 2017.

³ The level of coordination to be agreed by the relevant parties.

⁴ Starting with the delivery day 09 November 2016, APG is fully integrated in the flow-based capacity calculation processes of the CWE region.

⁵ Except in GB, where two power exchanges participate to the market coupling.

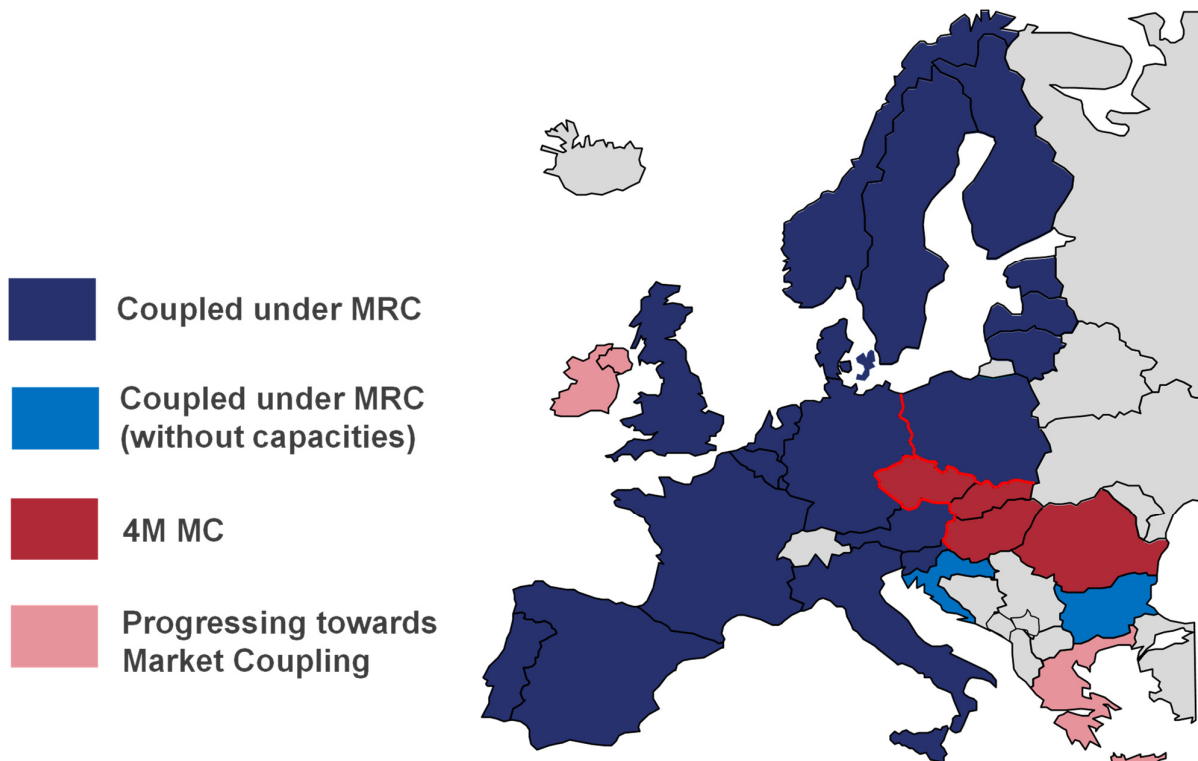


Figure 1: State-of-play in pan-European Single Day-Ahead Coupling as of July 2017⁶

3.2 Current status of the MRC project

The MRC project continues to successfully operate single day-ahead coupling despite several operational incidents, which had to be solved during this reporting period. However, none of these incidents had led to decoupling of any bidding zones. In light of increasing operational complexity, improvements to the IT systems are frequently introduced (e.g. continuous update of PCR EUPHEMIA algorithm) and MRC project monitors this risk intensively.

Table 1 below provides a concise list of MRC project achievements since August 2016. Table 2 below provides a summary of the quantity of major (i.e. full/partial decoupling) and minor incidents (e.g. delay of publication) in MRC operation since August 2016.

Quarter	Progress / Operational Achievements
Q3 2016	<ul style="list-style-type: none"> Evolution of MRC operational capabilities (e.g. PCR EUPHEMIA V9.4 fix 2 in operation)
Q4 2016	<ul style="list-style-type: none"> Evolution of MRC operational capabilities (e.g. PCR EUPHEMIA 9.5 release) Regulation 2015/1222 analysis in respect to changing the Day Ahead Operational Agreement (DAOA)
Q1 2017	<ul style="list-style-type: none"> Evolution of MRC operational capabilities (e.g. PCR Matcher Broker (PMB) 9 implemented)

⁶ Red line highlights that borders are not yet coupled between Austria, Germany, Poland, Slovenia, Czech Republic, Hungary and Slovakia.

	<ul style="list-style-type: none"> Threshold price for second auction in the bidding zones of France, Germany, Austria, Belgium and Netherlands modified to 1500 €/MWh (coming into effect 10 Jan 2017)
Q2 2017	<ul style="list-style-type: none"> Evolution of MRC operational capabilities (e.g. PCR EUPHEMIA 10.1 release with the new multi-threading technology)

Table 1 – MRC Progress / Achievements since August 2016

Adaptation to Regulation 2015/1222 obligations is ongoing within the MRC project. Another key challenge is the handling of multiple NEMOs and the implementation of related multi-NEMO arrangements, which is currently under evaluation between NEMOs and ENTSO-E, and in the relevant sub-regional coupling initiatives.

Quarter	Major Incidents (i.e. full/partial decoupling)	Minor incidents (e.g. delay of publication)
Q3 2016	0	7
Q4 2016	0	7
Q1 2017	0	11
Q2 2017	0	5

Table 2 – MRC Major and Minor Incidents⁷

⁷ Full disclosure of operational information (including incidents) is provided to NRAs on a regular basis.

3.3 Extending the MRC project since the Regulation 2015/1222 entered into force

The MRC project is well underway (e.g. PSE recognised as full member; the coupling of HR-SI via day-ahead Italian Northern border project has been formalised) despite the fact that some delays have been identified (e.g. IBWT (extension to CH) – Swiss Northern Borders (CH-AT, CH-DE, CH-FR) delayed in the course of ongoing bilateral negotiations between CH and EC.).

ENTSO-E appointed a high-level project manager in June 2016 in order to proactively manage MRC extensions in CEE and South-Eastern Europe (hereafter referred to as “SEE”) regions. The project manager analysed the possibilities of the regions and for the South-East European area prepared and finalised in May 2017 with concerned TSOs the report on *Enhancing market coupling of SEE region*, further details follow in subchapter 3.3.2.

