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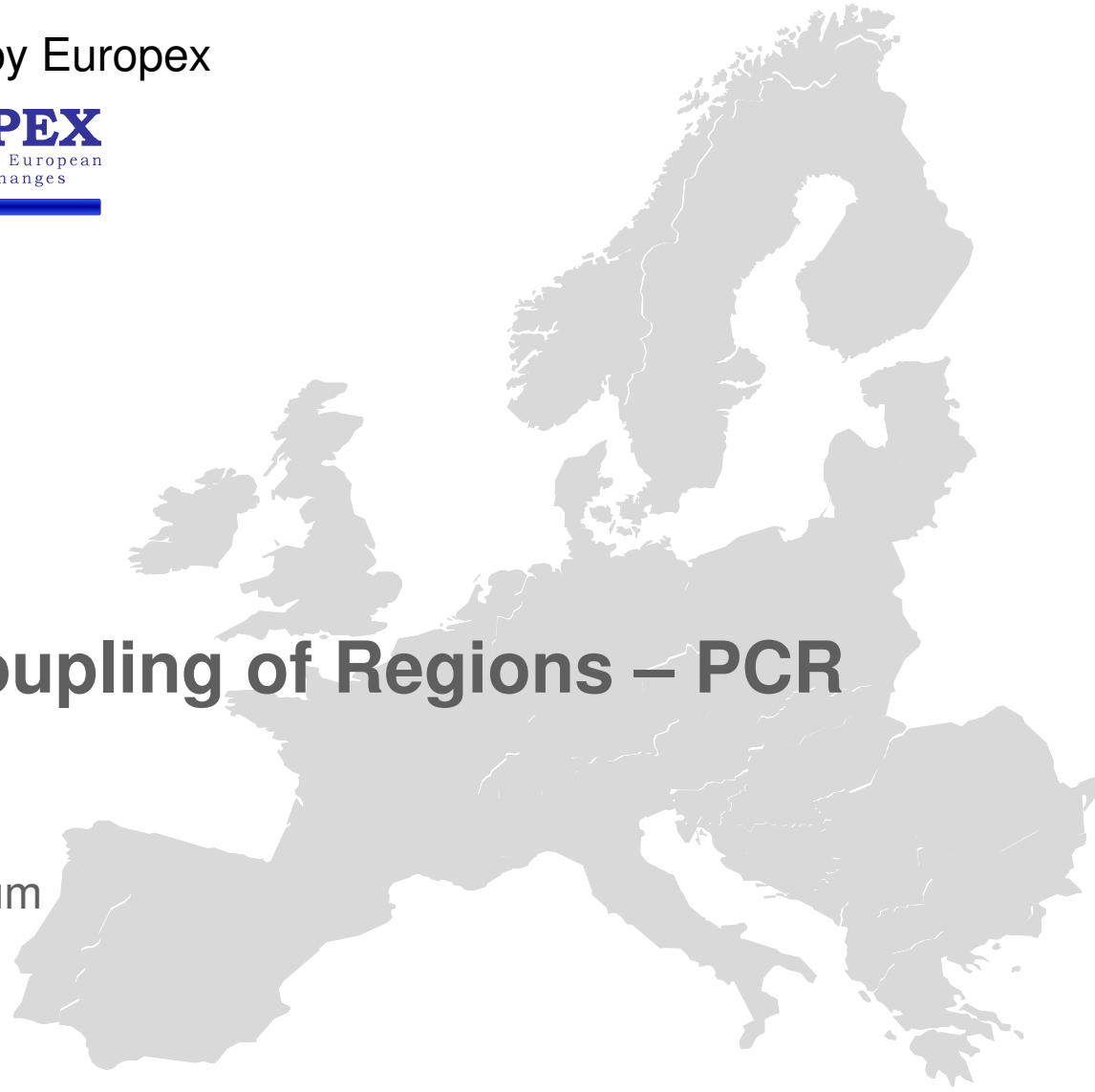
GME
Gestore
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