CWE MC external parallel run report

Introduction

The CWE FB project has started the FB external parallel run in January 2013. At the request of the regulators, the CWE project proposes to publish the indicators described in this document on a bi-monthly basis.

The proposal of the CWE project is based on a subset of indicators given in the feasibility report as well as on the additional indicators requested by the regulators.

Indicators

The following text will contain the different indicators comparing the following market coupling models:
ATCMC: ATC market coupling;
FBMC: Flow Based market coupling;
FBIMC: Flow Based Intuitive market coupling;
Infinite: Market coupling under infinite ATC;

Dates included in this report

| Week	Wed	Thu	Fri	Sat	Sun	Mon	Tue
0	26 Dec	27 Dec	28 Dec	29 Dec	30 Dec	31 Dec	01 Jan
1	02 Jan	03 Jan	04 Jan	05 Jan	06 Jan	07 Jan	08 Jan
2	09 Jan	10 Jan	11 Jan	12 Jan	13 Jan	14 Jan	15 Jan
3	16 Jan	17 Jan	18 Jan	19 Jan	20 Jan	21 Jan	22 Jan
4	23 Jan	24 Jan	25 Jan	26 Jan	27 Jan	28 Jan	29 Jan
5	30 Jan	31 Jan	01 Feb	02 Feb	03 Feb	04 Feb	05 Feb
6	06 Feb	07 Feb	08 Feb	09 Feb	10 Feb	11 Feb	12 Feb
7	13 Feb	14 Feb	15 Feb	16 Feb	17 Feb	18 Feb	19 Feb
8	20 Feb	21 Feb	22 Feb	23 Feb	24 Feb	25 Feb	26 Feb
9	27 Feb	28 Feb	01 Mar	02 Mar	03 Mar	04 Mar	05 Mar

Day ahead market welfare

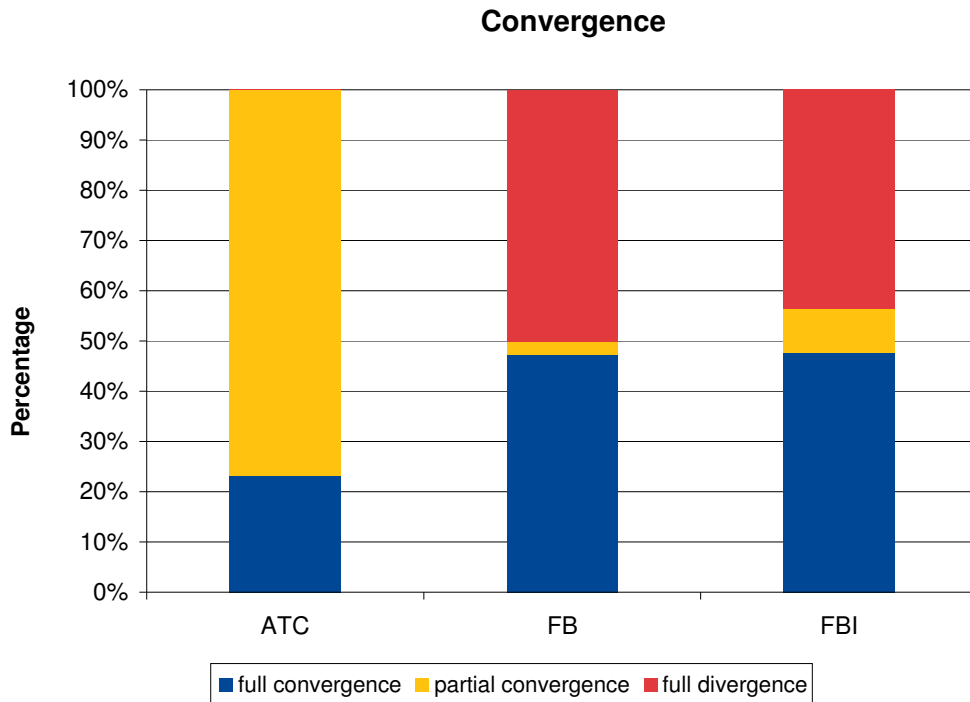**Daily average welfare difference (relative to ATC)**
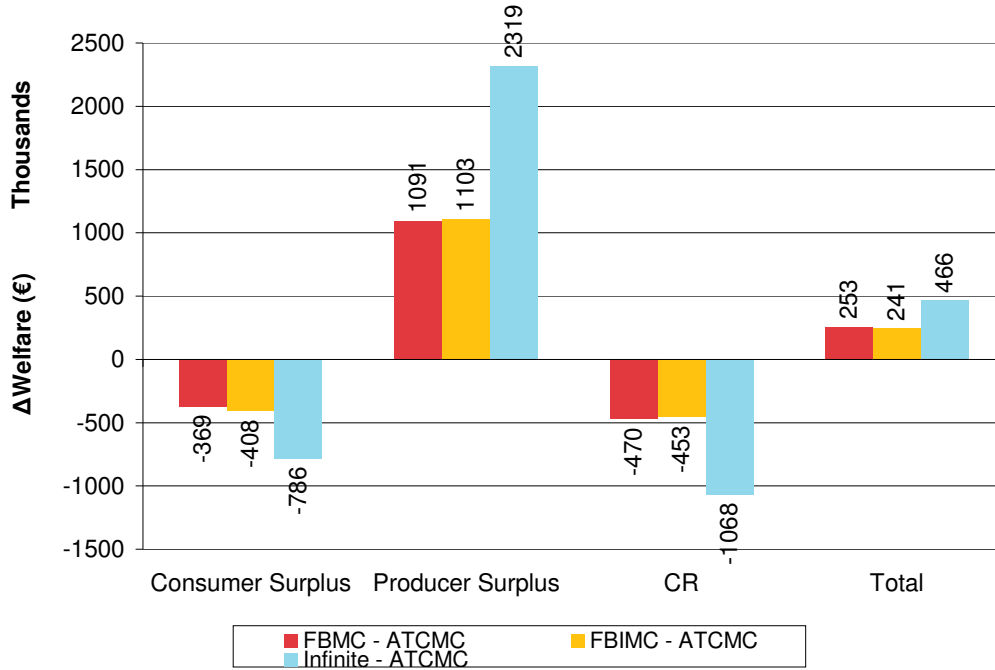
Daily average welfare difference (relative to ATC)
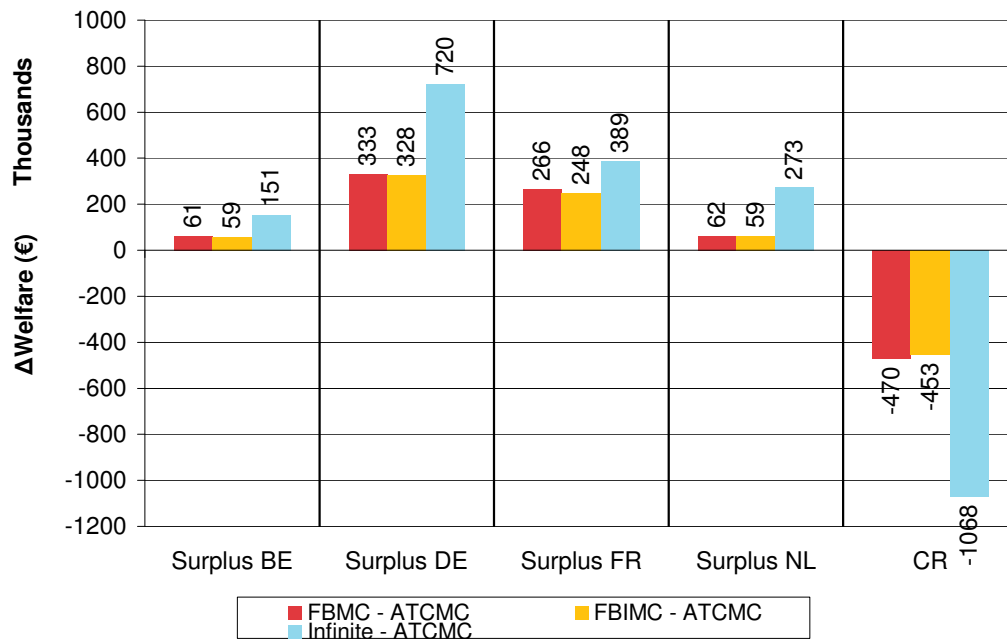
Price convergence