In addition, the reconfiguration of the Irish and Northern Irish electricity market to enable integration with the rest of Europe via the MRC project is currently being developed with a planned go-live in May 2018.⁸

Finally yet importantly, ACER’s decision on the CCRs’ delineation had a crucial impact on the further planning of the electricity market integration especially in the CEE and CWE regions, which have formally started working on their merger in a single step to establish the so-called Core CCR, including newly the respective borders of Romania and Croatia.⁹

3.3.1 Progress in the Core CCR

Progress in the merged CEE and CWE regions – the Core capacity calculation region - was largely influenced by ACER’s decision on CCRs. The decision defines geographical areas in which coordinated cross-border capacity calculation and allocation shall be applied. A new region consisting of CWE and CEE borders is now extended with Romania - Hungary, Croatia – Hungary and Croatia - Slovenia borders. Moreover, congestion management shall be introduced on the German-Austrian border which effectively leads to a separated German and Austrian bidding zone.¹⁰

The ACER decision is crucial for proceeding with the next steps of the TSOs cooperation on flow-based capacity calculation methodology. In January 2017, the main body responsible for the fulfilment of all Core CCR obligations stemming from Network Codes and Guidelines related tasks - Core Steering Group - was formally established. From that moment, first meetings of Core CCR TSOs took place with NEMOs and market participants. Simultaneously, the development of the day-ahead flow-based methodology is well under way - first draft of the DA FB CC Concept Note has been submitted to the Core CCR NRAs for their initial feedback on the DA FB CC methodology.

⁸ In November 2016, the Irish and Northern Irish Regulators (CER and the Utility Regulator) announced their intention to extend the I-SEM Project go-live date from the 1st of October 2017 to the 23 May 2018.

⁹ The CWE and CEE regions signed a [memorandum of understanding](#) (MoU) in March 2016 to develop a common day-ahead flow-based capacity calculation methodology and merge the two regions into one.

¹⁰ The German NRA Bundesnetzagentur requested German TSOs to introduce congestion management between Germany and Austria by [October 2018](#).

In parallel, considering ACER's decision 06/2016 establishing a Core CCR out of the former CWE and CEE regions, including Romania and Croatia, the CEE High Level Meeting decided to formally terminate the Memorandum of Understanding on TSOs' cooperation within the framework of Central Eastern Europe Electricity Regional Initiative (2006) as well as the Rules of Regional Cooperation by 30.06.2017. TSOs and NEMOs of the former CEE Region which are not yet coupled via the MRC project have renamed the NWE-CEE Flow-Based Market Coupling project to Core Flow-Based Market Coupling project according to the new needs in the Core CCR, which will involve also the CWE TSOs in the future. Romania has adhered to the project. Revision of the roadmap and the project documents in respect of the new CCR context are under discussion.

3.3.2 Progress in the SEE CCR

For the purpose of this report, the SEE region includes bidding zone borders of the future extended / enlarged SEE CCR. It therefore consists of the SEE CCR according to the ACER decision¹¹ and additional bidding zone borders (non-EU or at the interface EU/non-EU) in line with the explanatory document to the „all TSOs“ proposal for CCRs¹² as well as the borders of Albania and Kosovo*.

As outlined in the previous reports, the electricity markets in the SEE CCR are small, fragmented and in different stages of maturity. In most SEE CCR countries, markets rely still much on bilateral contracts. Most markets have regulated segments and incumbent utilities in dominating position and also lack reliable price signals.

To make the market work, ENTSO-E with SEE CCR TSOs in the lead are taking active steps to ameliorate the situation of electricity markets in the SEE CCR and to move forward towards coupled markets. Within the reporting period, the main steps taken by TSOs and related developments are highlighted in the following paragraphs.

Western Balkan 6 (WB6) process:¹³ WB6 TSOs perform a leading role in the initial phase of implementing the “Memorandum of Understanding on regional electricity market development and establishing a framework for other future collaboration” ([MoU](#)) of 27 April 2016. The WB6 MoU sets two main objectives: (1) coupling of national organised day-ahead markets with at least one neighbouring WB6 or EU country by July 2018; and (2) the finalisation of the project implementation agreements; and implementing a cross-border balancing cooperation between the WB6 countries by 31 December 2018. Furthermore, both projects shall support wider regional and European integration processes.

Since the signature of the WB6 MoU the following EU neighbours adhered to the initiative: Italian NRA and TSO, Croatian NEMO, Bulgarian NRA, TSO and NEMO, Greek TSO and NEMO, Romanian TSO, Hungarian NRA, TSO and NEMO.¹⁴

¹¹ Decision of the Agency for the cooperation of energy regulators [No 06/2016](#) of 17 November 2016 on the electricity transmission system operator's proposal for the determination of Capacity Calculation Regions, available online:

¹² [Annex 1](#) “Future composition of CCRs including various non-EU bidding zone borders” of the “Explanatory document to all TSOs’ proposal for CCRs in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management” (dated 29 October 2015) submitted by “all TSOs” to “all NRAs” for information purposes only), available online:

¹³ For further background, refer to the 2nd Report on the progress and potential problems with the implementation of Single Day ahead and Intraday Coupling of 6 February 2017, [on-line], page 9

¹⁴ Other relevant parties are in the process of adhering to such MoU.

During the reporting period, a governing structure (Day-Ahead Market Integration Program Steering Committee represented by TSOs, PXs, NRAs and Ministries) decided on the nomination of eight projects (three common regional projects and five day-ahead market establishment and coupling border by border projects). Three common regional projects should provide harmonization of solutions and compatibility with MRC. The signatory parties continue to work closely to meet the MoU targets.

ENTSO-E Report on Enhancing market coupling of South Eastern Europe region:¹⁵

ENTSO-E appointed a high-level project manager for TSO-side preparations to ensure that the MRC extensions are carried out in a coordinated, consistent and timely manner, to cover all of Europe, including SEE CCR. The report was finalised and published in May 2017 on the ENTSO-E websites, basically covering the following areas:

- i. Status of each analysed country (see the Figure 2) and a gap analysis of their electricity markets - gap analysis about what legal and other elements are still missing and when expected to be in place. Closing these gaps is necessary to progress towards day ahead market coupling.

■ Analysed countries

EU

- Bulgaria
- Croatia
- Greece

WB6 countries (EnC)

- Albania (OST, ENTSO-E member)
- Bosnia and Herzegovina (NOSBiH, ENTSO-E member)
- FYR of Macedonia (MEPSO, ENTSO-E member)
- Montenegro (CGES, ENTSO-E member)
- Kosovo* (KOSTT, non ENTSO-E member)
- Serbia (EMS, ENTSO-E member)



Figure 2: Analysed countries in the SEE report

- ii. Tentative roadmap towards a regional market and recommendations to ensure regional coordination – the recommended strategy is to couple border by border by 2020, based on national and bilateral initiatives.

¹⁵ Full SEE [report](#) available online

* Designation to Kosovo is without prejudice to positions on status, and is in line with UN SC Resolution 1244 and the ICJ Opinion on the Kosovo declaration of independence.