OMEL
MERCADO DE
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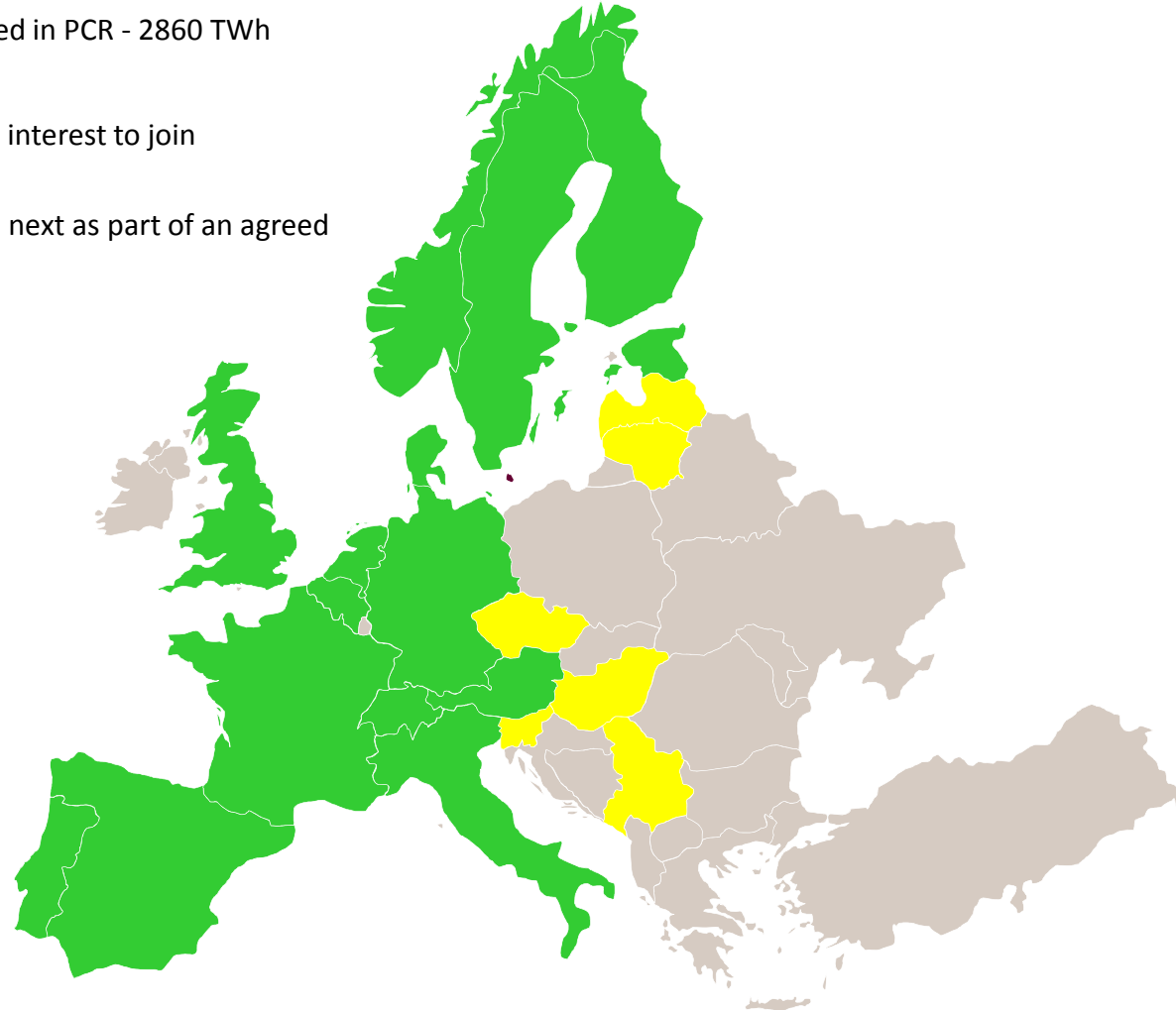


