



# CWE FLOW-BASED MARKET COUPLING

European Market Design Working Group



# Agenda

Status & Planning

Public Consultation

Next Steps

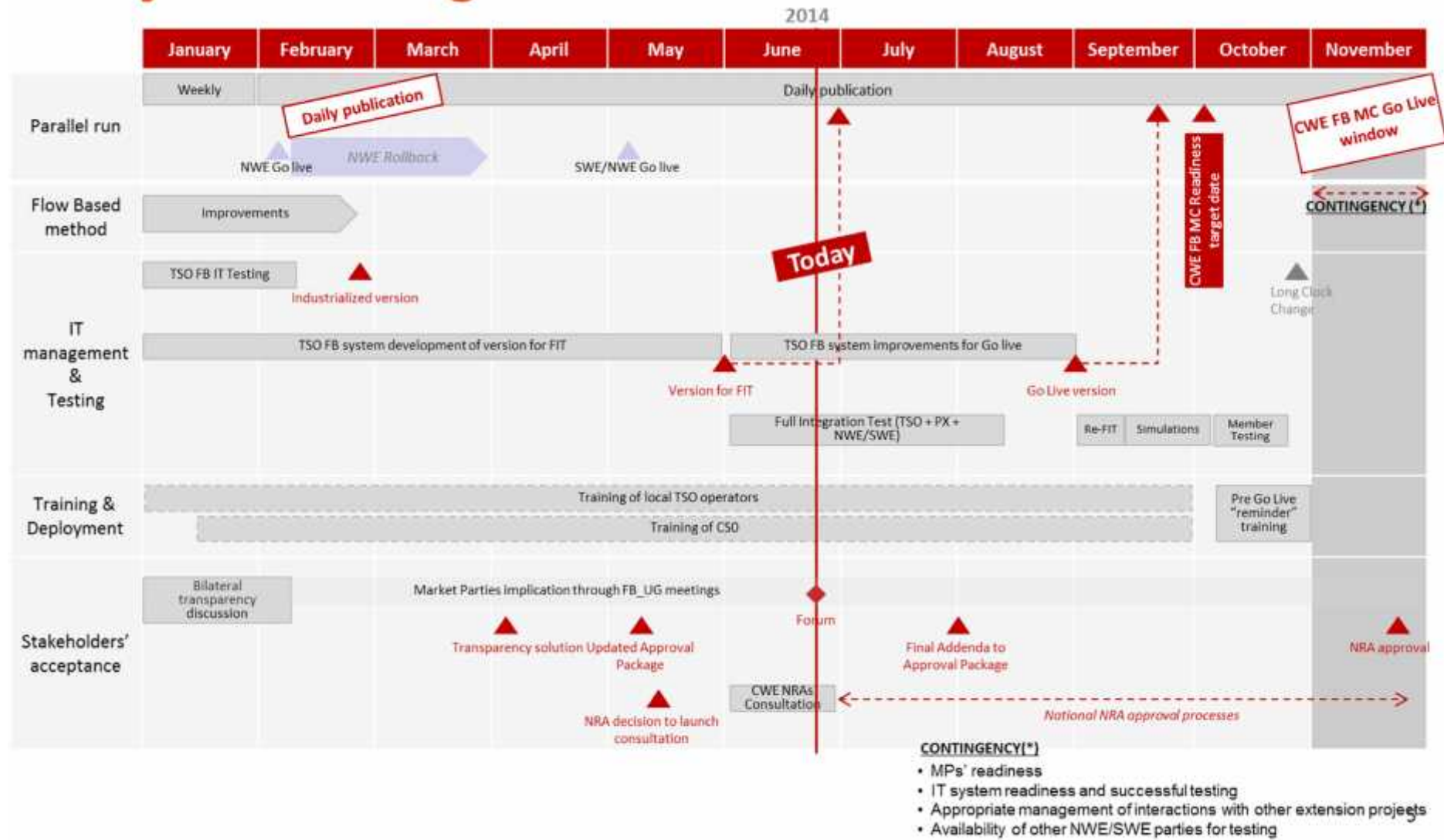
Parallel Run Results

# STATUS AND PLANNING

## Project Status: what was achieved recently?

- Daily publication running since February, 24<sup>th</sup> and publication of Shadow Auction ATCs
- Updated approval package sent to NRAs (and published)
- Start of joint (PX-TSOs) IT systems tests
- Go-live foreseen in November