According to the recommendations made by the project manager, coupling of SEE CCR markets can realistically happen only in steps and through decentralised structures. MRC structure for contracts and governance in market coupling should be followed as applicable to pave the way to SEE/MRC integration. The WB6 process should ensure regional coordination and compatibility between national/bilateral initiatives. The Extension of the Central and South Eastern Europe Gas Connectivity initiative to electricity (CESECe) can facilitate this process but should be carefully aligned with the existing activities to avoid overlapping. Energy Community Secretariat (EnCS) and EC need to solve the transposition of necessary legal background, both electricity and non-electricity related. Accomplishment of the Croatian - Slovenian market coupling could be the starting point for MRC extension to SEE CCR. Developments towards SEE CCR are also possible through the 4MMC (Czech Rep., Slovakia, Hungary, Romania) market coupling projects with Croatia, Serbia and Bulgaria.

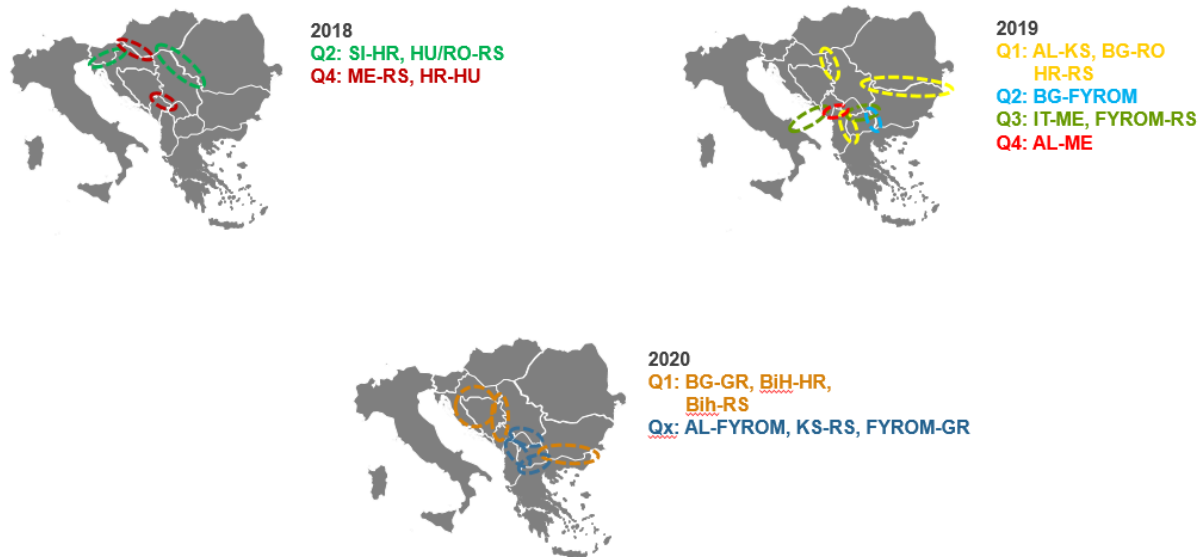


Figure 3: Tentative roadmap to regional SEE market

ENTSO-E continuously reminds the Energy Community Secretariat (EnCS) and EC of the need to solve the transposition of necessary legal background (especially EU Network Codes and Guidelines) in the EnC:

In the reporting period, ENTSO-E sent another letter to EC and EnCS on 24 February 2017 recalling that a lack of action by EC and EnCS seriously jeopardizes the implementation process of EU regulations performed by the TSOs of the SEE CCR. It has to be recalled that the Energy Community Contracting Parties (EnCCP) - by decision of the Ministerial Council of October 2011 - committed to implement the 3rd IEM Package by 01 January 2015 the latest and this also includes the NCs and GLs. However, despite such strong commitment of the EnC to fully implement the EU NCs/GLs in the whole area and in due time, the SEE countries, including EnCCPs, are still waiting for receiving a clear proposal for NCs and GLs implementation from the EnCS and the EC.

This creates a risk of undermining the objective of the NCs process which is to harmonise and ensure homogeneity of market, operational, connection and other technical rules in the operational, planning and market areas relevant to the EU, and these include almost all EnCCPs (in particular those in South-East Europe – in recent time often referred to as Western Balkans 6). Relevant TSOs are subject only to voluntary and partial NCs and GLs implementation with risk not to be able to fulfil the obligations and meet the deadlines as set in the NCs/GLs.

Similar risk exists regarding the future market integration initiatives between EnCCPs and Member States (MSs) as the lack of explicit comfort from EC on legal preconditions keeps significant uncertainty about the requirements towards EnCCPs to become operational part of the European IEM. That is why it is an outstanding issue of the upcoming months to identify the non-electricity related legal background, if any, needed to be implemented also – besides or even before the NCs/GLs– to ensure comfort to pave the way for the integration of projects between EnCCPs and MSs.

On 25 April 2017, ENTSO-E received a general response from the EC not solving the issue. Its main points can be summarized as follows:

- Revision of the rules of the EnC Treaty and the respective EU rules is under way;
- Legally binding framework is not an indispensable prerequisite for progress in the establishment of markets. A significant progress in SEE can be reached by way of voluntary projects, provided that they have the necessary political support.
- Extension of CESEC initiative to electricity (CESECe) – EC is preparing the Annex with Action Plan to the CESECe MoU with the aim to make sure that also the relevant EU neighbours cooperate closely with the countries of the EnC in the establishment of a SEE electricity trading region and to avoid incompatible solutions.
- EC encouraged ENTSO-E to make the creation of a functioning SEE CCR a priority. Proactive cooperation of ENTSO-E and its member TSOs in the WB6 and the CESECe initiatives, notably by developing a suitable roadmap and proposing pilot projects for the further integration of the SEE CCR, will be of key importance for further progress.

Extension of CESEC initiative to electricity

In September 2016, the regional initiative Central and South Eastern Europe Gas Connectivity (CESEC) decided to broaden its mandate beyond gas and include other key areas such as: electricity trading and market coupling; the coordinated planning and development of power grid infrastructures; and renewable energy and energy efficiency. CESEC states that there is a clear need for a single SEE market coupling region encompassing EU and WB 6 partners and it is seen as a physical requirement, as many EU interconnectors in the South East run through EnCCPs.

The Annex with Action Plan to CESECe MoU was drafted in May 2017.

3.3.3 Next steps of MRC extensions

In the timeline shown in Table 3 below, the steps for extending the MRC are depicted in chronological order. In line with Regulation 2015/1222, the targets for the extension can be either: (a) CNTC based capacity inputs; or (b) FB; or (c) CNTC based and FB in succession. In any case the displayed target times are indicative and do not account for contingencies. Moreover some of the extensions might partially or fully change and/or be cancelled in favour of alternatives.

