

Market Coupling between Italy and Slovenia

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Market Coupling: the regulatory framework

- The third energy package (REGULATION (EC) No 714/2009) provides that interconnection capacity shall be allocated “*paying due attention to the specific merits of implicit auctions for short-term allocations*”
- The European Commission has established and chairs an Ad Hoc Advisory Group (AHAG) in which all stakeholders (Regulators, PXs, TSOs, Producers, Traders, Consumers) participate
 - GME participates in the AHAG through EuropEX
 - the mission of the AHAG is to design a regulatory framework for implementing a European-wide **Market Coupling**, as a method for daily capacity allocation based on the **price coupling*** methodology, by **2015**
- In Italy: Law 02/2009
 - Article 3.10ter: the Ministry of Economic Development may adopt measures to promote ***the integration of European regional electricity markets by implementing, among others, common platforms for the trading of electricity and the allocation of cross-border transmission capacity between neighbouring countries***

* Conclusions of the XVII Florence Forum, Rome, 10-11 December 2009

GME has always been active in international cooperation with a view to creating a European integrated energy market

- co-founder of EuropEX (the Association of European Power Exchanges) in 2001
 - first market-coupling paper published by EuropEX in 2003
 - GME actively contributes to EuropEX participation in institutional fora
 - GME chairs EuropEX working groups on environmental markets and gas markets
- Coupling projects in which GME is currently engaged
 - Italy - Slovenia Market Coupling
 - Price Coupling of Regions (PCR)
 - ✓ project developed together with OMEL, EPEX, APX-Endex, Belpex and NordPool
 - ✓ European-wide decentralised price coupling

Milestones

- GME, Borzen and BSP SouthPool signed an MoU for introducing the Market Coupling (MC) between Italy and Slovenia in **Q2 2008**
- GME, Borzen and BSP put forward a proposal for implementing the MC; the proposal was formally submitted to the TSOs, the Regulators and the reference Ministries in **Q4 2008**
- Italian and Slovenian Regulators set up a WG in **Q2 2009**; members:
 - GME and BSP as Power Exchanges (PXs)
 - Borzen as Market Operator (MO) in Slovenia
 - Terna and Eles as Transmission System Operators (TSOs)
 - reference Ministries: the Italian Ministry of Economic Development (MSE) and the Slovenian Ministry of Economy
- Purpose of the WG:
 - designing a practicable solution for implementing the MC on the Italian-Slovenian interconnection (compatible with the other solutions adopted in the CSE region)
 - establishing a roadmap for implementing the MC
- Project supported by Italian and Slovenian Governments
 - Joint declaration by the Italian and Slovenian Foreign Ministries on 8 September 2008 and on 9 November 2009
 - On 27 August 2010, the Italian Ministry of Economic Development and the Slovenian Ministry of Economy signed an MoU, in which they committed to supporting the project

Governance

- Master Agreement
 - lays down the principles and objectives of MC
 - **sets the date of 1 January 2011 for the take-off of MC**
 - approved by both Regulators in October 2010
 - signed by the TSOs, the PXs and the MO
- Auction Rules 2011
 - submitted to the respective Regulators for approval
 - introduces the MC as a form of daily allocation of interconnection capacity between Italy and Slovenia
- Pentalateral agreement
 - sets forth operational procedures for the management of the MC (timeline for exchange of data and content of the data)
 - to be submitted to both Regulators for approval
 - to be signed by the PXs, the TSOs and the MO
- Local agreements between the TSOs and the PXs/MO
 - define operational procedures, in each country, for the management of the MC (content and format of exchanged data)
 - in the case of GME and Terna, these procedures are included in an agreement to be submitted to AEEG for approval

ITA-SI Market Coupling and the Italian Market: the regulatory framework

	Market Coupling			Italian Market		
	Master Agreement	Pentalateral Agreement	Auction Rules	GME – Terna Agreement	Integrated Text of the Electricity Market Rules	Grid Code
Terna	Implementation	Implementation	Implementation	Implementation		Implementation
GME	Implementation	Implementation	Implementation	Implementation	Implementation	
AEEG	Approval	Approval	Approval	Approval	*	Approval
BSP	Implementation	Implementation	Implementation			
Borzen	Implementation	Implementation	Implementation			
Eles	Implementation	Implementation	Implementation			
AGEN	Approval	Approval	Approval			

