Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 29 of 2023

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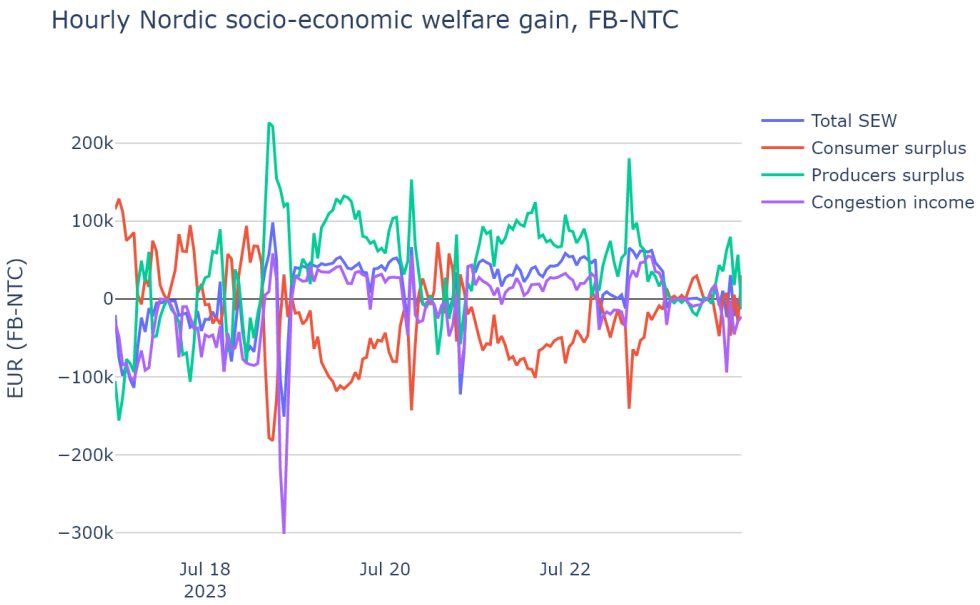
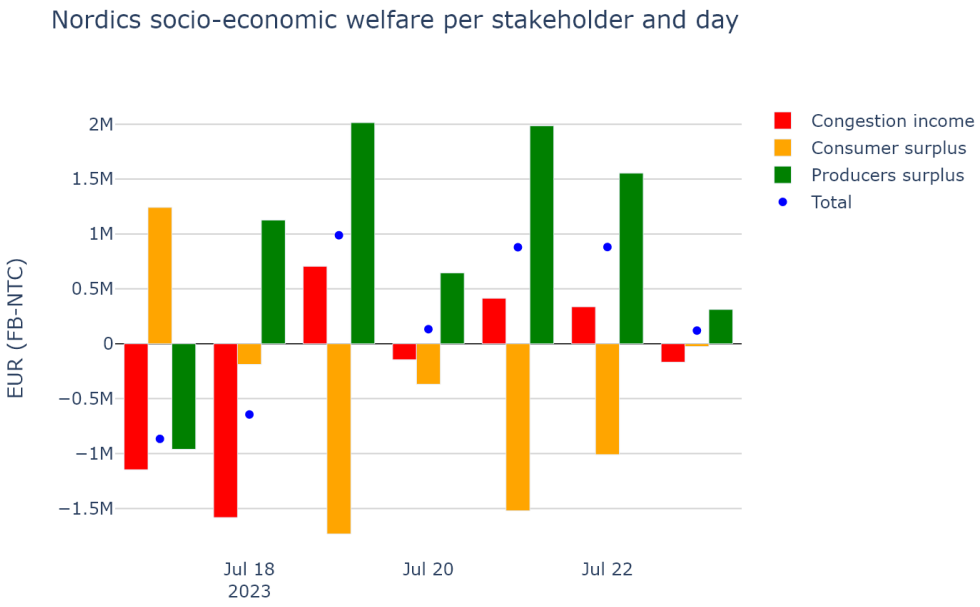
Domain validation

Energy Delivery Day:	Mon. 17.7.	Tue. 18.7.	Wed. 19.7.	Thu. 20.7.	Fri. 21.7.	Sat. 22.7.	Sun. 23.7.
Invalid/missing IGMs	4	0	0	12	0	0	0
Substituted IGMs	4	0	0	12	0	0	0
Invalid CGMs	4	0	0	0	0	0	0
FB domain back-up	0	0	0	0	0	0	0
FAV provision	2	0	0	1	0	1	0
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