CNTC / FB	Description	Borders	Target time
CNTC	CNTC MC through IBWT as interim coupling step with MRC	ELES (Slovenia) – HOPS (Croatia)	Q2 2018
CNTC	HVDC Links between the SEM (Ireland and Northern Ireland) and GB joining MRC project (CACM (Article 83) transitional exemption for Irish market reform)	EirGrid (Ireland) – NG (GB); SONI (Northern Ireland) – NG (GB)	Q2 2018
CNTC	HVDC Link between Greece and Italy joining MRC project (following Greek market reform)	IPTO (Greece) – Terna (Italy)	Q3 2018
FB	Flow-Based Market Coupling project	Amprion GmbH, TenneT TSO GmbH, TransnetBW GmbH-(Germany)-APG(Austria)	Q4 2018
CNTC	HVDC Link between Kosovo and Albania joining MRC project	KOSTT (Kosovo) – OST (Albania)	Q1 2019
FB	Core Flow-Based Market Coupling project	New borders: 50Hertz (Germany) – ČEPS (Czech); APG (Austria) – ČEPS (Czech); APG (Austria) – MAVIR (Hungary); ČEPS (Czech) – Tennet (Germany); 50Hertz (Germany) – PSE (Poland); ČEPS (Czech) – PSE (Poland); SEPS (Slovakia) – PSE (Poland); ELES (Slovenia) – HOPS (Croatia); ELES (Slovenia) – APG (Austria); ČEPS (Czech) – SEPS (Slovakia); SEPS (Slovakia) – MAVIR (Hungary); MAVIR (Hungary) – Transelectrica (Romania); MAVIR (Hungary) – HOPS (Croatia); MAVIR (Hungary) – ELES (Slovenia)	earliest Q3 2019 ¹⁶

Table 3 – MRC extension next steps / indicative timelines

¹⁶ Roadmap under investigation. Go-live of DA FB capacity calculation is expected by Q1-Q2 2020 so the target time of Core FB MC Project might need to be adjusted accordingly

CNTC / FB	Description	Borders	Target time
CNTC	SEE regional coupling joining MRC through neighbouring countries in a step-by-step approach	EMS (Serbia) – HOPS (Croatia); EMS (Serbia) – MAVIR (Hungary); EMS (Serbia) – NOS BiH (Bosnia and Herzegovina); EMS (Serbia) – Transelectrica (Romania); HOPS (Croatia) – NOS BiH (Bosnia and Herzegovina);	Expected to be fully implemented by 2020
CNTC	Greece, Bulgaria and Romania coupling within MRC	ESO (Bulgaria) – IPTO (Greece); ESO (Bulgaria) – Transelectrica (Romania)	2020
CNTC	“Western Balkan 6” full coupling within MRC	CGES (Montenegro) – NOS BiH (Bosnia and Herzegovina); CGES (Montenegro) – OST (Albania); EMS (Serbia) – ESO (Bulgaria); EMS (Serbia) – KOSTT ((Kosovo); EMS (Serbia) – MEPSO (FYROM); IPTO (Greece) – OST (Albania); IPTO (Greece) – MEPSO (FYROM); KOSTT (Kosovo) – MEPSO (FYROM); Terna (Italy) – CGES (Montenegro); ESO (Bulgaria) – MEPSO (FYROM)	2022

Table 4 – MRC extension next steps / indicative timelines (continued)

4. Progress, challenges and current status of single intraday coupling and the way forward

4.1 Background

The aim of the XBID project is to create a cross-zonal intraday market in Europe. The XBID project is the basis for the implementation of the pan-European single intraday coupling under the Regulation 2015/1222. Currently, the XBID project is comprised of members from 14 European countries as illustrated in Figure 4 below.¹⁷

This intraday market coupling solution will enable continuous cross-border trading across Europe and will be based on a common IT system with a shared order book (hereafter referred to as “SOB”), a single capacity management module (hereafter referred to as “CMM”) and a shipping module (hereafter referred to as “SM”). The common IT system will accommodate the continuous matching of bids and orders from market participants in one bidding zone with bids and orders coming from its own bidding zone and from any other bidding zone within the project’s reach while cross-zonal capacity is still available. It furthermore allows for the participation of multiple NEMOs per country.

There are three distinct work streams associated with the XBID project, namely: (1) the XBID project itself which is the basis of the pan-European intraday solution; (2) the local implementation projects (hereafter referred to as “LIPs”) by current members; and (3) the XBID accession stream (hereafter referred to as “AS”) facilitating future members of the XBID project.

¹⁷ The 14 countries are: Austria, Belgium, Denmark, Finland, France, Germany, Great Britain, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, and the Netherlands. Please note that the TSOs of Italy, Portugal and Spain are currently not members of the XBID project. GME (the Italian NEMO) and OMIE (the Spanish and Portuguese NEMOs) are full members of the XBID Project. REE (Spain) is a direct observer since 2014 and REN (Portugal) as well as Terna (Italy) are in the XBID Accession Stream.

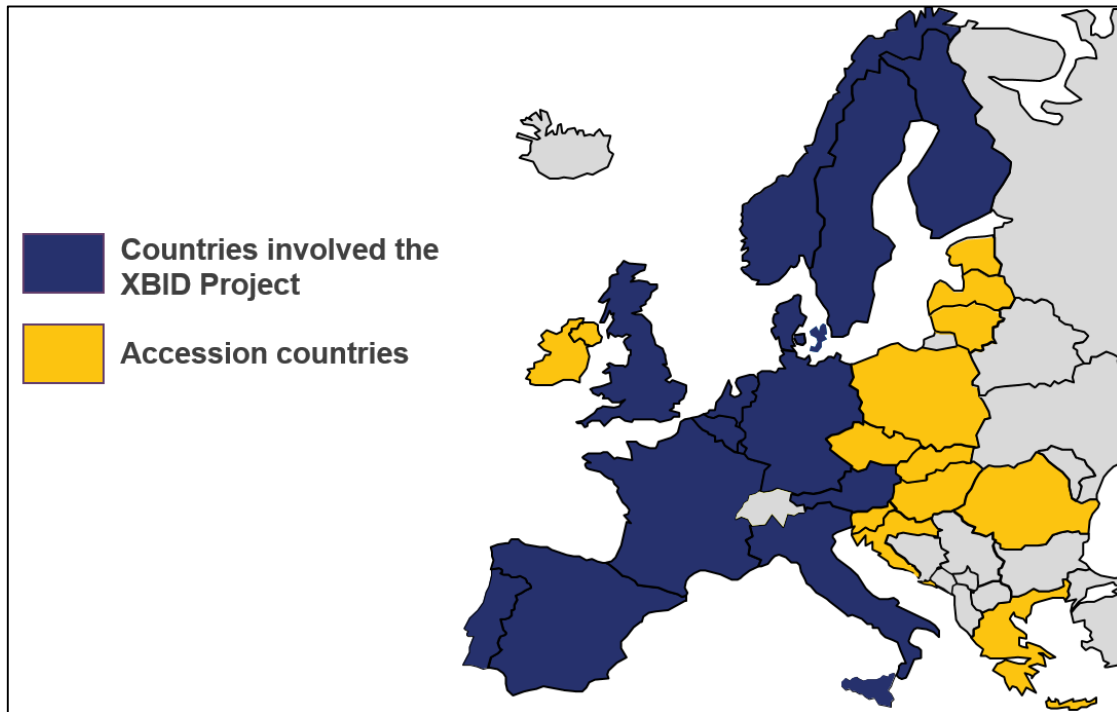


Figure 4: State-of-play in pan-European Single Intraday Coupling as of July 2017

Swissgrid (TSO of Switzerland) has left the XBID project in January 2017 based on the negative feedback of the European Commission to include the Swiss borders in the XBID mechanism. In the letter sent to the XBID project in December 2016 the EC underlined the fact that the participation of Switzerland in the single intraday market coupling is dependent upon an intergovernmental agreement on electricity cooperation in line with Article 1(4) and (5) of the Regulation 2015/1222. However, the EC remains confident that a solution is possible in the future as for example in the case of Norway. Swissgrid intends to enter into the XBID Accession Stream and thus will approach the project to discuss the respective details.

