

Consultation Document 04/2014

GME'S PROPOSALS FOR CONSULTATION ABOUT

THE INTEGRATION OF THE ELECTRICITY MARKET INTO THE EU MARKETS

1. Introduction

The European Union (EU) is completing the process of definition of an EU-wide market model (Target Model), aimed at creating an integrated internal energy market.

The process, which has been going on for various years, began with the approval of the Third Energy Package by the European Parliament and the Council. Among the main legislative/regulatory measures concerning the electricity sector, it is worth mentioning Directive 2009/73/EC (approved on 13 July 2009), Regulation (EC) No 713/2009 and Regulation (EC) No 714/2009. The Third Energy Package laid down, among others, the requirements that Member States should meet in order to ensure access to the power grid and to cross-border energy trade within the EU.

Moreover, to coordinate the activities associated with this process, the Third Energy Package formally established two new EU-wide institutions: the Agency for the Cooperation of Energy Regulators (ACER) and the European Network of Transmission System Operators for Electricity (ENTSO-E).

The process continued with ACER's publication of the "Framework Guidelines on Capacity Allocation and Congestion Management" on 29 July 2011. This document gave guidance to ENTSO-E for the drafting of the corresponding Network Code, i.e. the EU-level technical document specifying the operational procedures that all European transmission network operators (TSOs) will have to adopt for cross-border capacity allocation in the different timeframes and for cross-border congestion management. In particular, ACER's Framework Guidelines identify the price coupling mechanism as the Target Model to be applied for the implicit allocation of available interconnection capacity in the day-ahead market timeframe.

The Target Model for day-ahead markets, on all European borders, should be implemented by 2014. Consequently, GME is called upon to contribute to defining the process of integration of European electricity markets and, in particular, to enabling Italy to complete the implementation of market coupling on its northern electricity borders. To meet this objective, GME is engaged in the Price Coupling of Regions (PCR) project, initiated and managed together with the main European power exchanges (PXs)¹. The project, aimed at applying a market coupling mechanism at EU level in the day-ahead market timeframe, went live in the NWE² and SWE³ regions on 4 February 2014 (flow date: 5 February).

¹ The PCR currently includes the following PXs: GME, OMIE, APX-ENDEX and BELPEX, EPEX, NordPoolSpot-NPS and OTE.

² The NWE region includes the following countries: Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Sweden and United Kingdom.



GME is also engaged in the Italian Borders Working Table (IBWT) project, which is expected to develop and manage the operational pre-coupling/post-coupling activities needed for the take-off of the European market coupling on Italian electricity borders. Participants in the project are all the PXs and TSOs sharing electricity borders with Italy, including Switzerland (albeit not formally included in the CSE region, since it is not a member of the EU). Moreover, GME has already made significant progress in implementing the coupling mechanism thanks to the take-off of market coupling on the Slovenian border on 1 January 2011.

Implementing market coupling across all Italian borders requires harmonising (or at least ensuring the compatibility of) some distinctive features of the Italian market and, in particular, its different payment time limits, with the design of the other European markets. Other significant aspects to be harmonised are as follows: the adjustment of the timing of the Italian market to 12:00 (on this topic, GME launched a consultation in February of this year - Consultation Document 01/2014 ME: change of the timing of activities related to the sessions of the MPE and of activities related to the PCE); the integration of the matching rules of the Italian market into the European market algorithm; the harmonisation of the price limits on the Italian market with those adopted on the other European markets; the option of reopening the market session in case of decoupling, i.e. similarly to what happens on other European markets, when particular situations arise (decoupling, reaching of price limits on the Italian market or on other European markets), the option of publishing coupling-relevant information (risk of decoupling, decoupling, etc.).

As regards aspects related to payments, it is worth pointing out that, as is known, payments on the Italian market are settled on the 15th working day of the second month following the closing of the market session⁴ (for the sake of simplicity, this time limit will hereafter be indicated as “M+2”). Conversely, on the most part of foreign markets, payments are settled on the 2nd day following the closing of the market session (for the sake of simplicity, this time limit will hereafter be indicated as “D+2”).