Convergence

Convergence of price difference between areas in proportion to the number of situations (tolerance: 0.02 €/MWh)
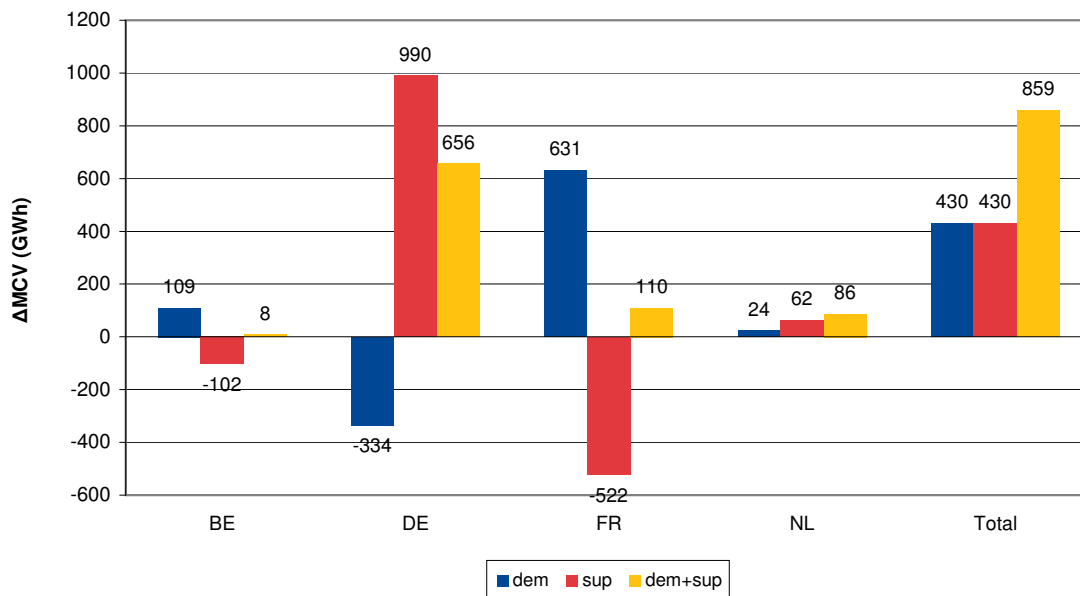
Note we distinguish three market clearing volume indicators:
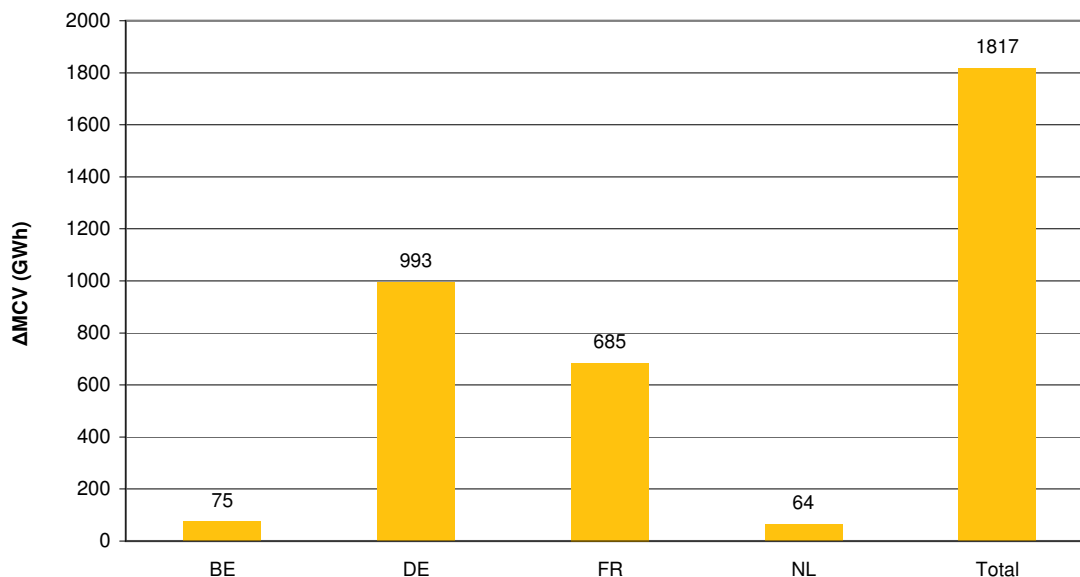dem: total accepted demand in an area
sup: total accepted supply in an area
