























# 4M Market Coupling **Project overveiw**

29 April 2014

# 4M Market Coupling Project

 Day-ahead ATC based price coupling covering Czech-Slovak-Hungarian+Romanian market areas





**Members:** 



ANRE ANRE











## Project goals

#### Main goals:

- Extension of CZ-SK-HU MC to Romania
- 4M countries wish to introduce benefits of market integration to market participants as soon as possible
- Get prepared for joining European Price Coupling implement MC based on PCR solution

#### **Context:**

- Stepwise market integration is the only way forward due to a blocked situation and slow progress in the CEE region
  - Flow-based capacity calculation methodology
  - Overlapping regions and other integration activities
- CEE regional solution is not agreed yet
- The extension does not hinder the regional development as it is an intermediate step towards European Price Coupling







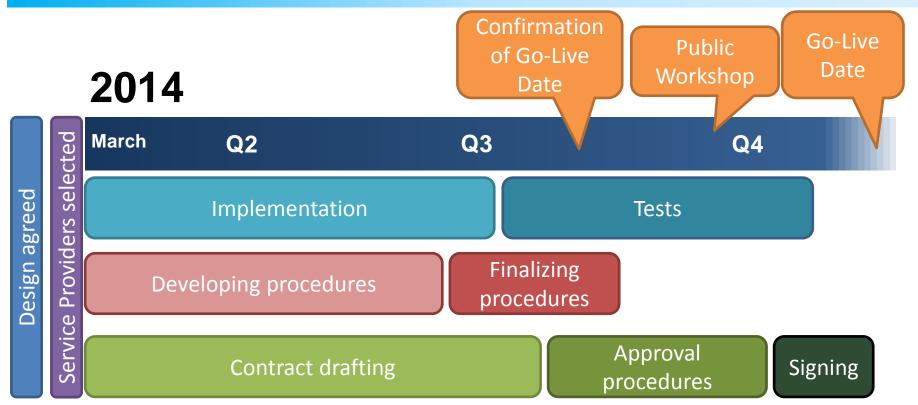








### General milestones, project plan & Go-Live Date



- Planned go-live is 11 November 2014
- Date will be confirmed in August 2014
- Coordinated workshops for market participants in September







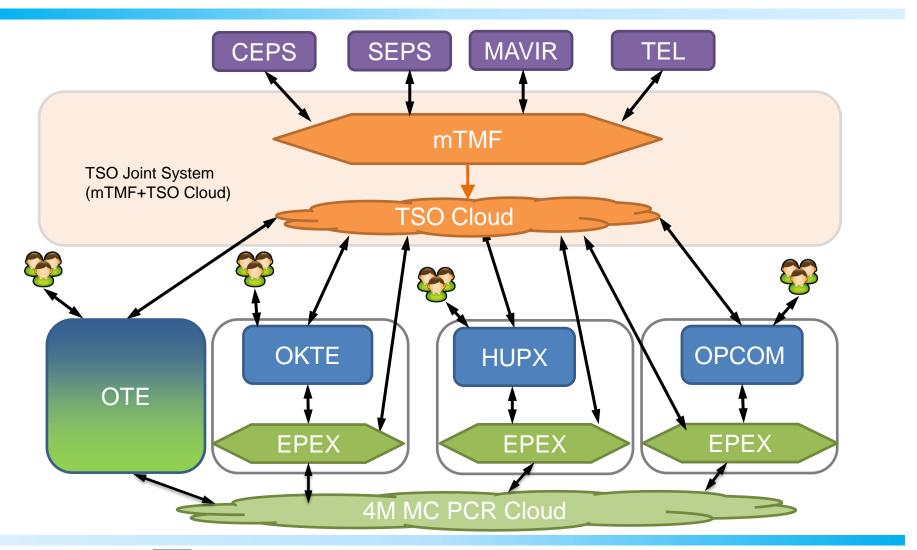








## 4M MC topology





















#### PX technical solution

- PCR implementation fully in line with the target model
  - 1 Full PCR Member (OTE)
  - 3 Serviced PXs (OKTE, HUPX, OPCOM) by EPEX Spot In operation OTE and EPEX Spot act as Coordinator in rotation.
- PCR solution is an important step forward for further integration:
  - implemented interfaces can be reused with further extensions
  - coupling procedures compatible with NWE/SWE (except timing)
  - PCR IT solution same as in NWE/SWE
    - under implementation in CSE
    - already running in NWE/SWE regions