In a fully efficient market-coupling process, the prices of all European electricity markets, including the Italian one, should be homogenous and comparable, i.e. they should have the same payment time limits.

Taking into account the need for working out an operational procedure to adjust the payment time limits of the Italian market to the ones of the other European markets, GME is hereby describing the main technical-operational aspects to be harmonised in view of the integration of the electricity market, and proposing two transitional solutions, alternative between them, to be implemented in 2015. These solutions have the purpose of permitting the start of the above-mentioned integration processes, though keeping - albeit on a temporary basis - the internal M+2 payment time limits.

GME will soon put forward a proposal for consultation about the shortening of the payment time limits on a permanent basis; this solution, replacing the one identified after this consultation process, might be implemented in January 2016.

Interested parties are invited to send in their comments about the operational procedures described in this document and, in particular, their answers to questions S.1 and S.2.

³ The SWE region includes the following countries: France, Portugal and Spain.

⁴ On the 16th working day of the second month following the closing of the market session, GME makes the related payments.



Please send your comments in writing to GME's Legal & Regulatory Office ("Unità Legale e Regolazione") by **15 September 2014** at the latest (end date of the consultation) in one of the following ways:

by e-mail to: info@mercatoelettrico.org
by fax to: +39 06 8012-4524
by mail to: Gestore dei mercati energetici S.p.A.
Largo Giuseppe Tartini, 3/4
00198 – Rome (Italy)

If you want us to keep all or part of your comments confidential, please specify which parts of your document are to be kept confidential.

2. Proposed solutions to harmonise the payment time limits

The following are two transitional solutions, alternative between them, to redress the difference existing between the payment time limits applied on the Italian market and those currently adopted on European markets.

Solution I:

The following proposal for a transitional solution makes it possible to: i) meet the time limits of foreign markets to settle payments for energy import/export transactions resulting from market coupling; and ii) keep the current Italian market setting practically unaltered. Indeed, in this solution, the prices of the Spot Electricity Market (MGP/MI)⁵ are determined by referring to a settlement on D+2, while M+2 is kept as the time limit for invoicing and "actual" payment.

This solution calls for a funding entity, to be priorly identified by the reference institutions. This entity should supply GME with the liquidity needed to settle payments for cross-border transactions resulting from market coupling at a "single" interest rate, to be identified by the same institutions.

In particular, GME will pay debit interest for the advance of liquidity in case of import flows (payments to foreign countries) or receive credit interest on available funds held with the above entity and resulting from export flows (payments from foreign countries).

In particular, the following scenario will arise on the Italian electricity market:

- market participants (buyers and sellers) will enter their (buy and sell) orders into the spot market⁶; the payments for the matched orders will be generally settled on D+2 with daily rolling, i.e. taking into account that interest for payments in M+2 will be applied to the market prices;

⁵ Excluding the Ancillary Services Market (MSD).

⁶ Excluding the Ancillary Services Market (MSD).

- the prices set on the Italian spot market (MGP/MI)⁷ - as a result of the matching of demand with supply - will thus be comparable with the prices resulting from trades on other European markets, which usually have a daily settlement;
- considering the current structural constraints of the Italian system, payments for transactions pertaining to withdrawal/injection points inside the Italian system (though referring to a daily payment time limit) will be settled within the current deadlines (i.e. in M+2);
- to maintain the current payment time limits, the seller will receive and the buyer⁸ will pay interest on deferred payment. This interest will represent an interest income for the seller on the Italian spot market granting the deferment of payment from D+2 to M+2 and an interest expense for the same deferment for the buyer on the Italian spot market;
- this interest will be calculated by applying an interest rate to payments for the energy transaction, the CCT and the non-arbitrage fees on the MI, as well as the congestion rent between the zones of the Italian market that GME settles with Terna; the rate will be the one identified by the reference institutions and periodically updated on the basis of the funds lent to/funds available to GME for the settlement of market coupling with European markets, multiplied by the number of days resulting from the time lag between the general principle of settlement on D+2 and the actual settlement in M+2;
- the overall amount resulting from the algebraic sum of the interest for deferred payment paid to/collected by participants in the spot electricity market and in the PCE in respect of the CCTs, net of the interest applied to the internal congestion rent, to be paid to Terna, will be equal to the remuneration to be paid to/by the funding entity for the funds lent or for the funds available in respect of the net import energy flow or the net export energy flow, respectively.