mcv: the larger of total demand and supply in an area. The rationale is that the difference is the net position, i.e. additional supply from adjacent areas (import), or additional demand from adjacent areas (export).
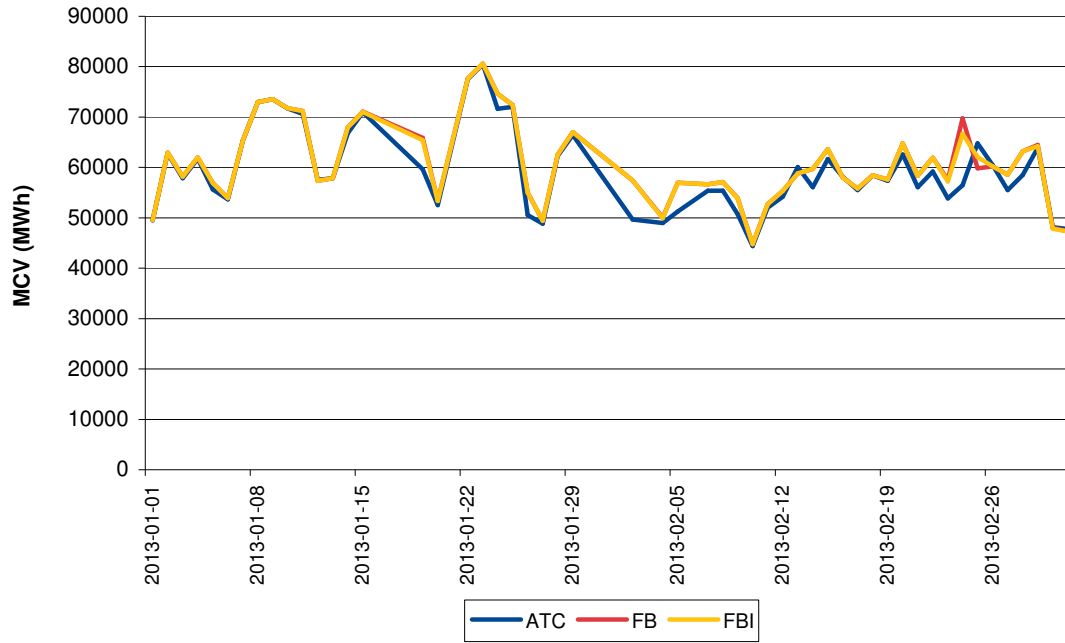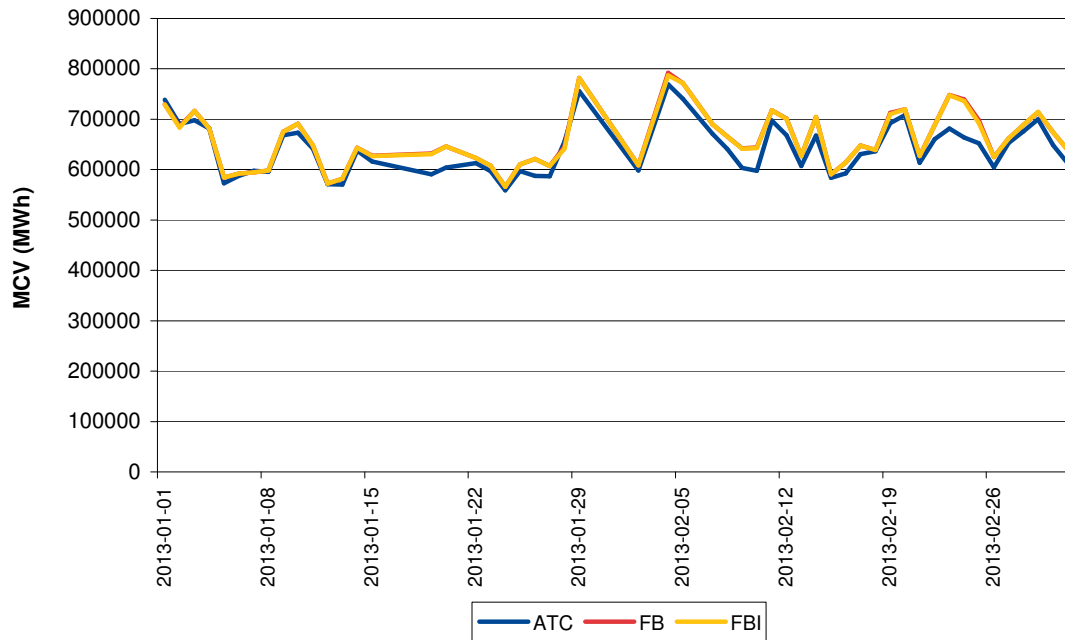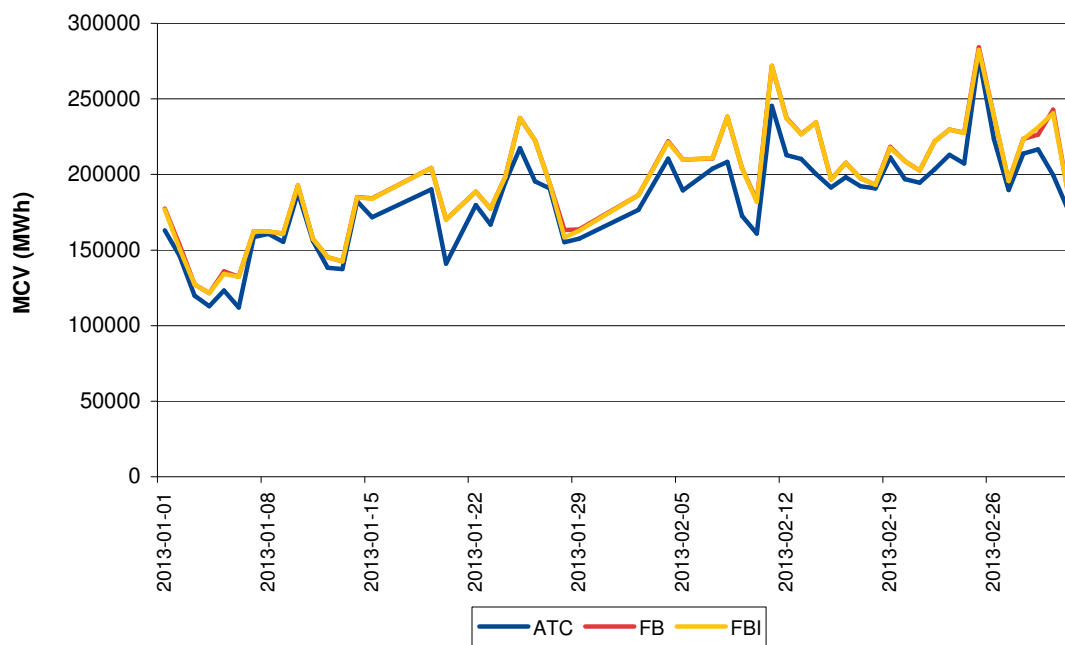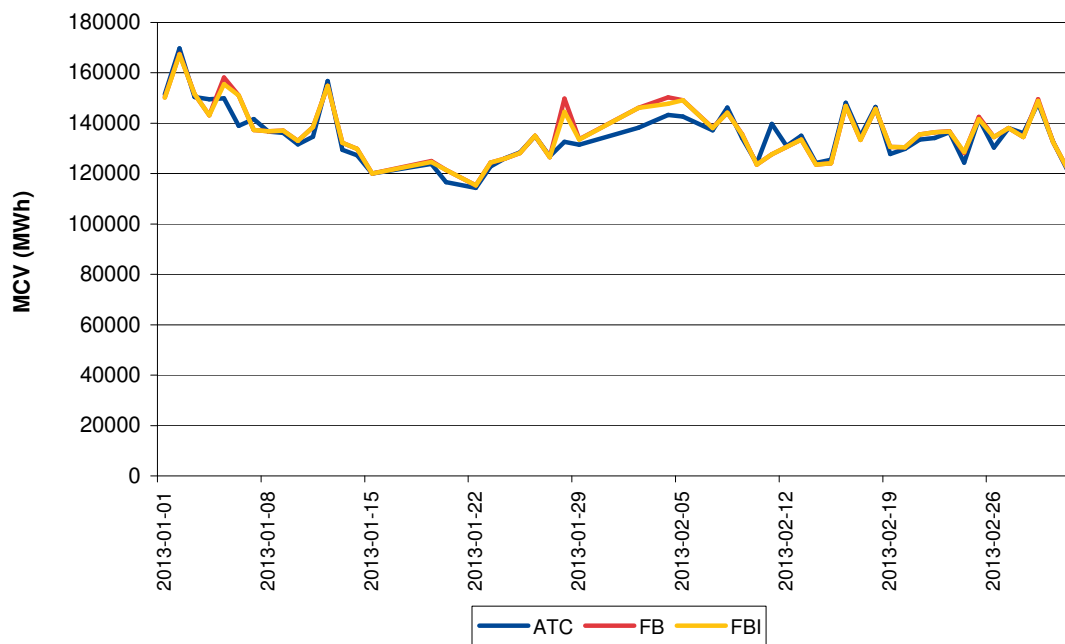
ΔMCV (FBMC - ATCMC)

