Webinar: Core operational readiness

23 March 2022

| WEDNESDAY March 23rd 2022 09.00-12.00		
09:30	**INTRODUCTION**	
09:45	**MAIN CHANGES STEMMING FROM CORE FB DA MC**	
	• **New Core topology & change from intuitive to plain**	**(P. Rojek – PSE)**
	• Introduction of financial transmission rights (FTR)	(G. Katona – MAVIR)
10:15	Q&A SESSION	
10:30	**CHANGES IN THE DECOUPLING PROCESSES**	
	• Fallback option for decoupling of a single Core bidding zone	(M. Godec – BSP)
	• New SDAC decoupling timing	(F-X. Detraz – RTE)
10:50	Q&A SESSION	
11:00	**CORE ROLLBACK**	(K. Wolanski – PSE)
11:10	Q&A SESSION	
11:20	*Closure*	

P. ROJEK

Geographical scope

- The Core CCR consists of the bidding zone borders between the following EU Member States' bidding zones: Austria, Belgium, Croatia, the Czech Republic, France, Germany, Hungary, Luxemburg, the Netherlands, Poland, Romania, Slovakia and Slovenia.

New flow-based borders

- The currently operational CWE flow-based region (applied on the borders between AT-DE, BE-DE, BE-NL, BE-FR, NL-DE, FR-DE) will be extended with the remaining Core CCR borders: DE-CZ, DE-PL, PL-CZ, PL-SK, CZ-AT, AT-HU, AT-SI, SK-HU, HU-RO, HU-HR, HU-SI, HR-SI.

- With the Core Flow-based Market Coupling go-live the cross-zonal capacities of all Core CCR internal borders will be expressed in the flow-based parameters (available margins on critical network elements and power transfer distribution factors), whereas cross-zonal capacities of all Core external borders will remain in the ATC model.

- Please note that the Hungary-Slovenia border will be included as of the go-live of the Core Flow-based Market Coupling in a so called „technical go-live". However, due to delay caused by the COVID-19 pandemic and weather situation, the interconnector is planned to be finalized and included in the Capacity calculation process from June 2022 onwards - link to the press release.
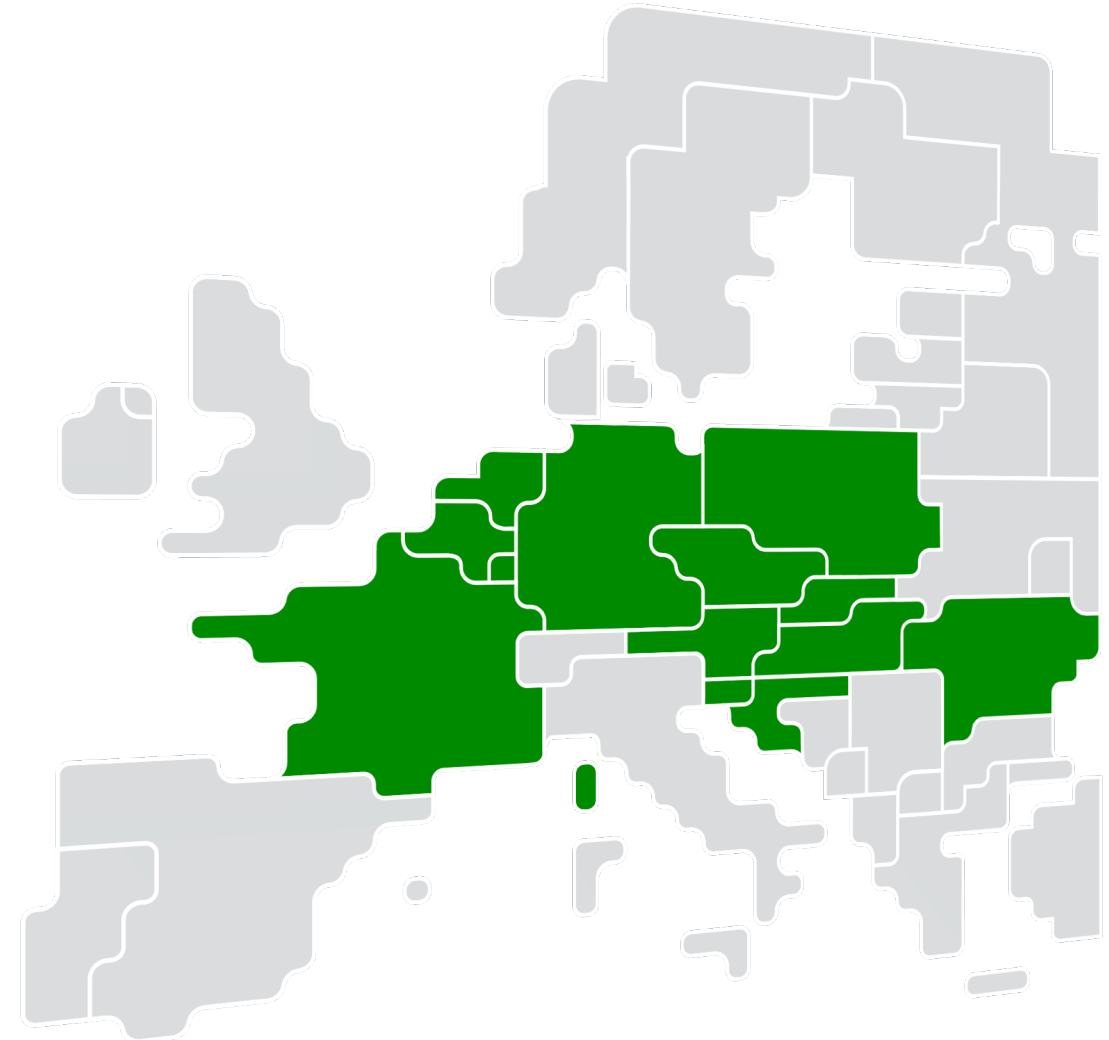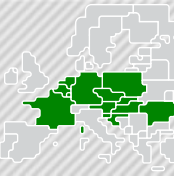
ATC vs Flow-based approach

