



Pentalateral Energy Forum

A light grey map of Europe with white outlines of national borders, serving as a background for the text.

**Achievements on Market
Coupling**

- ▶ On May 20th (trading day), CWE project partners of the Flow-Based Market Coupling in Central Western Europe (CWE) announced the **successful start of the Flow-Based capacity calculation in production**
- ▶ Following NRA guidance, the project adopted **FB-Intuitive** rather than FB-Plain

CWE FB MC Project Status

First results



Parallel run expectations confirmed by first days of operation:

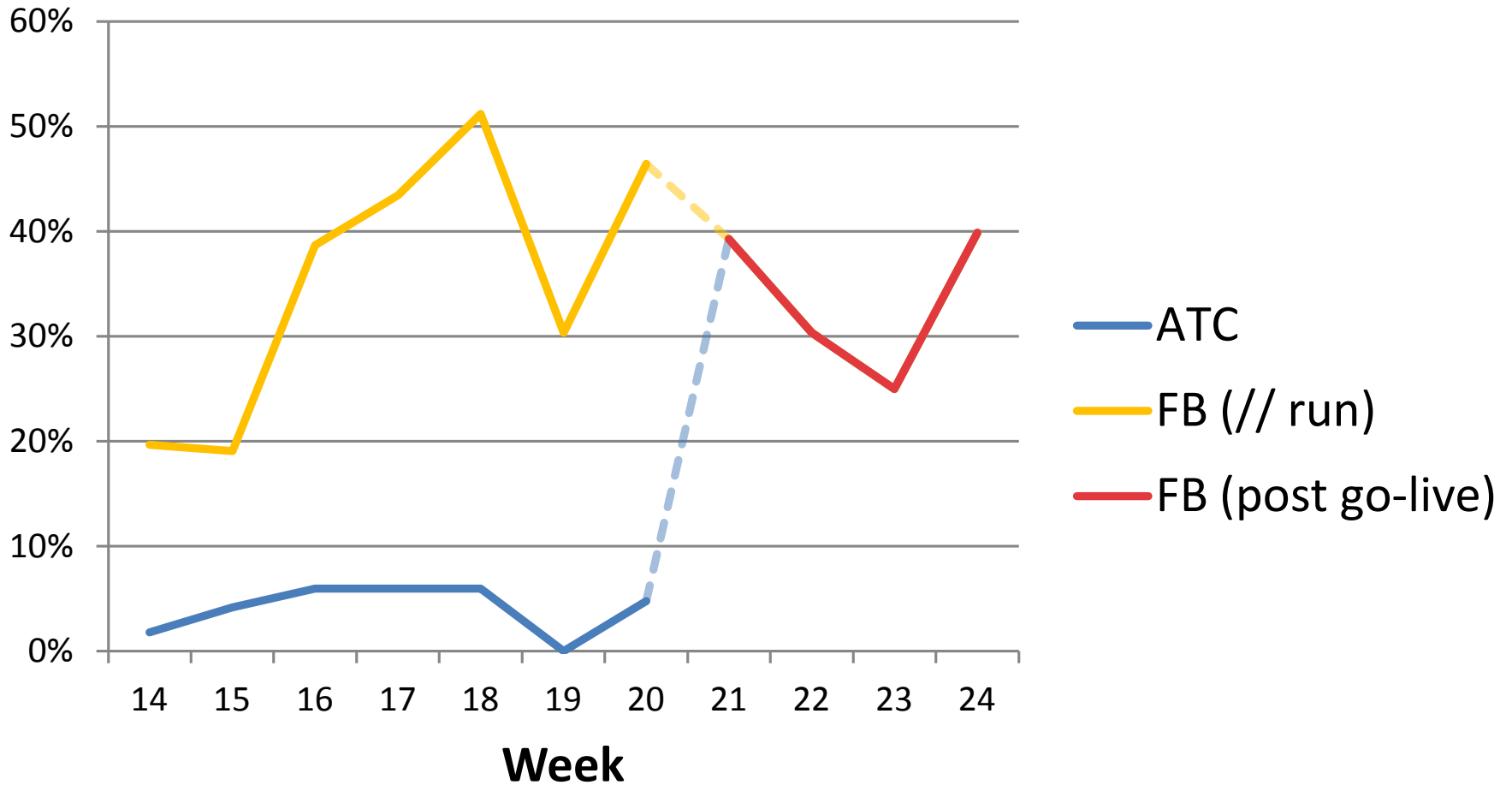
- ▶ Increased trades in the most valuable directions
FR => BE and DE => NL
- ▶ Previously limited by ATC ex-ante clearing splitting
FR => BE+DE and DE => FR+NL
- ▶ Increased price convergence
- ▶ Significant reduction of the spreads