# Project Planning



# PUBLIC CONSULTATION



## Updated approval package

- Delivered on May, 9<sup>th</sup> to regulators and published
- Includes the last changes (a.o. in terms of transparency) since the first version of August 2013
- Public consultation of NRA running until June 30<sup>th</sup>
- Intuitiveness choice is still open
- Based on the outcome of the consultation, the final amendments will be sent to regulators before September.

## Public Consultation Questions (1/3)

1. What kind of **improvements** do the FB(I) principles and implementation bring for the whole market and for you as a market participant?
  2. Are there **improvements** in other areas than transparency you would like to suggest the project partners to implement **before Go-Live**?
  3. Are there improvements in other areas than transparency you would like to suggest the project partners to implement for a **future Flow-Based 2.0**?
  4. Do you have any preferences for the **Flow-Based plain** or **Flow-Based intuitive** market coupling? For additional information we refer to annex 13 of the Approval Package.
    - FB-plain
    - FB Intuitive
    - no preferences      Please state why.
  5. Do you **understand** the capacity calculation model presented?
    - informal level
    - intermediate, I understand the explanation of most technical parameters
    - high, I understand the explanation of all technical parameters very well
- If applicable, which additional information to the capacity calculation model and/or the explanation of all technical parameters do you need?



## Public Consultation Questions (2/3)

6. Do you understand the spot and forward **price formation** under FB(I) MC?

- informal level
- intermediate
- high/expert

If applicable, which additional information related to price formation under FB(I) MC you wish to be published?

7. Do you consider you will be in a **position to bid properly** in the Flow-Based environment from the Go-Live date now expected at the end of 2014? Please explain and make a link with the studies or tools you may have developed to be prepared for Go-Live.

8. Is the current proposal for **data publication** sufficient for your daily Flow-Based operation?

- Yes
- No

In your opinion, which data, if any, should be additionally published, and why would this data be essential for you? Could you explain in which way it could be more useful than the one the project currently proposes to publish?

## Public Consultation Questions (3/3)

9. If applicable, are there **additional studies / indicators** you would like to be processed during FB(I) implementation on the market side either before or after Go-Live? Please explain why.
10. In terms of parallel run performance and the outcome of the Member Testing, what do you consider as **criteria for the Go Live**? Please consider performance of the regular FBMC as well as the FBMC under fallback conditions (see section 4.6 of the Approval Package).
11. What type of technical event or market results, linked to FB(I) MC implementation, should potentially trigger a **rollback to the ATC** market coupling? Please be as specific as possible. Please note that the Rollback triggering will be a JSC decision
12. Do you have any other or more **general comments** concerning flow based market coupling?

## Specific questions

NTC mentioned p36 of the approval package: How TSO will do to substitute NTC with experience built during the parallel run ?

During the D-2 / D-1 capacity calculation process, TSOs have the opportunity to coordinate on PST settings. This coordination aims to find an agreement on PST settings which covers all the TSOs needs. The focus is to cover the LTA and if possible the NTCs<sup>7</sup>. This means that the LTAs/NTCs will not cause overloads on CBs within the Flow Based method. TSOs try to reach this by using only internal RAs as a first step. If this would not be enough the CWE wide PSTs are taken into account in order to mitigate the overloads.

<sup>7</sup> NTCs will only be available during the external parallel run period. After go-live, TSOs will use another reference Flow Based domain - based on the experience built during the external parallel run which will be communicated to Regulators and Market Parties.