4.2 Current status of XBID project

The XBID solution, i.e. the SOB, CMM and SM modules, is developed exclusively by Deutsche Börse AG (hereafter referred to as “DBAG”). DBAG and the NEMOs are jointly the contracting parties for the XBID solution. TSOs involved in the XBID solution contract directly with the relevant NEMOs covering TSO-only related issues (e.g. CMM obligations).

In 2016 the development of the CMM, SM as well as the SOB was completed. In the first and second quarter of 2017 the XBID project has, in respect to IT developments and testing, successfully completed the first and second phase of User Acceptance Test (UAT 1 and 3). Moreover extended Integration Acceptance Testing and Integration Failover Tests as well as the TSOs MPLSs (secure communications channels) testing have been executed. LIP testing started in May and is planned to be concluded in Q3 2017. In respect to contracts & operations the XBID project has selected the Joint Allocation Office to provide Central Administration activities for CMM (and TSO responsibilities within SM). A service provider has been selected by the NEMOs to undertake additional security tests on XBID in respect to internet access and the Shipping Arrangements have been confirmed for all LIPs planning to be part of the first XBID go-live phase.

In Table 4 below, major milestones of XBID developments are displayed in chronological order.

Quarter	Progress / Achievements
Q3 2016	<ul style="list-style-type: none"> ▪ TSO decision that preferred shipper setup will be used as the interim shipping model with confirmation of support from NRAs ▪ TSO IAT, NEMO IAT, SM IAT, Pre-UAT Performance Test
Q4 2016	<ul style="list-style-type: none"> ▪ Commencement of UAT Phase I (first functional test)
Q1 2017	<ul style="list-style-type: none"> ▪ Completion of User Acceptance Test (UAT) Functional Tests ▪ Completion of Integration Failover Testing ▪ LIP Connectivity Testing
Q2 2017	<ul style="list-style-type: none"> ▪ Completion of UAT Integration Acceptance Tests ▪ Agreement of ECP Hosting and Maintenance Contract between TSOs and DBAG ▪ Commencement of LIP Pre-coupling testing

Table 4 - XBID Progress / Achievements since August 2016

Several challenges are still to be overcome before a successful XBID go-live. These challenges can be categorized into two groups: 1. Go-live preparation; and 2. Future evolution of the XBID solution.

In respect to go-live preparation, LIP readiness is a key challenge in order to ensure a timely start of intraday cross-zonal coupling. In order to ensure the readiness of the LIPs which intend to go-live in the first phase, a stringent testing process needs to be successfully completed in line with the agreed criteria.¹⁸ This is monitored on a monthly basis by NEMO and TSO test coordinators. A full report on the LIP readiness will be available once XBID is technically ready for go-live.

Another key challenge is the handling of multiple NEMOs in the relevant shipping arrangements. In Q3 2016, TSOs opted for the “preferred shipper option” meaning that the preferred Shipping Agent designated by the source NEMO would be used by default all along the path, ensuring equal treatment amongst competing NEMOs. However, modifications to the XBID IT System (i.e. Release 1.2) are currently being developed in order to enable the agreed shipping solution also between NEMOs active in multiple Bidding Zones and NEMOs active in a single Bidding Zone (eg. France-Spain or North Italian borders).

Furthermore a key challenge continues to be cost sharing between TSOs and NEMOs as well as cost recovery by the relevant parties. NRAs sent a letter to the TSOs and NEMOs on 10 July 2017 confirming the cost arrangements under CACM for the period from 15 August 2015 to 13 February 2017. This letter confirmed the sharing key under the All Parties Cooperation Agreement (APCA) for this period. Furthermore NRAs clarified, that all costs incurred as of 14 February 2017 must be treated in accordance with the CACM GL. From 14 February 2017 the project preliminary continues to run under the APCA cost sharing and recovery principles. This means that the TSOs preliminary continue to fully compensate NWE NEMO costs. It is understood that the costs for this period will be retroactively shared amongst all Member States in line with the CACM cost sharing principles once XBID go-live has been secured and that the respective sharing of the costs in the Member States is a national competence. The situation contributes to the nervousness amongst all parties and especially the NEMOs in the framework of the Multi-Nemo arrangements.

In May 2017, the project parties received a letter from the NRAs regarding Intraday/XBID cost categorisation and sharing. The project parties felt that the letter did not provide sufficient clarity on several aspects of cost sharing and recovery which were then discussed with the EC. At a XBID Strategy Workshop convened by the EC, and held on 10 July 2017, the NRAs stated that by the end of September 2017 they will confirm the cost sharing arrangement for each Member State. There are several other points of clarification which have been raised by Project Parties with the EC and NRAs and to which a response is awaited. The NRAs, through the Board of Regulators, have also been asked by the EC to provide clarity on LIP cost sharing and recovery frameworks.

Regarding the future evolution of the XBID solution, the full compliance to with Regulation 2015/1222 requirements is the key challenge, e.g. the pricing of intraday capacities, the handling of direct current (hereafter referred to as “DC”) losses or the application of flow-based parameters will not be considered for the go-live and will need to be fully specified and included by use of change requests towards DBAG at a later stage. Moreover, additional investments in the XBID modules as well as the technical infrastructure are likely to be needed in order to be able to handle additional usage of the solution. The performance tests starting in June 2017 will shed light on this.

¹⁸ The list of requirements to be fulfilled by LIP's to be part of XBID go-live are agreed. It is LIP responsibility to ensure readiness for go-live – the central XBID project will monitor: a) Operational team readiness in accordance with the regional/local and XBID procedures; b) All regulatory requirements fulfilled and regulatory approval(s) received (where required); c) All required regional/local arrangements established, or, when and where applicable, regional/local contracts signed; d) All relevant market participants were informed about the foreseen changes; e) System readiness – successful completion of LIP Testing; e) Local procedures between parties agreed in line with XBID procedures

Additionally, an Intraday Operation Agreement (hereafter referred to as “IDOA”) which will become the agreement for the cooperation of NEMOs and TSOs regarding the operation of the XBID solution in compliance with terms, conditions, plans and methodologies developed under Regulation 2015/1222, shall be agreed by all participating NEMOs and all participating TSOs prior to the technical readiness of the XBID Solution in November 2017. The XBID parties increased their meeting frequency to speed up the intense negotiations in order to achieve the set deadline. This IDOA shall then be submitted to the NRAs. Moreover AS NEMOs and TSOs are fully involved in the IDOA discussions to enable their adherence to the agreement.