With regard to the operational procedures under which this solution will be implemented, the current invoicing process will be adequately integrated.

In particular, in addition to the usual invoices for trades on spot electricity markets in the month M and to the payments pertaining to the CCT for PCE participants, appropriate invoices will be made available/issued; these invoices will specify the amount of interest and the details of the calculation resulting from the deferment of payment granted⁹, with a view to settling payments according to the current time limits (M+2).

The invoices covering the credit interest or the debit interest to be received or paid by GME for deferred payment will contribute, together with the invoices for energy transactions and the CCTs, to determining and publishing the net balance to be settled by each market participant within the usual time limits.

In view of the above, upon actual settlement of payments in the month M+2:

⁷ Excluding the Ancillary Services Market (MSD).

⁸ A similar process will also be followed towards PCE participants for the settlement of the CCTs.

⁹ VAT-exempt transactions under article 10, para. 1, no. 1), Decree of the President of the Republic no. 633 of 26 October 1972.

- net debtor participants on the spot market (MGP and MI)¹⁰ will pay to GME an overall amount including: i) a value based on the price set on the market (referred to D+2); and ii) the net amount of the interest expense corresponding to the period from D+2 (reference payment time limit) to M+2 (actual payment time limit), by applying the single interest rate identified¹¹;
- net creditor participants on the spot market (MGP and MI)¹² will receive from GME an overall amount including: i) a value based on the price set on the market (referred to D+2); and ii) the net amount of the interest income corresponding to the period from D+2 (reference payment time limit) to M+2 (actual payment time limit), by applying the single interest rate identified¹³.

Upon settlement of payments of flows resulting from market coupling on day D+2:

- GME will pay the net import flows to the foreign exchange via a funding entity; the amount of the payment will be based on the price set on D+2; then, GME will pay the interest owed to the funding entity for the funds borrowed for this payment on D+2 upon the settlement of payments for energy transactions and the CCTs on the Italian market in M+2;
- the foreign exchange will pay the net export flows to GME; the amount of the payment will be based on the price set on D+2. This settlement will always be made via the same funding entity, which will thus pay credit interest to GME for the available funds resulting from the payment. GME will transfer the full amount of this interest to market participants in M+2 for the overall deferred payment granted.

As to the guarantee system, given its role of central counterparty, GME is exposed to the counterparty risk, i.e. the buyer's default owing to failure to pay the final consideration for the purchase or the CCT. Therefore, the guarantees to be posted by participants to trade on the spot market should be equal to the value of the purchase made, considering the buying price set on D+2, increased by the debit interest owed. Likewise, the guarantees to be posted for operating on the PCE should be such as to cover the daily price spread between the zonal price and the national single price (PUN) - CCT - increased by the interest owed.

Solution II:

As an alternative to the above, a second proposal for a transitional solution might replicate, also on the other Italian borders, the current procedure for redressing the difference of payment time limits between Italy (M+2) and Slovenia (D+2), including the procedure for covering interest expense¹⁴.

In particular, the settlement on the Italian domestic market would continue to be based on the current time limits (M+2), whereas the settlement of payments resulting from coupling (D+2) - to be made in advance of payments on the domestic market, as is known - would be made by GME (as in Solution I) by

¹⁰ Also for net debtors on the PCE in respect of payments for the CCTs.

¹¹ Interest expense also applies to payments to be made by the market participant in case of failed delivery of the net selling positions on the MTE that GME closes through the MGP.

¹² Also for net creditors on the PCE in respect of payments for the CCTs.

