

# CWE FB - EPEX experience

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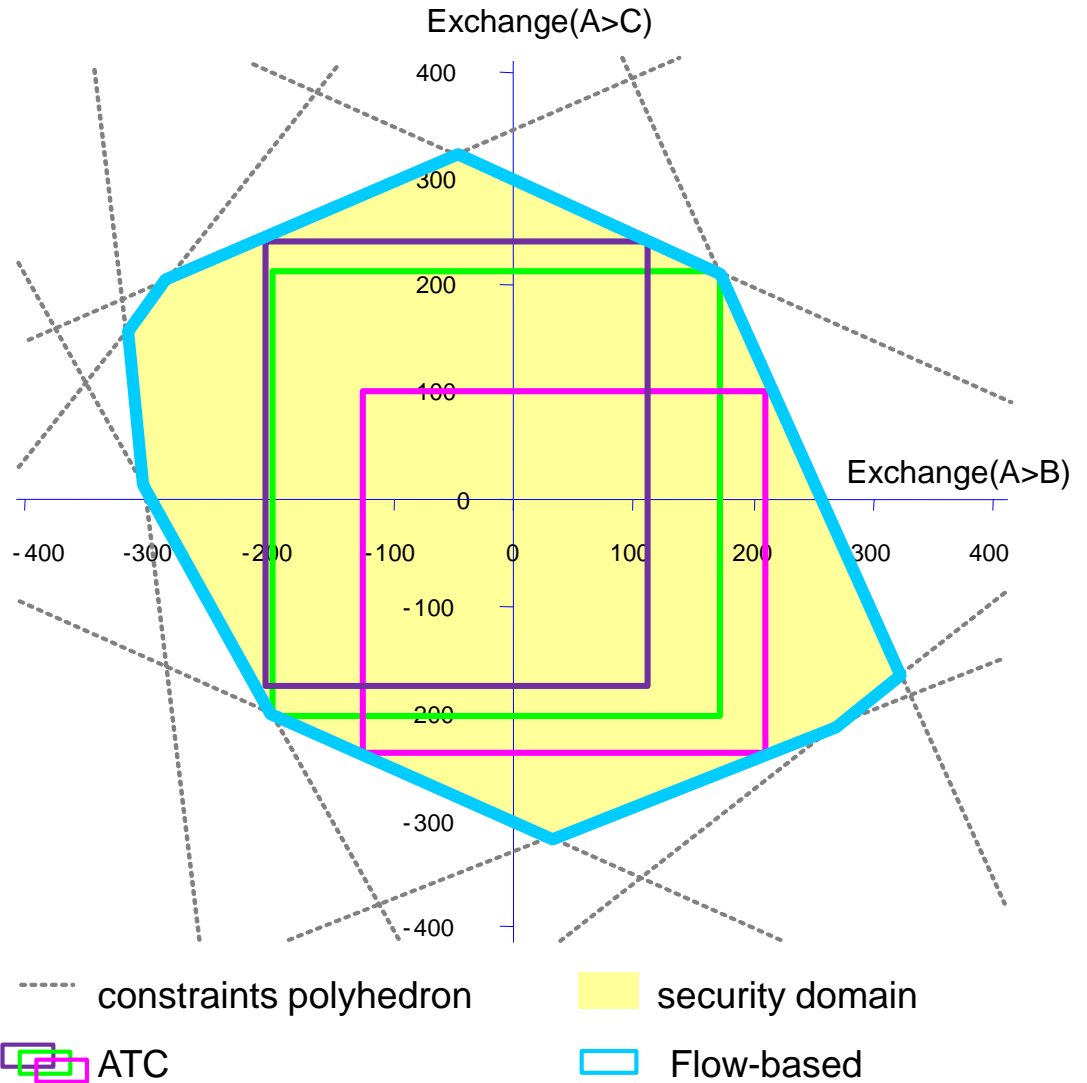
EPEXSPOT

# CWE FB: Expectations

- Expectations before go-live
  - FB more accurately reflects the physical constraints
    - ⇒ FB offers more capacity than ATC
  - 2+ years parallel run provided the proof: more energy being exchanged, more price convergence observed
- Experience since go-live
  - More energy is being exchanged under FB;
  - Price differences have (somewhat) reduced
  - Prices in some areas are more erratic