Figure 3 provides a diagrammatic overview of the project planning until go-live of the XBID project, predominantly for current members.

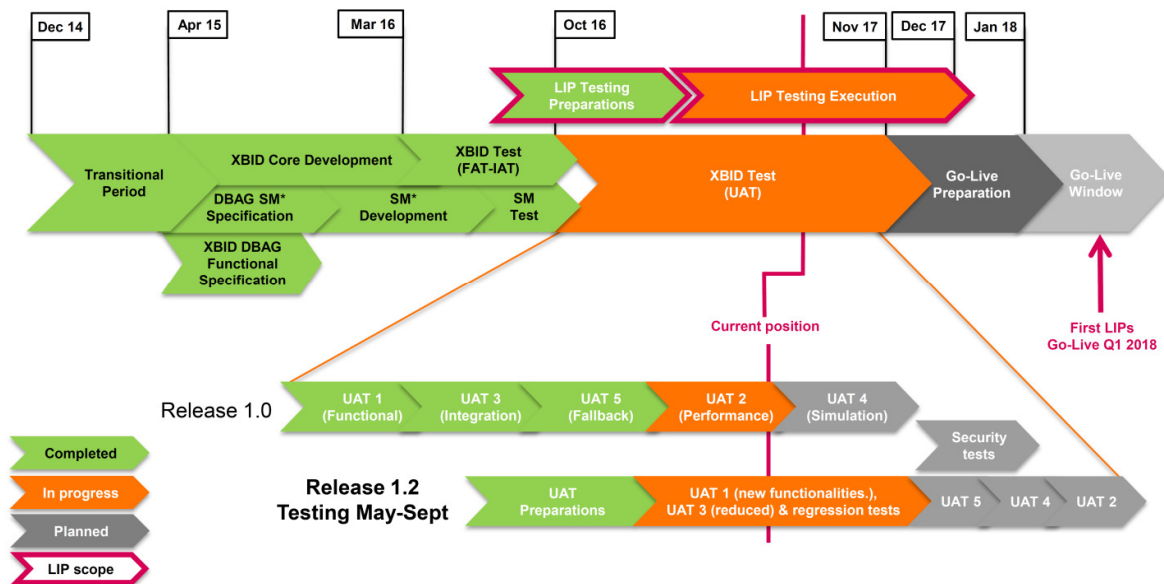


Figure 5: XBID project plan (as of July 2017)

The extended project timeline has been communicated to stakeholders including the market parties, NRAs and EC on various occasions in early 2017. In essence the XBID project now entails a technical as well as business Go-live window. The technical readiness, i.e. fully tested and functional XBID IT platform, is planned for November 2017, the Go-live of the various LIPs of the first phase is planned to be executed in Q1 2018.

The stages colored in green are successfully completed by the XBID project. At present the XBID project executes the various User Acceptance and LIP Tests, based on the extended XBID release for Go-live which includes key enhancements such as the multi-Nemo Shipping Arrangement. The stages colored in grey are planned in Q3/Q4 2017 as well as Q1 2018.

4.3 XBID LIPs (1st phase of XBID go-live)

In total 10 LIPs are currently participating in the readiness testing in order to be able to take part in the 1st Phase of go-live which will be executed starting in Q1 2018. It is possible that not all LIPs will meet the agreed go-live criteria and will therefore go-live in a later phase. The following paragraphs describe each LIP of the 1st Phase and its participants in a (as far as possible) chronological order. This is reflected in the figure 6.

LIP 1 is called NORDIC LIP and covers all borders within the Nordic region (i.e. Denmark, Finland, Sweden and Norway). The TSOs Energinet.dk, Svenska kraftnät, Statnett and Fingrid as well as the NEMOs EPEX and Nord Pool are participants to this LIP. In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the adjustment of LIP test planning is agreed and approved by the Joint Coordination Team. A technical solution ensuring compatibility of all NEMOs/CCPs systems as shippers with the eSett settlement system has been identified. A legal assessment is pending. LIP 1 has opted for the “preferred shipper” solution for XBID Go-Live. Nordic TSOs’ own systems can support “preferred shipper” solution. Concerning the eSett settlement system, which successfully went live on 01/05/2017, there will be sufficient support for multi-NEMO and multiple shipper arrangements.

LIP 2 is referred to as DK2/DE (Kontek) and covers a Danish (DK2) and German border. Kontek is the high voltage direct current (hereafter referred to as “HVDC”) cable between Germany and the Danish island Zealand. The TSOs Energinet.dk and 50Hertz are involved in the LIP as well as the NEMOs EPEX and Nord Pool. In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the decision on shipping solution is taken (i.e. preferred shipper). The decision has been taken that no explicit access will be granted. In addition, LIP2 master test plan and majority of bilateral tests are completed. The test cases for Functional Integration Testing and detailed scenarios are drafted.

LIP 3 is referred to as DK1/DE, DE/NL and covers a Danish (DK1) and German border as well as the border of Germany and the Netherlands. The TSOs Energinet.dk, TenneT Netherlands, TenneT Germany and Amprion, as well as the NEMOs EPEX and Nord Pool, are participants to this LIP. In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the decision on shipping solution is taken (i.e. preferred shipper). The decision has been taken that no explicit access will be granted. In addition, LIP procedures are currently being drafted. LIP 3 master test plan and all bilateral tests are fully completed. The test cases for Functional Integration Testing and detailed scenarios are drafted.

LIP 4 is called NorNed and covers the border of Norway and the Netherlands. NorNed is the HVDC cable connecting both countries. Statnett and TenneT NL are the participating TSOs here and the NEMOs are EPEX and Nord Pool. In respect to XBID LIP monitoring the current status is yellow (i.e. “deadline potentially at risk”) as implementing the solution for supporting multiple NEMOs in the Nordics is foreseen to be completed shortly before the LIP testing window end. The decision has been taken that no explicit access will be granted. In addition, LIP procedures, master test plan, test cases identified and detailed scenarios are being currently drafted.

LIP 5 covers the German – French and German – Austrian borders.¹⁹ The participating TSOs are Amprion, TenneT Germany, TransnetBW, APG and RTE. The NEMOs EPEX and Nord Pool are

¹⁹ Based on the guidance of the EC in respect to the exclusion of Switzerland the German – Swiss as well as French – Swiss border has been taken out of this LIP for initial Go-live. Moreover LIP 11 which covers the border between Austria and Switzerland is on hold.

involved. In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the decision on shipping solution is taken (i.e. preferred shipper). The decision has been taken that explicit access will be granted on the German – French border only. In addition, LIP procedures, master test plan, test cases identified and detailed scenarios are being currently drafted.

