

OPERATING PROPOSAL FOR THE INTRADAY MARKET IN MIBEL

Introduction

Since 2007, the Iberian Electricity Market (MIBEL) has held an intraday market based on six auction sessions that uses the market coupling mechanism between the Spanish and Portuguese price zones. Since the start of its operations, the MIBEL intraday market has performed in a highly favourable manner, having held more than 40,500 trading sessions, which have enabled both countries to record the same price over 92% of the hours. The volume of energy traded on the intraday market over these years has amounted to 32 TWh, with it being the most liquid intraday market in Europe.

In turn, Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (CACM) came into force on 14 August 2015. Among other relevant matters, it defined the operating model for the European intraday market, based on two main points:

1. A continuous intraday market for trading energy between agents located in different countries/price zones with implicit capacity allocation.
2. The development of a method for setting the price of the capacity that reflects the existence of congestions at the interconnection and is based on the prices of orders.

As a result of the first point, several European market operators and system operators are undertaking the XBID project, which provides the basic contractual infrastructure of systems and procedures underpinning Europe's aforementioned continuous intraday market. Besides the main development of the XBID project, the different regions that wish to join Europe's continuous intraday market are to introduce Local Implementation Projects (LIPs) for developing and testing their own specific processes as required for joining the XBID mechanism.

In turn, and consistent with the second point, the European Network of Transmission System Operators (ENTSO-E) is working on a proposed intraday trading mechanism for setting the cross-zonal capacity price at interconnections, having held a seminar with the sundry parties involved (ref. *Stakeholder Workshop –ENTSO-E*), presenting the various alternatives identified based on a *hybrid trading mechanism*, which involves holding implicit auctions in a complementary and coordinated manner with the XBID continuous intraday market, and which it considers to be the most convenient mechanism for meeting the CACM's different requirements. The options analysed vary in the manner of coordinating the implicit auctions and the continuous market, mainly regarding the possible overlap between the two types of trades and the trading timeframes (hourly periods).

In addition, article 63 of the CACM itself provides for the possibility that those regions that so deem it convenient may complement the operation of the continuous intraday market with the holding of regional auctions.

In fact, the market and system operators in Italy and adjacent countries, following this article's guidelines, and based on the models analysed by ENTSO-E involving mechanisms for setting the cross-zonal capacity price at interconnections in the intraday timeframe, have proposed a model for the hybrid operation of the intraday market for the price areas of Italy and its various borders, and have launched a public consultation process on the model that is open to the different stakeholders (ref. *Consultation Paper on Intraday Coupling model for Italian Borders*).

Therefore, and in application of article 63 of the CACM regulation, OMIE, the nominated market operator, and the operators of the Iberian system, REE and REN, are proposing a model for the hybrid operation of the intraday market in MIBEL based on keeping the current system of auction sessions on the Iberian Peninsula, incorporating the Spain–Portugal (ES-PT) interconnection, and both supplemented by and synchronised with the XBID continuous market.

Although the project has initially been proposed for application to the Iberian Peninsula, its ultimate aim is to integrate with future auction sessions in Europe for setting the cross-zonal capacity price at interconnections.

This document presents the intraday market model proposed for MIBEL (XBID continuous intraday market supplemented by regional sessions), the option initially chosen by the operators, and a matter related to the operating model for which stakeholders are asked to provide an opinion.

Description of the hybrid intraday market model proposed

The hybrid operating model proposed is based on the integration of Europe's XBID intraday market supplemented by the holding of Iberian auction sessions. It will operate as follows:

1. The continuous intraday market will enable MIBEL's agents to trade energy with local or outside counterparties according to the cross-zonal capacities available at the interconnections, as the XBID system stipulates. The agents in this market will bid through trading portfolios.

Whenever so permitted by trading within MIBEL price zones (Spain and Portugal), the agents may undertake their operations, both internally within MIBEL and with orders on the other side of the French border, using the functionalities provided by XBID.