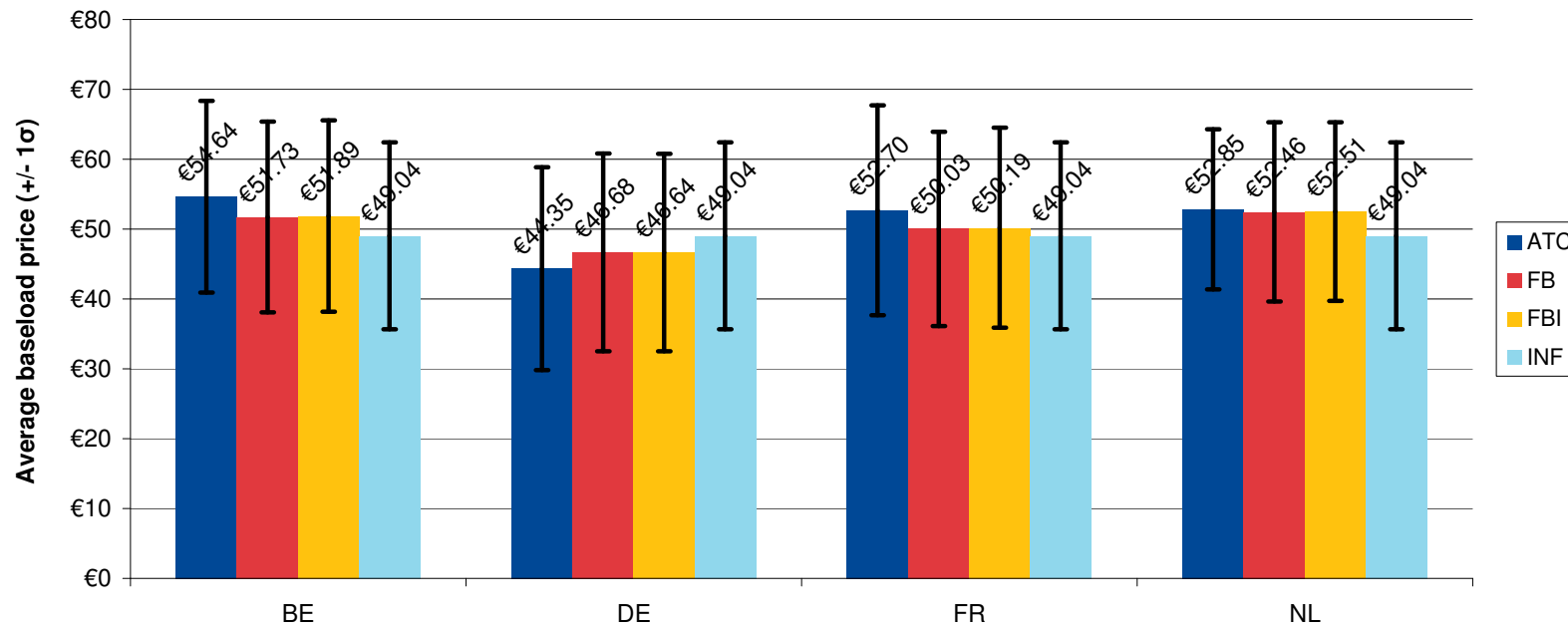ΔMCV (FBMC - ATCMC)