LIP 6 covers the Netherlands and Belgian border and the TSO members are Elia and TenneT Netherlands. the NEMOs involved are EPEX and NordPool. In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the decision on shipping solution is taken (i.e. preferred shipper). The decision has been taken that no explicit access will be granted. In addition, LIP procedures, master test plan, test cases identified and detailed scenarios are being currently drafted.

LIP 8 covers the French and Belgian border. Elia and RTE are participating TSOs and the NEMOs involved are EPEX and NordPool. In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the decision on shipping solution is taken (i.e. preferred shipper). The decision has been taken that no explicit access will be granted. In addition, LIP procedures, master test plan, test cases identified and detailed scenarios are being currently drafted.

LIP 9 and LIP 12 cover the borders of Spain and France as well as Spain and Portugal. REE, RTE and REN are the TSOs involved and the NEMOs OMIE, EPEX and Nord Pool are participating. In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the decision on shipping solution is taken (i.e. preferred shipper). The decision has been taken that no explicit access will be granted. In addition, LIP procedures, master test plan, test cases identified and detailed scenarios are being currently drafted.

LIP 13 is covers the Baltic region as well as the DC interconnectors to the Nordics. The TSOs Elering, Litgrid, AST, Fingrid (for Estlink) and Svenska Kraftnät (for NordBalt) as well as the NEMO Nord Pool are participating to this LIP.²⁰ In respect to XBID LIP monitoring the current status is green (i.e. “on schedule”) as the decision on shipping solution is taken (i.e. single shipper). The decision has been taken that no explicit access will be granted. In addition, LIP procedures, master test plan, test cases identified and detailed scenarios are being currently drafted.

In order to Go-live in a structured manner the XBID project has jointly agreed on activities and deliverables as well as responsibilities assigned to XBID project bodies and to LIPs. These include amongst others: Go-live check list and script; Launch strategy and planning (assumption that all parties Go-Live at the same time, i.e. a big bang); Operational organisation (IC, OPSCOM, etc.); XBID Operational Agreement (IDOA) and local agreements; Operational training; Go-Live readiness monitoring; NEMO members testing; Central communication to market participants on go-live status & alignment of decentralized communications with LIPs etc..

A geographic overview of the LIPs, 1st and 2nd Phase, is illustrated in Figure 6.

²⁰ The relevant AS parties have signed a LIP Testing Agreement which enables also AS parties take part in LIP testing to prepare for Go-live.

4.4 Extending XBID project

4.4.1 XBID accession stream

The XBID project initiated an AS with the objective to increase transparency on the pan-European intraday project and to prepare accessions for a timely extension of the project to all TSOs and NEMOs in line with Regulation 2015/1222.

AS parties have decided to formally set-up the group defining and adhering to the AS terms of reference (hereafter referred to as “ToR”), which basically defines the objectives, principles, responsibilities and the decision making process. The parties that have adhered to the AS ToR are: the TSOs and NEMOs PSE and TGE (Poland), Transelectrica and OPCOM (Romania), ELES and BSP (Slovenia), CEPS and OTE (Czech Republic), HOPS and CROPEX (Croatia), IPTO and Lagie (Greece), MAVIR and HUPX (Hungary), EirGrid and SONI (in their roles as TSOs and NEMOs for Ireland and Northern Ireland) as well as the TSOs Elering (Estonia), REN (Portugal), AST (Latvia), Litgrid (Lithuania) and Terna (Italy) and the NEMOs OKTE (Slovakia), EXAA (Austria) and IBEX (Bulgaria).²¹

The AS is mobilised with regular management events. The transfer of knowledge from current to future XBID parties has been managed through a series of five workshops in 2016 and additionally four management events from January to June 2017.

AS parties are able to participate as observers in all XBID working groups. In particular, AS members are actively participating in the definition of the enduring solutions that impact TSOs and NEMOs subject to the Regulation 2015/1222 in the course of the IDOA discussions.

4.4.2 XBID LIPs (after Go-live)

AS parties have forecast their next steps of accession, in particular the phases when they intend to go-live. These can be classified in four groups:

1. go-live in the 1st Phase (See Section 4.3);
2. go-live in 2nd Phase;
3. go-live in 3rd Phase; and
4. parties/LIPs who did not express their targets by July 2017.

In respect to the 2nd Phase of XBID go-live the following LIPs have been formally established or are intending to establish a LIP shortly:

LIP 7 is called the BritNed LIP and incorporates the BritNed HVDC interconnector and the borders of Great-Britain and the Netherlands. The participating TSOs are BritNed Development Ltd, National Grid and TenneT Netherlands. EPEX is the participating NEMO.

LIP 10 is called the IFA LIP and covers the French and GB borders via the HVDC interconnector named Interconnexion France-Angleterre (hereafter referred to as “IFA”). RTE and National Grid are participating in the project as TSOs. EPEX and Nord Pool are participating NEMOs.

²¹ The following TSOs/NEMOs do not yet adhere to the AS ToRs: EMS and SEEPEX (Serbia) as well as SEPS (Slovakia).

LIP 14 is called Italian Northern Borders (hereafter referred to as “IBWT”) covers the borders IT-FR, IT-CH, IT-SI, IT-AT, AT-SI as well as IT-GR. The parties to this LIP are the TSOs Terna, RTE, Swissgrid, Eles, APG and Admie. The involved NEMOs are GME, EPEX, Nord Pool, EXAA, BSP and Lagie. Similar to the process in the day-ahead market this LIP is likely to go-live on a border-per-border basis.

LIP 15 covers the borders DE-CZ, AT-CZ, AT-HU as well as HU-RO.²² The parties to this LIP are the TSOs 50Hertz, TenneT Germany, APG, ČEPS, MAVIR and Transelectrica. The involved NEMOs are EPEX, EXAA, Nord Pool, OTE, HUPX and OPCOM. An MoU has just been signed between the aforementioned parties. The Slovak TSO and NEMO are also invited to join this LIP.