¹³ Interest income also applies to payments to be made by the market participant in case of failed delivery of the net buying positions on the MTE that GME closes through the MGP.

¹⁴ AEEG's Decision 609/2013/R/EEL of 19 December 2013.

relying on a funding entity. This entity would manage advance payments in case of imports or receive payments in case of exports on foreign borders within the D+2 time limits.

In this solution, in continuity with what happens under the Italy-Slovenia coupling mechanism, the net balance between expenses and incomes calculated in respect of the financial flows supplied (in case of imports) or received (in case of exports) by the funding entity would fall under the general system charges, without applying (as in Solution I) any “intertemporal” interest rate to the orders entered by participants into the spot electricity market.

Questions for consultation

- S.1 In your opinion, which are the main advantages and disadvantages of each of the two transitional solutions that have been proposed to redress the difference between payment time limits?
- S.2 Which of the two solutions is preferable, taking into account the transition towards a final solution achieving full harmonisation with European markets?

3. Other aspects to be harmonised in view of integration of the European market

Although the changes of the payment time limits and their effects on market prices is the most significant aspect to be harmonised, there are other aspects of the Italian market design to be revised for a full integration of the MGP with the other European markets via market coupling.

Market coupling requires that European day-ahead markets are resolved simultaneously, as if they were a single zonal market. Therefore, implementing an EU-wide market coupling means taking into account not only the data about available cross-border interconnection capacity (ATCs) to be implicitly allocated through the day-ahead markets, but also about all the orders that participants in each European market enter into the related PX. Consequently, both ATCs and orders should be subject to a common algorithm, capable of processing these data and return results (prices, volumes accepted on each market and cross-border flows), by applying the matching rules adopted on each market.

Therefore, to implement the European market coupling, GME and the other PXs of the PCR created a business model where the need for sharing and processing data in a coordinated way was addressed in the following way:

- a common algorithm (Euphemia) was developed to replicate and apply the matching rules that each PX adopts on its own market, including those of GME;
- upon closing of the sittings of their markets, the PXs of the PCR exchange the respective orders in an anonymous way, as well as the ATCs that each PX received from the related TSO. In this way, each PX has a full set of data (orders, ATCs) for all the markets participating in the European coupling;
- by relying on Euphemia and taking into account the full set of data (orders, ATCs), the PXs jointly

execute their own market and the one of all the European countries participating in the coupling in decentralised¹⁵, parallel¹⁶ and coordinated¹⁷ modes¹⁸.

Nonetheless, the management of such a process at European scale requires a minimum level of harmonisation of the rules and procedures that each PX applies on its own market, so as to remove elements of incompatibility with the corresponding rules and procedures adopted on the other markets.

The following are the aspects of the Italian market operation that should be changed to ensure the integration of the MGP into the PCR.

3.1. Matching rules

A first aspect of the Italian market to be changed in order to ensure its integration with the PCR concerns the matching rules.

As previously reported, the PXs participating in the PCR developed a common algorithm, Euphemia, which replicates and integrates the matching rules of all the European markets. Nevertheless, these rules are fairly heterogeneous and involve different bidding procedures and/or types of products.

In addition to the products and matching rules that are typical of the Italian market, Euphemia had to implement the features of the other European day-ahead markets, including but not limited to: different types of block orders; intertemporal constraints on the use of the grid (ramp constraints); possibility of expressing orders as a linear function of the price with respect to the offered volume (linear piecewise bids and offers), rather than as “volume-price” pairs (stepwise bids and offers), as it happens on our own market.

However, such heterogeneous features hold elements of potential and mutual incompatibility, which make it necessary to change some of the ways in which these features should be managed within a common algorithm. With regard to the matching rules and procedures of the Italian market, the following are the major changes to be made to the current provisions of the Integrated Text of the Electricity Market Rules (hereafter the Electricity Market Rules).

- Welfare maximisation: under the Electricity Market Rules, the results of the MGP (prices, accepted volumes, flows between zones and valuing of congestions) should be such as to maximise

¹⁵ Decentralised mode: each PX may autonomously execute its own market by relying on Euphemia and on the full set of data (orders, ATCs) pertaining to all European markets.

