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
45	06 Nov	07 Nov	08 Nov	09 Nov	10 Nov	11 Nov	12 Nov
46	13 Nov	14 Nov	15 Nov	16 Nov	17 Nov	18 Nov	19 Nov
47	20 Nov	21 Nov	22 Nov	23 Nov	24 Nov	25 Nov	26 Nov
48	27 Nov	28 Nov	29 Nov	30 Nov	01 Dec	02 Dec	03 Dec
49	04 Dec	05 Dec	06 Dec	07 Dec	08 Dec	09 Dec	10 Dec
50	11 Dec	12 Dec	13 Dec	14 Dec	15 Dec	16 Dec	17 Dec
51	18 Dec	19 Dec	20 Dec	21 Dec	22 Dec	23 Dec	24 Dec
52	25 Dec	26 Dec	27 Dec	28 Dec	29 Dec	30 Dec	31 Dec

Day ahead market welfare

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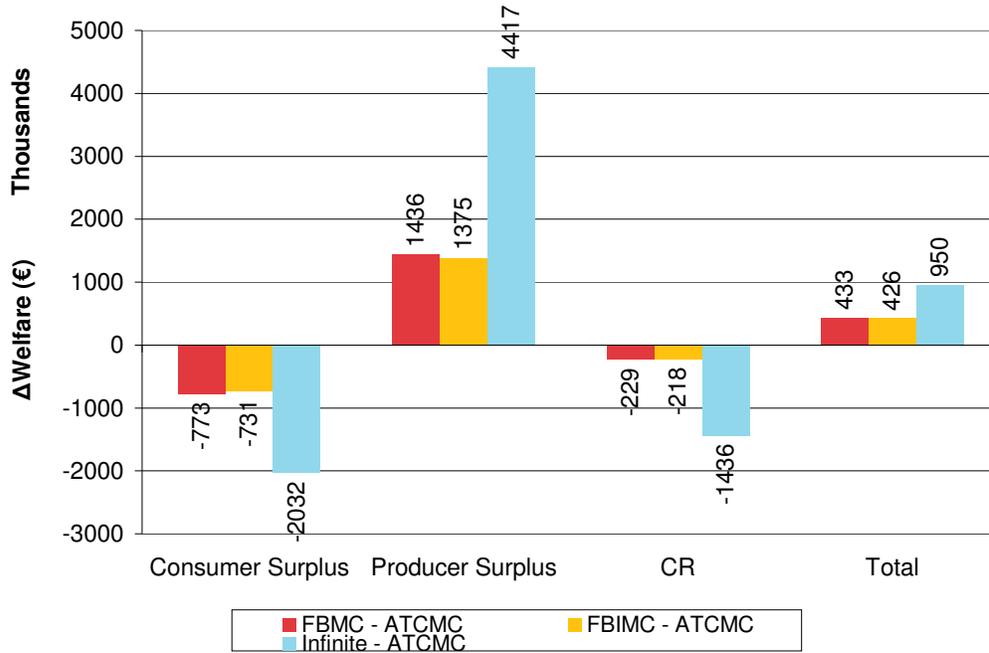
Daily average welfare difference (relative to ATC)
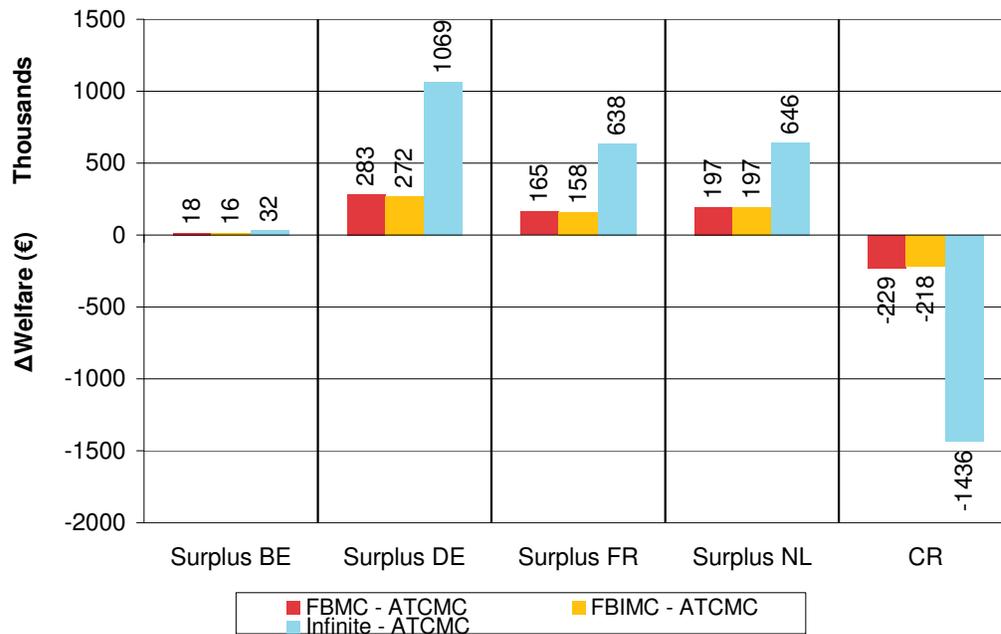
Price convergence

Convergence
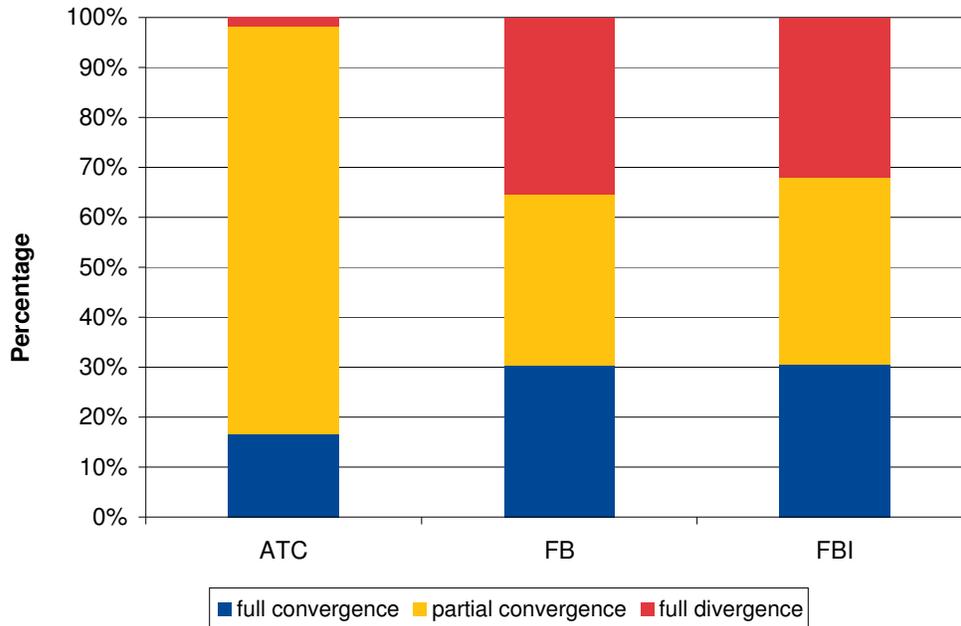
Convergence of price difference between areas in proportion to the number of situations (tolerance: 0.02 €/MWh)