MCV - BE

MCV - DE

MCV - FR

MCV - NL

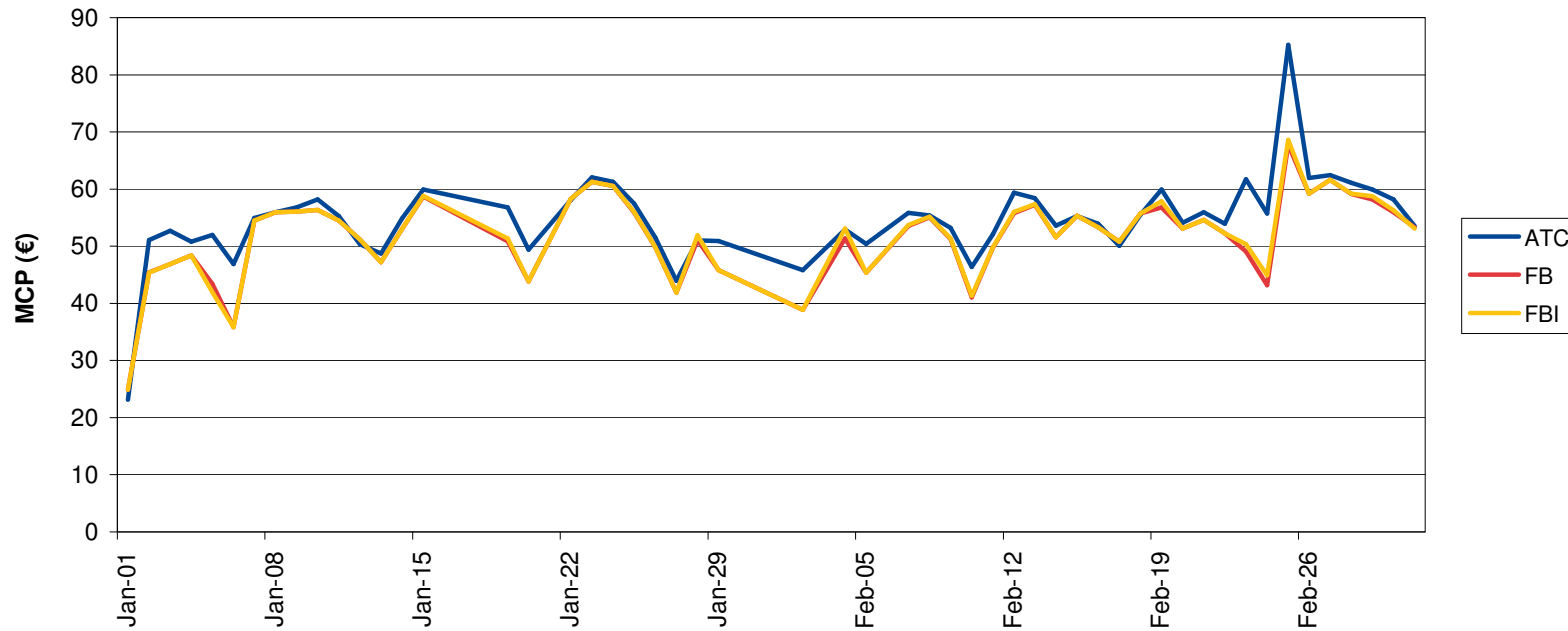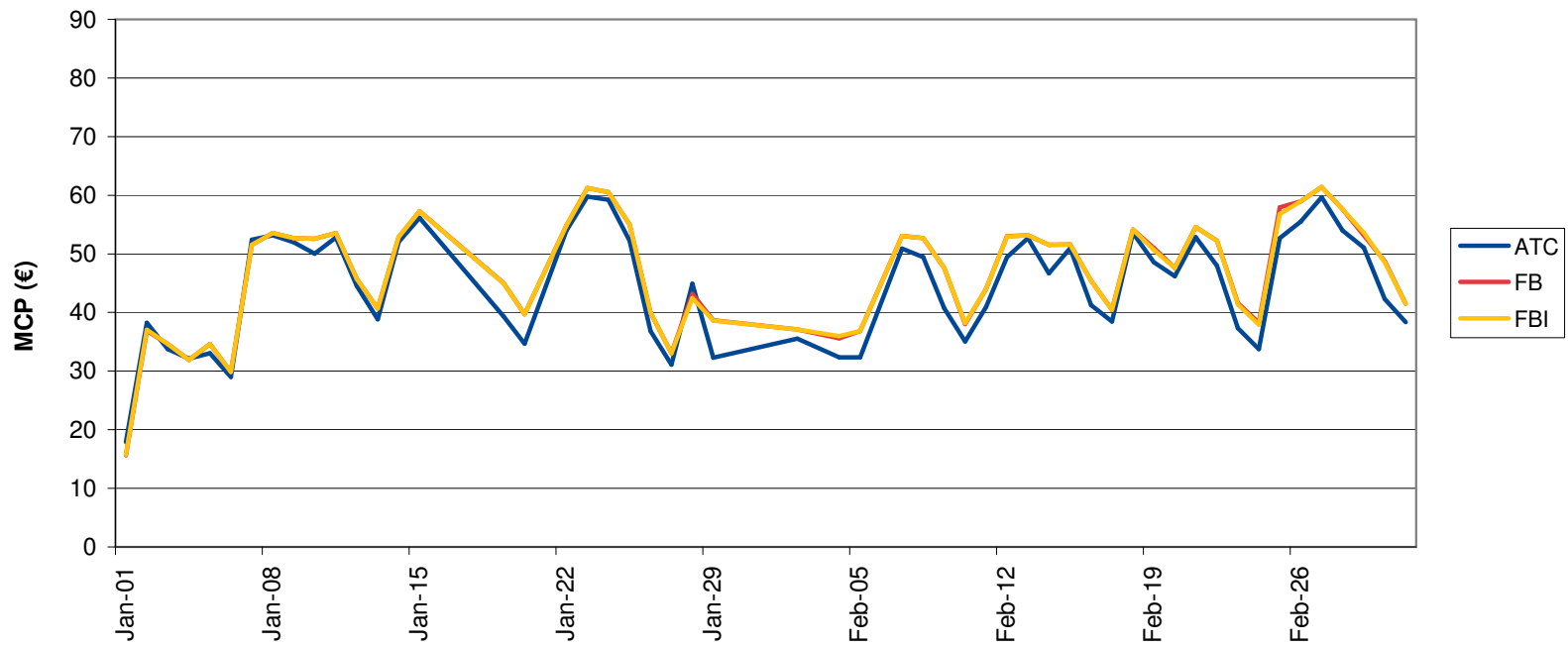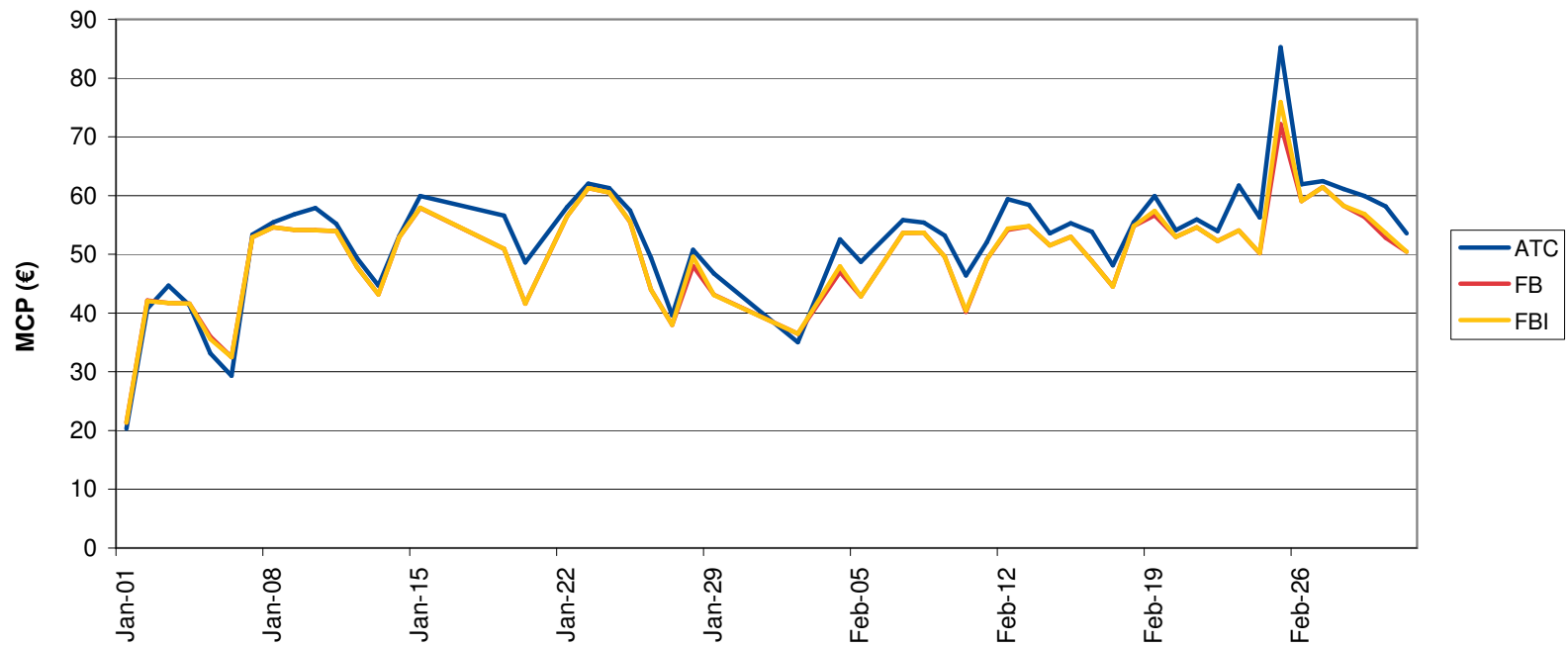# Average baseload price

