

PCR Project

Main features

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Introduction

- **WHAT is PCR?** Price Coupling of Regions (PCR) is the initiative of seven European Power Exchanges to harmonise the European electricity markets
- **HOW is this done?** By developing a single price coupling algorithm to be used to calculate electricity prices across Europe

Key Elements in European Integration

- Price Coupling of Regions (PCR) is a Market Coupling project focused on the delivery of a common European price coupling solution
- An important part of all regional market coupling projects, linking them all together
- This is to accommodate the overall EU target of a harmonised European electricity market
- Based on three main principles:
 - One single algorithm
 - Robust operation
 - Individual accountability

Key Elements in European Integration

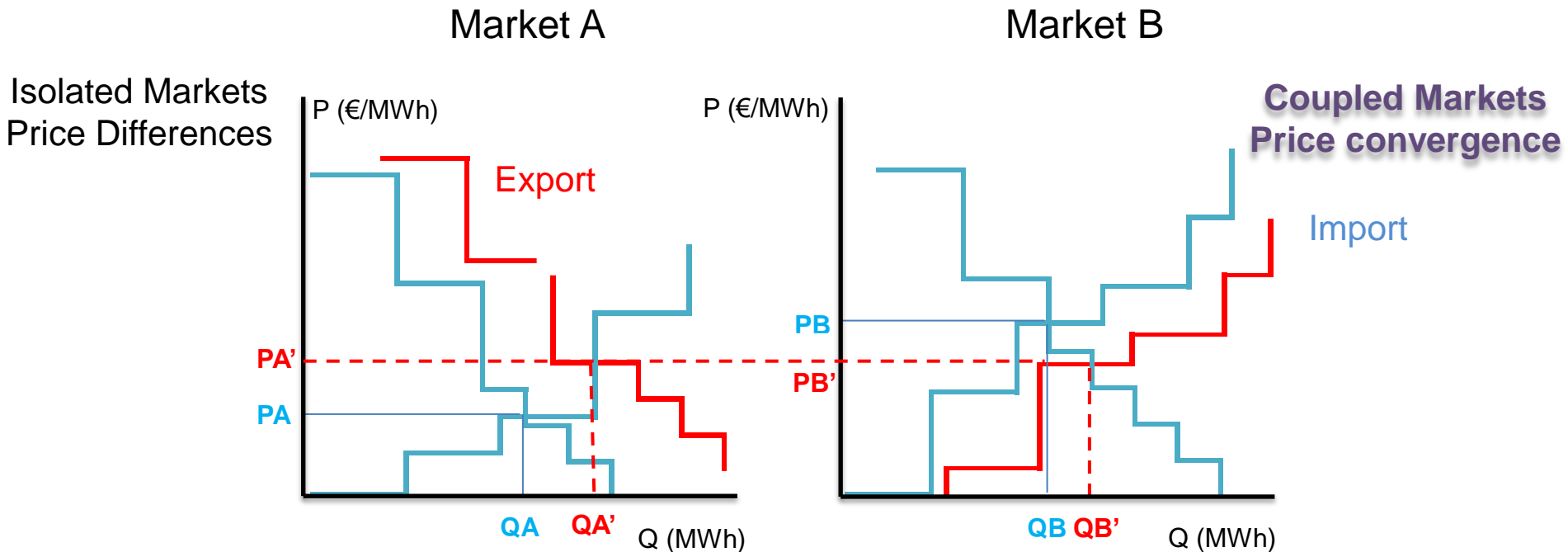
- PCR is initiative of seven Power Exchanges: EPEX SPOT, GME, Nord Pool Spot, OMIE, OPCOM, OTE and TGE, open for other European Power Exchanges wishing to join. PCR is creating a governance structure based on a Co-Ownership Agreement and a Co-Operation Agreement among exchanges
- PCR is used to couple the following countries: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and UK
- Development of a single price coupling algorithm, Euphemia. It will be used to calculate electricity prices across Europe. It will also optimise the overall welfare and increase transparency of prices and flows