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)
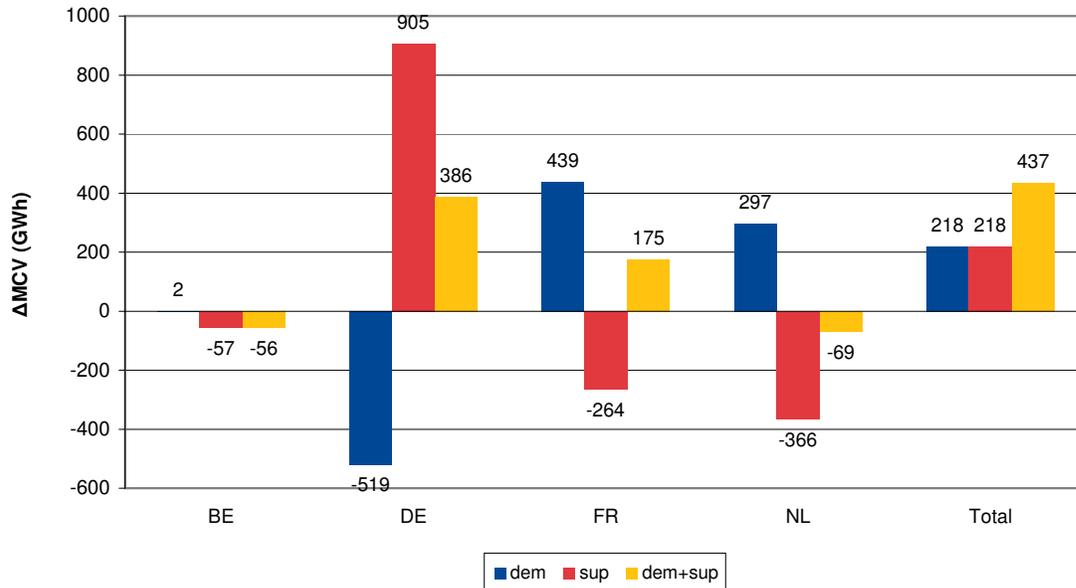
ΔMCV (FBMC - ATCMC)
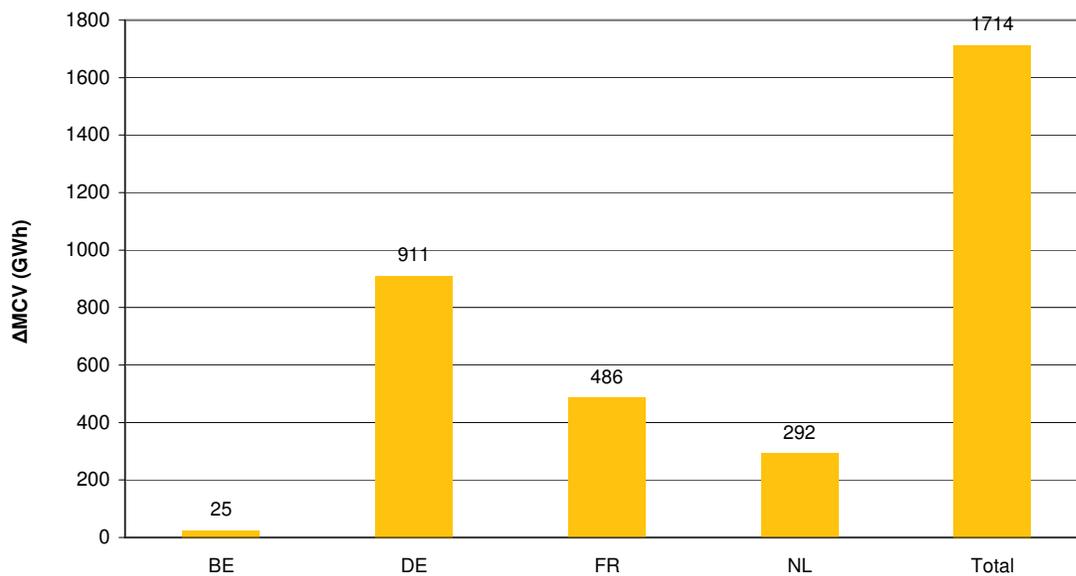
MCV - BE
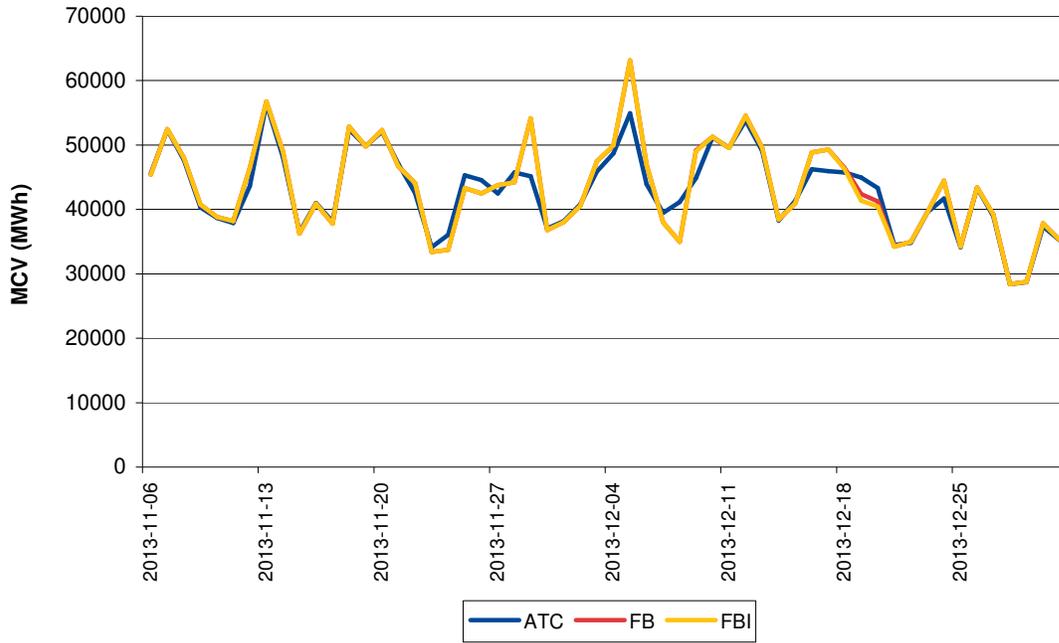
MCV - DE
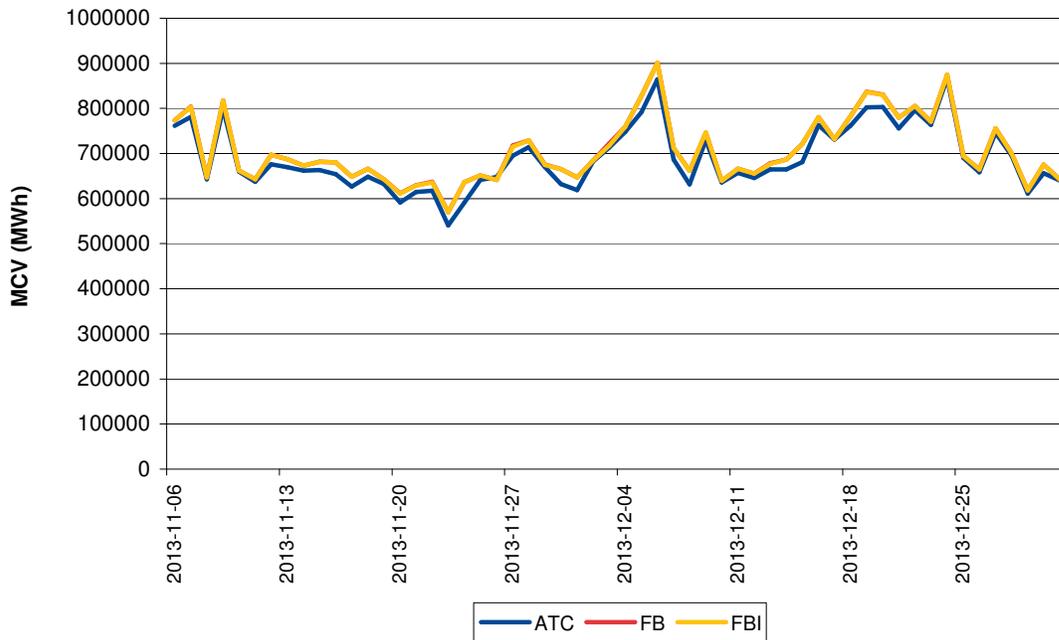
MCV - FR