# CWE FB: Concept

FB in a nutshell

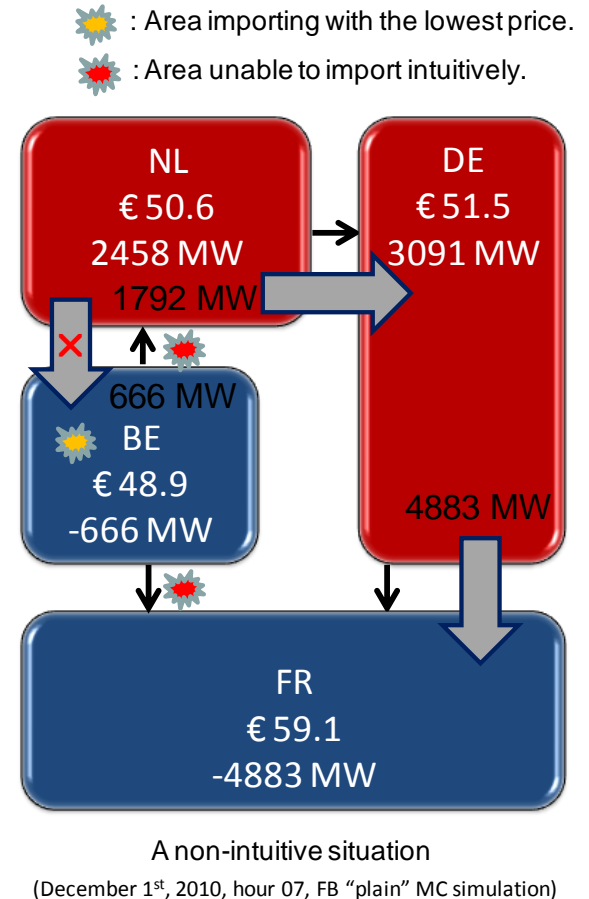


# CWE FB: Challenges for the market

- Understanding price formation
  - FB allocation
  - Anticipating network constraints
  - FB and curtailment
- Impact of FB allocation on ID ATCs

# CWE FB: Price formation

- Example price formation
  - Non-intuitive hours are most extreme examples of challenges to comprehend price formation of FB allocation methodology
  - MPs need to invest in knowledge of new capacity allocation mechanism
  - Anticipating impact of physical constraints on price formation non-trivial



# CWE FB: Need for transparency

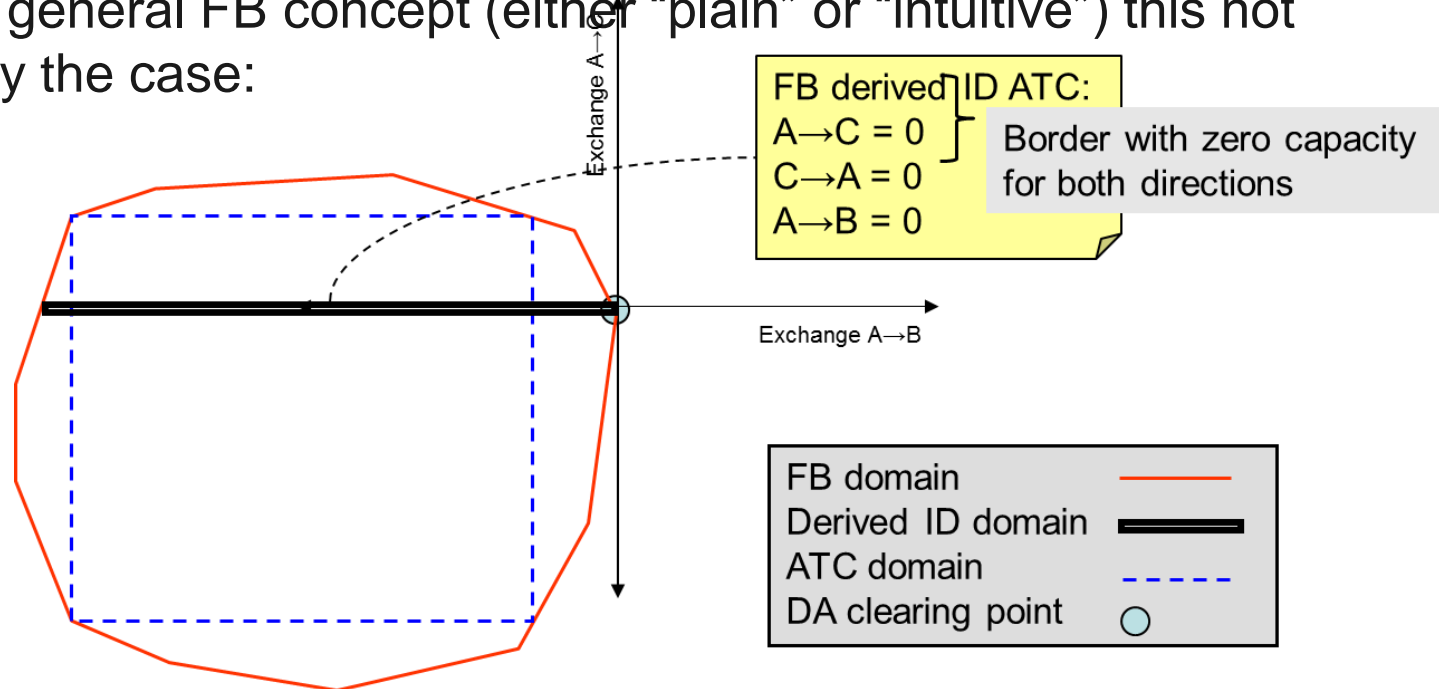
FB introduces a need to better understand capacity calculation and its different drivers. Questions to consider:

- TSO risk policies - e.g.: what critical network elements are monitored? How is uncertainty dealt with? Exclusively through flow reliability margins?
- Remedial actions: what RAs are considered during capacity calculation? Costly vs non-costly, preventive vs curative redispatch?
- For each choice made in capacity calculation:
  - Is this choice more efficient than alternatives?
  - How does it impact price formation?
  - How will impact on (future) changes be assessed?

Overarching: How is transparency secured?

# Impact on (ATC) Intraday

- Under ATC through netting the initial ID domain will contain at least one non-zero capacity for each border
- Under the general FB concept (either “plain” or “intuitive”) this not necessarily the case:

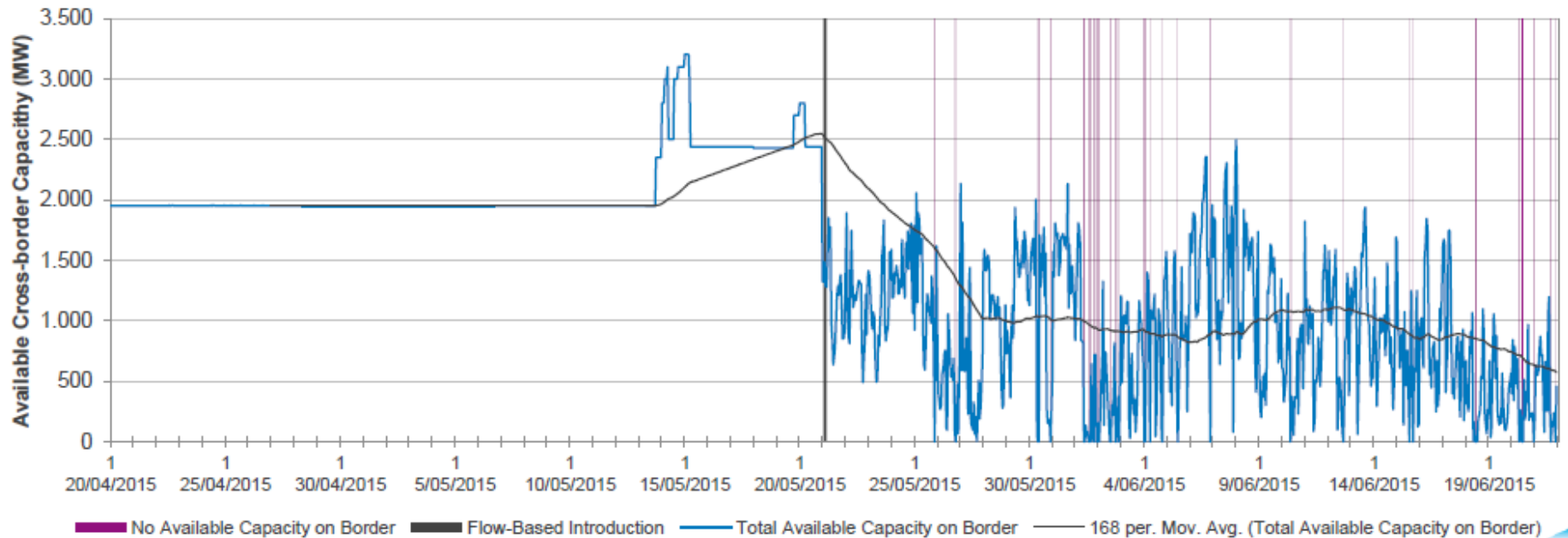


- Note that the DA FB clearing point would not be feasible under ATC. The zero ID capacity is due to the additional welfare that was obtained DA
- Note: this effect will disappear once a ID FB allocation is established