Look back on first Flow-Based market outcomes

30 days before + after FB go-live – Price convergence



Percentage of full price convergence

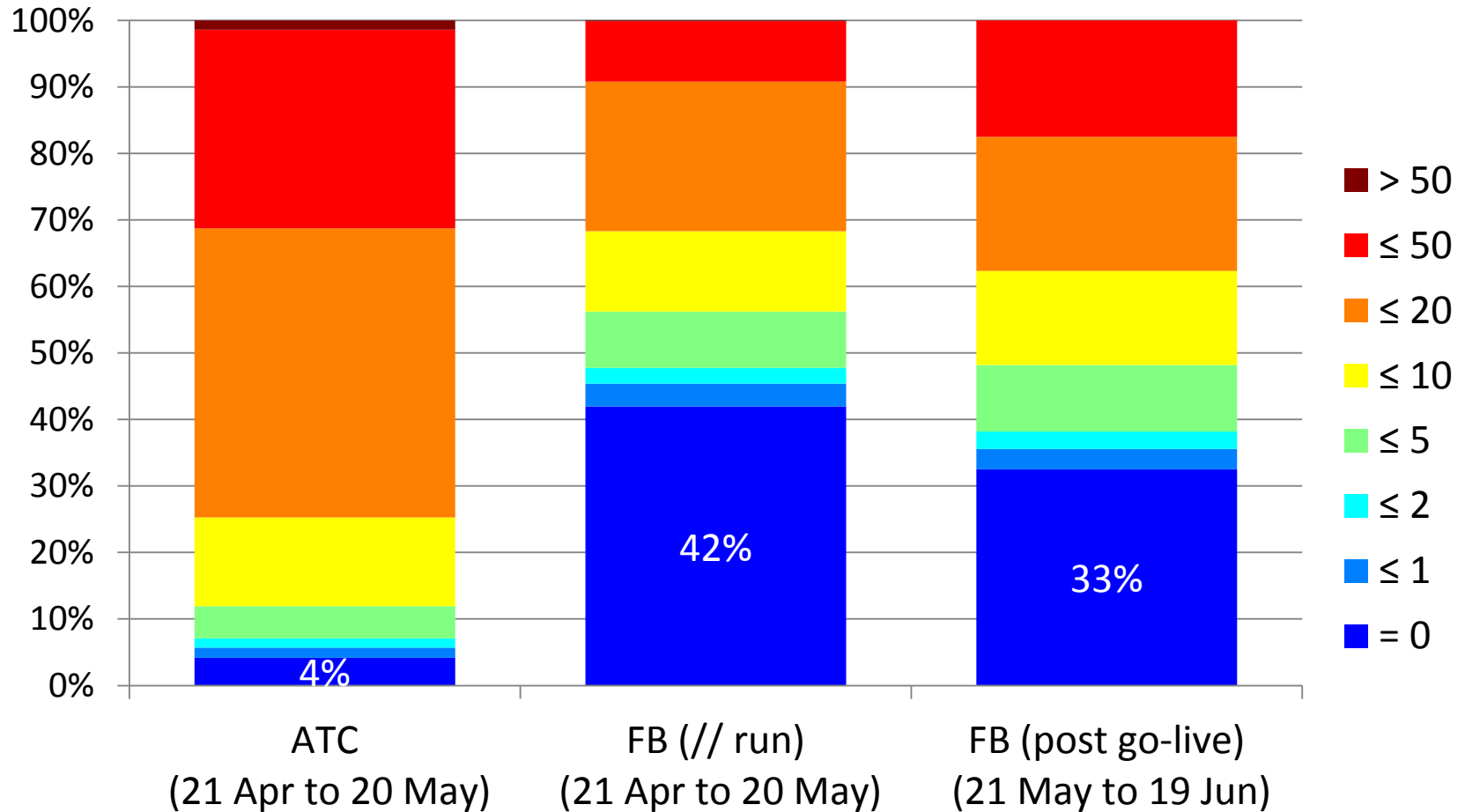


Look back on first Flow-Based market outcomes

