

I-SEM Rules Liaison Group

Day-ahead market (MRC)

21st January 2015






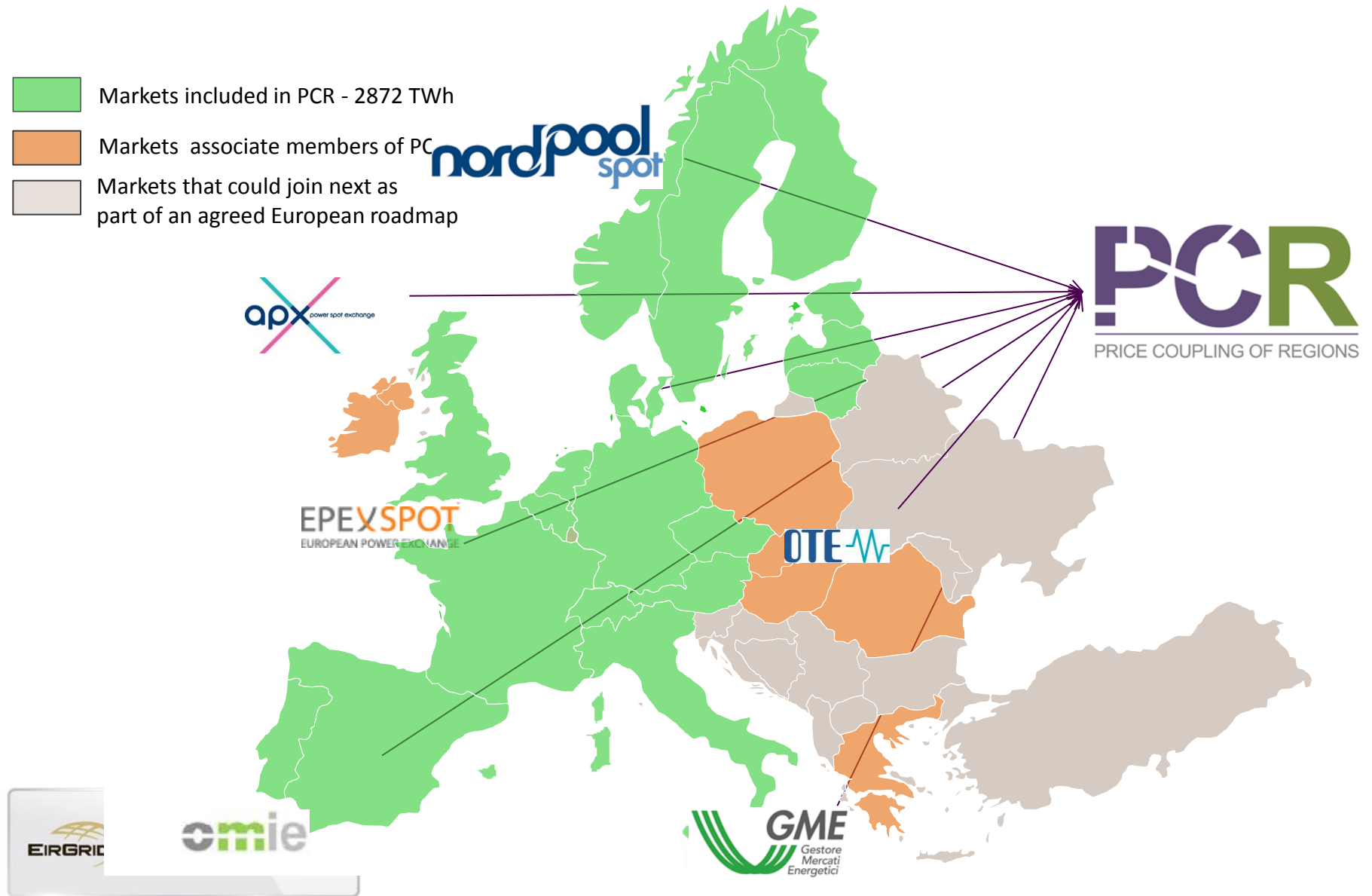
MRC – Multi-Region Coupling

- Price Coupling of Regions (PCR) started as regional implementation (e.g., NWE, CWE, etc.)
- Multi-Region Coupling (MRC) represents merging of these regional projects into single pan-European market coupling
- Coupling across CWE, NWE, SWE
- Italian borders due to join in February
- 4MC (Romania, Hungary, Czech Republic and Slovakia) yet to join.



MRC – Multi-Region Coupling

-  Markets included in PCR - 2872 TWh
-  Markets associate members of PCR
-  Markets that could join next as part of an agreed European roadmap



MRC – Normal Process

- Send anonymised orders to MCO
- Execution of EUPHEMIA algorithm
- First validation by members of MRC

- Notification process

11:42

Preliminary Results

13:00

End of Notification process

09:30

Publication of Cross Zonal Capacity

11:00

Gate Closure

11:55

Final Results

- Final validation by members of MRC & TSOs



MRC – Normal Process

- Normal time for publication of Cross Zonal Capacity by the TSOs at 09:30 (*10:30 CET*)
- Gate closure for day-ahead market coupling at 11:00 (*12:00 CET*)
- Calculation and preliminary validation of results up to 11:42 (*12:42 CET*)
- Validations include checking price, cross border allocations, etc.
- Final validation by 11:55 (*12:55 CET*)
- Publication times currently vary among the different market operators across Europe and process is not fully coordinated