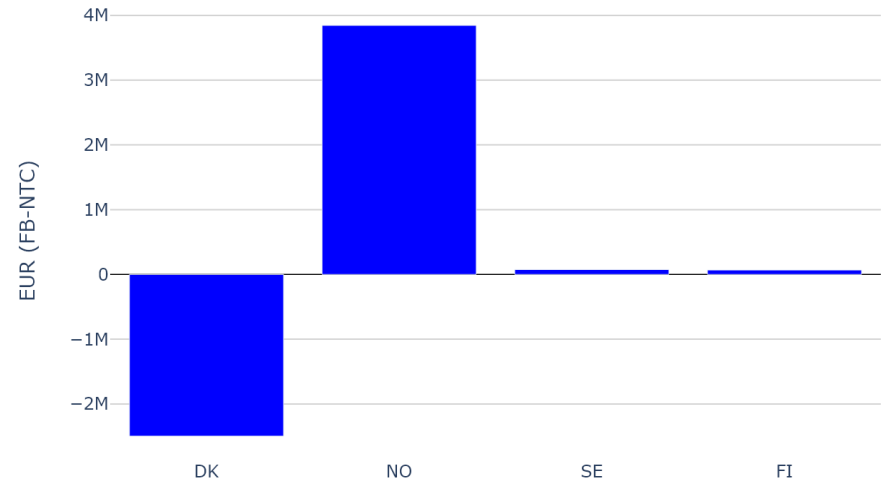
Socio Economic Welfare

Nordics

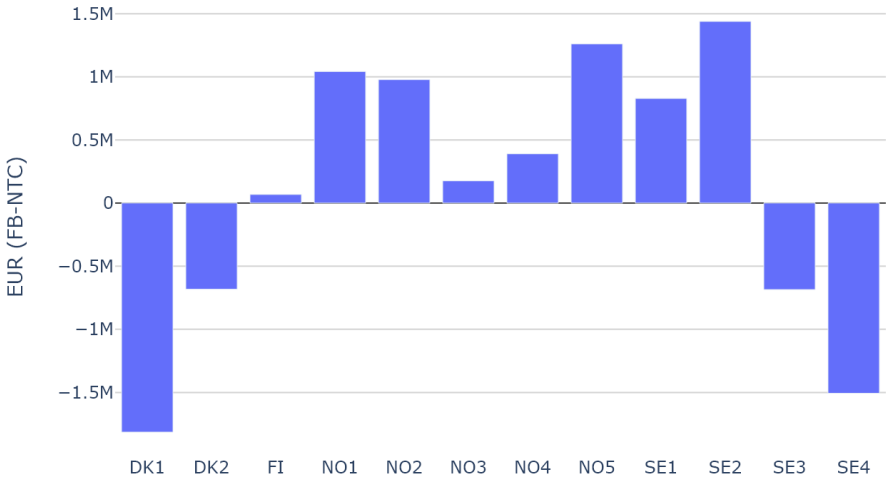




Total Nordic socio-economic welfare per country

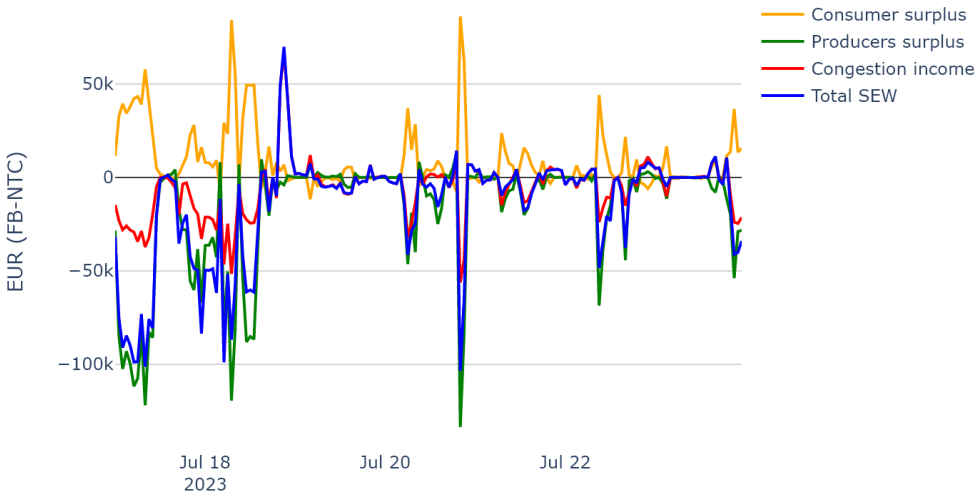


Socio economic welfaregain FB-NTC per BZ - Total_sew

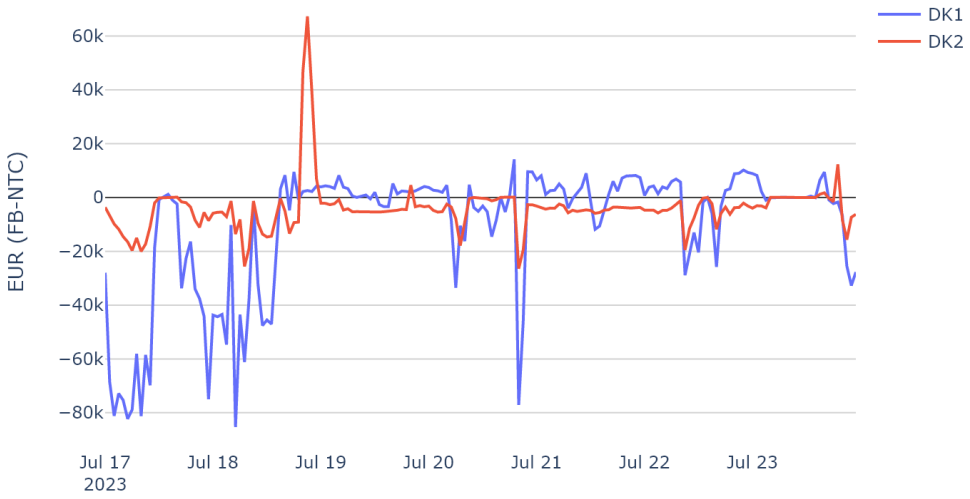


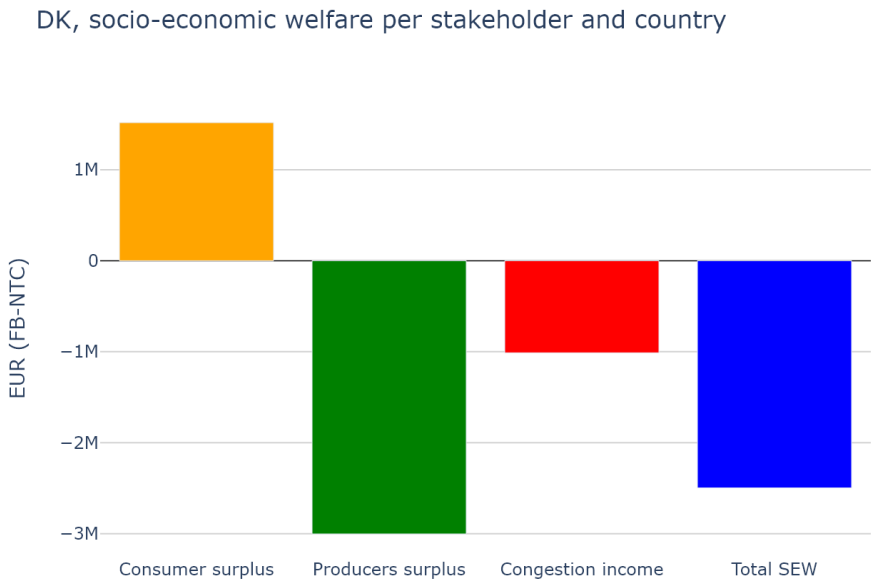
Denmark

DK, socio-economic welfare per stakeholder and country

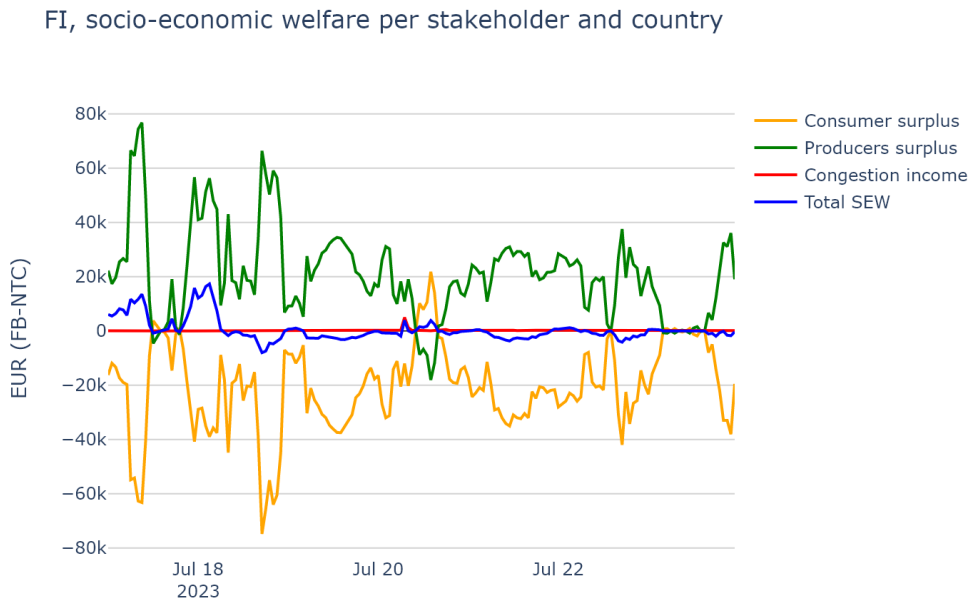


Total socio economic welfaregain FB-NTC per BZ in DK

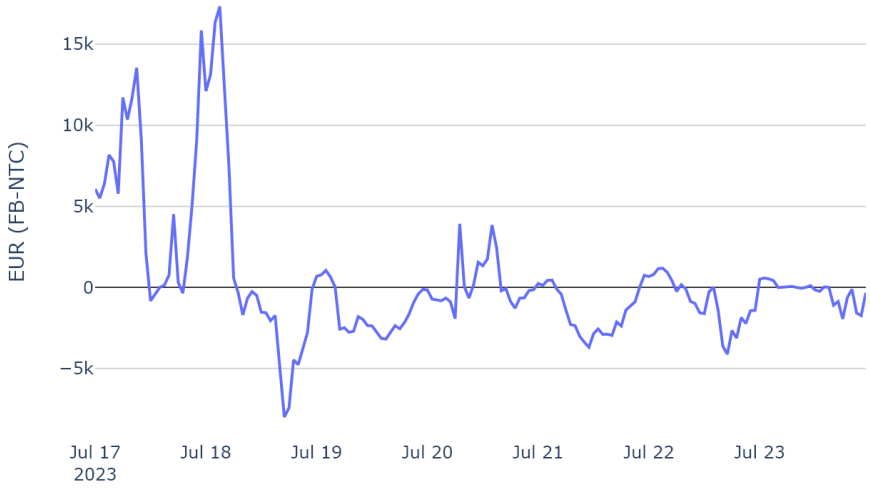



DK, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
1M
0
−1M
−2M
−3M
Consumer surplus
Producers surplus
Congestion income
Total SEW