Benefits of European Price Coupling

- The integrated European electricity market will be beneficial due to increased liquidity, transparency, efficiency and social welfare
- Guarantees the overall welfare and optimal use of interconnection capacities
- Implicit trading removes unnecessary risks of trading cross-border capacity and electricity separately

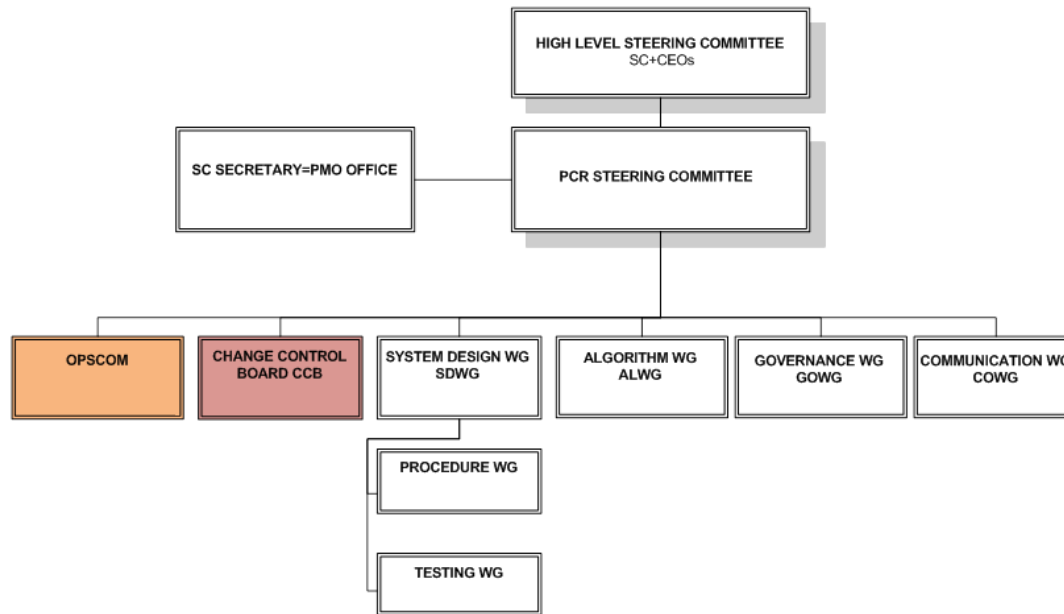
PCR can have two functions:

- **For Power Exchanges: Most competitive price will arise & Overall welfare increases**



- **For TSOs: Efficient capacity allocation**

PCR Project Structure



The Steering Committee

- The ultimate decision-making entity for the project with representatives of each PX

The Project Board and Project Manager

- Responsible for the efficient management of the Project
- Focused on achieving the objectives

Workgroups

- They share out the tasks according to the needs.

Towards Single European Market: History of Market Coupling

1993 - 2000

- Nordic Price Coupling: The Nordic markets are coupled

2006

- Trilateral Market Coupling, integrating the Netherlands, Belgium and France

2007

- MIBEL market started coupling Spain and Portugal

2009

- Czech Republic and Slovak Republic Market coupling started

Towards Single European Market: History of Market Coupling

2010

- Central West European Market Coupling (CWE); integrating the Netherlands, Belgium and France with Germany
- Interim Tight Volume Coupling (ITVC) between the CWE region and the Nordic – Baltic region

2011

- NorNed cable is integrated into the CWE-Nordic ITVC
- Launch of BritNed coupling linking the GB market to the wider CWE region
- Italy and Slovenia Market coupling started

2012

- 3M MC project integrating the CEE region markets of Czech Republic, Slovak Republic and Hungary