Baseload price - BE

Baseload price - DE

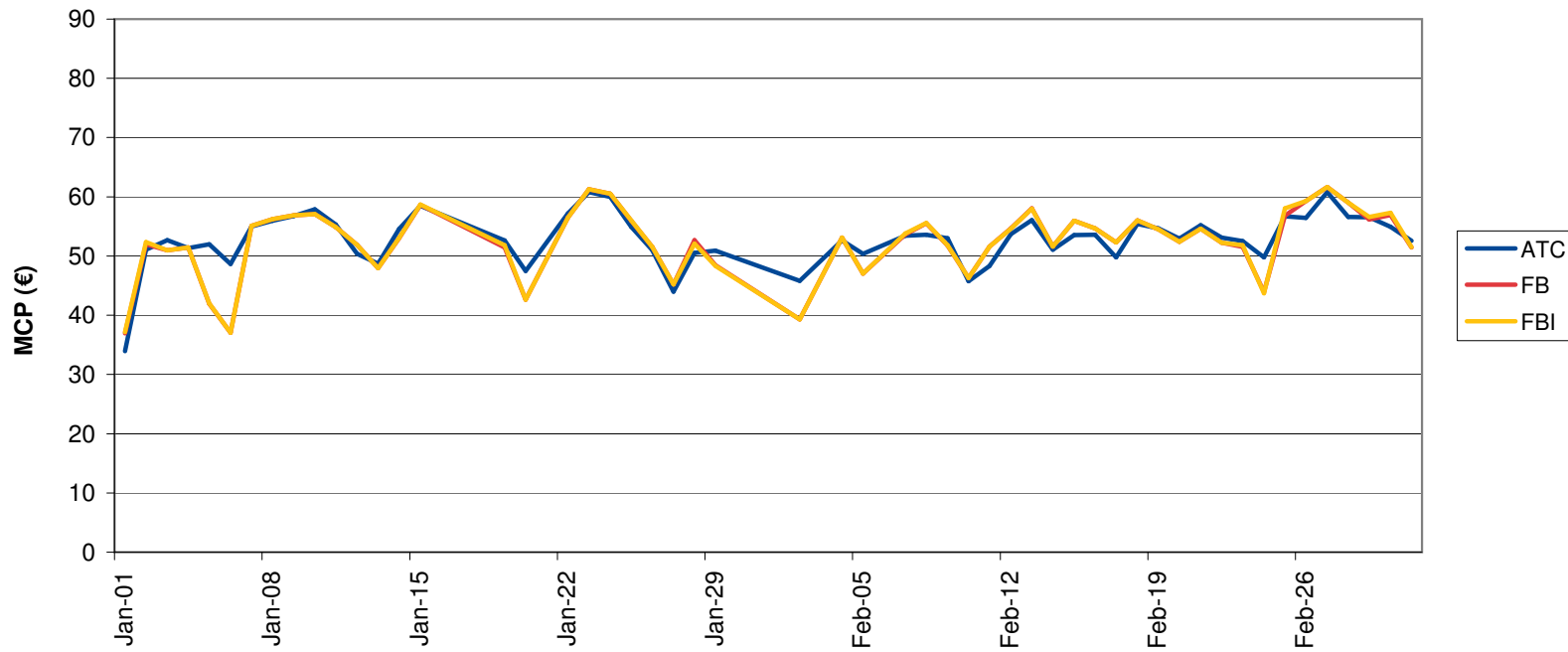**Baseload price - FR**
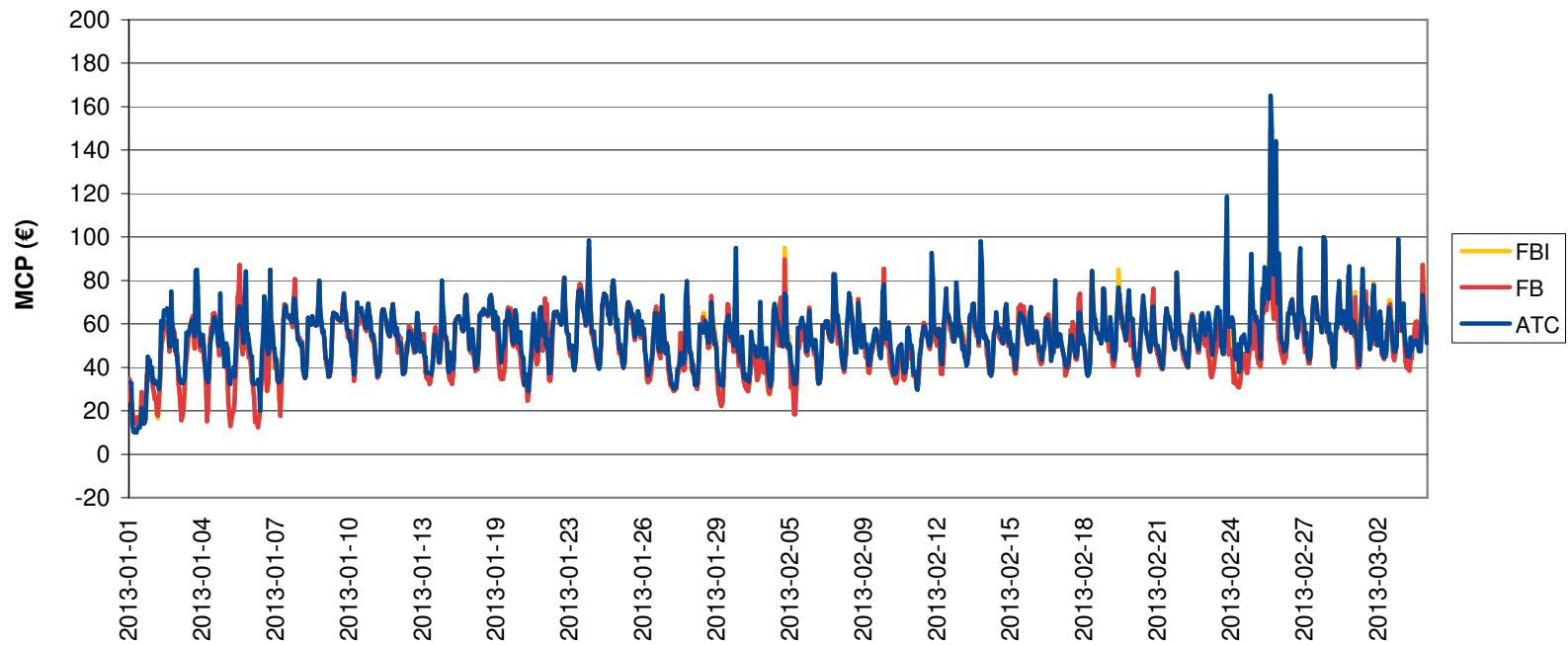
Legend:
- ATC
- FB
- FBI