### Harmonisation of market characteristics

Parameter	Value*	
Time zone	CET	
Standard Publication of Capacities	9:15 (by TSOs)	
	9:30 (by PXs)	
Deadline for modification of capacities	10:30	
Gate Closure Time	11:00	
Standard Publication of Results by PXs**	11:30-40	
(Publication Time: Tp)		
Standard Publication of Results by TSOs	Tp + 5 minutes	
Nomination Deadline	14:30	
Cross-border Flow decimals	One digit (0.1 MW)	
Price decimals	Two digits (0.01€/MWh)	
Min/Max prices	€/MWh -500/+3000	
Second Auction Trigger	€/MWh -150/+500	
Volume Tick size	One digit (0.1 MW)	
Price Tick size	Two digits (0.01 €/MWh)	

<sup>\*</sup> The timings are subject to the procedural tests.

<sup>\*\*</sup> Without Second Auction. In case of Second Auction or application of any backup/fallback procedure the publication time is postponed.



















### TSO technical solution

- Equal status of all connected TSOs
- The only TSO platform (no rotation, simple contract)
- Allows easy changing of PX roles (Coordinator/Non-Coordinator)
- Excelent experiences on performance and functionalities from CZ-SK-HU MC
- mTMF and TSO Cloud systems are easily extendable
  - Unlimited number of TSOs and PXs.
  - extension of the system with almost no costs





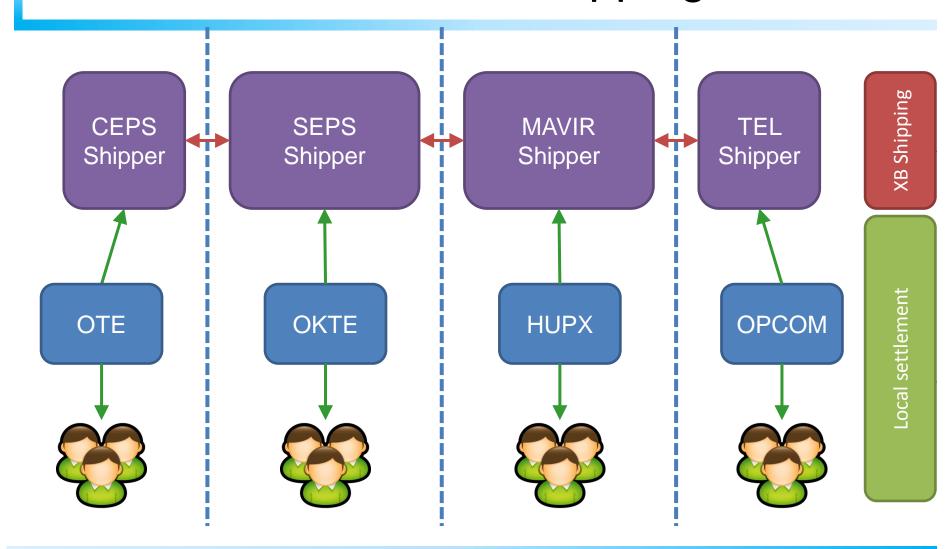








# 4M MC settlement and shipping



















### Fallback solution

- The 4M MC Project strives to adopt same principles as in NWE MC in order to allow smooth transition when coupling with NWE region.
- Explicit shadow auction are used for all the three borders as a fallback solution for capacity allocation: CEPS organizes it for CZ-SK border, and MAVIR for SK-HU and HU-RO borders.
- Partial decoupling will be not implemented in 4M MC.
- Process timings will be published sufficiently in advance before go-live in order that market participants may adapt.













### 4M MC heads to the IEM

- Prepares PXs and TSOs for the target model
- Current coordinated capacity calculation method remains (ATC)
- Provides market participants benefits of implicit allocation already before Flow-Based MC is implemented
- Promotes cross-regional integration by involving Romania and is open for other markets as well
- PX Systems in 4M MC support further integration with NWE region
- Go-live is expected on 11th November 2014













## Contacts

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