Towards Single European Market: History of Market Coupling




2014

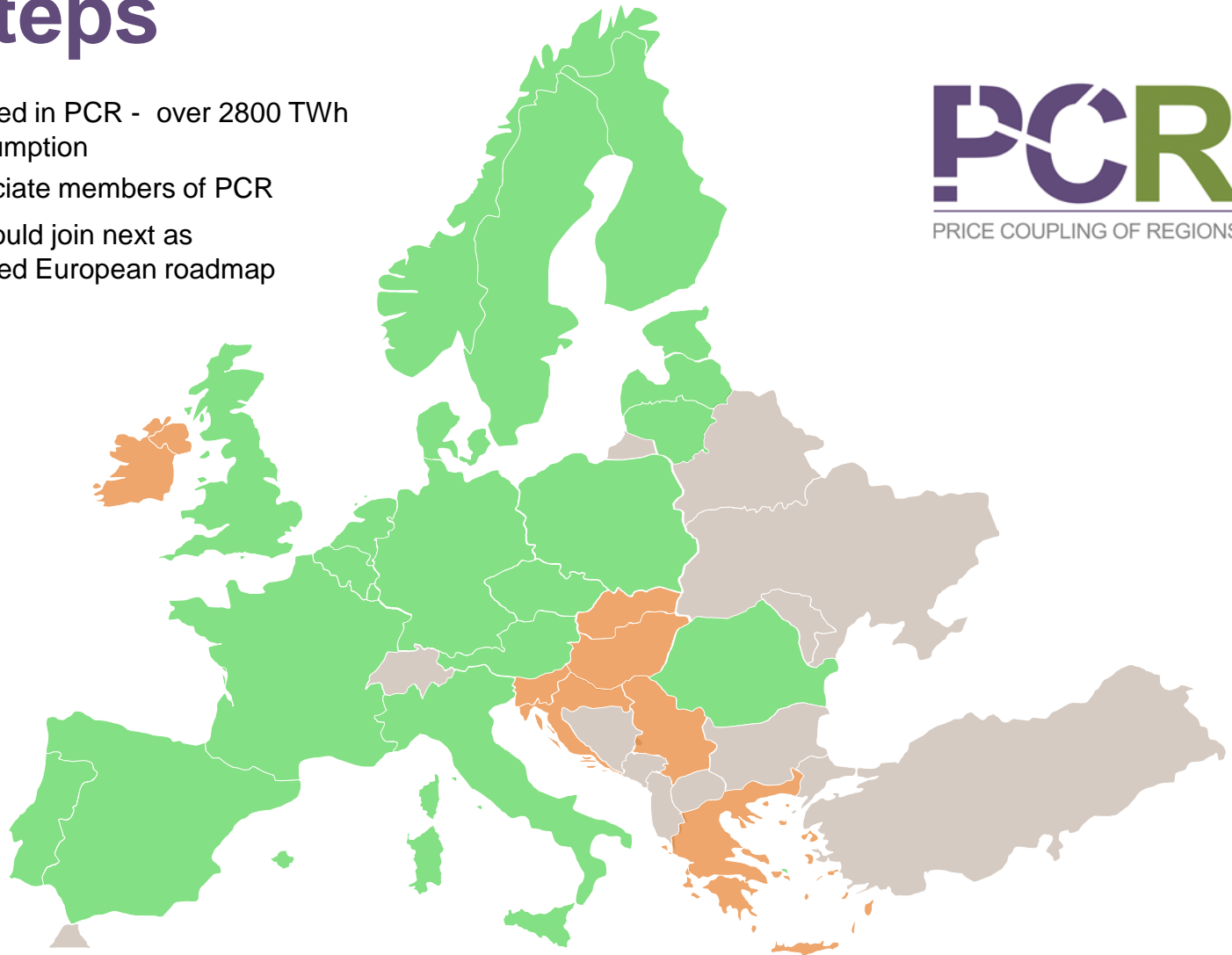
- Launch of common synchronised operation of NWE and SWE regions Day-Ahead markets using PCR solution
- Full Coupling of NWE and SWE regions launched- stretching the coupled region from Portugal to Finland
- 4M MC project replaces the trilateral Coupling now integrating the markets of Czech Republic, Slovakia, Hungary and Romania

2015

- The Italian-Austrian, Italian-French and Italian-Slovenian borders have been coupled with the Multi-Regional Coupling (MRC), linking the majority of EU power markets—from Finland to Portugal and Slovenia.

Towards Single European Market: Next Steps

-  Markets included in PCR - over 2800 TWh of yearly consumption
-  Markets associate members of PCR
-  Markets that could join next as part of an agreed European roadmap



Contact

- Web

Thank You



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