30 days before + after FB go-live – Price convergence

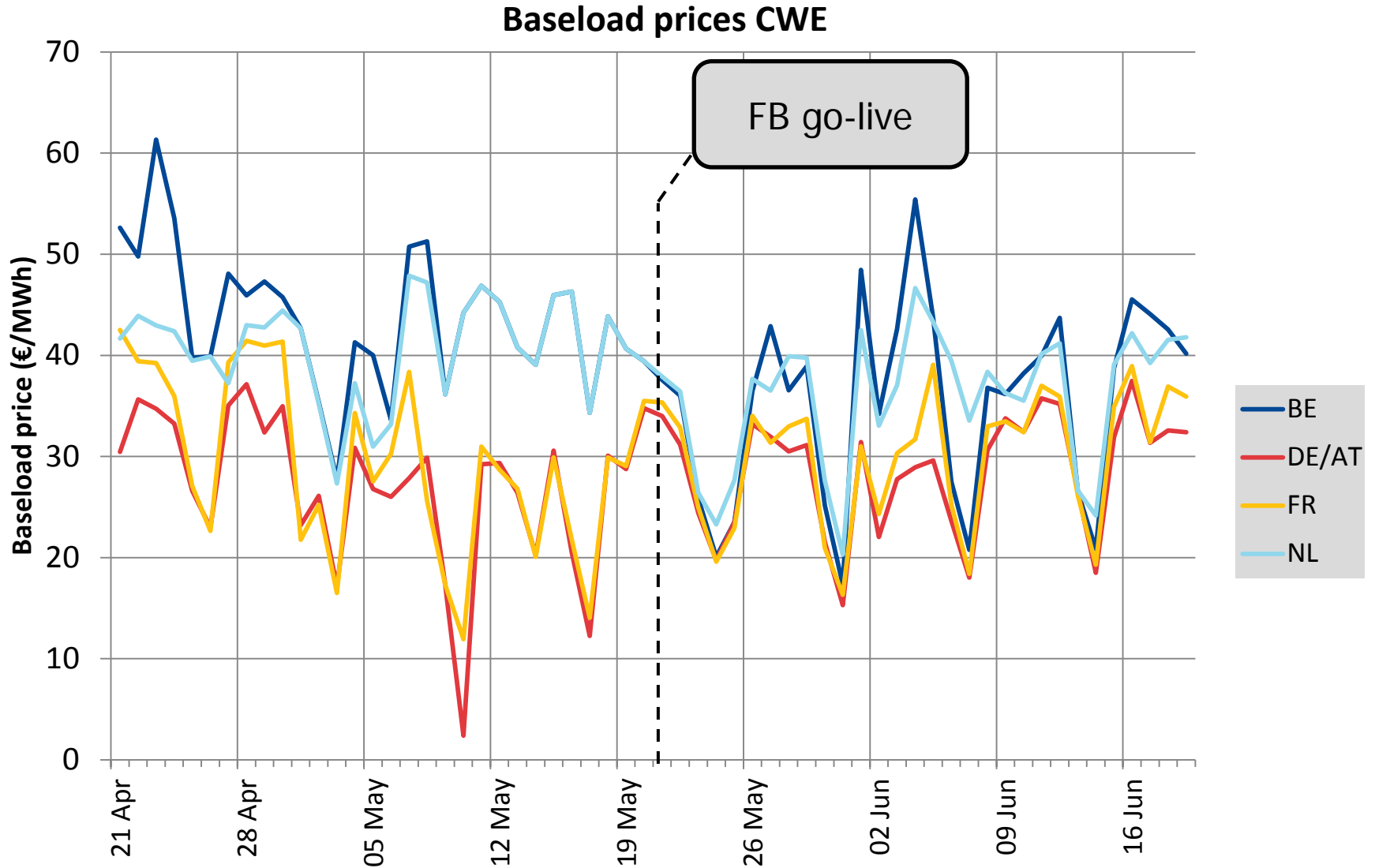


CWE price spread



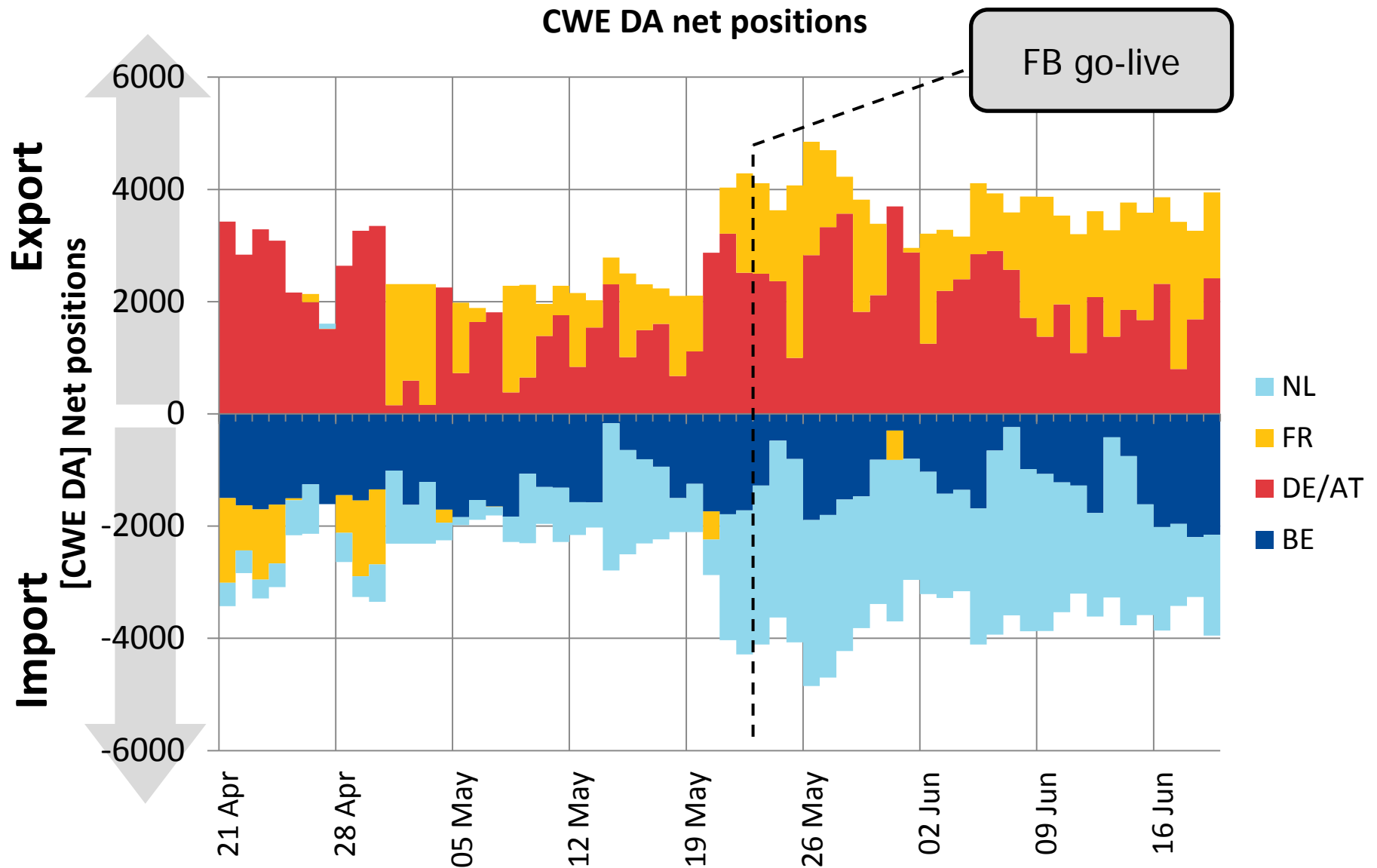
Look back on first Flow-Based market outcomes