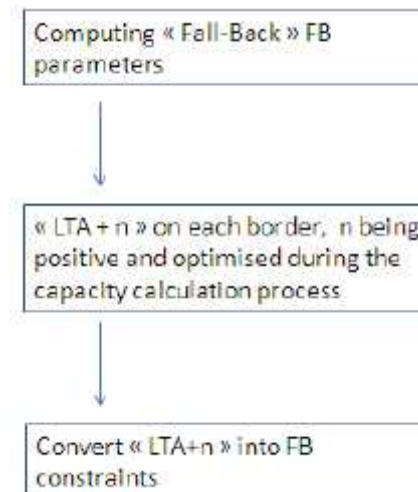
We are currently testing a methodology where each TSO defines the min/max net position its hub may accept on this day => the combination of these 8 “edges” gives a domain that can be the basis for the coordinated qualification.

## Specific questions

Fallback based parameters mentioned p86 => What's N :in the solution "LT rights+ n" ?

### *Fallback Flow Based parameters*

When Flow Based parameters are missing for more than 3 hours, CWE have to recompute them in a straightforward way. Indeed, they could be in a downgraded situation where fundamental inputs and/or tooling are missing. For these reasons, CWE TSO will base the Fallback FBParam on existing Long Term bilateral capacities. These capacities can indeed be converted easily into Flow Based external constraints (i.e. import or export limits c.f. chapter 4.1.9 for more details), via a simple linear operation. In order to optimize the capacities provided in this case to the allocation system, CWE TSOs will adjust the long term capacities during the capacity calculation process. Eventually, delivered capacities will be equal to "LT rights + n" for each border, transformed into Flow Based constraints, "n" being positive or null and computed during the capacity calculation process. CWE TSOs, for obvious reasons of security of supply, cannot commit to any value for "n" at this stage.



Each TSO will increase the n as much as possible without encountering grid security issues. For this capacity fallback, ATC references and philosophy will be used by TSOs to increase the "n" value.

Unfortunately, no commitment can be given on the value of "n" (like today in ATC MC)

# NEXT STEPS



## In the coming weeks

- Forum next Monday: Düsseldorf

10.00 – 10.30	<i>Registration and coffee</i>
10.30 – 11.00	<b>Introduction CWE FB project partners: project status</b> - Recent achievements and next milestones
11.00 – 11.45	<b>Parallel run performance</b> - Explanations of parallel run observations for specific days - Backup and Fallback solutions
11.45 – 12.30	<b>NRA presentation on public consultation and approval process</b>
12.30 – 13.30	<i>Lunch</i>
13.30 – 14.15	<b>Overview of transparency and monitoring framework</b>
14.15 – 15.15	<b>Stakeholder acceptance process</b>
15.15 – 15.45	<b>Plenary discussion</b>
16.00	<i>Cocktail</i>

## In the coming weeks

- NRAs public consultation outcomes
- Final amendments to the approval package (incl. intuitiveness)
- Joint testing during the summer: TSO-CS version with “capacity fallbacks” in production in the coming weeks