Approval

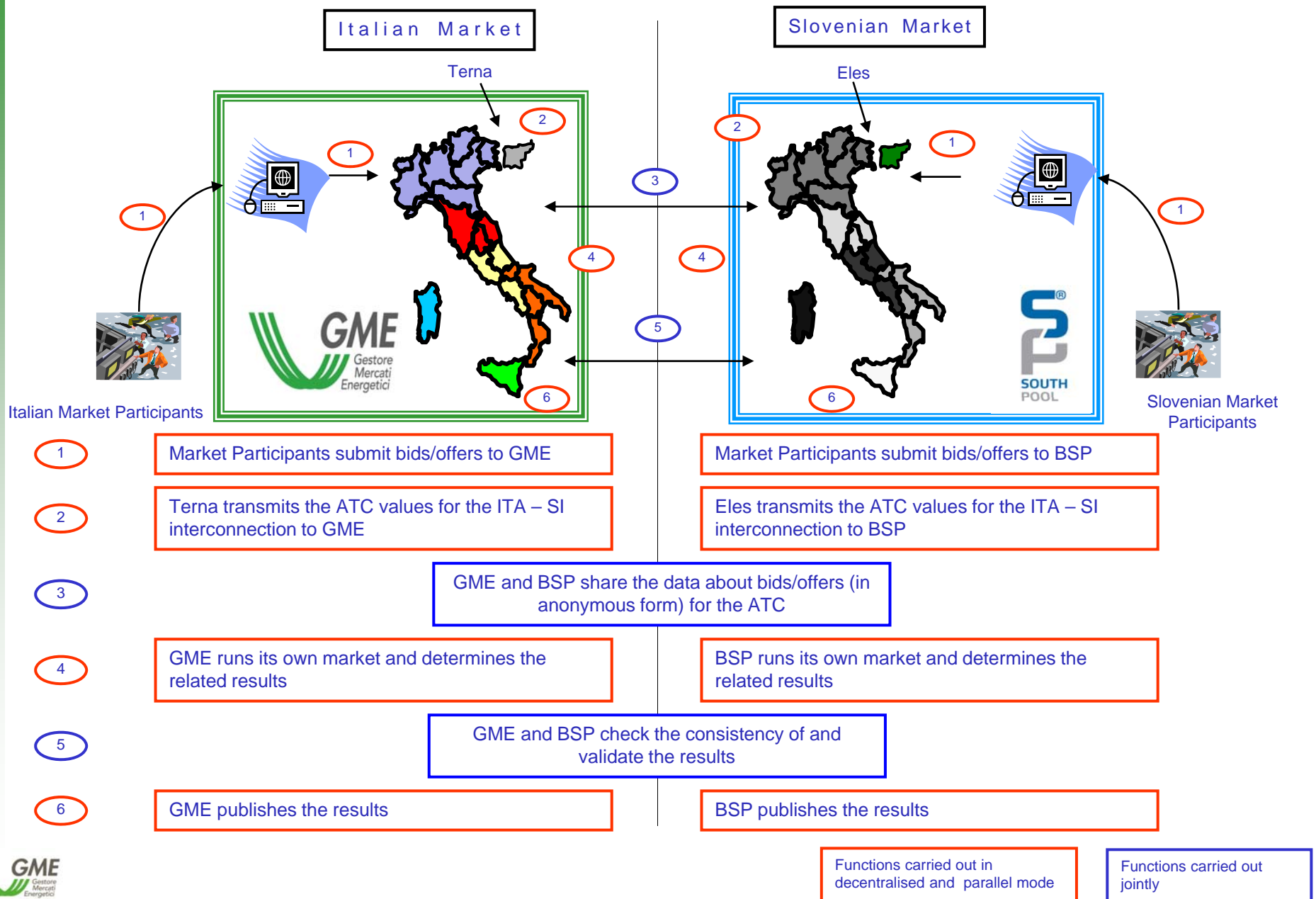
Implementation

ITA-SI Market Coupling: roles and responsibilities

- The ITA–SI MC is a *decentralized price coupling* which:
 - reflects the current roles and responsibilities of the TSOs and PXs
 - is based on relations already existing at local level between the TSOs and PXs

<p>Each TSO is responsible for</p> <ul style="list-style-type: none"> • defining its own grid model • reporting the ATC values between Italy and Slovenia to the PX of its own country • acting as counterparty to the PX of its own country for the imports/exports defined by the MC 	<p>The TSOs are jointly responsible for</p> <ul style="list-style-type: none"> • defining the overall grid model for the purposes of the MC • defining the ATC values between Italy and Slovenia to be allocated through the MC
<p>Each PX is responsible for</p> <ul style="list-style-type: none"> • receiving bids/offers from its own Market Participants • running its own market software, taking into account, among others, the bids/offers received from the other PX • determining and publishing the results of its own market 	<p>The PXs are jointly responsible for</p> <ul style="list-style-type: none"> • sharing data about the bids/offers received (in anonymous form) and the ATC for the MC • adopting a common matching algorithm • checking the consistency of the calculated data (prices and volumes of imports/exports) for the purposes of the MC • defining the import/export volumes resulting from the MC