MCV - NL

Average baseload price

Average baseload price (+/- 1σ)

	BE	DE	FR	NL
ATC	€49.94	€38.35	€50.97	€53.50
FB	€48.47	€40.87	€49.19	€50.12
FBI	€48.50	€40.77	€49.26	€50.11
INF	€45.55	€45.55	€45.55	€45.55
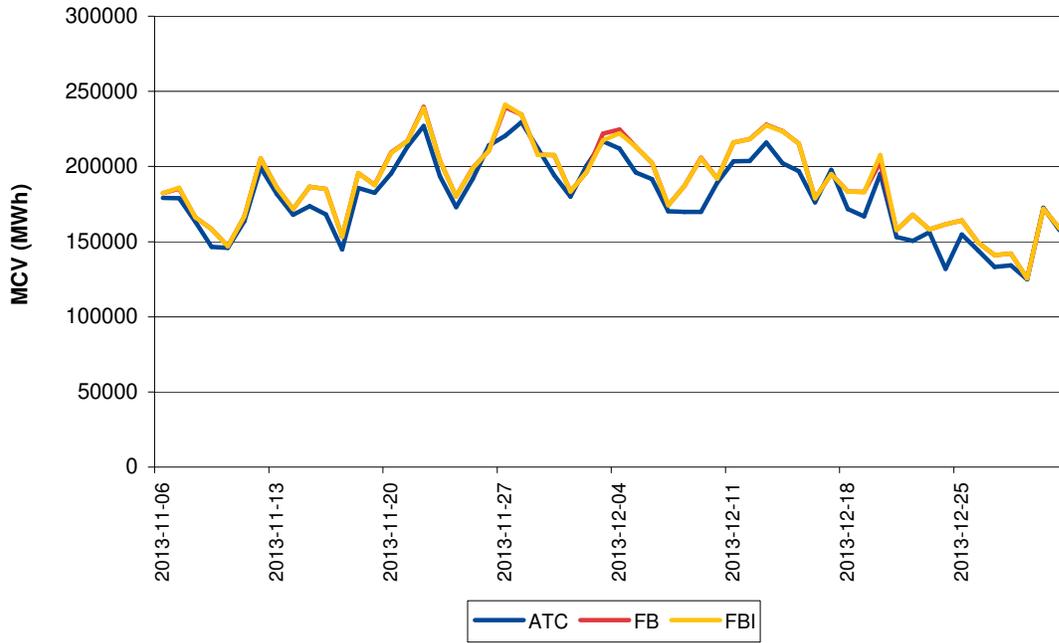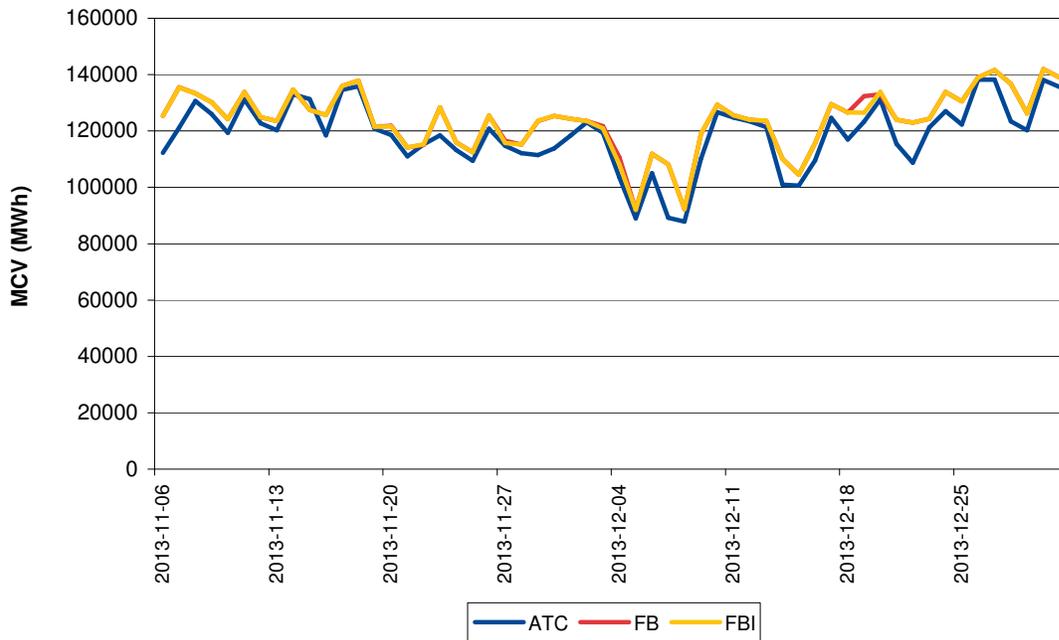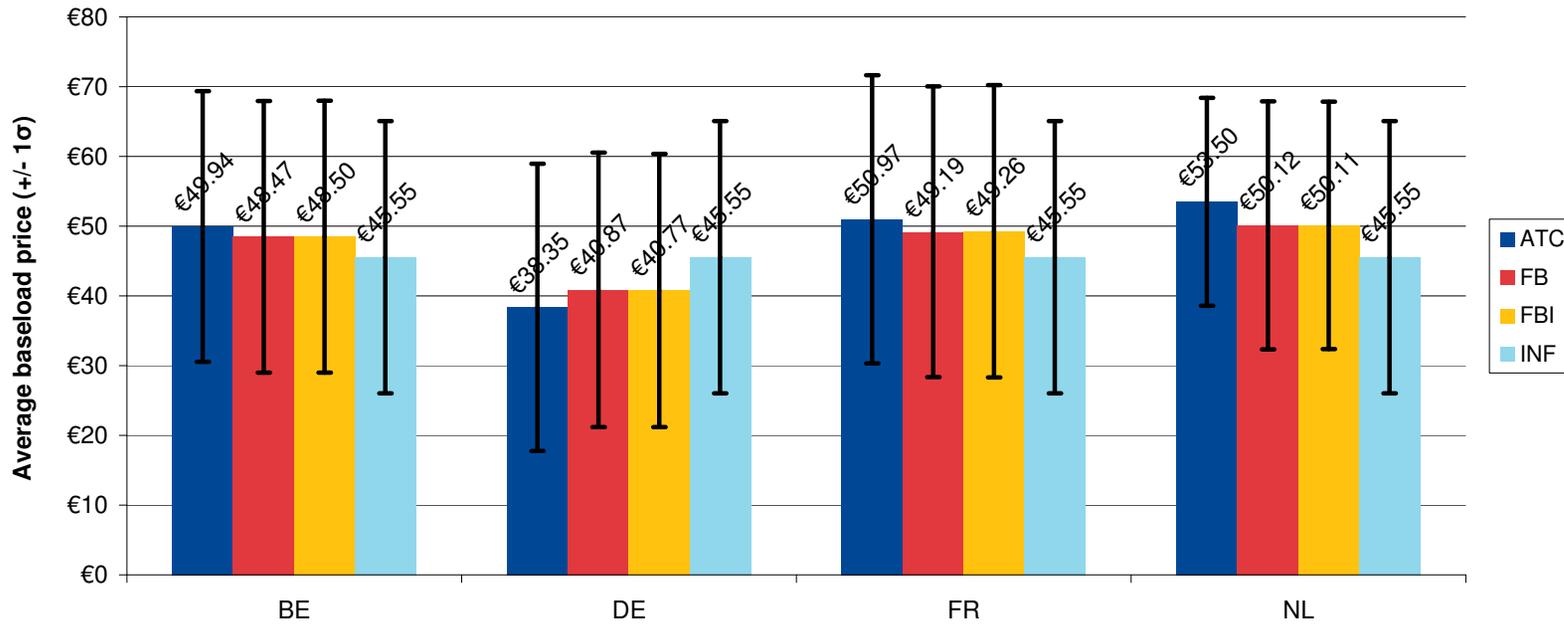
Baseload price - BE