Two alternative models are considered regarding the periods open for trading on the continuous intraday market:

- a) Model A: Trading on the continuous market is permitted for the trading periods prior to the next implicit auction to be held, that is, those periods in which no further trading will be made at any auction. This model is consistent with hybrid model 2 of those discussed at the ENTSO-E seminar, being the one upon which the intraday market at Italian interconnections is based.

- b) Model B: Trading is permitted throughout all the periods in the current day (except for the next one) and, once trading has begun the previous afternoon, also for the trading periods on the following day. This model is consistent with hybrid model 3 of those discussed at the ENTSO-E seminar.

Model A is the easiest to apply and the one requiring the fewest changes regarding MIBEL's current model, besides being the option closest to the proposal made for Italy's borders and one of the preferred options during the ENTSO-E seminar held in February 2016. In turn, Model B permits at all times to have more trading periods on the continuous intraday market. Nevertheless, besides being a more complex option to implement, there is a risk that it might not be compatible with the final European model.

2. During certain periods throughout the day (initially 6, although this number may vary in the future), Iberian auction trading sessions will be held to supplement the XBID intraday market. The auctions will use the free capacity at the ES-PT interconnection applying the market coupling mechanism between these two price zones, ensuring the same price is obtained in both zones when there is free capacity at the interconnection (null capacity price), or two different prices in the event of congestion (capacity price equal to the difference in prices between the two zones). Each session will involve trading all the remaining periods in the day (except for the first one) and, once trading has begun the previous afternoon, also the trading periods for the following day (hybrid model 2 or 3 of those proposed by ENTSO-E).

In Model A, in order to minimise the changes to systems and procedures, and simplify the implementation of the continuous intraday market model, the auctions will have, at least initially, almost exactly the same operating procedure as MIBEL's current auctions.

In Model B, pursuant to article 63 in the CACM, and in order to allow for trading the cross-zonal capacity at the ES-PT interconnection at the auction trading sessions, while the auction's matching process lasts, the allocation of that capacity will be blocked on the continuous intraday market, as will the allocation of Iberian orders on the XBID platform. This period will last 10 minutes at the most, prior to the end of the hour (between hh:50 and hh+1:00). This process Interrupts trading on the continuous market of the price zones in Spain and Portugal for those 10 minutes, with trading restarting once the auction's matching process has ended.

Trading in the auction sessions will involve Iberian market bidding units, with agents entitled to bid in Model B with the units associated with their trading portfolio in the continuous market when they want to withdraw their positions.

Alternatively, if the case of Model A, given that the periods traded in each trading session are not open on the XBID continuous intraday market, there is no need to stop the trading; simply start it once the session ends.

3. In parallel to these processes, and in all the hours, the agents may voluntarily submit to OMIE the disaggregations/transfers of the positions in the trading portfolios to bidding units. Every hour, and as soon as possible, OMIE will send the result of the intraday market and of any disaggregations there may have been to both system operators. For those agents that, for reasons of the proper assignment of taxes, OMIE requires the disaggregation of the operations undertaken on the continuous market, this disaggregation will be mandatory (e.g., direct consumers with a right to a reduction in the tax on electricity).

In order to minimise the changes to systems and procedures, and simplify the implementation of the continuous intraday market model, the disaggregations/transfers to bidding units may only be made, at least initially, until the programming timeframe for the next session on the intraday market.

4. Once both system operators have received the results of the auctions and of the disaggregations/transfers of the positions in the trading portfolios from the market operator, the agents may proceed to designate the energies associated to the bidding units. In the case of units associated to trading portfolios that have neither been traded again in the auctions nor disaggregated, the agents are to designate the energy programmes of the last hour before delivery, when the periods associated with those positions can no longer be traded on the markets.