Y-axis: MCP (€), from 0 to 90

X-axis: Jan-01, Jan-08, Jan-15, Jan-22, Jan-29, Feb-05, Feb-12, Feb-19, Feb-26
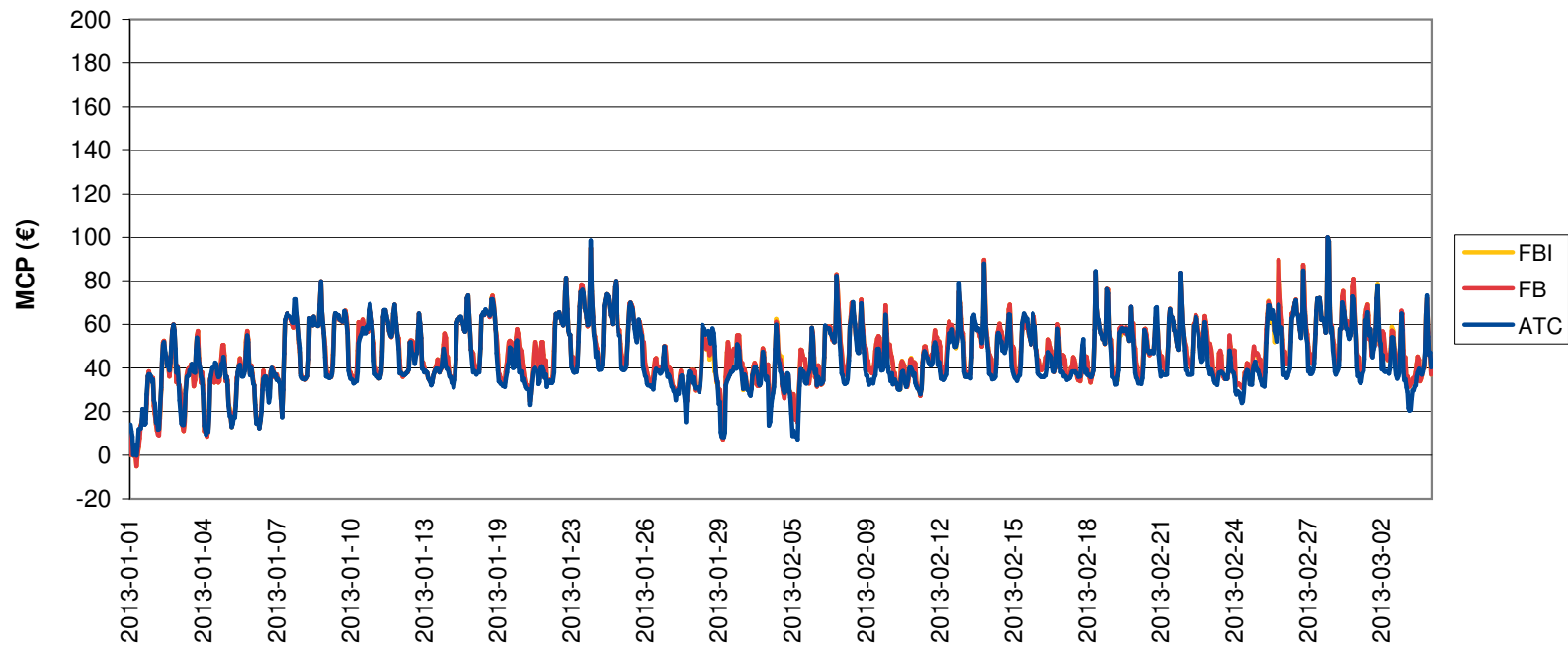
Baseload price - NL