Baseload price - DE

Figure: Baseload price - DE. Chart plotting MCP (€) over time from Nov-06 to after Dec-25, with three series: ATC (blue), FB (red), FBI (yellow).
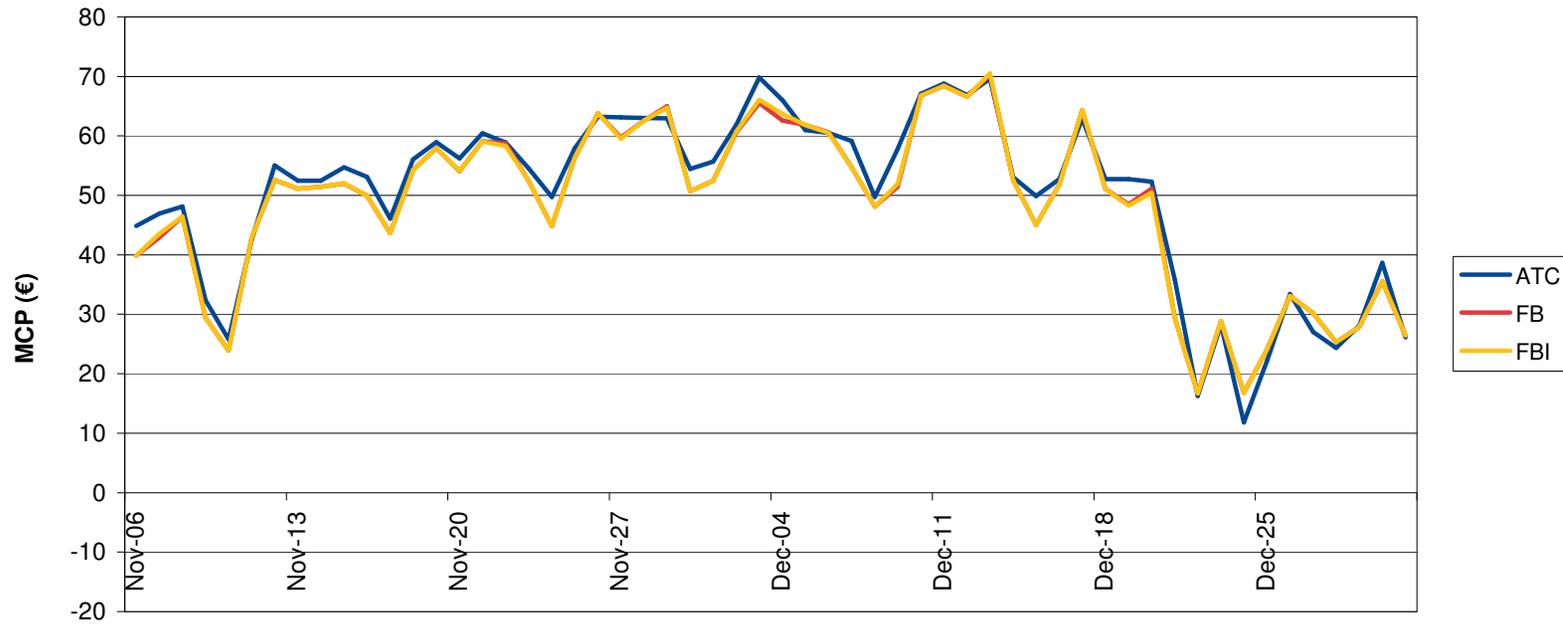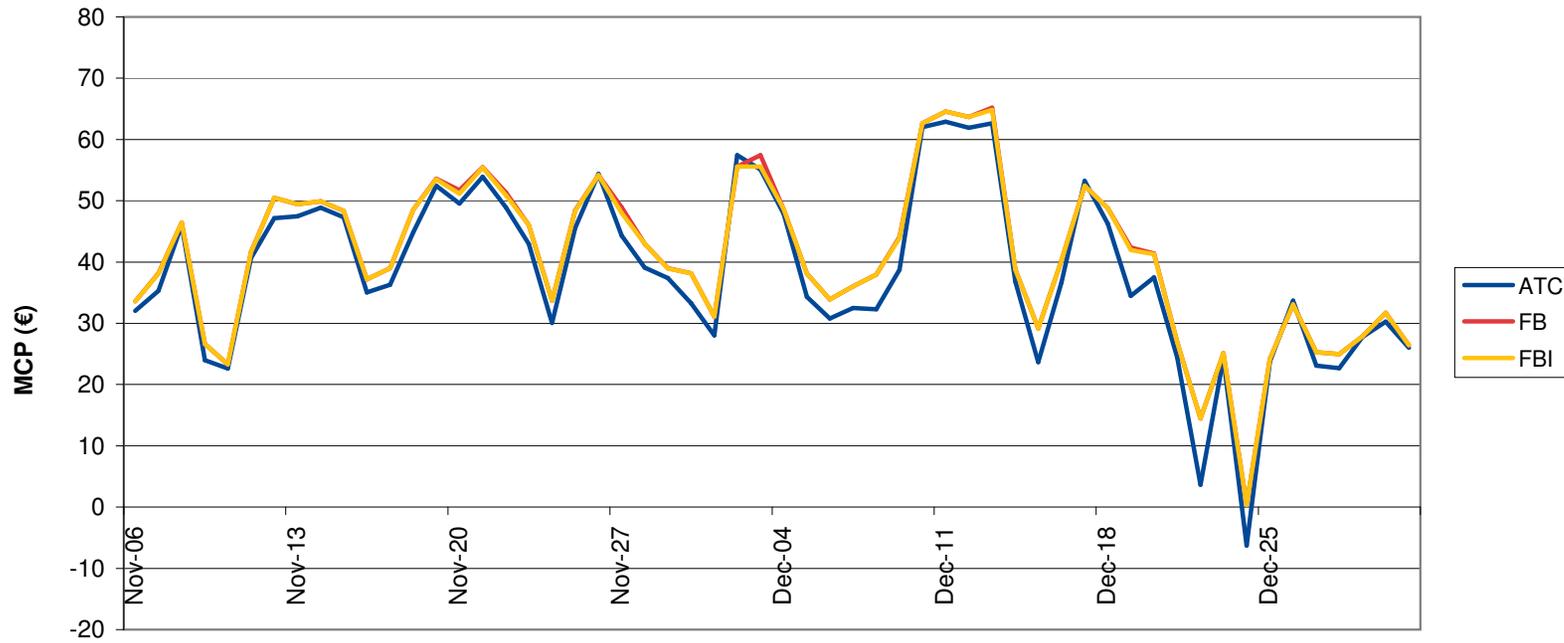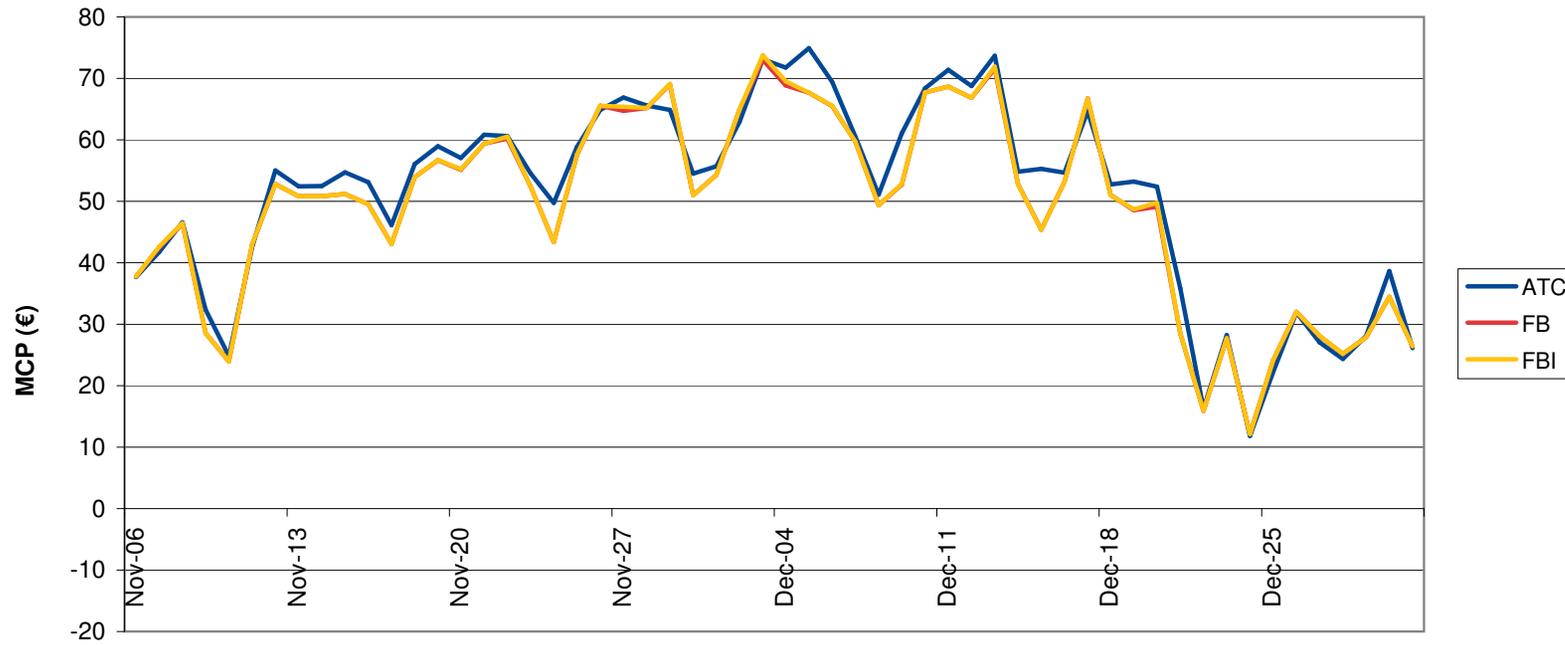
Baseload price - FR