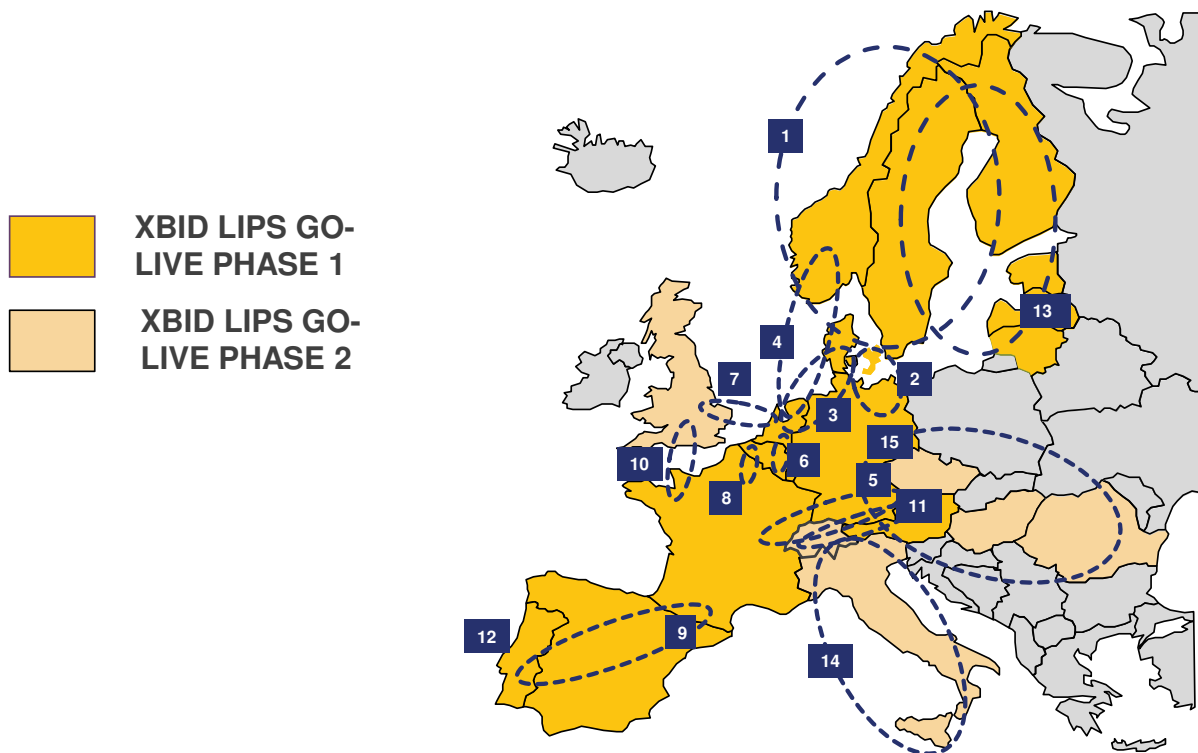


Figure 6: XBID local implementation projects (Phase 1 and 2)

Relevant parties are currently exploring the setup of a LIP to cover the borders Poland – Sweden as well as Poland – Lithuania. Croatian parties have explicitly stated their willingness to establish a LIP, 2nd Phase LIP configuration is investigated at the moment.

With respect to the 3rd Phase of XBID go-live, no formal feedback has been received during this period from the remaining parties.

An interim intraday solution in Ireland and Northern Ireland is currently being developed since the XBID project will not be available for I-SEM go-live in May 2018. It is the intention that this solution will include cross-border auctions.

²² The establishment of this LIP was officially communicated to the XBID Project on 31 May 2017.

5. Summary

This is the third report to be delivered in compliance with Article 82(2)(a) of the Regulation 2015/1222, which requires ENTSO-E to monitor the progress and potential problems with the implementation of the day-ahead and intraday coupling across Europe. In line with the ENTSO-E Monitoring Plan, this “Report on the progress and potential problems with the implementation of Single Day-Ahead and Intraday Coupling” will be delivered to ACER in August 2017 and covers the period from February 2017 onwards.

As in its previous two editions, the third report begins by highlighting the transversal progress in day-ahead and intraday coupling in terms of all TSOs and all NEMOs deliverables under the Regulation 2015/1222. Within the reporting period, all TSOs proposed an amendment of the CCRs as defined by ACER decision of 17 November 2016 in accordance with article 15(3) of Regulation 2015/1222,, which was followed by public consultation and its submission to all national regulatory authorities. Furthermore, all TSOs submitted to their NRAs the amended versions of Common Grid Model, Day-ahead firmness deadline, Intraday cross-zonal gate opening and gate closure times, calculation of scheduled exchanges resulting from single intraday and day-ahead coupling and Congestion Income Distribution methodologies. Moreover, the Intraday Capacity Pricing methodology has been provided to NRAs.

The MRC project for pan-European day-ahead coupling covers twenty-three countries, representing over 85 % of Europe’s electricity consumption. The MRC project continued to operate day-ahead coupling without any major incident (i.e. full / partial decouplings of any bidding zone). Progress and achievements in MRC extension projects include the recognition of PSE as full member as of July 2017. Considering ACER Decision 06/2016 establishing a Core CCR out of the former CWE and CEE regions, including Romania and Croatia, CEE TSO High Level Meeting decided to formally terminate TSOs’ cooperation within the framework of Central Eastern Europe Electricity Regional Initiative (2006) by 30 June 2017. TSOs and NEMOs in the former CEE Region which are not yet coupled via the MRC project have started the joint Core Flow-Based Market Coupling project according to the new needs in the Core region which involves also the CWE TSOs.

The XBID project for pan-European Intraday Coupling is comprised of members from 14 European countries. Despite the XBID project being a complex project to implement, it continues to make substantive progress. Two phases of User Acceptance Testing have been successfully completed despite several weeks of delay, which has been one of the reasons for a need to postpone the XBID project go-live from the end of Q3 2017 to Q1 2018. The XBID solution is expected to be technically ready in November 2017 which will then be followed by the final go-live preparations including operator training. Three go-live phases have been agreed within the XBID project. 10 LIPs are currently participating in the readiness testing in order to be able to take part in the 1st phase of go-live which will be executed starting in Q1 2018. In respect to the 2nd phase of XBID go-live, several LIPs have either already been formally established or intend to establish a LIP shortly. The preparations for the 3rd phase have progressed by the relevant parties.

6. Glossary

4M MC	4M Market Coupling
ACER	Agency for the Cooperation of Energy Regulators
AS	XBID Accession Stream
CACM	Capacity Allocation and Congestion Management
CMM	Capacity Management Module
CEE	Central Eastern Europe
CNTC	Coordinated Net Transmission Capacity
CWE	Central Western Europe
DBAG	Deutsche Börse AG
DC	Direct Current
EU	European Union
FAT	Factory Acceptance Test
FB	Flow based
FYROM	Former Yugoslav Republic of Macedonia
HVDC	High Voltage Direct Current
IAT	Integration Acceptance Test
IFA	Interconnexion France-Angleterre
LIP	Local Implementation Project
MRC	Multi Regional Coupling
NDA	Non-Disclosure Agreement
NEMO	Nominated Electricity Market Operator or Power Exchange
NTC	Net Transmission Capacity
NWE	North Western Europe
SM	Shipping Module
SEE	South-East Europe
SOB	Shared Order Book
SWE	South Western Europe
TSO	Transmission System Operator
UAT	User Acceptance Testing
XBID	Cross-Border Intraday

The terms used in this document have the meaning of the definitions included in Article 2 of the Regulation 2015/1222.