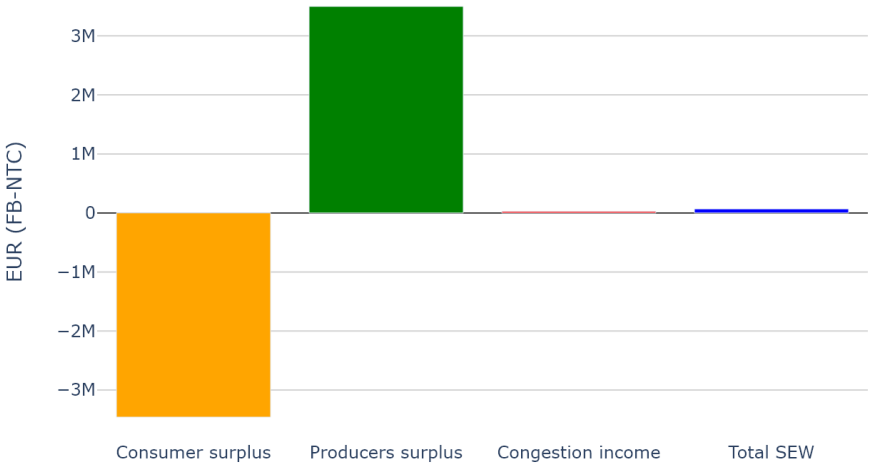
Finland


FI, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
80k
60k
40k
20k
0
−20k
−40k
−60k
−80k
Jul 18
2023
Jul 20
Jul 22
Consumer surplus
Producers surplus
Congestion income
Total SEW

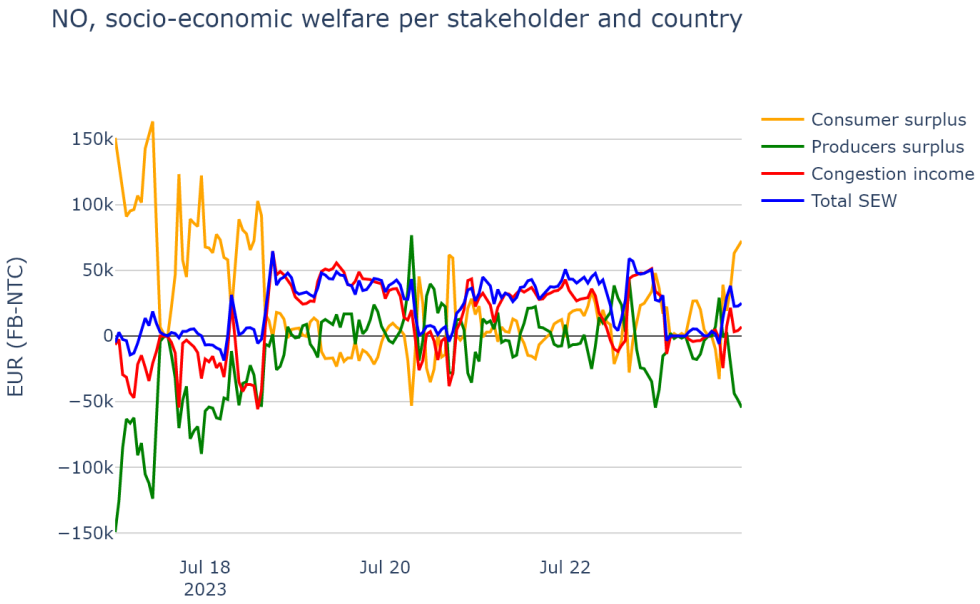
Total socio economic welfaregain FB-NTC per BZ in FI

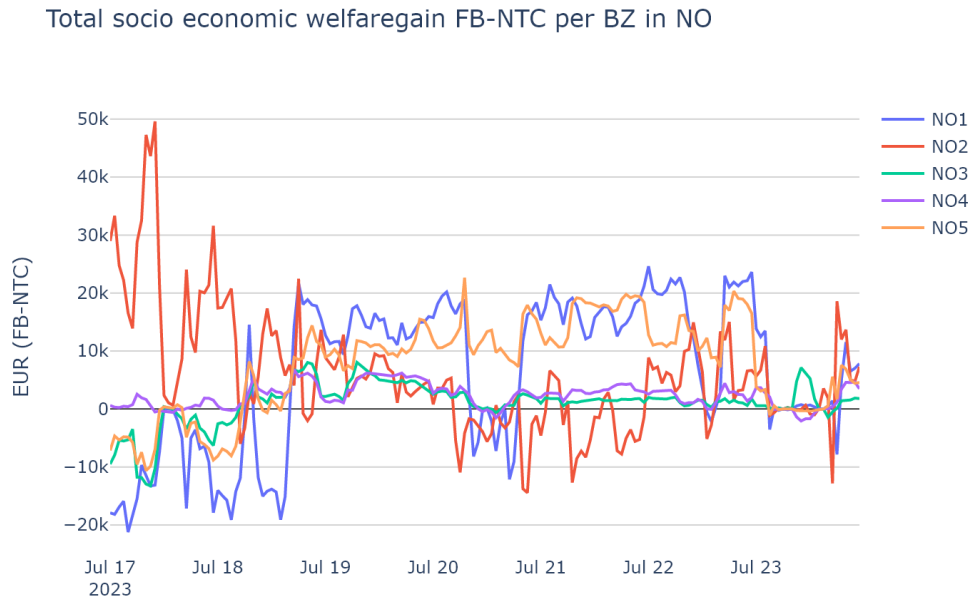


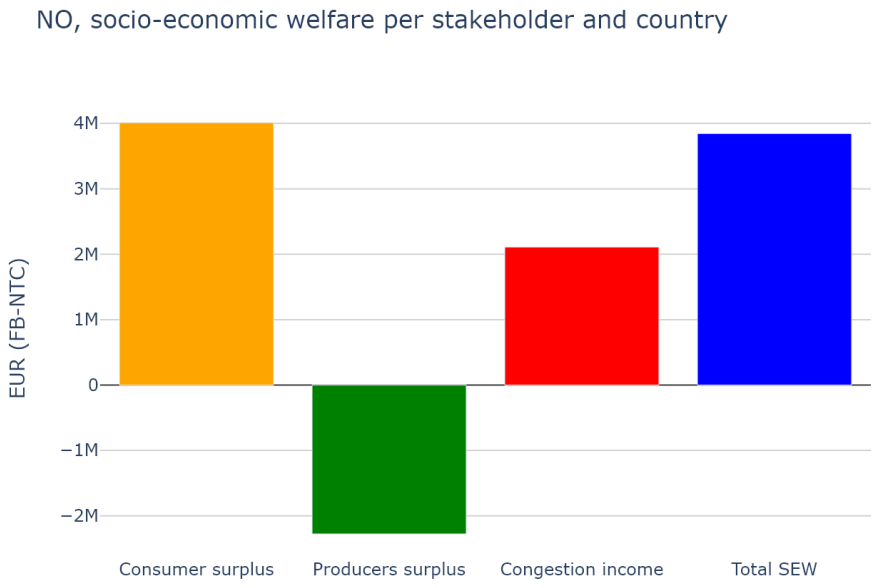
FI, socio-economic welfare per stakeholder and country