Baseload price - NL
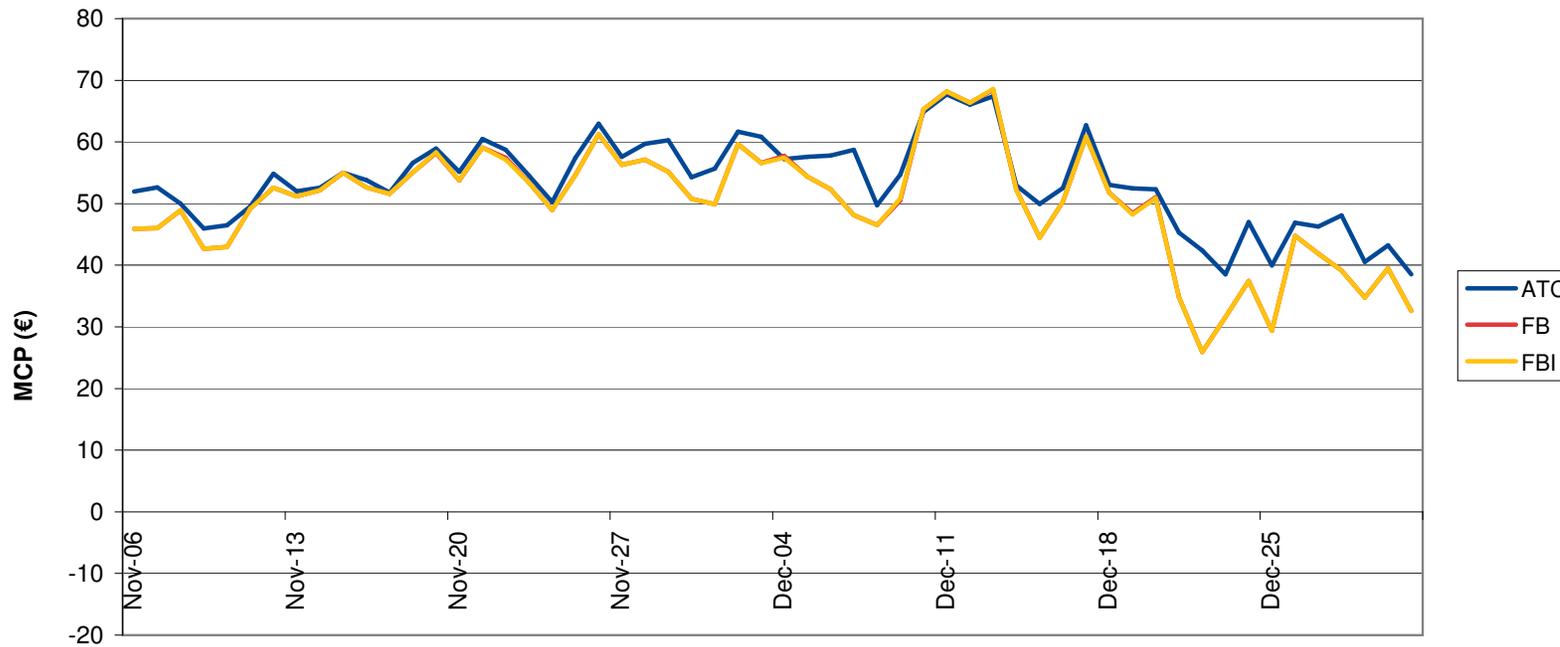
MCP - BE
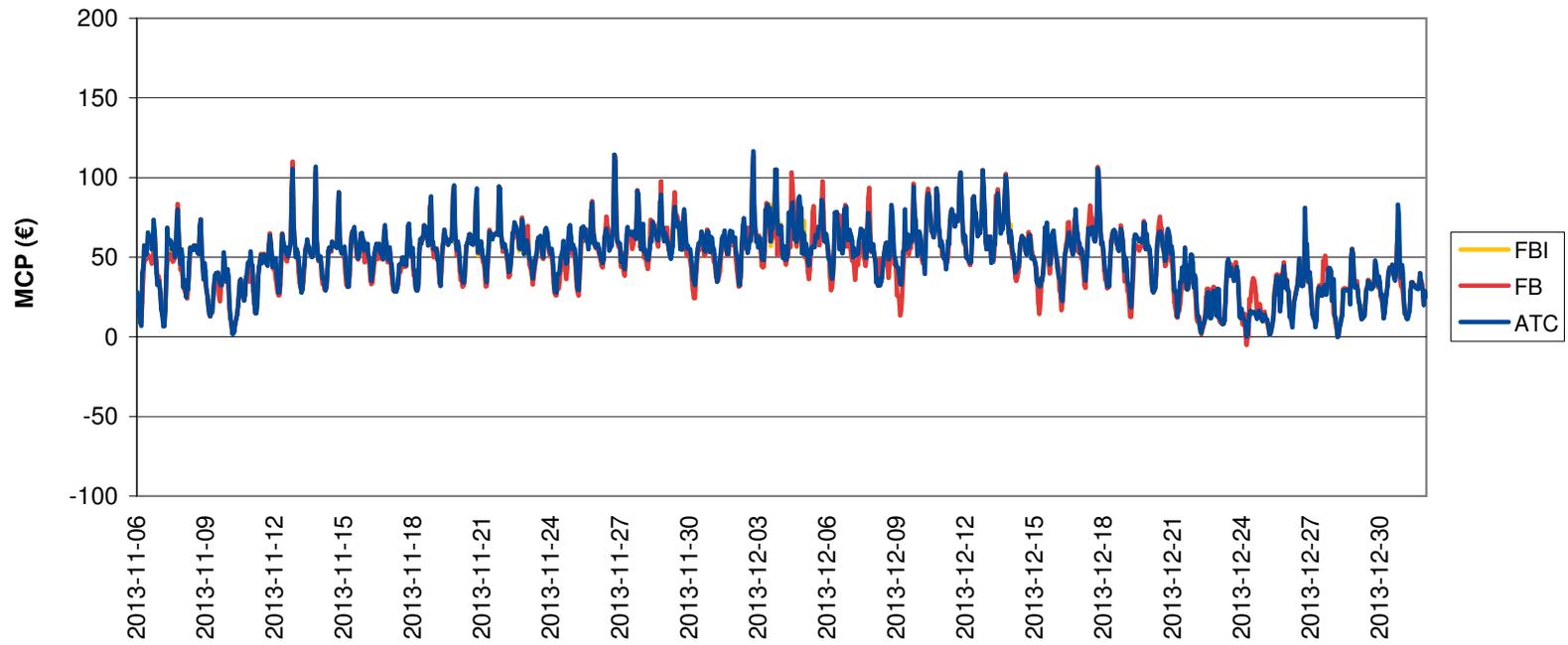