¹⁶ Parallel mode: market execution by each PX takes place at the same time as the execution of the respective markets by the other PXs.

¹⁷ Coordinated mode: the PXs coordinate the respective activities before executing the respective markets (data sharing), during the execution of the markets, at the end of the process of execution (comparison and verification of the consistency of the results obtained by each PX) and during publication of the market results.

¹⁸ Technically, every day, one PX acts as Coordinator (in charge of calculating official results), while the other ones are in charge of approving the results under codified rules. The PX role is based on rotation.

welfare¹⁹. However, given the complexity of integrating the heterogeneous features of different markets into a single algorithm, the search for the solution maximising welfare might involve an excessively long runtime for Euphemia, which would not respond to the operational requirement to guarantee firm timeframes for the identification and publication of market results. Additionally, on the domestic market, welfare has so far been maximised on an hourly basis, as the relevant rules do not specify intertemporal constraints. Conversely, as Euphemia has to take into account the presence of products imposing intertemporal constraints (blocks, ramp constraints) on other markets, it seeks welfare maximisation on a daily basis (managing all the hours within a single optimisation process). Finally, given the co-existence of different products and rules on the different markets of the PCR, Euphemia attempts to maximise welfare over the entire PCR perimeter and this increases the computational complexity for the algorithm. This is the reason why, in defining the operational procedures to be followed every day in the management of the European market coupling, the PXs of the PCR decided to limit the time available for running Euphemia and to identify the solution (prices, volumes accepted, cross-border flows) that satisfies the constraints of the various markets (the time limit for running the algorithm is 10 minutes only). After this time limit has elapsed, the PXs identify the best solution, in terms of welfare, among all the solutions identified by Euphemia during its available runtime, as the solution resolving all the European markets. However, the solution identified during the available runtime of the algorithm is not guaranteed to be the best welfare solution in absolute terms. It follows that, for the purposes of the Electricity Market Rules, the identified solution will not be guaranteed to be the best solution maximising welfare in absolute terms, although the presence of “simple” orders only on the Italian market continues to guarantee that, only for those orders, welfare is always maximised.

- Satisfaction of the “balance constraint” of the PUN: the Electricity Market Rules provide that the PUN shall be equal to the average of zonal prices, weighted for the volumes covered by buy orders in each zone pertaining to the consuming units to which the same price is applied. This is tantamount to imposing a balance constraint such that the overall value of buy orders valued at the PUN should necessarily be equal to the value of the same orders valued at the corresponding zonal price. It is worth recalling that, to ensure the consistency between the prices specified in buy orders and the PUN, the latter is not calculated after the market process as the simple average of zonal prices defined by the algorithm, but it is calculated by the algorithm itself at the same time as zonal prices. However, the integration of this rule within Euphemia is only possible by providing that this balance constraint may be violated, albeit not to a significant extent, in some cases. Indeed, the violation of this balance constraint lies within very narrow limits. In particular, the overall value of all buy orders valued at the PUN in each hour may exceed the value of the same orders valued at the zonal price by a maximum parameter²⁰. Vice versa, the overall value of buy

¹⁹ Welfare means the sum between: i) the summation of the product between the volume covered by each accepted buy order and the differences between the related offered price and the clearing price (consumer’s welfare); ii) the summation of the product between the volume covered by each accepted sell order and the differences between the clearing price and the related offered price (producer’s welfare).

²⁰ This parameter is currently equal to € 5 in each hour, but it might be changed. Supposing that, on average, in one hour, the energy traded on the MGP has a value of about € 1.25 million (25,000 MWh, at a price of € 50), an imbalance of € 5 accounts for roughly 0.0004% of the overall value of the energy traded.

orders valued at the PUN in each hour may be lower than the value of the same orders valued at the zonal price by a maximum parameter²¹. These violations, albeit not significant, call for a change of the existing provisions of the Electricity Market Rules.