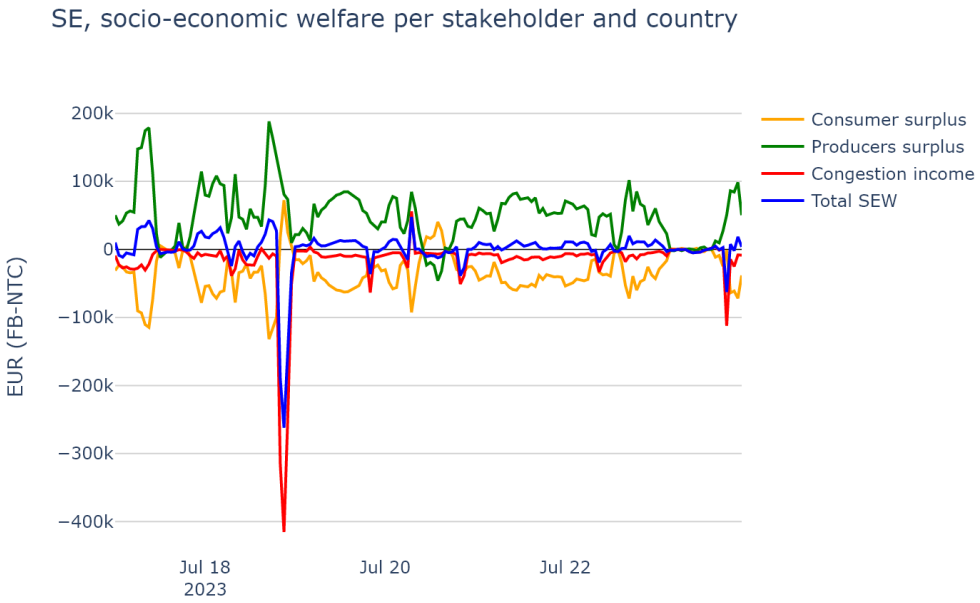
Norway

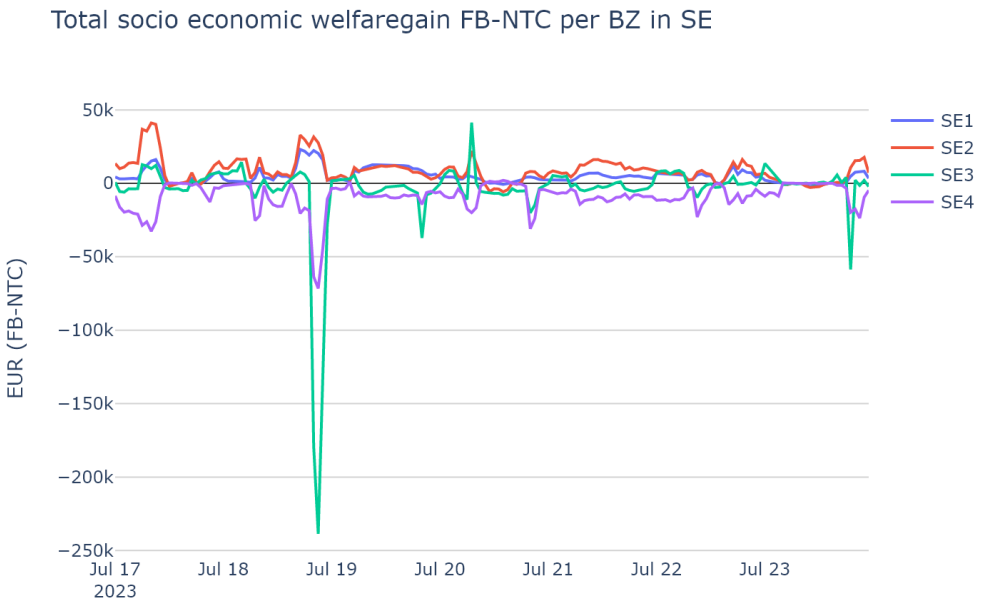

NO, socio-economic welfare per stakeholder and country
Consumer surplus
Producers surplus
Congestion income
Total SEW
EUR (FB-NTC)
150k
100k
50k
0
−50k
−100k
−150k
Jul 18
2023
Jul 20
Jul 22

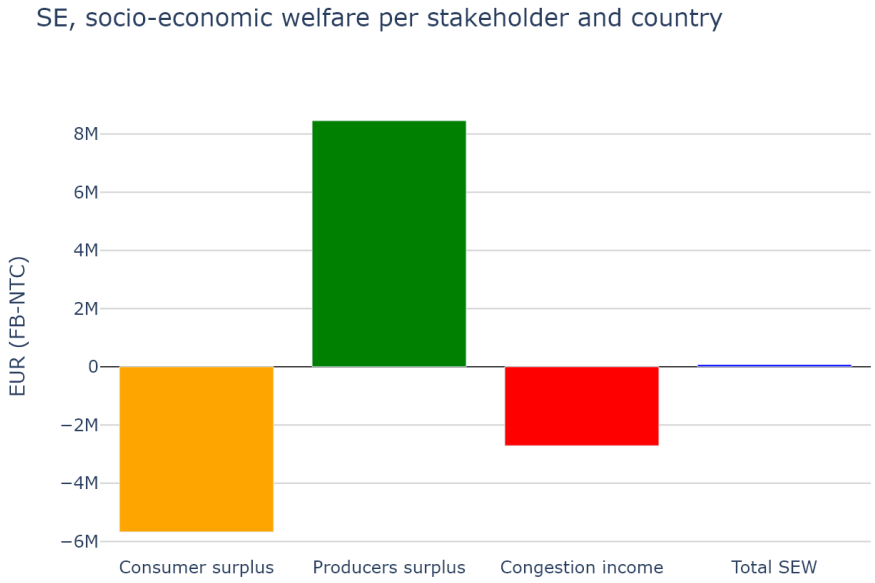

Total socio economic welfaregain FB-NTC per BZ in NO
NO1
NO2
NO3
NO4
NO5
EUR (FB-NTC)
50k
40k
30k
20k
10k
0
−10k
−20k
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23


NO, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
4M
3M
2M
1M
0
−1M
−2M
Consumer surplus
Producers surplus
Congestion income
Total SEW

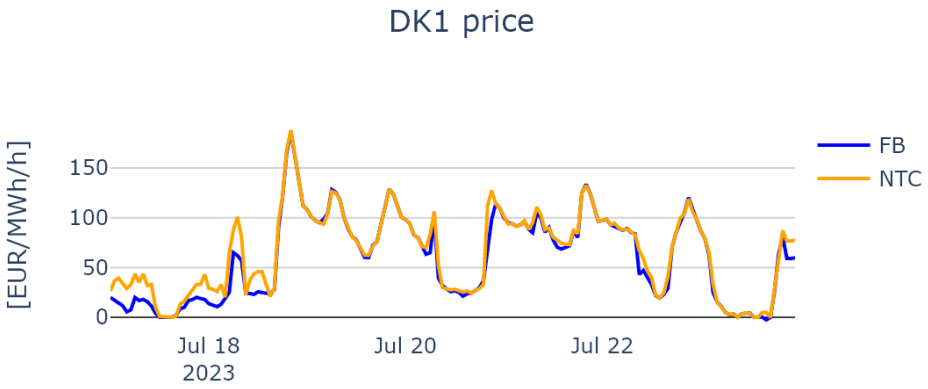
Sweden

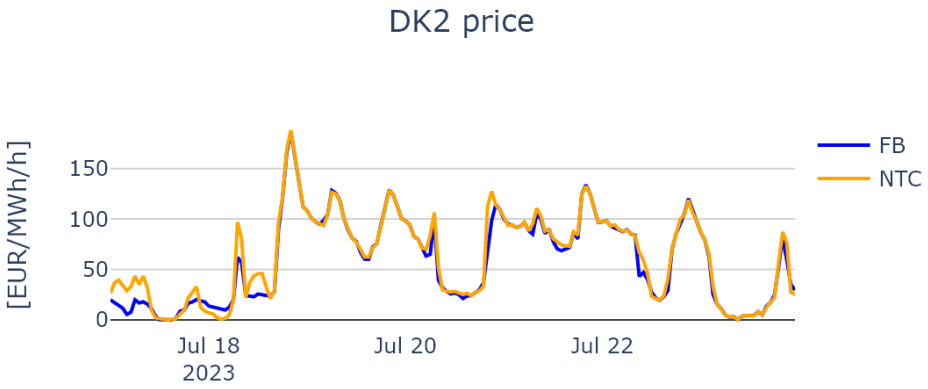

SE, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
200k
100k
0
−100k
−200k
−300k
−400k
Jul 18
2023
Jul 20
Jul 22
Consumer surplus
Producers surplus
Congestion income
Total SEW