Operating the hybrid intraday market: Model A

The continuous market trades solely those periods prior to the trading timeframe of the next market auction, opening the subsequent periods for trading once each auction's matching has ended. The continuous market will operate as follows:

1. Throughout the whole day, agents may take part in the XBID continuous market. Agents may submit bids from their trading portfolio to all the other trading periods prior to the trading timeframe for the next market auction. At the end of each hour (h) no further trading is permitted for the first hour being traded in the XBID (for trading period h+2). Agents have access at all times through the trading system to the data corresponding to the positions of their trading portfolios for all the other periods (contracts) being traded.
2. In parallel, at each one of the six specified moments during the day, an Iberian intraday auction trading session begins. Agents may submit their orders to a session on the basis of their bidding units in a similar way to the current operation of the Iberian intraday market.
3. At the times specified for holding an auction, for example at minute 45 past the hour, the gate is closed for receiving bids for the auction under way
4. The next step involves matching the auction trading session using the free capacity at that moment for the timeframes traded at the ES-PT interconnection. Once the results have been obtained, for example 5 minutes before the start of the next hour, they are disclosed to the Iberian system operators (REE and REN), together with the capacity used at the ES-PT interconnection once the auction has been held
5. When the next hour starts, the new free capacity at the ES-PT interconnection is introduced to the XBID system, whereupon trading begins in the intraday continuous market for the subjects in both bidding zones for the remaining trading periods until the start of the timeframe for the next auction.
6. This procedure is repeated for the different hours, with agents being entitled to trade in both markets (continuous and sessions) in the manner they deem most convenient.

Figure (1) below shows the potential distribution of the trading sessions when there are 6 auction sessions

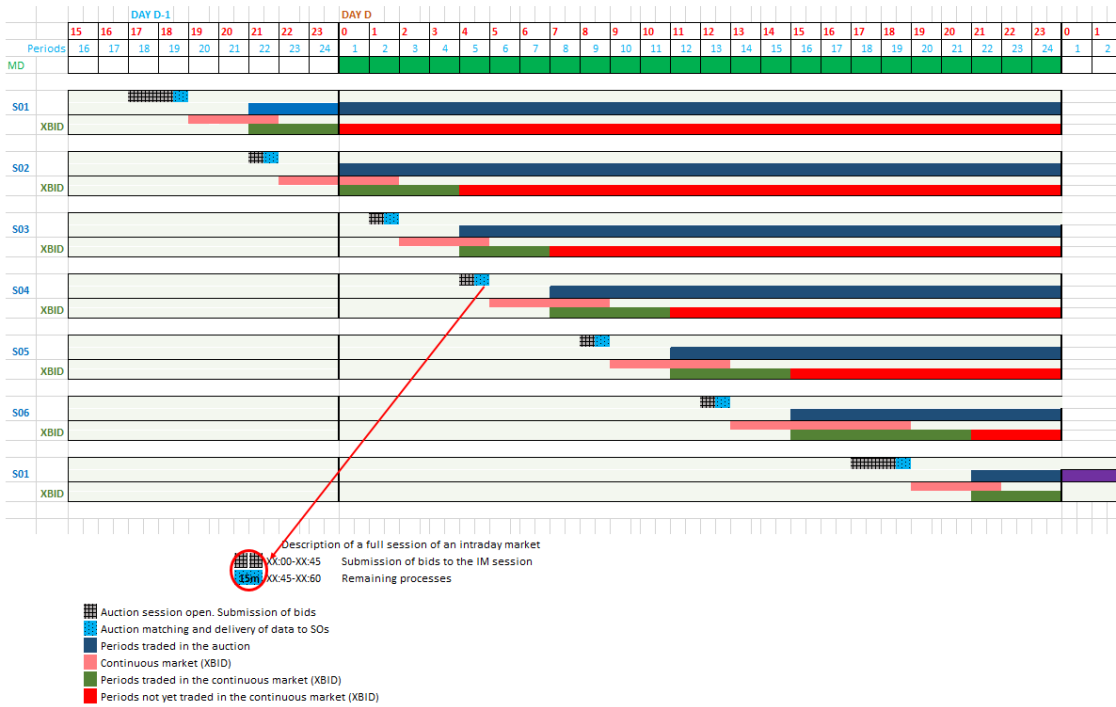


Fig 1. Example of auction trading sessions (6) in Model A

Figure (2) shows the detailed operation of the auction sessions in parallel to the continuous market