ITA-SI Market Coupling: decentralised approach

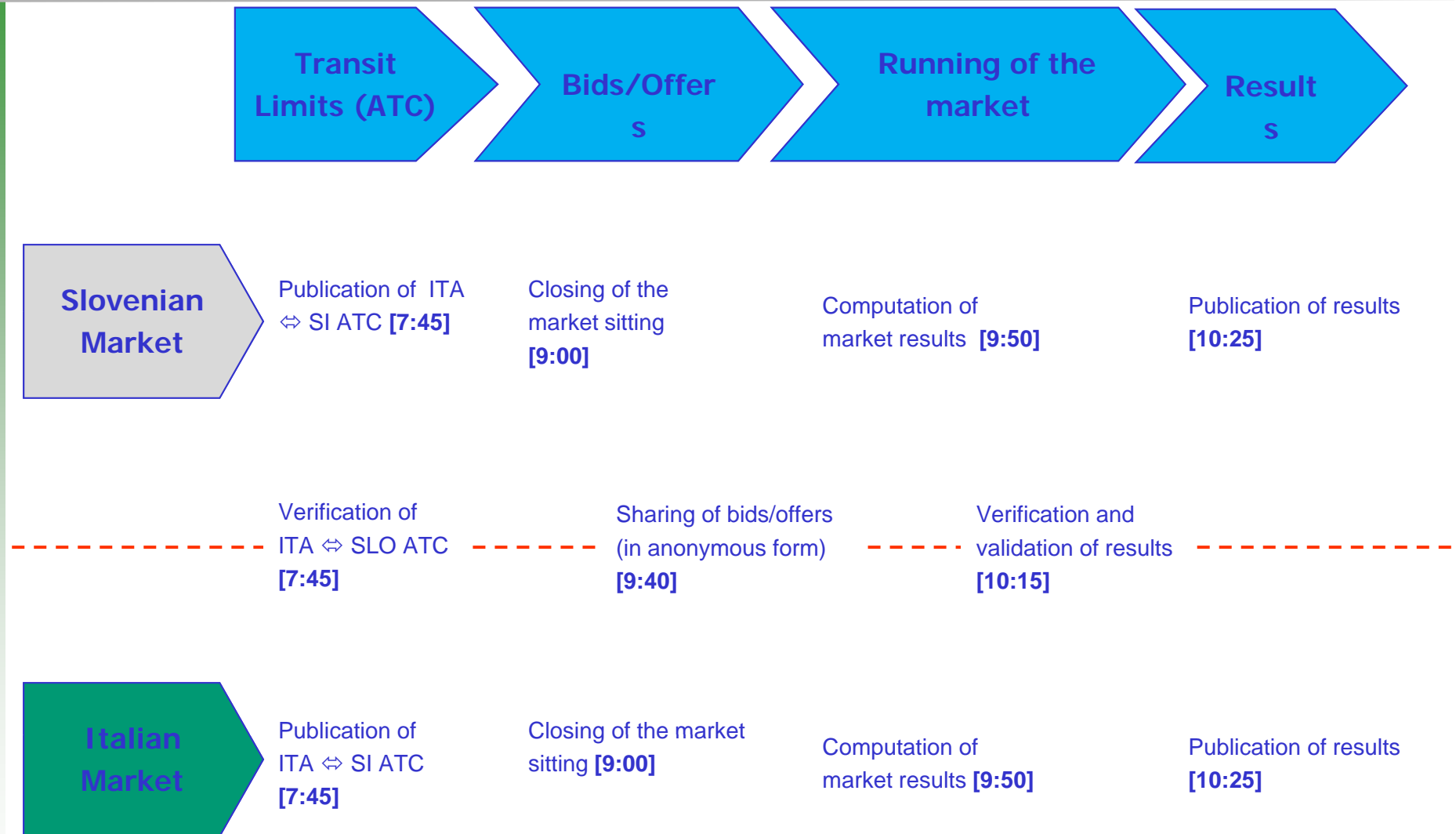


ITA-SI Market Coupling: price coupling with common matching algorithm

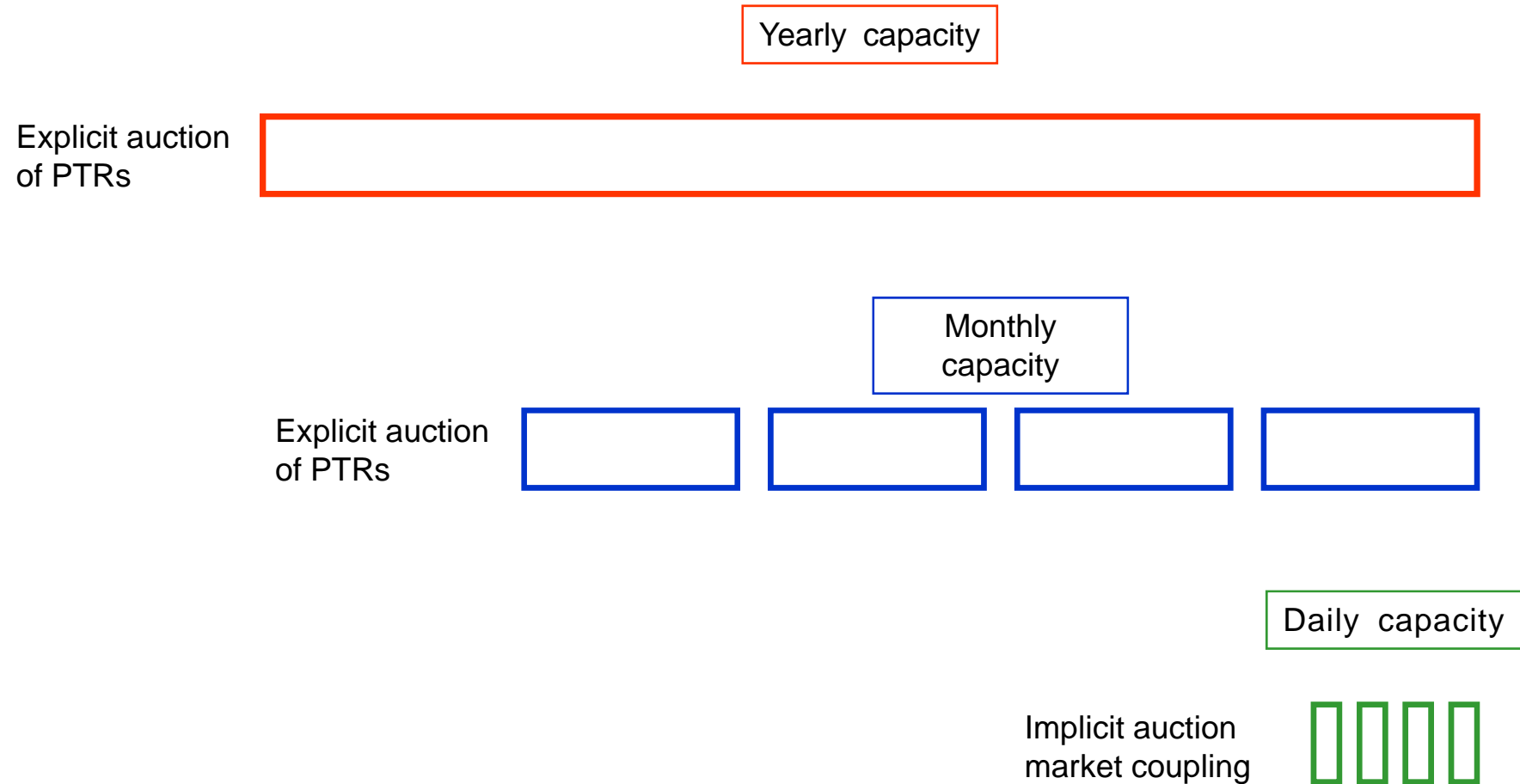
- The market coupling between Italy and Slovenia is a price coupling
 - the **algorithm** that is used perfectly replicates the **matching rules** of all the PXs participating in the coupling
 - the matching algorithm is run by using all the relevant **data** concerning the bids/offers submitted by Market Participants to the PXs participating in the coupling
 - a common **grid model** is used for all the zones falling under the responsibilities of the TSOs participating in the coupling
 - no **adverse flows** arise

- GME and BSP will adopt the same matching algorithm:
 - hourly implicit auctions
 - no intertemporal constraint (no block bids)
 - zonal prices (with computation of the PUN only in Italian physical zones)
 - marginal price
 - computation of flows between zones
 - both the ATC grid model and the flow-based model are supported (for the time being, the ATC model is adopted)
 - bids/offers are expressed by specifying quantity-price pairs
 - minimum tradable quantity: 0.001 MWh
 - price expressed in 0.01 €/MWh

Market coupling: timeline of activities



Allocation of capacity on the Italian-Slovenian border since 1 January 2011



Thank you for your attention!!!