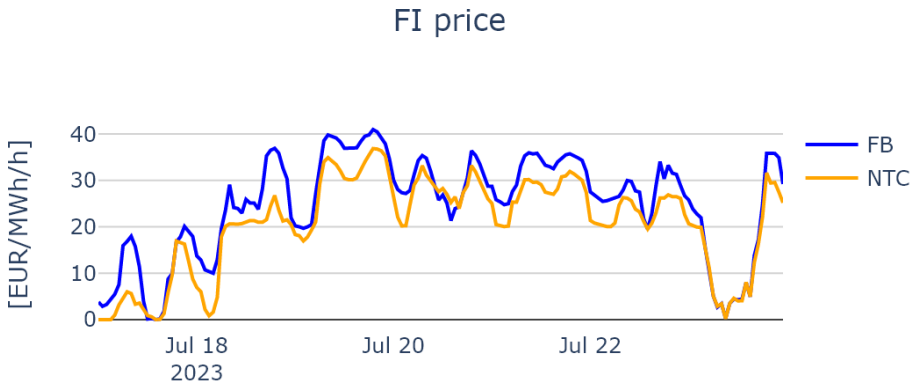

Total socio economic welfaregain FB-NTC per BZ in SE
50k
0
−50k
−100k
−150k
−200k
−250k
EUR (FB-NTC)
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23
SE1
SE2
SE3
SE4


SE, socio-economic welfare per stakeholder and country
8M
6M
4M
2M
0
−2M
−4M
−6M
EUR (FB-NTC)
Consumer surplus
Producers surplus
Congestion income
Total SEW