MRC – Normal Process – EPEX example

| Time | Market Results publication | Remarks |
|---------------------|---|---|
| 12:42 | Regular publication time of the Preliminary Market Coupling Results | <p>The Preliminary Market Coupling Results are subject to a final round of validation by the MRC parties and could be cancelled if one party rejects the Preliminary Results.</p> <p>The publication will never be prior to 12:42. If the Preliminary Market Coupling Results are not available at 12:42, a delay message will be sent out (see next slide).</p> |
| 12:55 | Regular publication time of the Final Market Coupling Results | <p>Under normal circumstances, 12:55 is the expected time for publishing the Final Market Coupling Results. However, as the final round of validations could take longer, the Market Participants are advised to consider this time only as an estimated one.</p> |
| 13:50 - 13:55 | Deadline for publishing the Final Market Coupling Results | <p>In case of severe delays in the Market Coupling process (due to the running of a Second Auction, the triggering of a Partial Decoupling, technical issues etc.), the publication of the Final Market Coupling Results may be delayed until the Full Decoupling deadline (13:50).</p> <p>In order to ensure the readiness of the Market Coupling Results on EPEX website, EPEX will publish as soon as possible on a best effort basis.</p> |
| 14:30 | Deadline for publishing the Local Market Results (after running a Local Auction) | <p>In case of MRC Full Decoupling at 13:50, EPEX will run a Local Auction and 14:30 is the deadline for publishing the Local Market Results.</p> <p>In case EPEX is decoupled from MRC at 12:40, EPEX will run a Local Auction and 14:30 is the deadline for publishing the Local Market Results.</p> |
| 14:45 | Deadline for publishing Local Market Results (after running a Local Auction followed by a Local Second Auction) | <p>In case of MRC Full Decoupling at 13:50, EPEX will run a Local Auction and if price thresholds are reached, a Local Second Auction will be triggered.</p> <p>In this case, the deadline for publishing the Local Market Results is 14:45.</p> |



MRC – Normal Process

- If still coupled within MRC and preliminary results not published at 11:42 (12:42 CET), MO informs participants of delay
- If final results not published at 12:00 (13:00 CET), MO issues another delay message
- If final results not published at 12:20 (13:20 CET), MO will issue warning of risk of full decoupling
- If high or low price limits detected, MRC is re-run. Order books are reopened for 10 minutes at 11:35 (12:35 CET)
- If final results not available by 12:50 (13:50 CET), full decoupling is declared



MRC – Partial De-coupling

- If decoupled at 11:40 (*12:40 CET*), fallback procedures are initiated
- For EPEXSPOT, this entails local auctions for France & Germany / Austria
- This represents partial de-coupling
- This can occur in pre-coupling (by 10:45 / *11:45 CET*) or during coupling itself (by 11:40 / *12:40 CET*)
- With partial de-coupling, cross zonal capacities allocated using fallback procedures (e.g. shadow / explicit auctions, intraday market, etc.)
- When partial de-coupling in process, affected interconnectors are removed from the MRC



MRC – Partial De-coupling

- Examples of fallback from CWE / SWE
 - CWE internal borders (France & Germany / France & Belgium / Belgium & Netherlands / Netherlands & Germany): Shadow auctions via CASC
 - Denmark 1 & Germany: Shadow auctions via CASC
 - Denmark 2 & Germany: Shadow auctions via CASC
 - France & Spain: Intraday market
 - France & GB 1: IFA explicit auctions
 - Sweden & Germany: Reverts to interconnector owner



MRC – Full De-coupling

- Full decoupling declared if final results not available at 12:50 (*13:50 CET*)
- All MRC interconnectors and bidding zones decoupled and fallback procedures used
- For example, EPEXSPOT reopen order books for 20 minutes, usually at 13:00 (*14:00 CET*)
- Separate local auctions run for France and Germany /Austria
- Thresholds applied in local auctions with facility to further re-open the order books if required



MRC – Notifications, EPEX example

| Scenario | Notification type | Notification deadlines depending on the CWE bidding areas | | | |
|--|-------------------|---|-------|-------|-------|
| | | BE | FR | DE | NL |
| Normal day → Market Results published between 12:42 and 13:00 | Hub | 14:00 (hub 1) 14:30 (hub 2) | 14:30 | 14:30 | 14:00 |
| | Cross-border | 14:30 | 14:30 | 14:30 | 14:00 |
| | Generation | 15:00 | 16:30 | 14:30 | 14:45 |
| Market Results published between 13:00 and 13:20 | Hub | 14:15 (hub 1) 14:30 (hub 2) | 14:30 | 14:30 | 14:30 |
| | Cross-border | 14:30 | 14:30 | 14:30 | 14:30 |
| | Generation | 15:00 | 16:30 | 14:30 | 15:15 |



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|---|-------------------|---|-------|-------|-------|
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| Market Results published between 13:20 and 13:50 | Hub | 14:45 (hub 1) 15:00 (hub 2) | 15:00 | 15:00 | 15:00 |
| | Cross-border | 15:00 | 15:00 | 15:00 | 15:00 |
| | Generation | 15:30 | 17:00 | 15:00 | 15:45 |
| Market Results published between 13:50 and 14:30 (or until 14:45 in case of Second Auction after a Full Decoupling) | Hub | 15:15 (hub 1) 15:30 (hub 2) | 15:30 | 15:30 | 15:30 |
| | Cross-border | 15:30 | 15:30 | 15:30 | 15:30 |
| | Generation | 15:30 (without Second Auction after decoupling) 16:00 (with Second Auction after decoupling) | 17:15 | 15:45 | 16:15 |



Questions?