MCP - BE

MCP - DE

MCP - FR
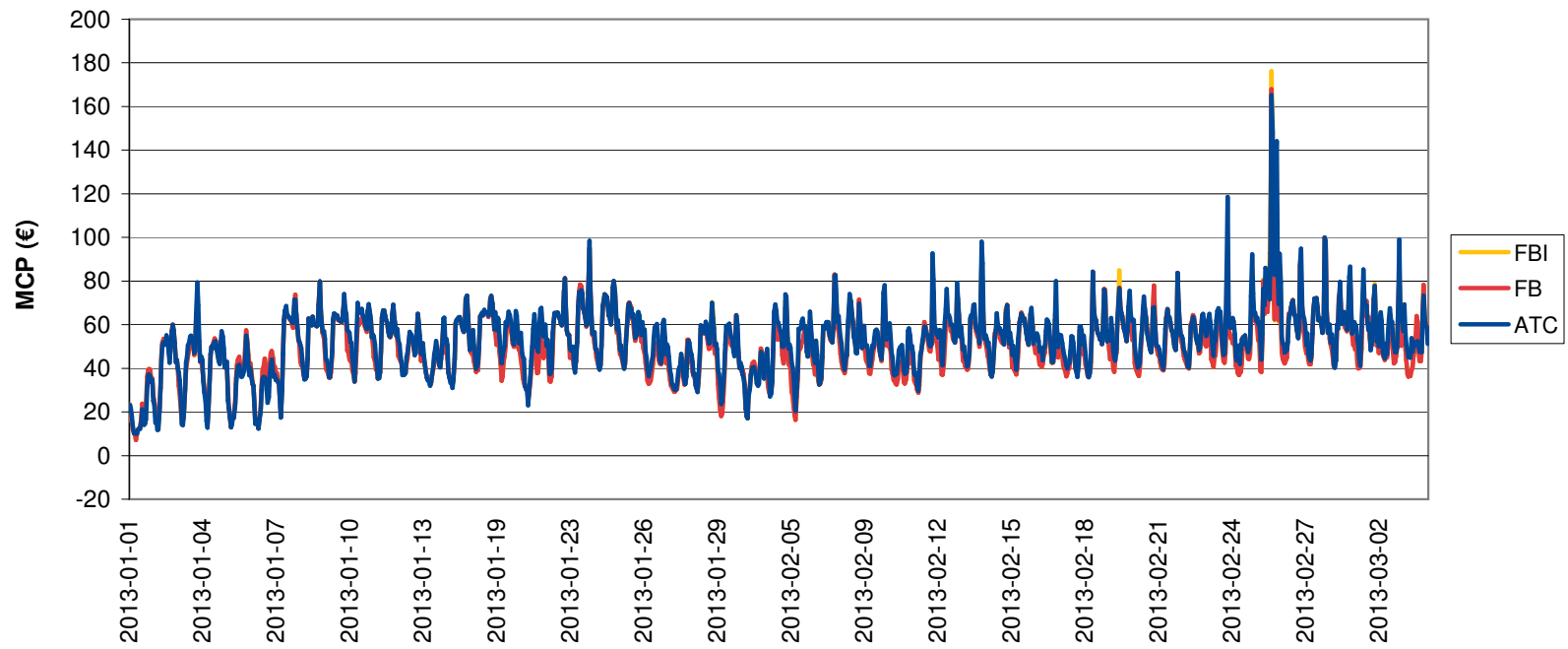
MCP - NL
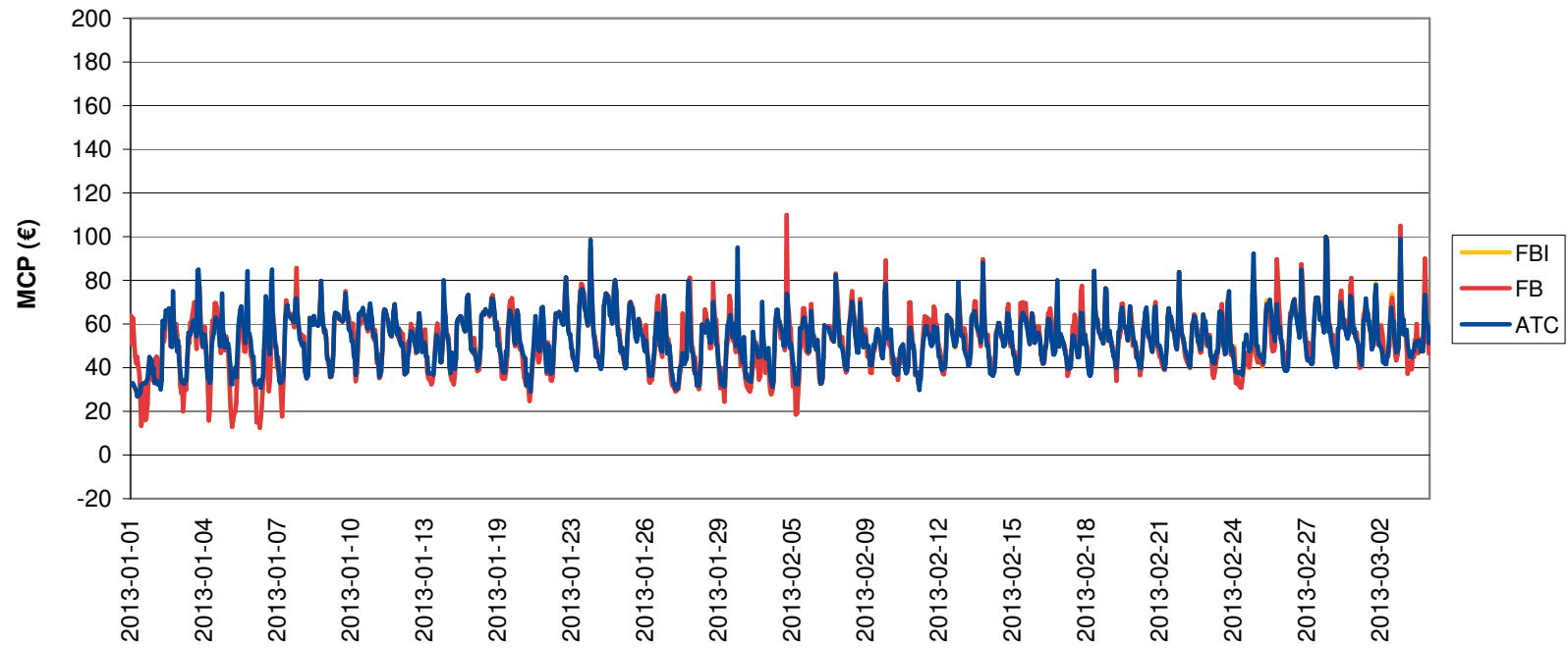
Intuitiveness

Frequency

The period under consideration contains 1272 hours.

|	Non-intuitiveness		
	Number of hours where the situation is bilateral non-intuitive	Proportion of hours where the situation is bilateral non-intuitive	Proportion of congested hours where the situation is bilateral non-intuitive
ATC	0	0.0%	0.0%
FB	95	7.5%	14.2%
FBI	0	0.0%	0.0%
INF	0	0.0%	0.0%

Involvement

In most non-intuitive situations, the areas are said to be involved in the non-intuitive situation if they belong to one of these sets:
- The largest set of areas with the highest prices such that all areas of the set are exporting;
- The largest set of areas with the lowest prices such that all areas of the set are importing;

Note
With this definition of involvement it could happen that a situation is considered non-intuitive, yet none of the areas is considered to be involved.

Example
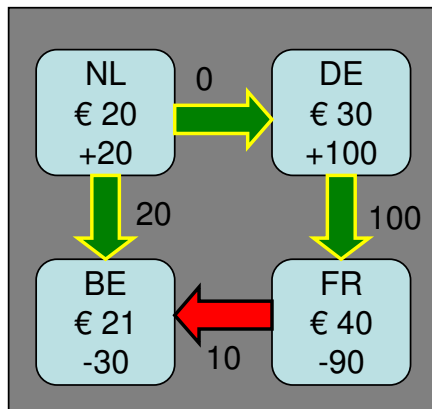
BE+NL are together importing, yet are the cheapest markets. This means no bilateral exchanges can be found that do not include at least one counter intuitive flow (FR-BE in our example). Yet none of the markets are involved: NL is the cheapest market and is exporting. Even though the set {BE, NL} is exporting in aggregate, they are not all exporting individually as stated in our definition. Hence no markets are involved.

Number of Involvements	BE	DE	FR	NL
FB "plain" MC	13	3	0	47

Paradoxically rejected block orders

	Number of PRBs	PRB Utility value
ATCMC	402	€275,151
FBMC	266	€184,171
FBIMC	270	€215,393
Infinite Capacity	140	€56,873
Isolated	864	€4,204,020

Block Bids

Proportion of accepted block orders in the Total	BE	DE	FR	NL
ATCMC	13.4%	4.6%	7.7%	8.5%
FBMC	13.6%	5.0%	8.6%	9.2%
FBIMC	13.7%	5.0%	8.6%	9.1%
Infinite Capacity	13.7%	5.7%	8.9%	8.6%
Isolated	26.3%	5.5%	11.1%	13.5%