MCP - DE
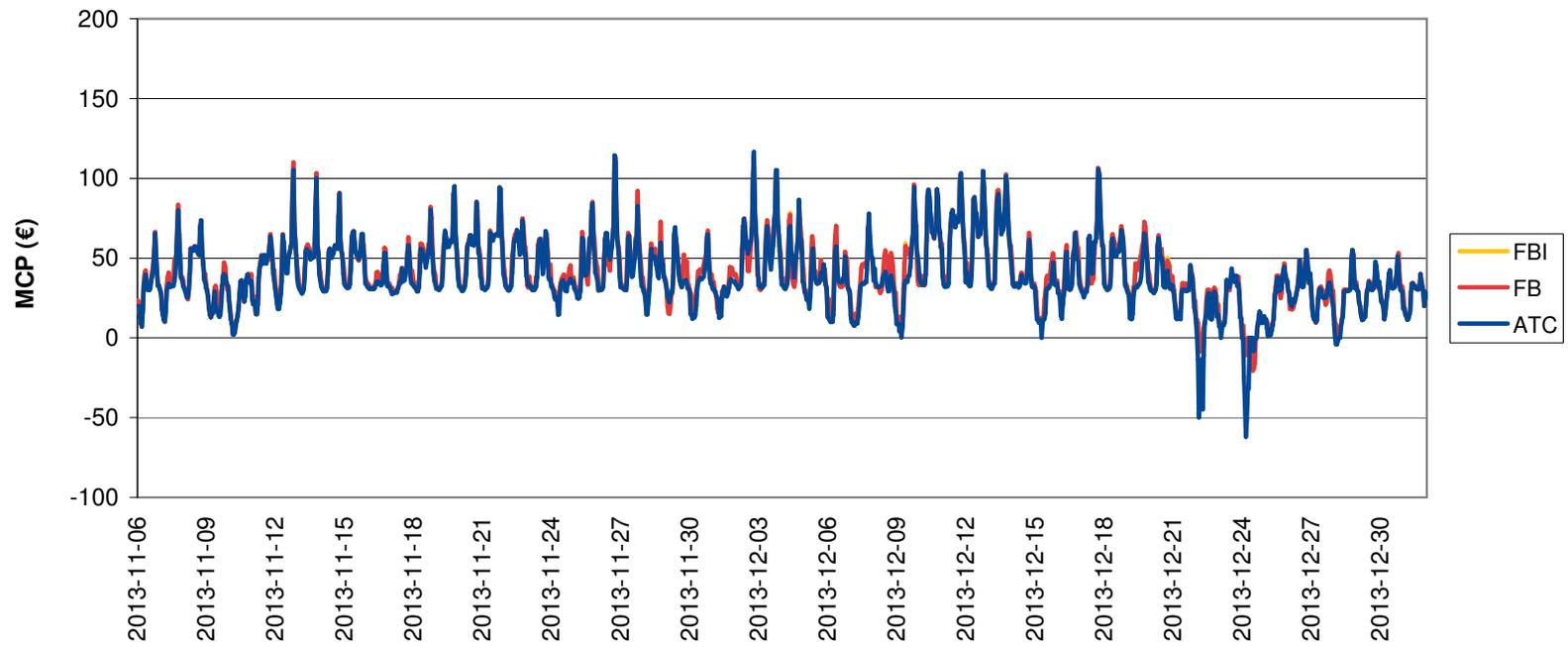
MCP - FR