30 days before + after FB go-live – Clearing Prices



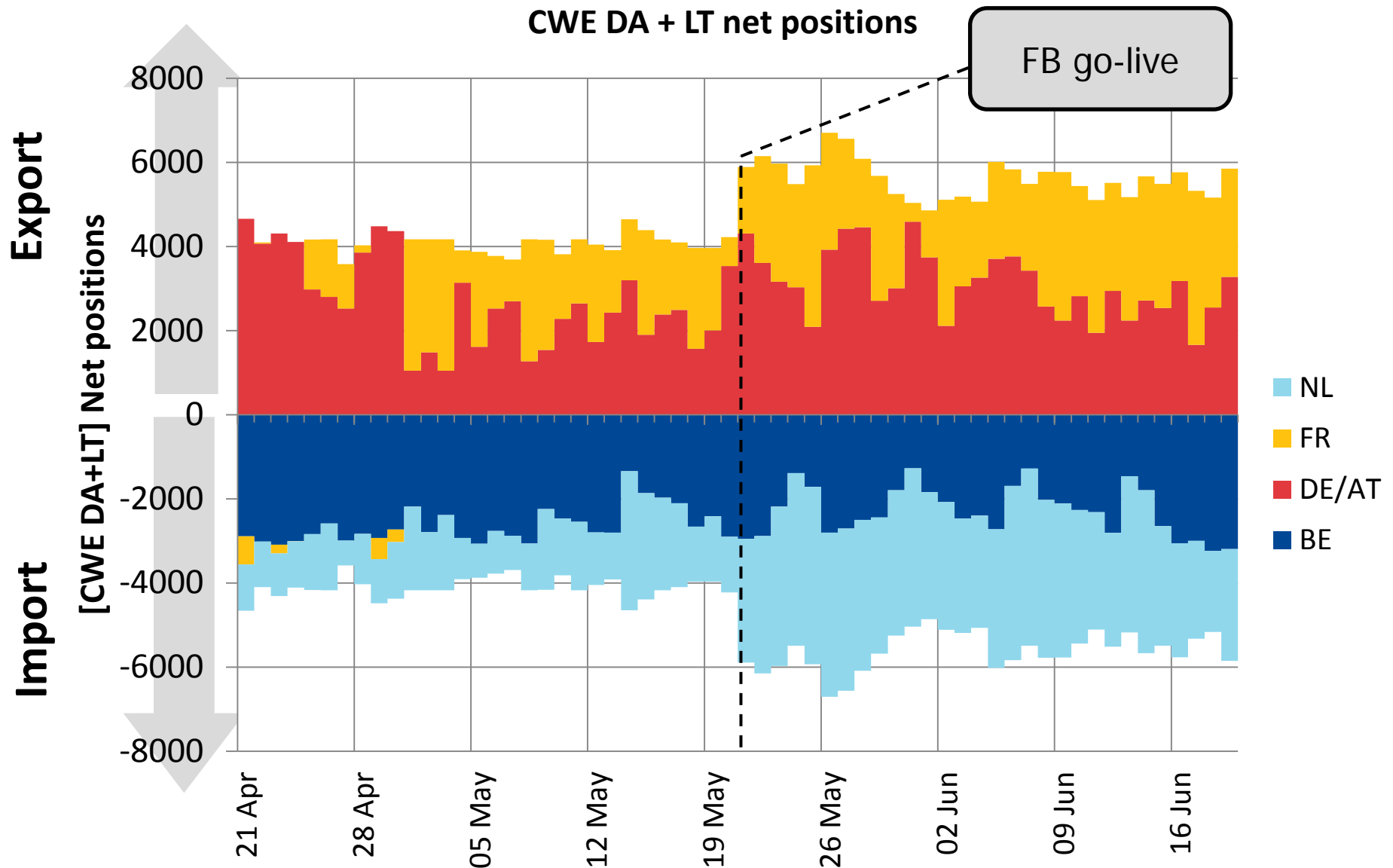
Look back on first Flow-Based market outcomes