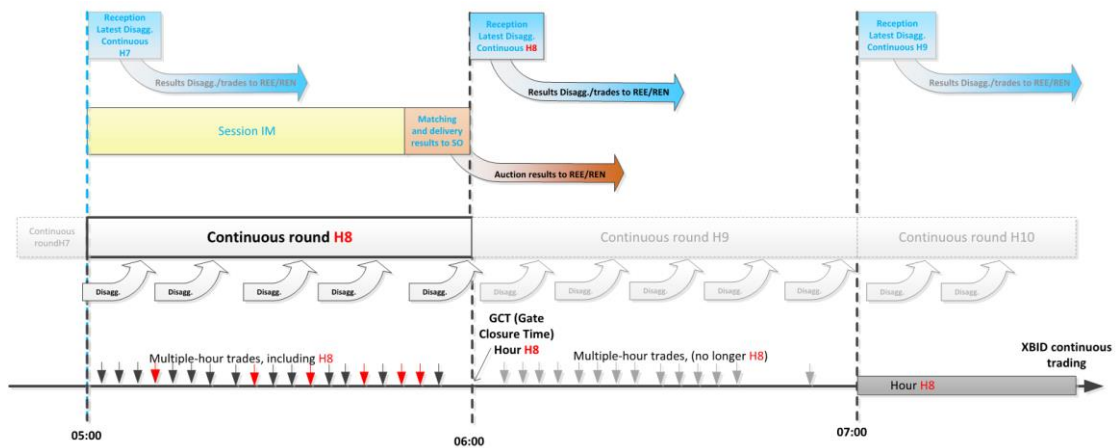


Fig 2. Detail of hourly trading in Model A

Operating the hybrid intraday market: Model B

The continuous market trades in all the periods in the current day, and once trading has begun, on the following day. The continuous market will operate as follows:

1. Throughout the whole day, agents may take part in the XBID continuous market. Agents may submit bids in their trading portfolio to all the other trading periods in the current day (except for the next one) and the trading periods on the following day (once trading has begun). At the end of each hour final (h) no further trading is permitted for the first hour being traded in the XBID (for trading period h+2). Agents have access at all times through the trading system to the data corresponding to the positions of their trading portfolios for all the other periods (contracts) being traded.
2. In parallel, at each one of the six specified moments during the day, an Iberian intraday auction trading session begins. Agents may submit their orders to a session on the basis of their bidding units in a similar way to the current operation of the Iberian intraday market. Agents may also, if they so wish, submit orders for withdrawing their positions in the bidding units associated with their trading portfolios in the continuous market.
3. At the times specified for holding an auction, at minute 50 past the hour, the gate is closed for receiving bids for the auction under way. Access is made at that moment to the free capacity in the XBID system for the ES-PT interconnection in all the other periods being traded, and trading is halted in the Spain and Portugal price zones in the XBID system.
4. From minute 50 to 55, the auction trading session is matched using the free capacity at that moment at the ES-PT interconnection. Once the results have been obtained, they are disclosed to the Iberian system operators (REE and REN), together with the capacity used at the ES-PT interconnection once the auction has been held.
5. When the next hour starts, the new free capacity at the ES-PT interconnection is introduced to the XBID system, and trading re-starts in the Spain and Portugal price zones in the XBID system.
6. This procedure is repeated for the different hours, with agents being entitled to trade in both markets (continuous and sessions) in the manner they deem most convenient.

Figure (3) below shows the potential distribution of the trading sessions when there are 6 auction sessions.