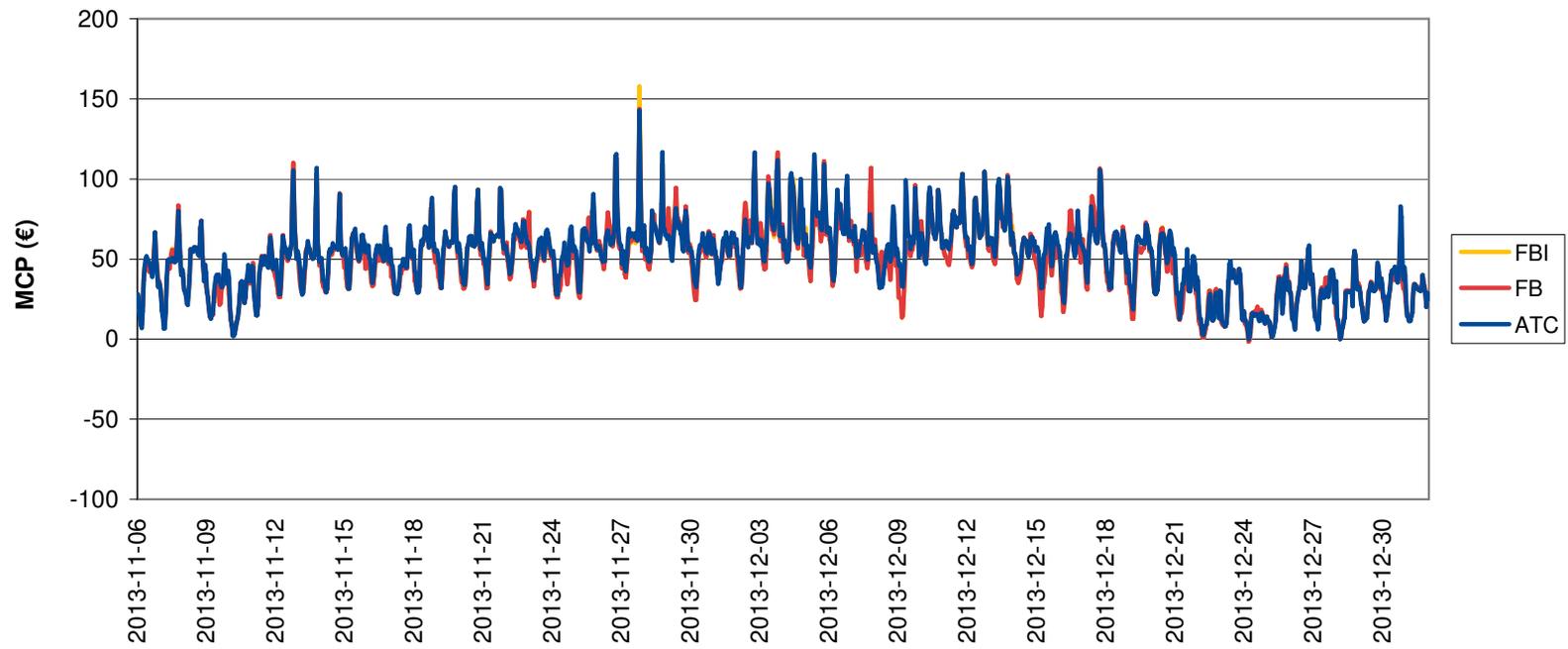
MCP - NL
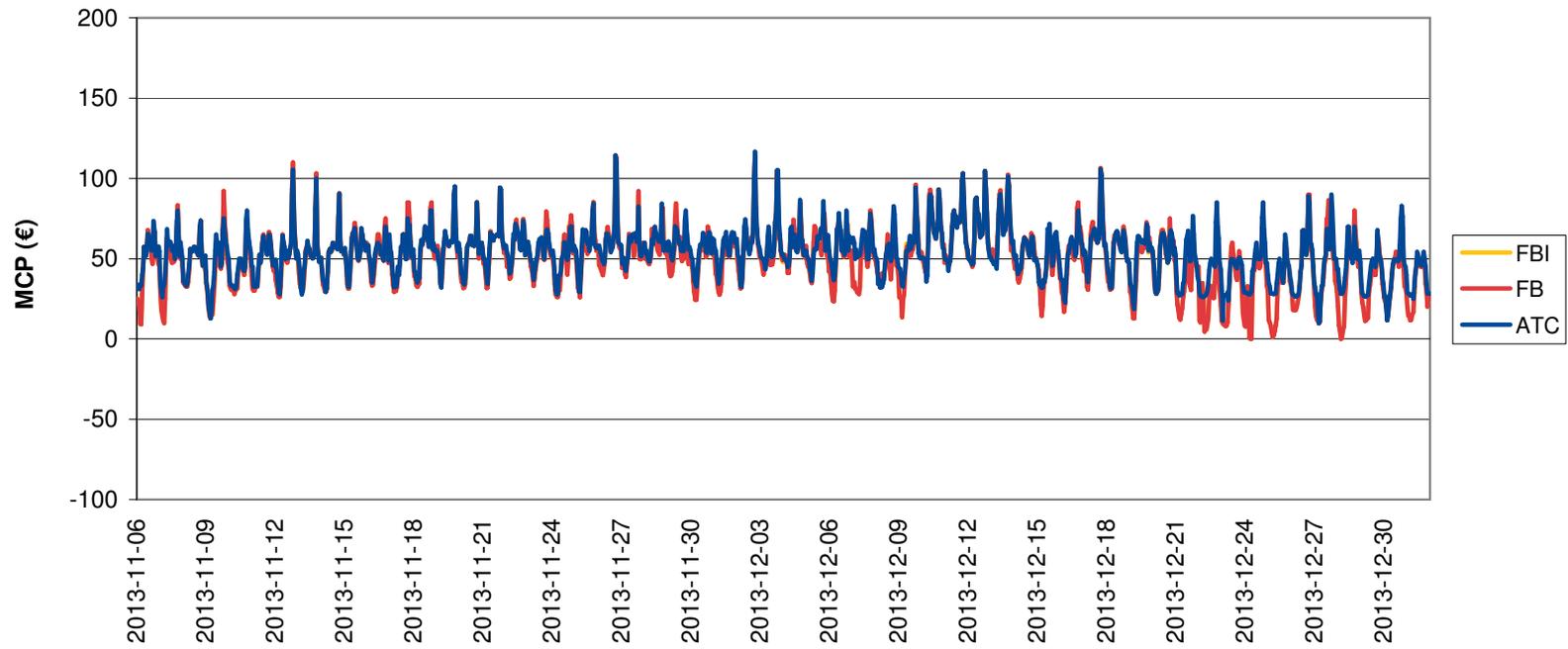
Intuitiveness