- Determination of the price when demand and supply curves intersect along a vertical segment (vertical cut): the current Electricity Market Rules provide that the set price shall always be equal to the “least cost [...] of satisfying an increase in electricity withdrawal in the zone” (art. 42 of the Electricity Market Rules). This provision implies that if, on the Italian market, the demand and supply curves of a market zone and of a specific hour intersect along a vertical segment, GME must always identify the price corresponding to the minimum limit of the vertical segment - among the infinite prices (all those corresponding to the same vertical segment) which might be used as clearing prices - as the clearing price. However, with Euphemia, the clearing price should be identified by applying the following formula, in order to make the different matching rules adopted by the European PXs compatible:

- $$\min \sum \left(mcp_{z,h} - \frac{UB_{z,h} - LB_{z,h}}{2} \right)^2$$
, where
 - o $mcp_{z,h}$ = the marginal price of the zone z for the hour h;
 - o $UB_{z,h}$ = the highest possible price for the zone z for the hour h for a given clearing volume Q corresponding to the maximum limit of the vertical segment along which the demand and supply curves intersect²²;
 - o $LB_{z,h}$ = the lowest possible price for the zone z for the hour h for a given clearing volume Q corresponding to the minimum limit of the vertical segment along which the demand and supply curves intersect²³.

Hence, the criterion used by Euphemia does not identify each zonal clearing price separately, but a vector of clearing prices concurrently; this vector consists of the prices that minimise the summation of the squares of the differences between:

- o the clearing price of each zone and each hour,
- o the average of the difference between the maximum limit (highest possible price - UB) and minimum limit (lowest possible price - LB) of the vertical segment along which the demand and supply curves intersect²⁴,

subject to a number of constraints that zonal prices must satisfy (including the minimum and maximum price limits, the balance constraint of the PUN and other constraints related to the features of the other European markets).

²¹ This parameter is currently equal to € 0.01 in each hour, but it might be changed. Supposing that, on average, in one hour, the energy traded on the MGP has a value of about € 1.25 million (25,000 MWh, at a price of € 50), an imbalance of € 0.01 accounts for roughly 0.0000008% of the overall value of the energy traded.

²² If the demand and supply curves intersect along a vertical segment, or at a single point, then the solution is uniquely identified and the term between parentheses in the formula is equal to zero, because $mcp_{z,h} = UB_{z,h} = LB_{z,h}$

²³ See previous note.

²⁴ As it happens in the case of welfare maximisation, in this case, too, the presence of block orders and other multi-hourly constraints requires Euphemia to concurrently identify a vector of solutions for all the 24 hours of each market day.

- Numerical tolerance on prices: on the electricity market, both zonal prices and the PUN may be expressed in €/MWh with a maximum of 6 decimals and, failing congestions, the prices of interconnected zones are identical. However, with Euphemia, even failing congestions, the prices between two interconnected zones differ in the fifth and sixth decimal after the point (e.g. failing congestion, the exporting zone might have a price of 50.000000 €/MWh, while the importing zone might have a price of 50.000012 €/MWh). This inconsistency may be redressed by providing that zonal prices may be expressed in €/MWh, with a maximum number of decimals equal to 4 and not to 6.

3.2. Notifications to market participants in case of decoupling

The integration of GME within the PCR makes it necessary to harmonise the type of notifications that PXs provide to market participants. In particular, under Electricity Market Rules, GME should timely notify market participants of the occurrence of the risk of decoupling²⁵ and subsequently confirm the decoupling and the necessary fallback procedures activated by both the PXs (continuing of the activities related to the day-ahead markets) and by the TSOs (alternative procedures to allocate daily transit capacity). As a result, the Electricity Market Rules should provide that, upon the occurrence of the risk of decoupling or of decoupling, GME should adequately notify market participants thereof.