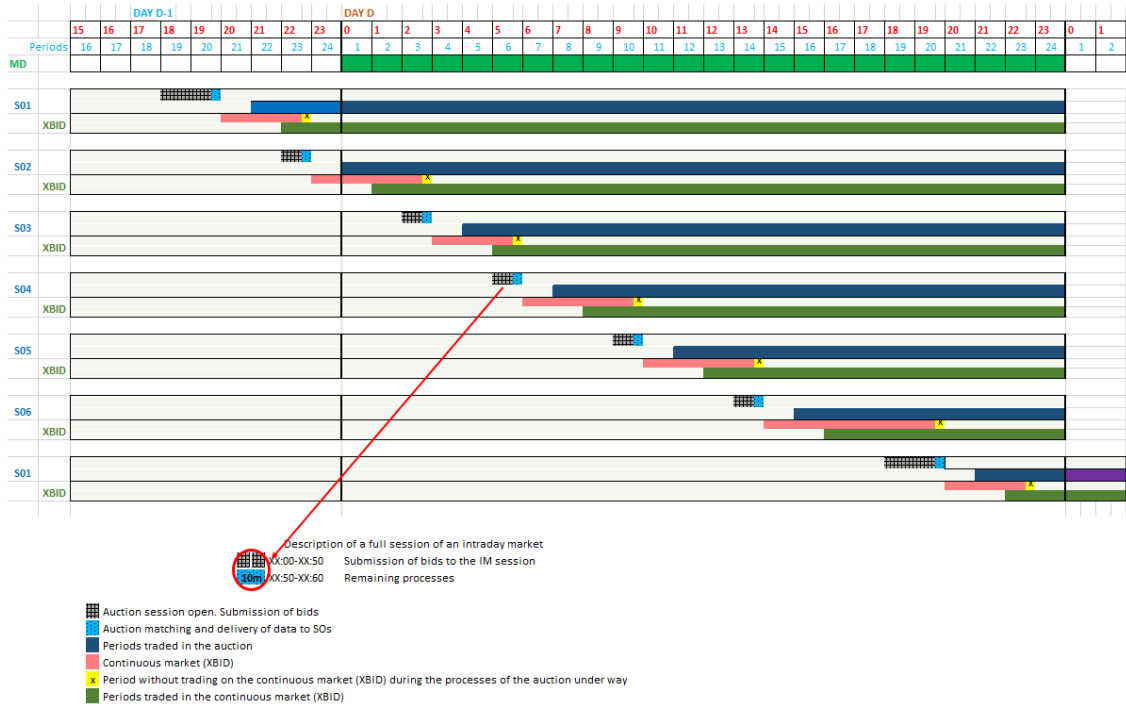


Fig 3. Example of auction trading sessions (6) in Model B

Figure (4) shows the detailed operation of the auction sessions in parallel to the continuous market

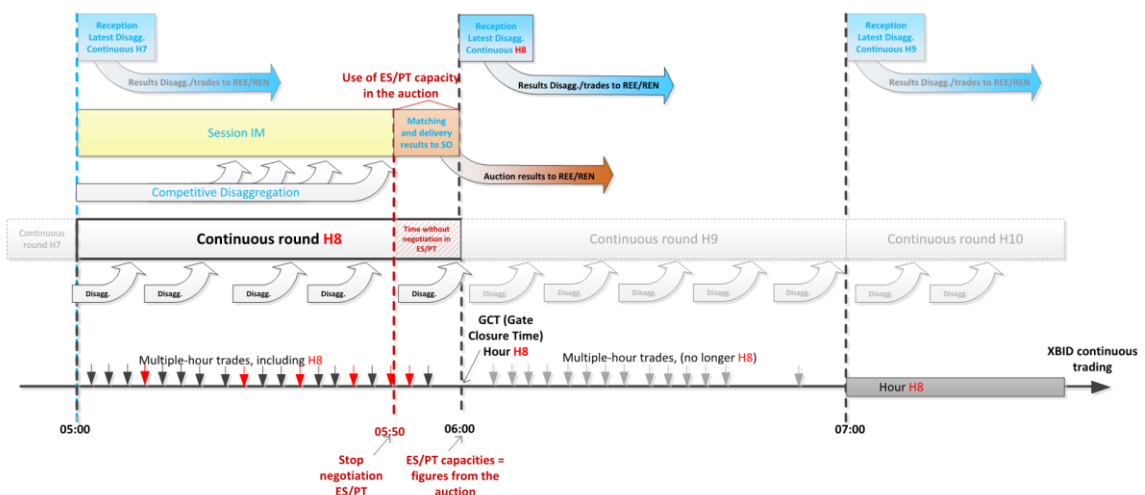


Fig 4. Detail of hourly trading in Model B

Future development

Europe's continuous intraday market is scheduled to start operating in the third quarter of 2017. The regional project encompassing MIBEL has declared its intention of joining the project in the first stage of the incorporation of the different regions.