30 days before + after FB go-live – Net positions



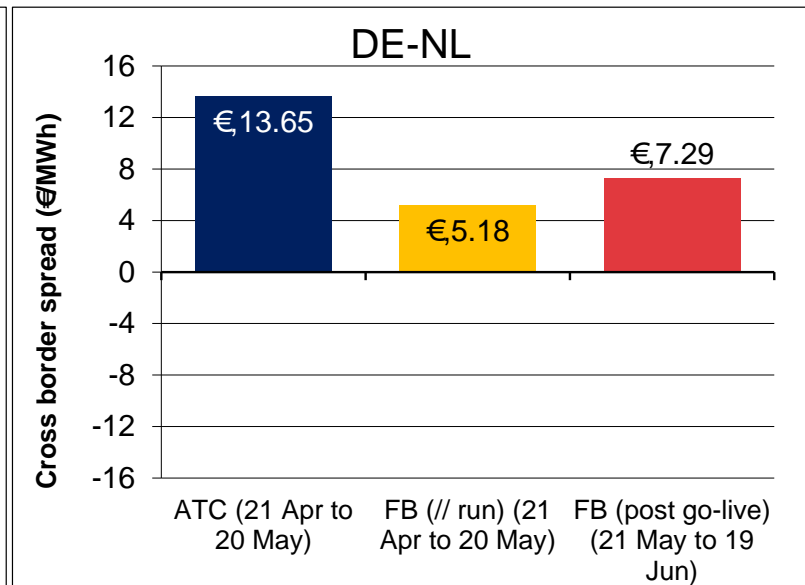
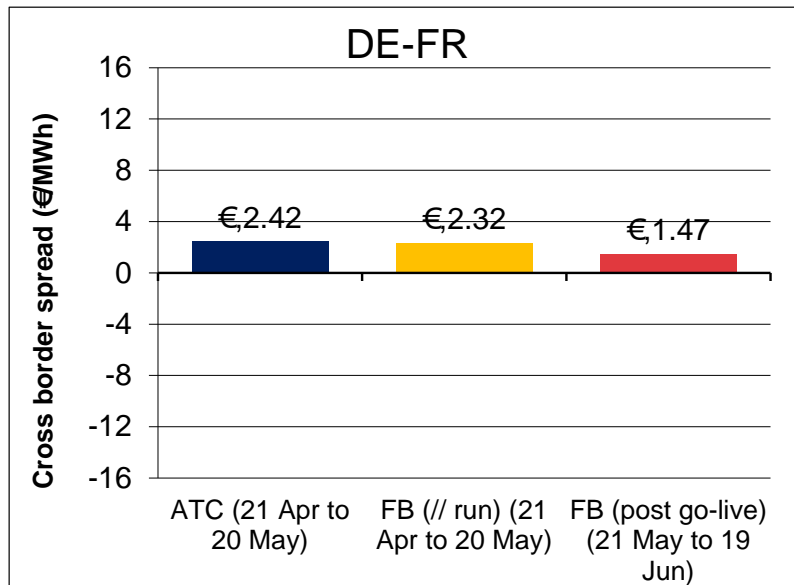
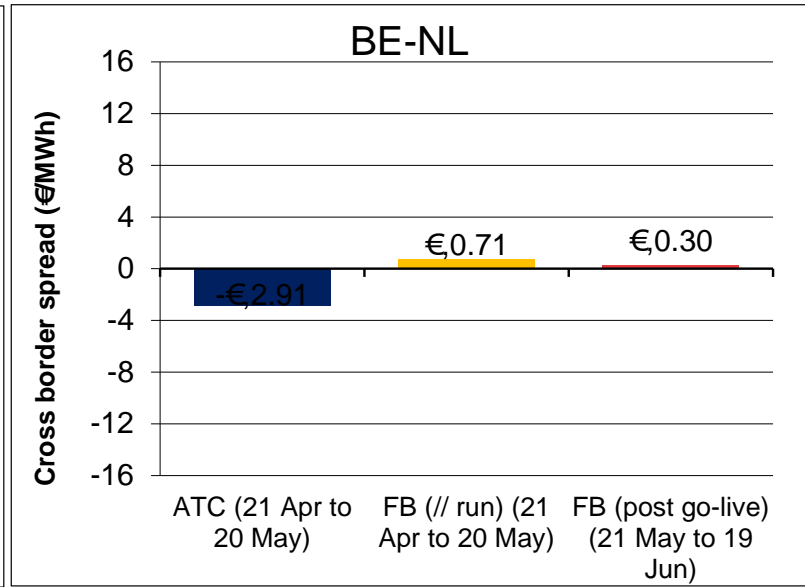
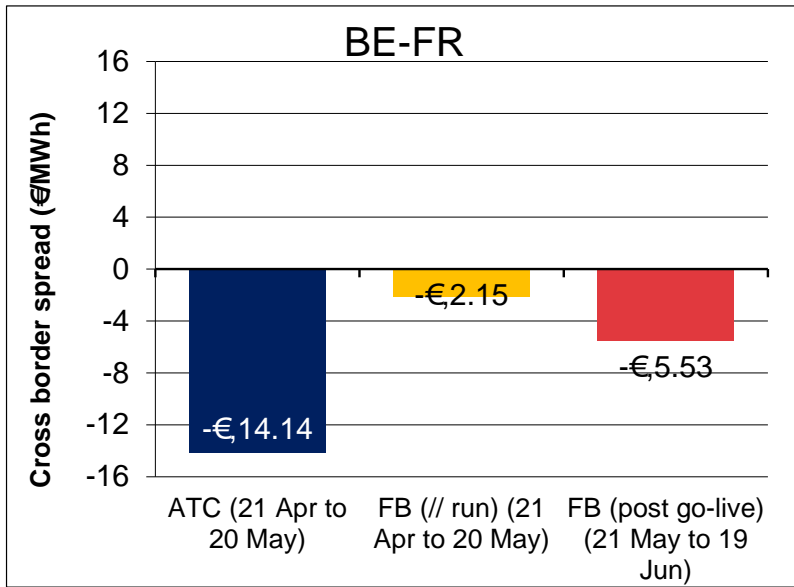
Look back on first Flow-Based market outcomes