# Impact on (ATC) Intraday

- Perhaps better illustrated with some numbers (source: ACM, Energy lunch FB market coupling, *VEMW*, 18 Sep 2015)

Available Intraday Cross-border Capacity on BE-NL border  
20 April - 21 June





# CWE FB: Need for balance of views

## TSO Perspective

- Efficient network utilisation
- System security (n-1, remedial actions)
- Protection of security- or commercially-sensitive information
- Consistency with existing network policies (losses, ramping, etc.)
- Roles/responsibilities

## Market Perspective

- Understandable, predictable price formation (short term)
- Impact of changes on future price formation
- Access to information (e.g., grid model)
- Detection/explanation of errors/anomalies
- Maintain forward and intraday capacities

# CWE FB: Project Organisation



## TSO Steering Group

IT Procurement TF

FTR TF

FB IT Change Group

ID CC WG

XBCO WG

LT CC WG

CIA WG

TSO HLM

## Joint Steering Committee

Convener coordination

FBE WG

FB Validation TF

IT Experts

Stakeholder Coord WG

Legal Platform

Joint Legal Group

Project  
Management  
Office

# CWE FB: External engagement

## Expert Group

- CWE Regulators
- Joint meeting (TSOS/PXs)
- Approx bi-monthly

## User Group

- CWE market parties
- 15-25 technical + business experts
- 2-3 pa

## CWE Forum

- Market parties
- Approx 1 pa

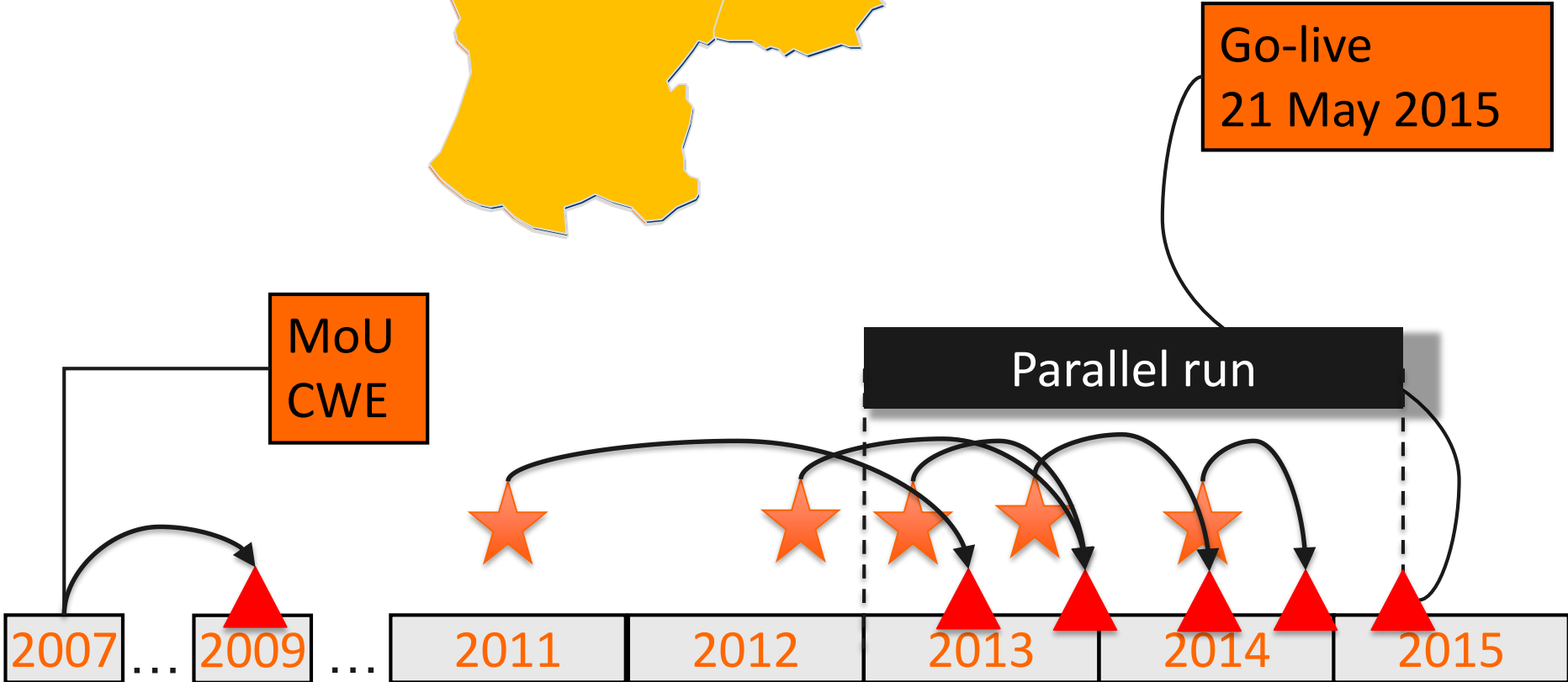
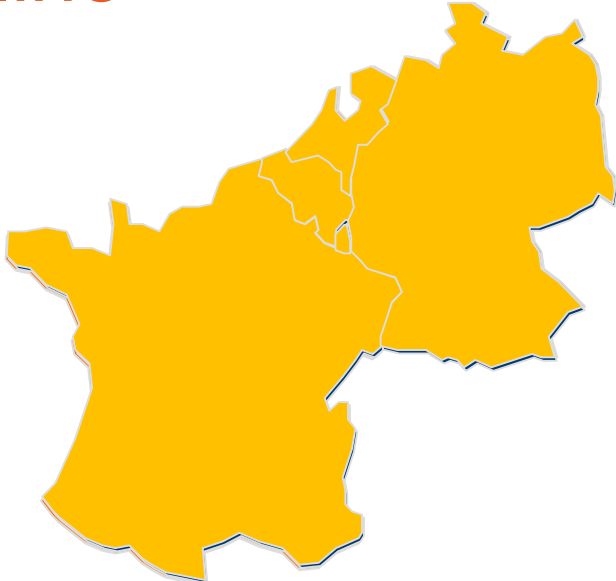
## AESAG/ESC