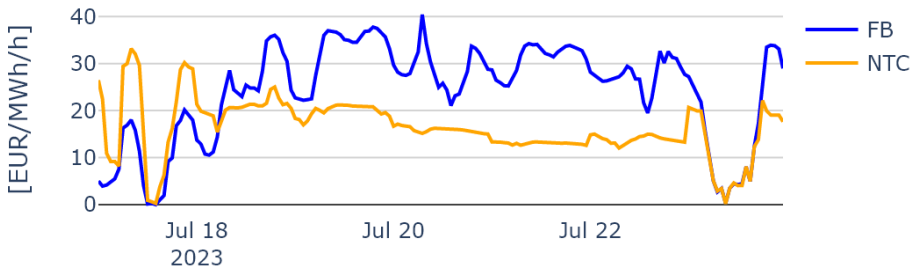
Prices


DK1 price
[EUR/MWh/h]
150
100
50
0
Jul 18
2023
Jul 20
Jul 22
FB
NTC

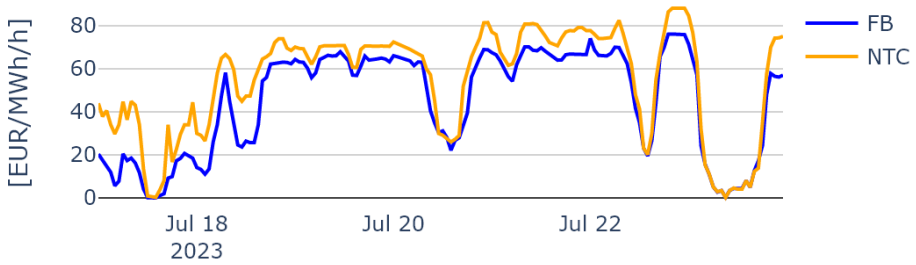

DK2 price
[EUR/MWh/h]
150
100
50
0
Jul 18
2023
Jul 20
Jul 22
FB
NTC


FI price
[EUR/MWh/h]
40
30
20
10
0
Jul 18
2023
Jul 20
Jul 22
FB
NTC

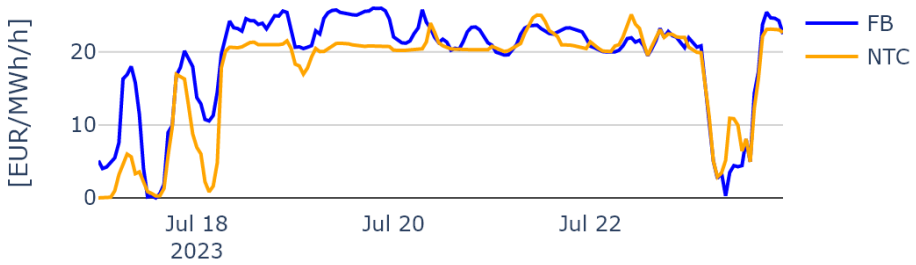
NO1 price



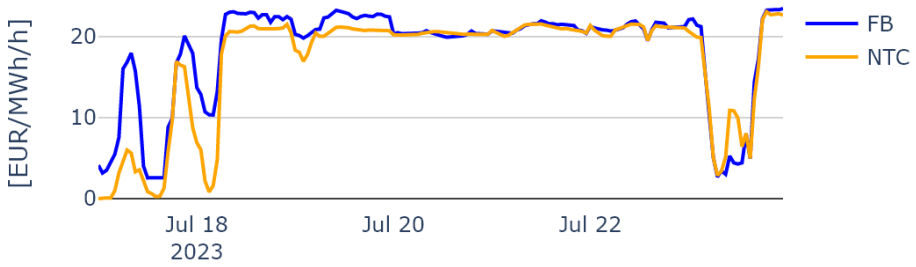
NO2 price



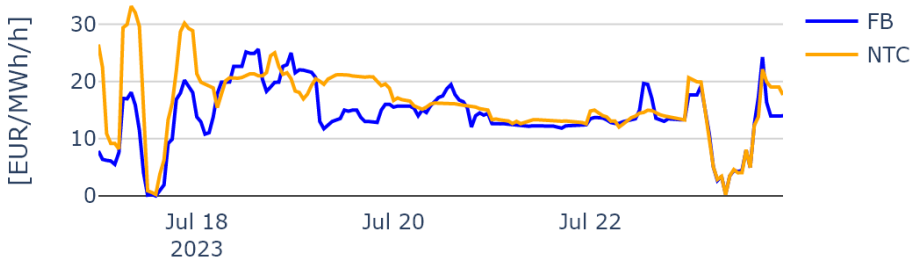
NO3 price



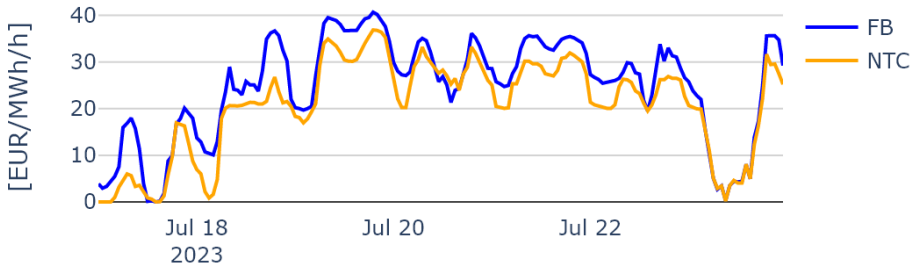
NO4 price



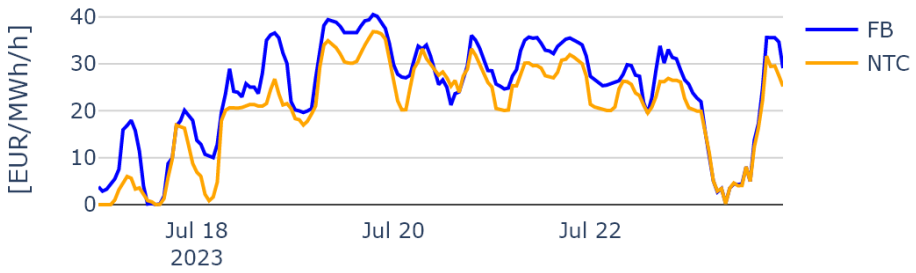
NO5 price



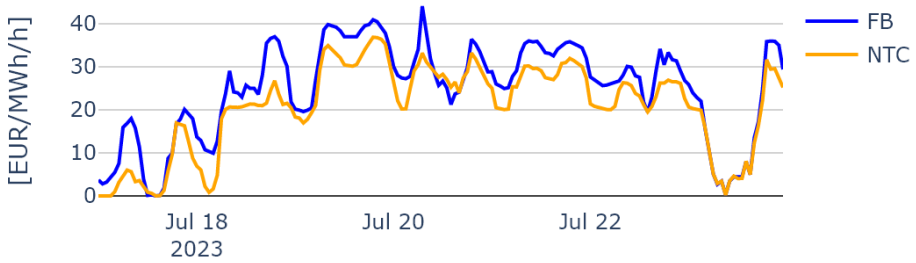
SE1 price