30 days before + after FB go-live – Net positions



Look back on first Flow-Based market outcomes

Average Cross Border Spreads: 30 days before + after FB go-live



In line with NRA post Go-Live requirements and CACM obligations, CWE Project will now address the following activities:

- An **adequacy mitigation / improved curtailment sharing** should be implemented in the Euphemia Market Coupling coupling algorithm. This will be provided in advance of winter 2015/2016
- **Intraday capacity calculation** will be improved in advance of winter 2015/2016
- **FTRs on the BE borders** will be implemented by 2016
- **Flow-Based methodology** will be continuously improved, notably through the following changes:
 - D2CF Basecase, FRM, CBCO selection, GSK evolution
 - Coordinated and transparent use of remedial actions
 - Validation of the external constraints
 - Possible evolution towards advanced hybrid coupling for closer cooperation with other regions
 - Coordination with the NWE CEE FB project

CWE Consultative group



- ▶ Throughout the project, Project Partners shared information and discussed Market Parties requests via a FB User Group
- ▶ The FBUG will be succeeded by the CWE Consultative Group, which will first meet 30 June.

Main objectives

- ▶ Provide information to stakeholders about FB performance and market outcomes as well as on upcoming changes in the CWE region (when applicable)
- ▶ Enable stakeholders and especially market parties to ask questions, raise their concerns, and express their suggestions and expectations about CWE FB MC
- ▶ Consult stakeholders about the allocation method's efficiency and potential impact of changes from market perspective
- ▶ Coordinate evolutions with the Market for an improved efficiency of the allocation method and to ensure its consistency with the overall CWE market design