- Available Transfer Capacity (ATC) defines the maximum flow that may pass through the interconnectors of a given topology. Lines are oriented from a source bidding zone to a sink bidding zone.
- The Flow-based model is an alternative to ATC network constraint which by using the flow based parameters allows a more precise modelling of the physical flows. The flow-based constraints are given by means of two components:
  - Remaining Available Margin (RAM): available margins on critical network elements
  - Power Transfer Distribution Factor (PTDF): ratio which represents the effect of commercial exchange between bidding zones on utilization of the CNE

### Non-intuitiveness of Flow-based Market Coupling

- Following the ACER's decision No 04/2020 the non-intuitive flow-based approach will be introduced in the Core region. The flow-based modelling can potentially result in 'non-intuitive' i.e. situations when energy goes from higher price areas to lower price areas.

$MCP_A = €40$
$nex_A = +300$

A

300

B → C
100

$MCP_B = € 70$ $MCP_C = € 60$
$nex_B = +100$ $nex_c = -400$
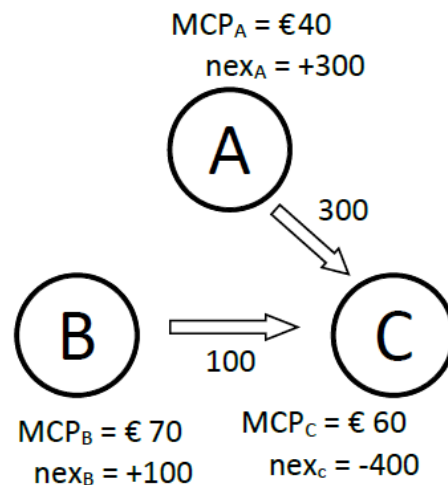
Source: EUPHEMIA Public Description

- Consider a three market example with a single PTDF constraint:

$$0.25 \; x \; NetPos_A - 0.5 \; x \; NetPos_B - 0.25 \; x \; NetPos_C \leq 125$$

$$0.25 \; x \; 300 - 0.5 \; x \; 100 - 0.25 \; x \; (-400) \leq 125$$

$$75 - 50 + 100 \leq 125$$

- From the example we see that flow-based market coupling led to non-intuitive situation. The reason is that some non-intuitive exchanges free up capacity, allowing even larger exchanges between other markets which results in maximization of the global social welfare. In our example, exporting from B to C (high price to low price) relieves the critical branch allowing for additional exchange from A to C (low price to high price).
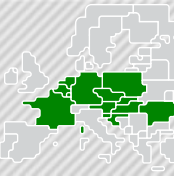
Changes to Shadow Auction topology

- The DE-CZ/PL and PL-DE/CZ/SK technical profiles are decommissioned in the day-ahead fallback procedure (Shadow Auction). Additionally the allocation on the DE-CZ border will no longer be held on two separate German scheduling areas (DE(50Hz)-CZ, DE(TenneT)-CZ), but on the single DE-CZ border. The CZCs will be offered on the single interconnectors: DE-CZ, PL-CZ, PL-SK.

Polish and German virtual bidding zones

- The Polish (so called PLC) and German (50Hertz) virtual bidding zones are decommissioned. PSE will keep using the allocation constraint on the day-ahead market modelled as the Polish Net Position Allocation Constraint which is a constraint allowing to manage the net position applied directly to the bidding zone. The same type of a constraint is currently used by ELIA in Belgium.