Price Coupling of Regions – PCR

June 2010
Florence Forum

Development of the Price Coupling of Regions (PCR) Initiative

-  Markets initially included in PCR - 2860 TWh
-  Markets which showed interest to join
-  Markets that could join next as part of an agreed European roadmap



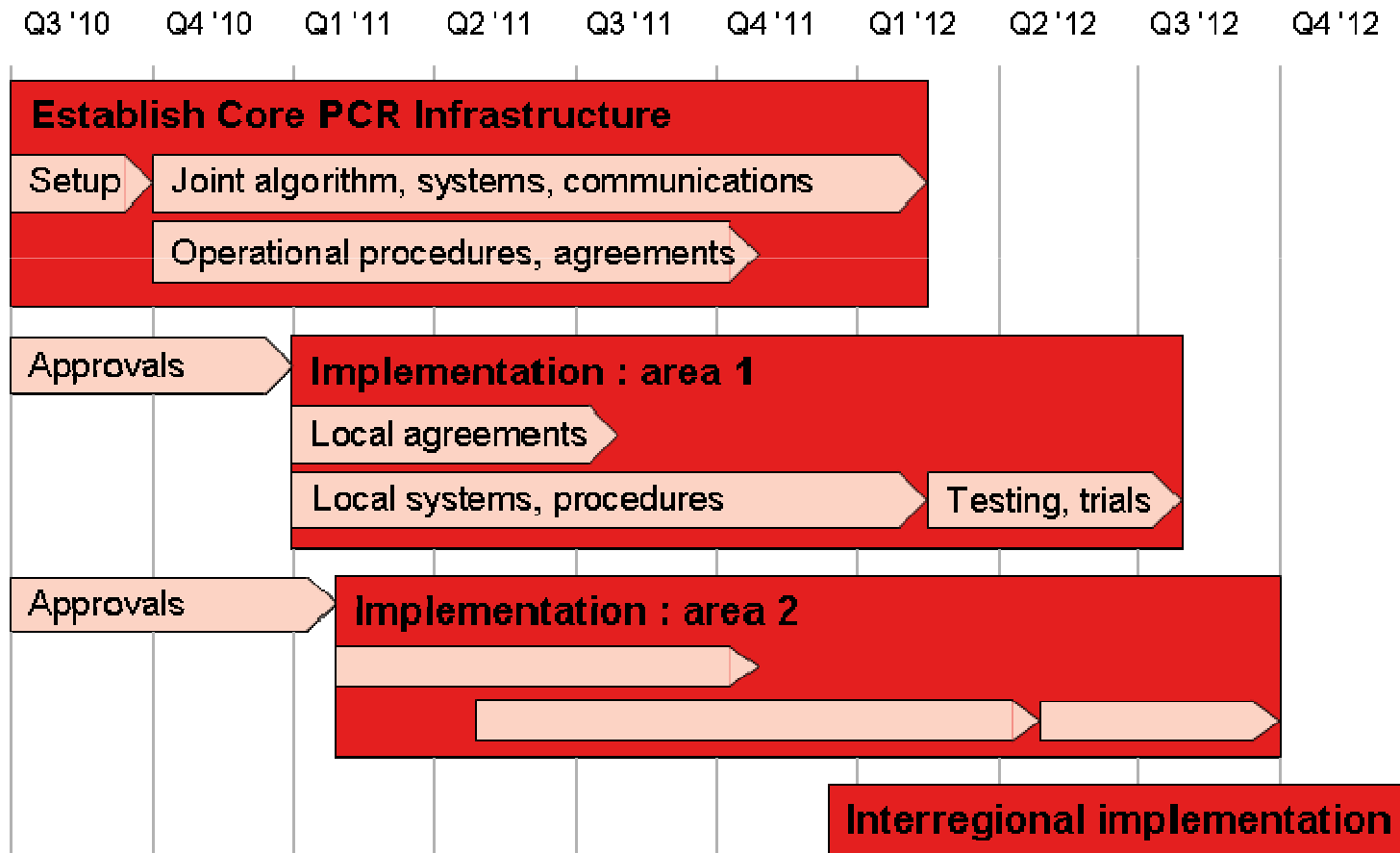
*Source: UCTE 2007 power consumption data

Development of the Price Coupling of Regions (PCR) Initiative

- Key features of the initiative are:
 - PXs using one single co owned matching algorithm. Such an algorithm will be published on the internet
 - Common operational procedures handling normal and emergency situations
 - Each individual PX takes the responsibility to fulfill locally legal and regulatory requirements as well as TSO agreements
 - Able to adapt to local/regional frameworks