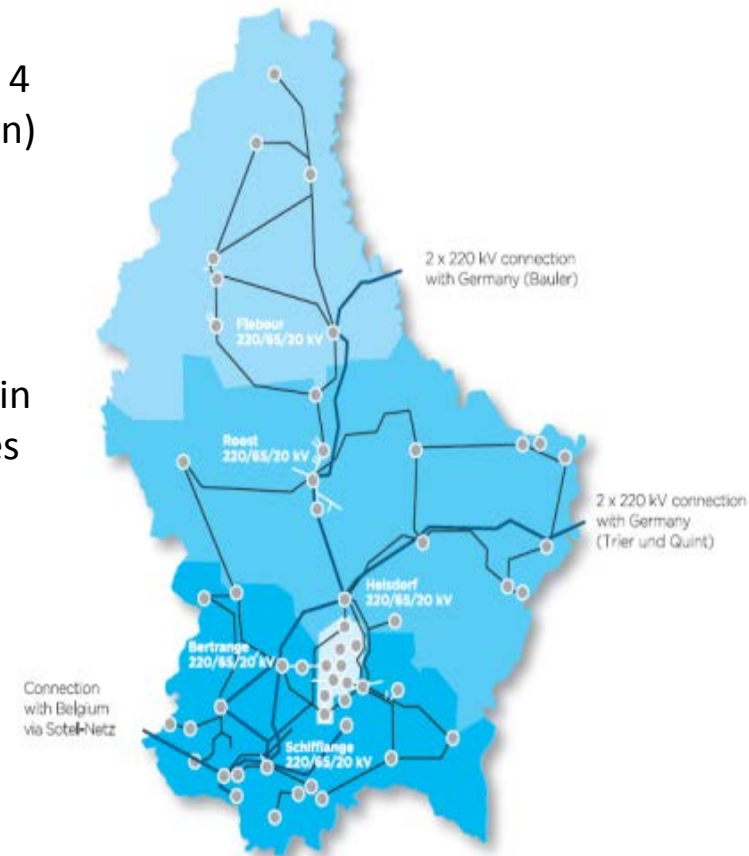
Update on upcoming changes within CWE region

New interconnector between Belgium and Luxembourg (1/2)



Current Luxembourgish network

- 1 Transmission System Operator: Creos
 - Feeds almost whole Luxembourgish area from 4 interconnection lines from Germany (Amprion)
 - Part of the German/Austrian bidding zone
- 1 Industrial Operator: Sotel
 - Feeds mainly Steel Manufacturing industries in the South of Luxembourg with dedicated lines from Belgium and France
 - Partly in France bidding zone and partly in Belgium bidding zone



Objectives:

- Security of supply
- Improve market integration between BE and DE bidding zones

Update on upcoming changes within CWE region

New interconnector between Belgium and Luxembourg (2/2)



■ **General:**

- Common Project Elia – Creos: MoU signed between Elia and Creos to develop an interconnector
- Project of common interest granted October 2013 (n°2.3.1)
- Phase shifter transformer ordered July 2014
- First direct interconnector between bidding zones BE-DE
- The 1st interconnector set up in CWE after FBMC Go Live
- Market impact assessment is still under discussions

■ **Implementation steps:**

- New Interconnector included in DA FB Capacity calculation (impact assessment/validation & implementation): target End 2015
- Long term solution: After gaining experiences with the BE-LU interconnection, long term capacity products for this interconnection will be added in a later phase

■ **Capacity Calculation:**

- Capacity calculation will be coordinated within CWE TSOs

■ **Capacity Allocation:**

- Cross Border Capacity will be allocated following CWE DA FBMC rules

Update on upcoming changes within CWE region



APG Integration: current integration status

- ▶ In 2013, the Pentalateral Energy Forum (PLEF) decided to expand the CWE region by Austria as a new member
- ▶ Since then APG has developed in close cooperation with the CWE-TSOs an action plan in order to be fully integrated in the operational activities (3 step approach):

1

D2CF Integration

2

GSK integration

3

Full FB cap calculation

D2CF-integration:

- ▶ Initially the Austrian grid was included in the Flow Based calculation only through the DACF (Day Ahead Congestion Forecast) datasets
- ▶ As of November 2014 APG is fully involved in the operational D2CF-procedures and the contractual D2CF-framework of the CWE region
- ▶ Consequently on a daily basis APG's D2CF-file is merged with the D2CF-files of the other CWE-TSOs in order to create the Common Grid Model of the CWE-region

Update on upcoming changes within CWE region



APG Integration: current status

- ▶ Furthermore the GSK-integration was identified as the second integration step

GSK-integration:

- ▶ To the present day Austria is not considered in the GSK of the CWE region (consequently Austrian units are not considered in the PTDF calculation yet)
- ▶ APG in coordination with the CWE-TSO is currently working to take the Austrian GSK into account and create a German/Austrian GSK for the common bidding zone (DE/AT)
- ▶ Additionally in this process the inner German GSK is adapted as well
- ▶ At the moment the following tasks are being performed:
 - Technical analysis in order to assess the impact of the APG GSK on the CWE PTDF and the market coupling result
 - Adaptions of the CWE contractual framework
- ▶ It is envisaged to conclude the GSK integration of APG by Q3 2015

Next steps:

- ▶ Continue to work towards the full involvement of APG in the CWE FB MC

Update on upcoming changes within CWE region



Implementation within PCR of Euphemia patch for adequacy mitigation

- ▶ CWE partners investigated options to mitigate algorithmically the situation where “flow factor competition” could trigger curtailment situations. In the context of anticipated adequacy issues this winter this point should be addressed before next winter
- ▶ An algorithmic patch has been studied and described in annex 16.20 of the approval package
- ▶ The change will be implemented in the next release of Euphemia: E9.3. This release is scheduled for November 2015:

	June	July	August	September	October	November
Development						
Test						
Integration Test						* go-live E9.3