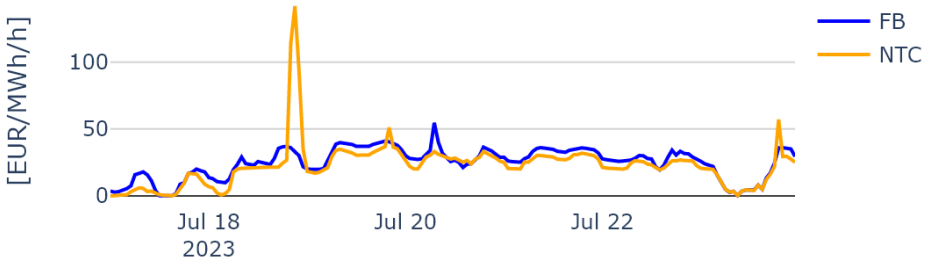
SE2 price



SE3 price

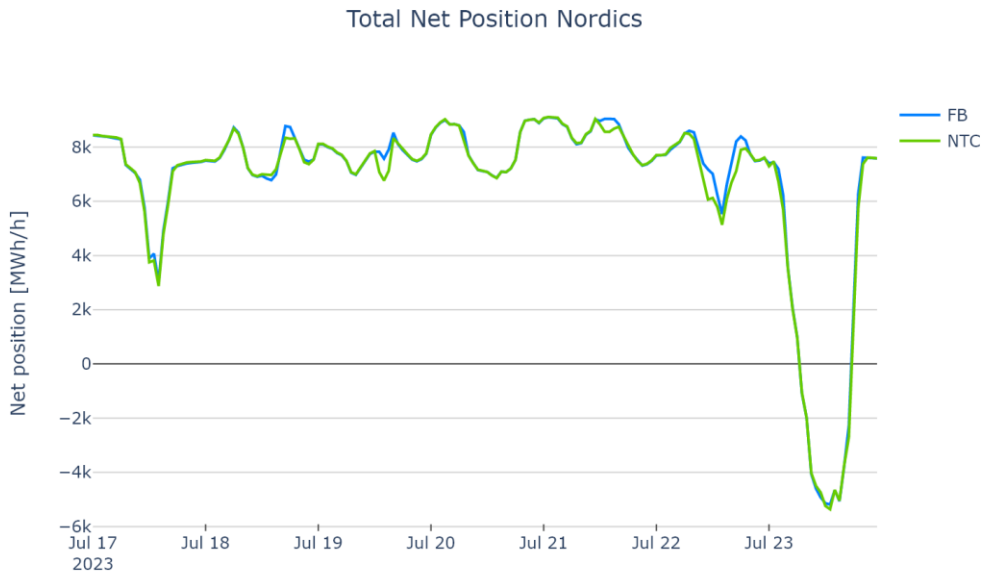


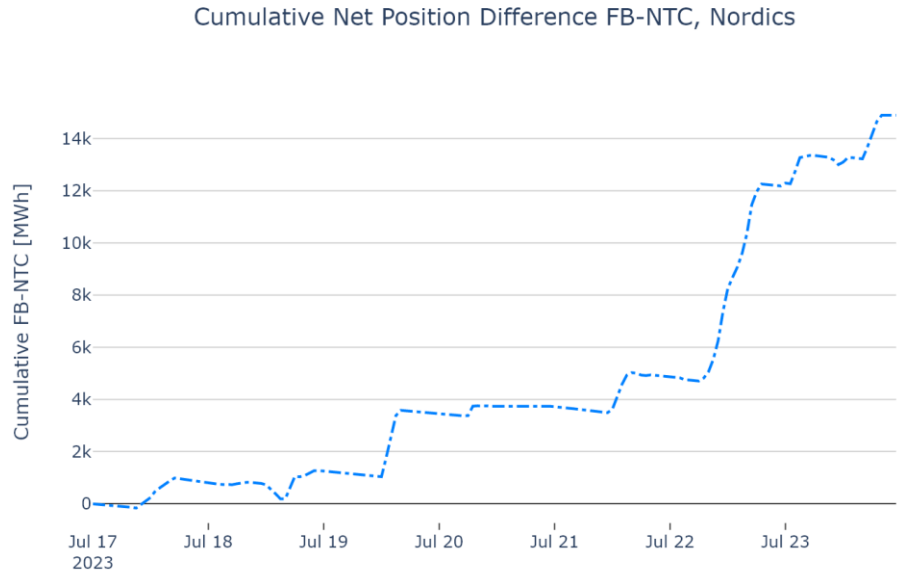
SE4 price



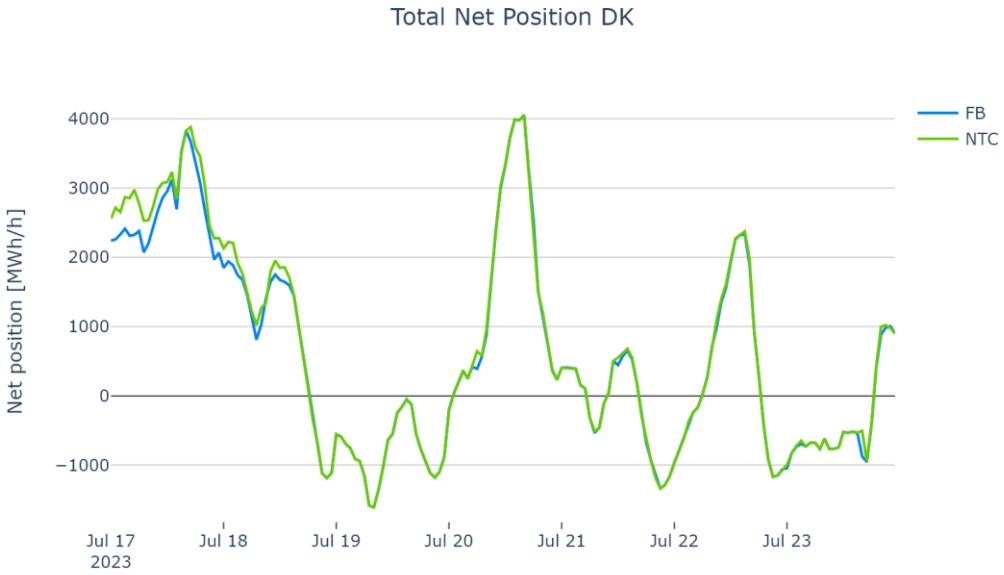
Net positions

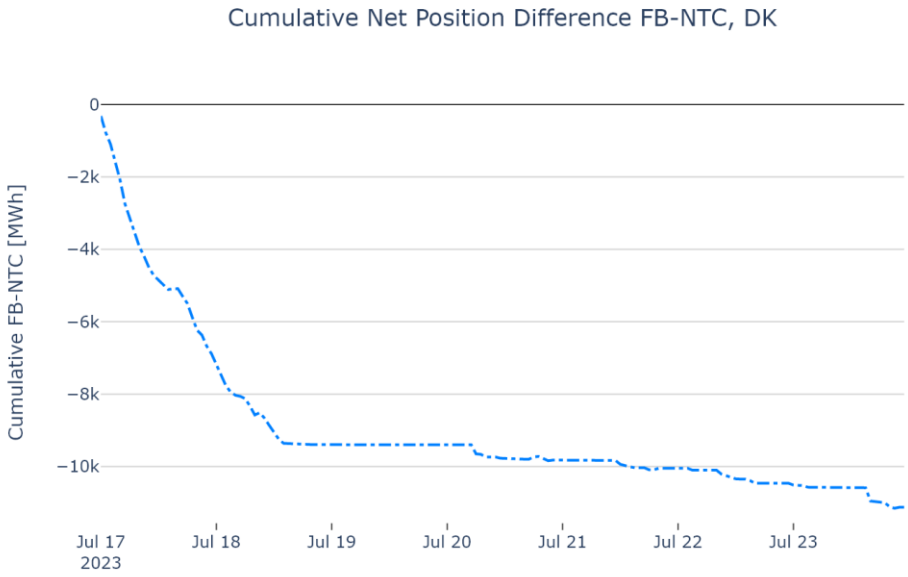
Nordics

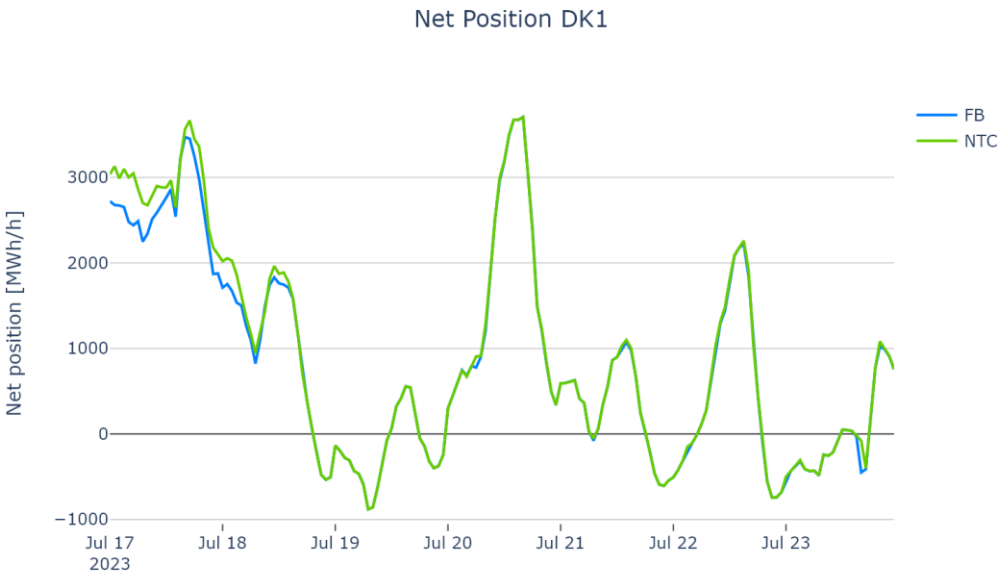


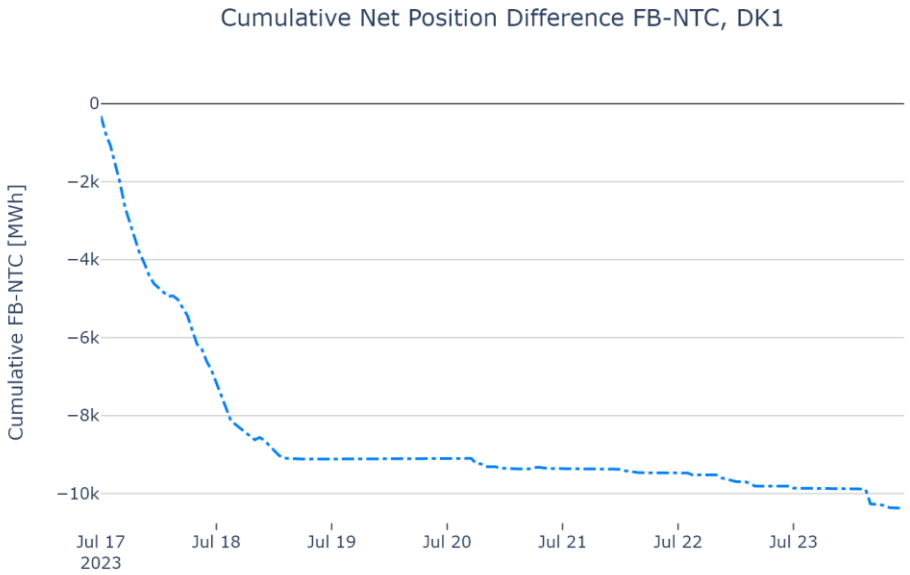


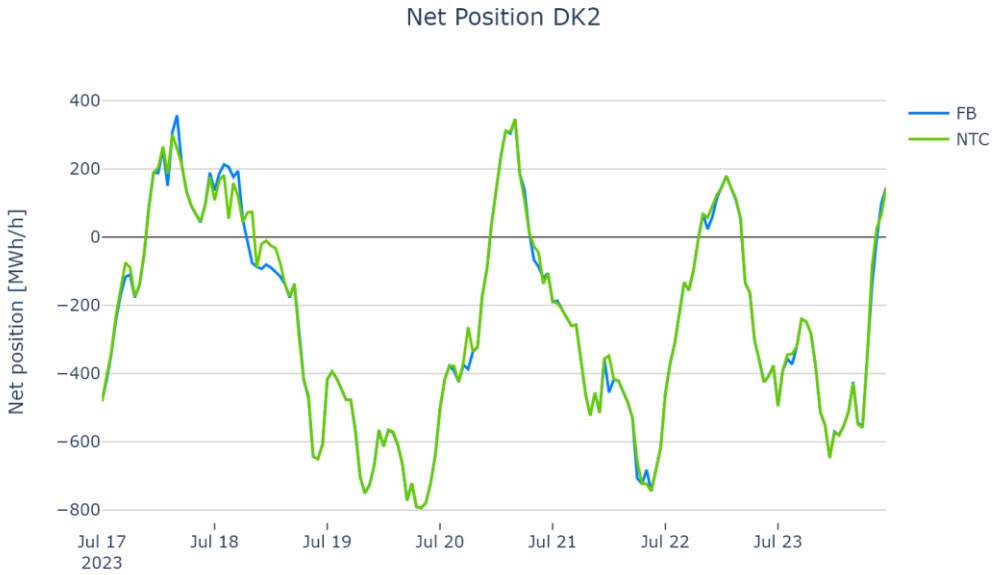
Denmark

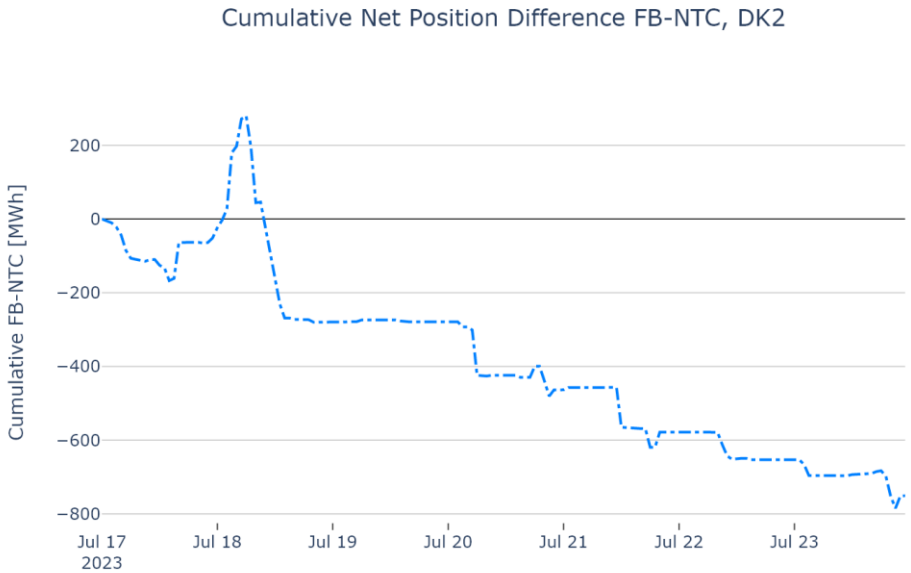

Total Net Position DK
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23


Cumulative Net Position Difference FB-NTC, DK
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