- European stakeholder associations
- Quarterly

## Pentalateral Forum (PLEF)

- CWE ministries and stakeholders
- Semi annual

# CWE timeline



# CWE FB: Joint work groups

Work streams	Scope & deliverables
JSC	<ul style="list-style-type: none"> <li>• Steer and monitor the CWE Joint roadmap implementation</li> <li>• Manage project stakeholders (NRAs, MPs)</li> </ul>
Stakeholder Coordination Working Group	<ul style="list-style-type: none"> <li>• Coordinate market communication and press communication</li> <li>• Organize CWE User Group meetings : meetings between joint project parties, Market Parties and regulators (now renamed CWE Consultative Group)</li> <li>• Prepare Market Forum: periodic updates to Market Parties (project progress, answers to questions, etc.)</li> <li>• Prepare PLEF and expert meetings with regulators on defined topics</li> </ul>
Flow Based Validation TF	<ul style="list-style-type: none"> <li>• Perform simulations and FB sensitivity analyses</li> <li>• Ensure feasibility of FB implementation</li> <li>• Investigate on prices and market impacts</li> </ul>
Joint Legal Group	<ul style="list-style-type: none"> <li>• Assess Joint legal impact/update the contracts (extensions, CACM framework)</li> <li>• Provide ad hoc Joint legal impact assessment</li> </ul>
CWE Operations Committee	<ul style="list-style-type: none"> <li>• Deal with current operational problems and upcoming RFCs (Requests For Change)</li> <li>• Monitoring of the daily operations of the Market Coupling, incidents follow up</li> <li>• Organization and coordination of testing activities</li> </ul>
PCR/MRC Coordination	<ul style="list-style-type: none"> <li>• Discuss planning implementation</li> <li>• Discuss new RFCs, Incidents and potential impacts on PCR/MRC/CWE perimeter</li> </ul>

# CWE FB: EPEX observations

- Significantly underestimated the complexity
  - TSO technical and coordination challenges
  - Market impacts, need for transparency
  - Unforeseen issues (e.g., curtailment)
  - Impact of a mix of large and small bidding areas
- Intraday should be addressed at same time (FB recalculation with revised input data)
- Need for robust forward capacity calculation
- Strong market involvement very important
  - Major change: need to be prepared
  - Ensure NRAs understand market perspective
  - PX can play a key facilitating role