Update on upcoming changes within CWE region



Implementation of Financial Transmission Rights on Belgium borders

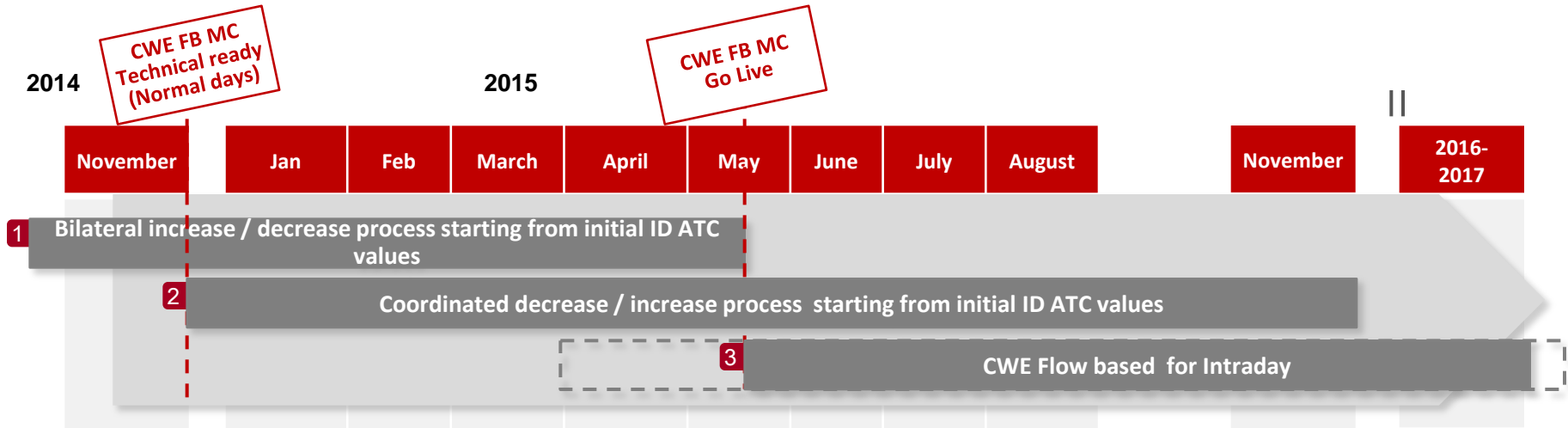
- ▶ During the ENTSO-E public consultation of the “Draft Allocation Rules for Forward Capacity Allocation” in March 2015 (traders and generators having productions in several CWE countries, more specific IBERDROLA, EDF SA, EFET and EURELECTRIC) reacted. All of them indicated that they were not in favor of implementing FTR options in CWE region for 2016.
- ▶ However as explained in the Market Forum and especially in Annex 16.21 of the approval document
 - it is essential that day-ahead capacity is made available to the day-ahead market coupling (“DA MC”).
- ▶ To guarantee enough capacities in the day-ahead timeframe on the Belgian borders, the Project and the NRAs see the need to introduce FTRs options at least on the Belgian borders for long term products with a delivery date from 01/01/2016 on.

Update on upcoming changes within CWE region

CWE TSO IDCC Roadmap



CWE TSO roadmap for Intraday consists of three main steps, which are depicted and described below



Bilateral increase / decrease process starting from initial ID ATC values → IMPLEMENTED

- 1
 - Process to enable the current ID ATC processes also after Flow based, so increase on BE-NL and DE-NL borders or decrease on own borders (for whole CWE)
 - This process allows all CWE TSOs to assess the increase and reject it when endangering Security of Supply

2 Coordinated decrease / increase process

- Similar process as in the first step, with the aim to coordinate decrease / increase at all CWE borders (NL<=>DE<=>FR & NL<=>BE<=>FR) and apply as a daily process and not only for exceptional cases
- Tooling will be created to support matching of increase requests and reject them to secure security of supply

3 First version of CWE Flow based for Intraday

- Target model for Intraday is a Flow based solution, but tailored to fit Intraday requirements and data models
- Planning and deadlines will have to be assessed after FB Go Live

Update on upcoming changes within CWE region



IDCC in Flow-Based context: coordinated decrease / increase process

2 Coordinated decrease / increase process

- Process to possibly increase the ID ATC after FBMC on all borders; so to add FR borders compared to today
- This process allows all CWE TSOs to assess the increase and reject it when endangering Security of Supply
- To support the coordination, a central ATC matching tool needs to be developed

► Conceptual design

- Starting point is initial ID ATC after FBMC (i.e. left-over capacity from Day ahead)
- Assessment of 0-100 (DE-NL) or 0-200MW (BE-NL) and increase on BE-FR & FR-DE in addition to initial ID ATC after FBMC
- Capacities can be lowered by all TSOs on own borders as today, if required due to security of supply issues

► Planning

- There will be tooling needed to be developed to be able to implement this extension of today's process
- The current planning is aiming on an implementation before end of the year

Thank you for your attention