# //RUN RESULTS - TOTAL





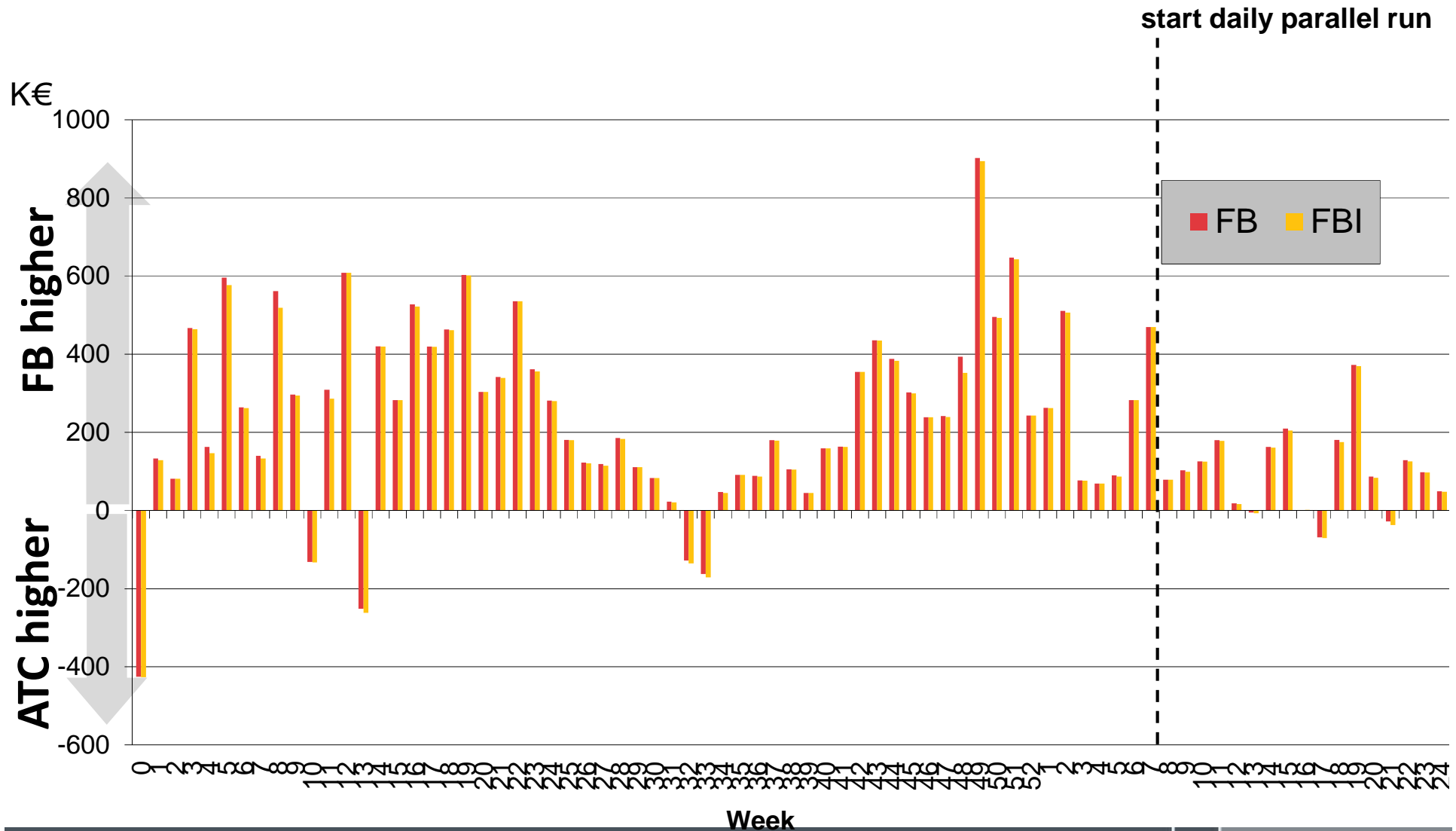
# Representativeness

Since the start of daily //run:

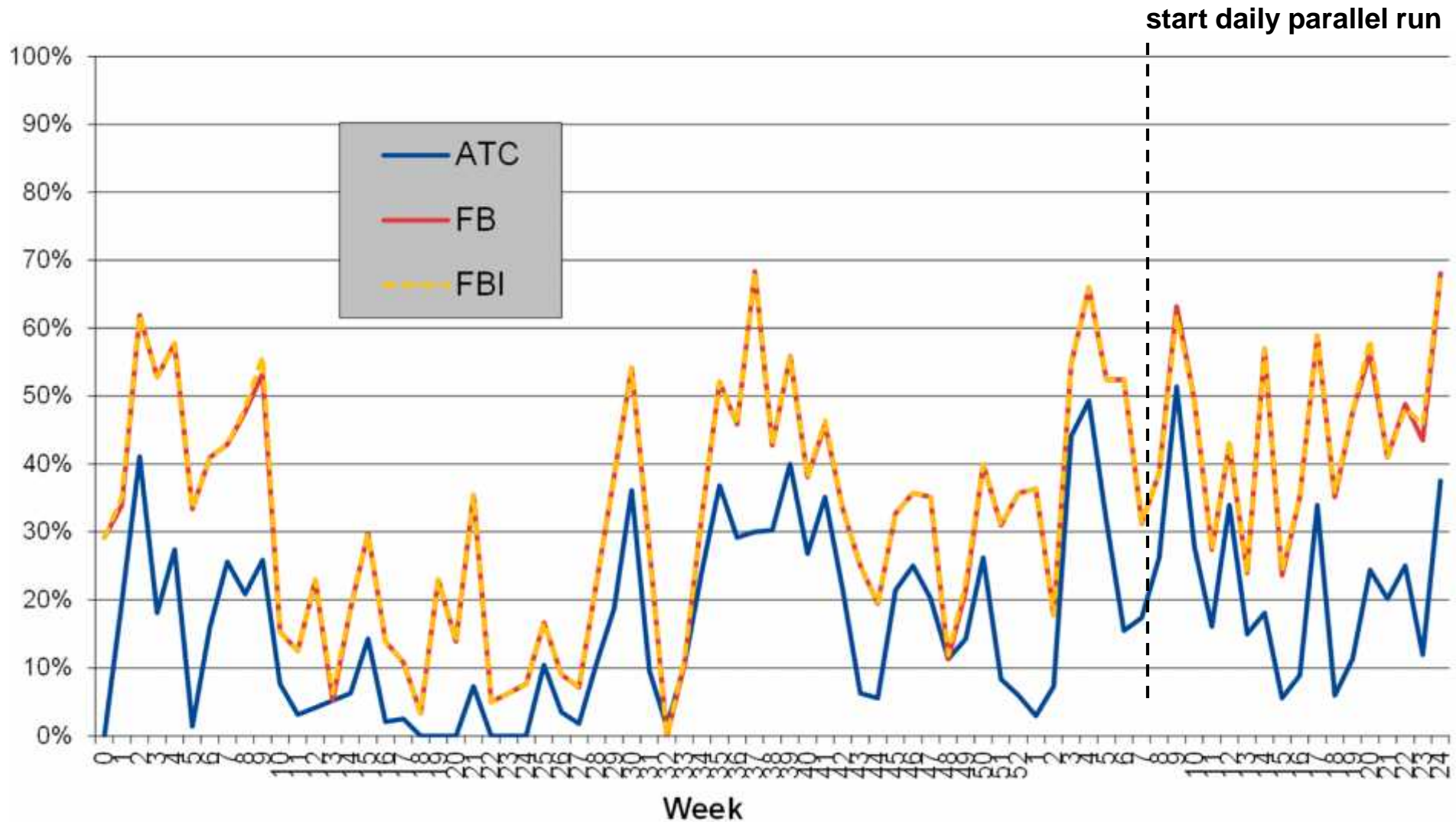
- 96 % of successful days  
(fallbacks not implemented yet);
- average 130 k€ DAMW gain compared to ATC MC
- days with less welfare than ATC are investigated in details