With this target in mind, the proposed operating model needs to be available on that date and with sufficient prior notice to enable MIBEL (market agents and operators) to take part in the different trials for their integration in the project.

Furthermore, the agents already know and have the different automatic applications that allow them to interact with the trading sessions on the Iberian intraday market. With a view to minimising the changes ahead of the launch of the continuous intraday market and pave the way for the market agents' gradual involvement in it, it is deemed expedient to keep the operation of the auction trading sessions unchanged.

Nevertheless, at the same time, the operators want these auctions to evolve so that in the future they can integrate with the European intraday market for setting the capacity prices of the interconnections, as and when it is finally developed. Accordingly, as soon as the proposed hybrid intraday market comes into operation, contacts are to be held with all the other European market and system operators so that the sessions can steadily adapt to the terms and conditions of Europe's future trading sessions, whereby they will be able to smoothly integrate at some time in the future.

As a first step in this direction, talks are to be held with the operators involved in the intraday market project for Italy's borders, with the aim for the future being, if possible, to integrate both types of auctions within a single model.

Advantages of the proposed hybrid intraday market model

This proposal for the operation of the XBID continuous intraday market supplemented by sessions has a number of advantages for MIBEL, with the following highlights:

- It allows maintaining the required number of MIBEL auctions, with greater liquidity and helping the Iberian agents to continue benefitting from the current trading mechanisms supplementing the new XBID continuous market.
- It caters for the Iberian agents' gradual participation in the XBID continuous market, benefitting from the experience, procedures and applications they currently have for taking part in MIBEL's implicit auctions.
- It provides a better price-setting process, because whenever there is free capacity at the ES-PT interconnection, which tends to be the case, a single Iberian price is set.
- It allows complying with the CACM's requirement of assigning a price to the capacity when there is congestion at the interconnection.

- As the matching process at the auctions begins 10 minutes before the end of the hour, this facilitates the disclosure of the results to the system operators before the start of the hour prior to the first trading period, giving both operators enough time to carry out their processes.
- It caters for integration with the intraday auctions to be held in Europe, advancing in the achievement of this end.

Proposed model for implementing the three operators' hybrid intraday market

Considering the timeline for the design and launch of the model to be implemented in MIBEL and to enable MIBEL to join the European intraday market as soon as it starts, the three operators consider that the only viable option is initially to begin operating according to the Model A described earlier.

In order to minimise the changes in the implementation of Model A and enable all the periods to be traded at least once in the continuous market, it is deemed more convenient to maintain almost all MIBEL's current timetable of sessions, leaving two hours between the auction's matching and the first period traded in the timeframe.

Nevertheless, we consider it extremely useful to know the agent's preferences for one or other model. If most of the agents were to choose Model B, the processes and systems would be designed so that after the initial operating stage with Model A, we could move on to Model B as quickly as possible.

Matter to be considered in the consultation

The interested parties are asked to consider the following matter. You are kindly requested to reply before 13 March 2017.

1. Preferred operating model:

As noted, in view of the restrictions on timeframes (given MIBEL's commitment in XBID's initial operating stage scheduled for September 2017) and its greater simplicity, it is deemed essential to begin the market's operation according to Model A. It is therefore important to know the agents' preference regarding both these models.

In the medium term, which model do you prefer for the hybrid intraday market?

- **Continue with Model A.** Trading begins on the continuous market for the trading periods prior to the next implicit auction to be held, that is, those periods in which no further trading will be made at any auction (hybrid model 2 of those proposed by ENTSO-E and the proposal chosen for the Italian intraday market)
- **Change to Model B.** Trading on the continuous market for all the periods in the current day (except for the next one) and, once trading has begun the previous afternoon, also for the trading periods on the following day (hybrid model 3 of those proposed ENTSO-E).