Frequency

The period under consideration contains 1344 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	51	3.8%	5.4%
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
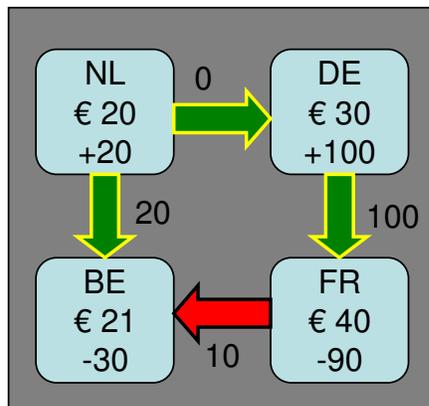
BE+NL are together importing, yet are the cheapest markets. This means no bilateral exchanges can be found that do not include at least one counter intuitive flow (FR-BE in our example). Yet none of the markets are involved: NL is the cheapest market and is exporting. Even though the set {BE, NL} is 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	22	0	3	21

Paradoxically rejected block orders

	Number of PRBs	PRB Utility value
ATCMC	476	€571,226
FBMC	411	€425,945
FBIMC	424	€454,449
Infinite Capacity	168	€74,196
Isolated	1201	€8,966,749

Block Bids

Proportion of accepted block orders in the Total	BE	DE	FR	NL
ATCMC	18.3%	4.8%	11.5%	12.2%
FBMC	17.3%	5.0%	12.1%	11.0%
FBIMC	17.3%	5.0%	12.2%	11.0%
Infinite Capacity	16.6%	5.9%	13.2%	12.4%
Isolated	18.8%	5.1%	15.0%	20.4%