Development of the Price Coupling of Regions (PCR) Initiative

- Implementation plan



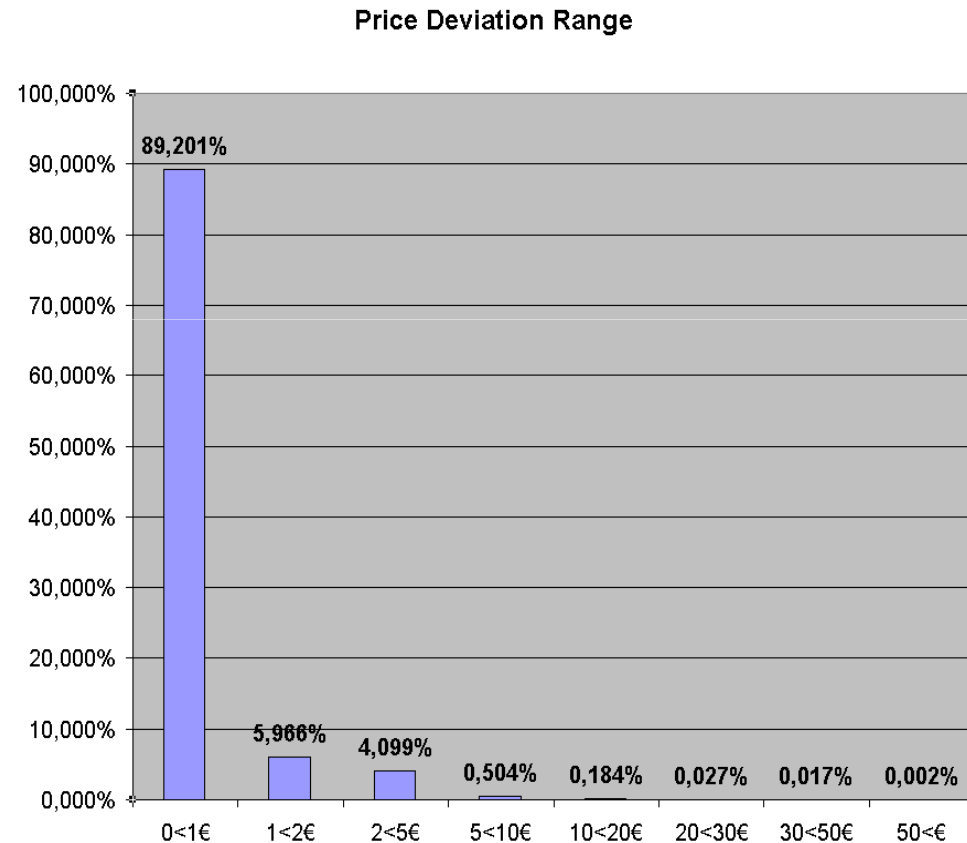
Simulations outcomes and analysis

Robustness tests - Prices

Price deviation. Histogram of the number of hourly calculated prices by a single algorithm in one pass, in percentage, vs the value calculated by each of the algorithms for their own prices areas.

Ability to handle diversity of products and scale of calculation has been demonstrated on 3 existing algorithms (154 days, 14 prices areas, 51 744 hourly prices simulated)

The calculation of the prices is of a good quality for a first attempt. Price deviation compared to local algorithm calculation is controlled .



Conclusions

- Simulation shows that technical feasibility of PCR has been proven in terms of single algorithmic computation
- Wide European dimension
- Regulators involvement considered as essential for the success
- TSOs – national and regional have to be key partners in the development and later the operation
- Clear roadmap for market participants
- Support from the Florence Forum welcome



Thank you for your attention!

APX-ENDEX is Europe's premier provider of power and gas exchange services for the wholesale market, operating transparent platforms for short term and futures trading in the Netherlands, the United Kingdom and Belgium. Established in 1999, APX-ENDEX provides exchange trading, central clearing & settlement and data distribution services. APX-ENDEX has over 300 memberships from more than 15 countries. APX-ENDEX offers benchmark data and provides industry indices. APX-ENDEX's offices are located in Amsterdam, London and Nottingham.

Belpex is a leading contributor to the integration of the European electricity markets, accountable for delivering transparent price signals to its participants and the community. Belpex is focused on delivering electricity market services that bring value to its members and the entire Belgian electricity wholesale market. Belpex provides a trading platform for the negotiation of spot electricity trades and green certificates. Purchase/sale transactions are concluded directly, but anonymously, between the market participants.

EPEX Spot SE is a Paris-based company under European law (Societas Europae) with a branch in Leipzig. EEX AG and Powernext SA each hold 50 percent in the joint company, in which they integrated their entire spot power trading activities. EEX AG main shareholders are Eurex Zürich AG and Landesbank Baden-Württemberg. Powernext SA main shareholder is a Holding of TSOs formed by RTE, TenneT and Elia. The product range of EPEX Spot SE encompasses spot power trading for France, Germany/Austria and Switzerland. These countries account for more than one third of the European power consumption.

GME is the company which organizes and manages the wholesale electricity market in Italy. On GME, producers, consumers and wholesalers may enter into electricity purchase and sale contracts for the next day and, from 2008, also trade electricity blocks for forward physical delivery. GME also organizes and manages Environmental Markets, i.e. the venues where Green Certificates, Energy Efficiency Certificates and Emission Allowances are traded. GME has been attributed, moreover, by law no. 99 of 23 July 2009, the exclusive management of the Italian natural "Gas Exchange".

Operador del Mercado Ibérico de la Energía, polo español S.A. (OMEL) is a Spanish company created with the purpose of managing markets in underlying energy assets. As its main function, OMEL is the responsible of the management of the Iberian spot electricity market, running everyday the daily and six intraday markets encompassing all Iberian energy. In addition to this principal function, OMEL is responsible for the management of several energy-related product auctions, including both physical and financial products.

Nord Pool Spot runs the largest market for electrical energy in the world, offering both day-ahead and intraday markets to its participants. 330 companies from 20 countries trade on the exchange. The Nord Pool Spot group has offices in Oslo, Helsinki, Stockholm, Fredericia (Denmark), Tallinn and London. Nord Pool Spot is owned by the Nordic transmission system operators. In 2009 the group had a turnover of 288 TWh representing a value of EUR 10.8 billion.