Year	wk	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Year	wk	Wed	Thu	Fri	Sat	Sun	Mon	Tue
2013	0							01 Jan	2014	1	01 Jan	02 Jan	03 Jan	04 Jan	05 Jan	06 Jan	07 Jan
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	2	09 Jan	10 Jan	11 Jan	12 Jan	13 Jan	14 Jan	15 Jan		3	15 Jan	16 Jan	17 Jan	18 Jan	19 Jan	20 Jan	21 Jan
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	5	30 Jan	31 Jan	01 Feb	02 Feb	03 Feb	04 Feb	05 Feb		6	05 Feb	06 Feb	07 Feb	08 Feb	09 Feb	10 Feb	11 Feb
	6	06 Feb	07 Feb	08 Feb	09 Feb	10 Feb	11 Feb	12 Feb		7	12 Feb	13 Feb	14 Feb	15 Feb	16 Feb	17 Feb	18 Feb
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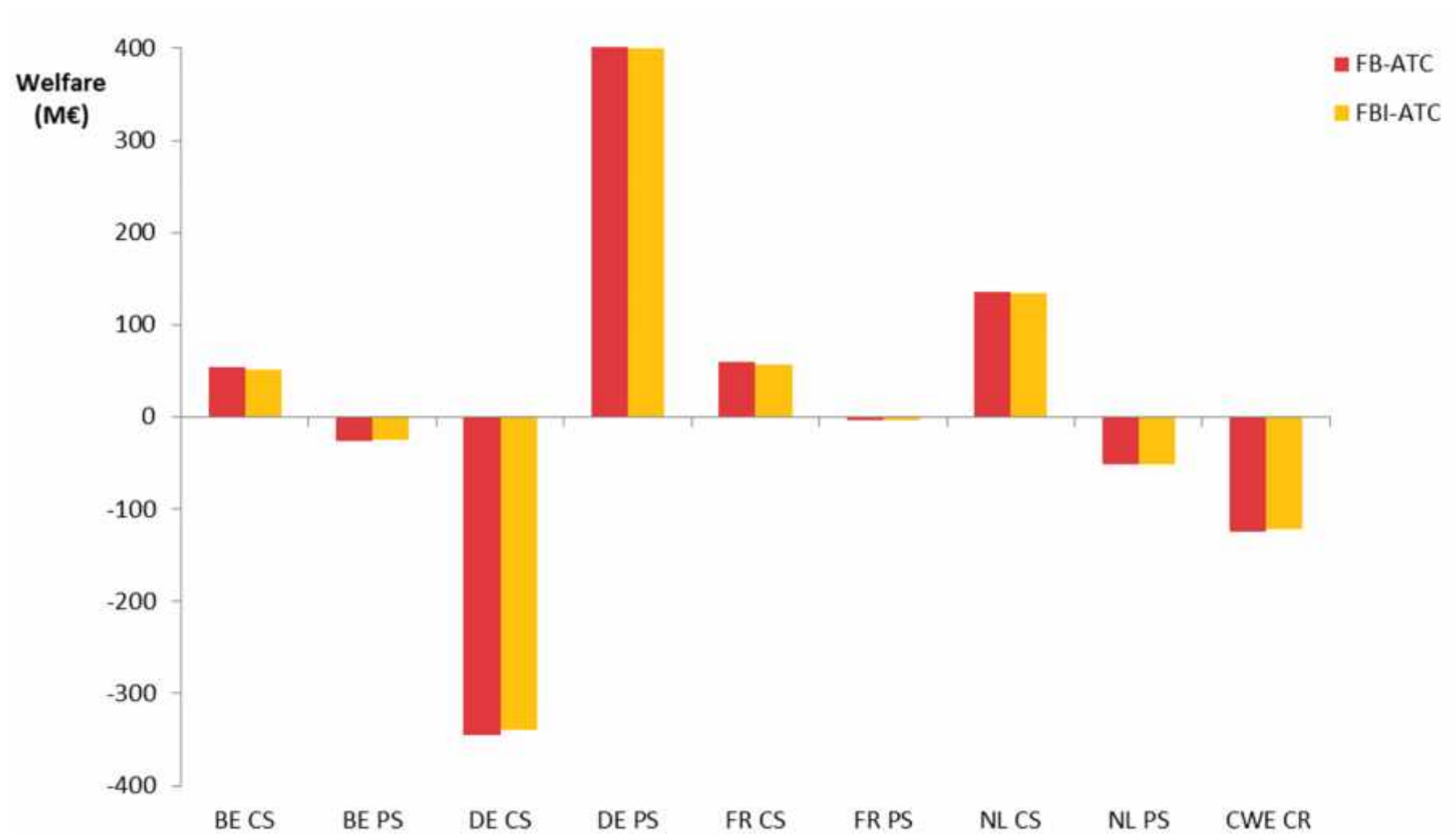
# Weekly day-ahead market welfare



# Full price convergence



# Day ahead market welfare distribution



# Price Divergence