3.3. Reopening of the market sitting: second auction

Where particular conditions arise after the closing of the sitting for entry of orders, some markets may reopen the sitting in order to allow market participants to enter new orders. For instance, on some markets operating within the PCR, if the preliminary results indicate that the set price exceeds a minimum or maximum price threshold specified on the same markets, the sitting is reopened, thus allowing market participants to enter new orders or change the already entered ones. A second auction thus takes place; this is market session that updates the previous one and that, based on the updated set of orders, has the end goal of avoiding, where possible, the determination of results corresponding to the price limit.

If this occurs or, more generally, if one of the PXs participating in the PCR - even for reasons other than the above-mentioned ones - decides to hold a second auction, all other PXs are required to await the end of this second stage of collection of orders before determining the results within the PCR in decentralised, parallel and coordinated modes.

In the light of this opportunity offered by some PXs participating in the PCR, also GME might provide market participants with the opportunity to integrate the previously entered orders, by holding a second auction also for the Italian MGP.

This second auction might be held upon the occurrence of some events, not limited to those described above. Indeed, the option of reopening a second auction should also be planned when, owing to decoupling on one of the borders whose capacity is allocated within the PCR, the capacity on such border is

²⁵ Decoupling means the failure of coupling and, consequently, the failed implicit allocation of cross-border capacity through the execution of energy markets.

allocated by the TSOs, in the day-ahead timeframe, via a shadow auction²⁶. In this instance, to enable market participants taking part in the shadow auction to adjust the orders entered into the various day-ahead markets based on the results of the same auction, it is appropriate to plan the reopening of the day-ahead markets

In conclusion, the Electricity Market Rules should be revised by including the option of reopening the sitting for order entry (second auction) when:

- the reopening is decided by one of the PXs of the PCR with which GME is joined via market coupling, whatever the reasons that have led to the reopening on such market;
- during the computation of the preliminary results on the Italian MGP, the set prices are equal to the price limits specified on the same market;
- owing to decoupling, the need arises for holding a shadow auction, where planned, at least on one of the borders whose capacity is usually allocated under the market coupling mechanism within the PCR.

3.4. Price limits

With the integration of the Italian market within the PCR, it should be considered that the minimum price limits on the day-ahead markets operating in the countries neighbouring Italy (France, Switzerland, Austria/Germany) are different from those applied in Italy. In particular, while the maximum price limit applied on the Italian market (3,000 €/MWh) is similar to the one of the markets of France, Switzerland and Austria, the minimum limit on these markets is -500 €/MWh. As is known, on the Italian market, this minimum limit is 0 €/MWh.

Market coupling involves that the demand and supply curves expressed by the various markets are integrated and that the clearing price is determined as if these curves belonged to a single European zonal market. As a consequence, the minimum price limit of the Italian market should be set to -500 €/MWh, in order to avoid the distortions that the application of different limits may generate on the markets. This harmonisation measure would also be justified in the light of the latest draft of the “Network Code on Capacity Allocation and Congestion Managements (NC-CACM)” published on the ENTSO-E website²⁷, which provides that European PXs should harmonise these price limits.

3.5. Market hours

Lastly, it is worth reiterating what has been pointed out on the occasion of the previous consultation that GME opened on 27 February 2004 and closed on 19 March 2014 (GME’s Consultation Document 01/2014)²⁸ with regard to the change of the timing of activities related to the sessions of the MPE and the PCE. In particular, the integration of the MGP within the PCR requires that the closing of the sitting for order entry

²⁶ A shadow auction is the fallback procedure that, in case of decoupling, involves an explicit auction for allocation of capacity in the day-ahead timeframe, to be held by TSOs.

²⁷ http://ec.europa.eu/energy/gas_electricity/electricity/doc/20140114_cacm.pdf

²⁸ <http://www.mercatoelettrico.org/It/homepage/popup.aspx?id=160>



into the MGP is set to 12:00²⁹ and that also the timing of the activities pertaining to the sessions of the MPE and PCE should be revised accordingly.

²⁹ This point in time, already adopted by the European markets operating so far within the PCR, is specified in the latest draft of the “Network Code on Capacity Allocation and Congestion Managements (NC-CACM)” posted on the [ENTSO-E website](#).