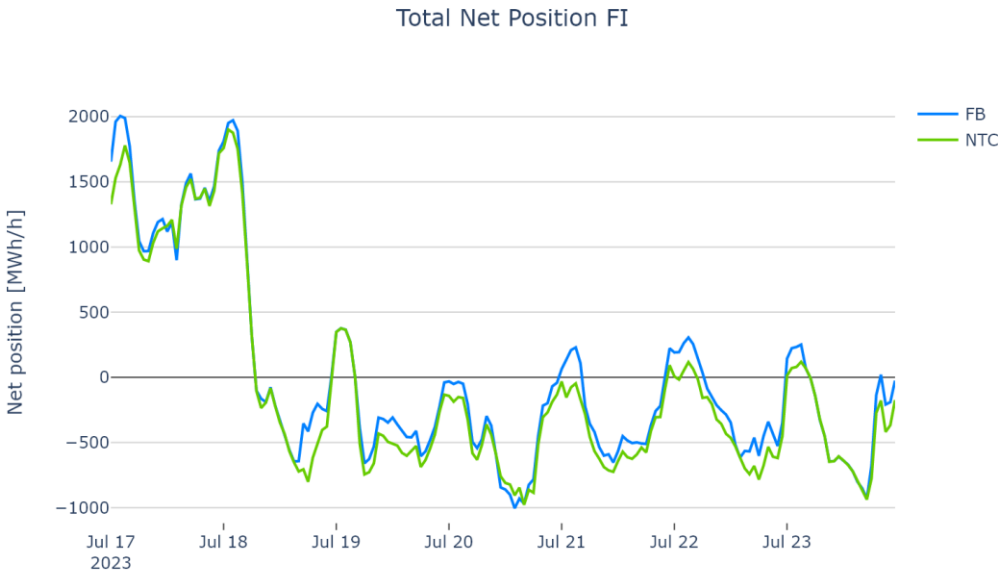

Net Position DK1
FB
NTC
Net position [MWh/h]
3000
2000
1000
0
−1000
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

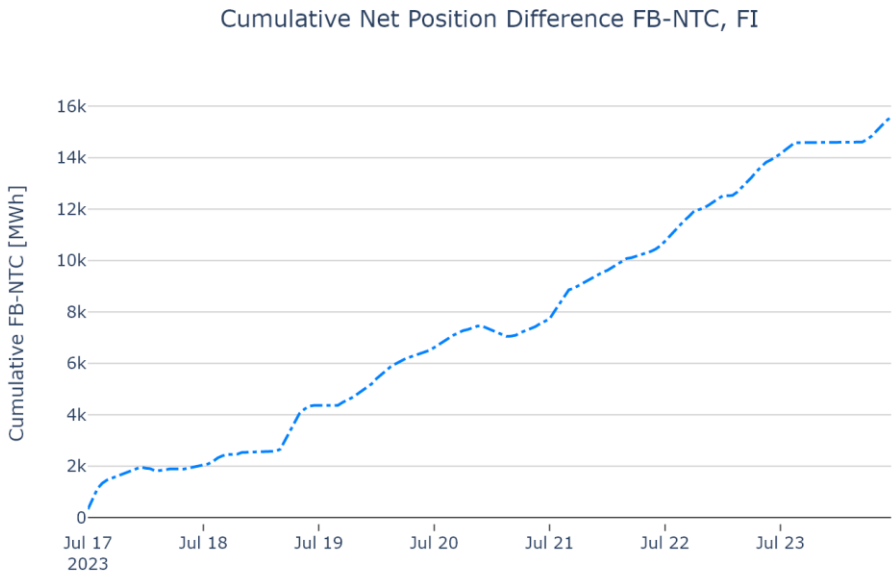

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23


Net Position DK2
Net position [MWh/h]
400
200
0
−200
−400
−600
−800
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23
FB
NTC

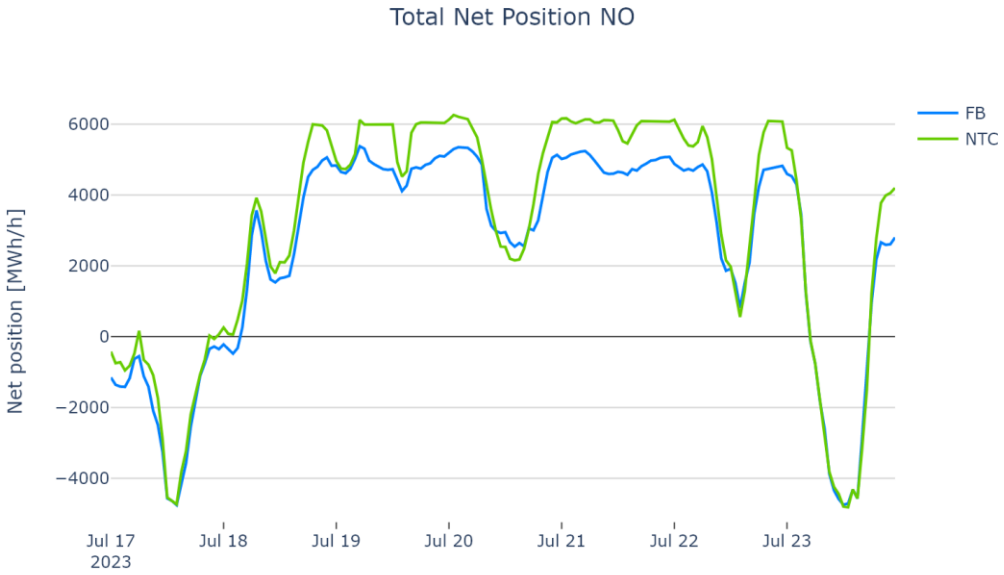

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
200
0
−200
−400
−600
−800
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

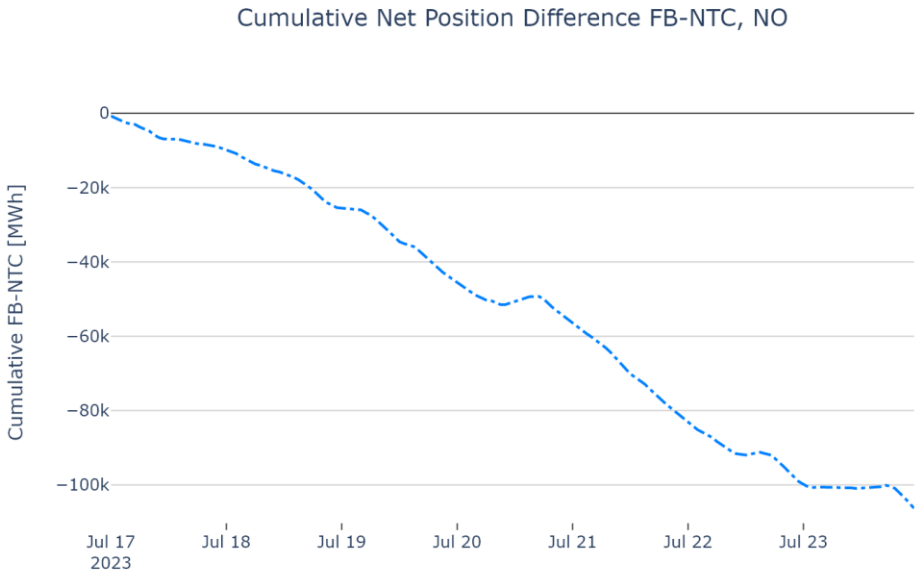
Finland

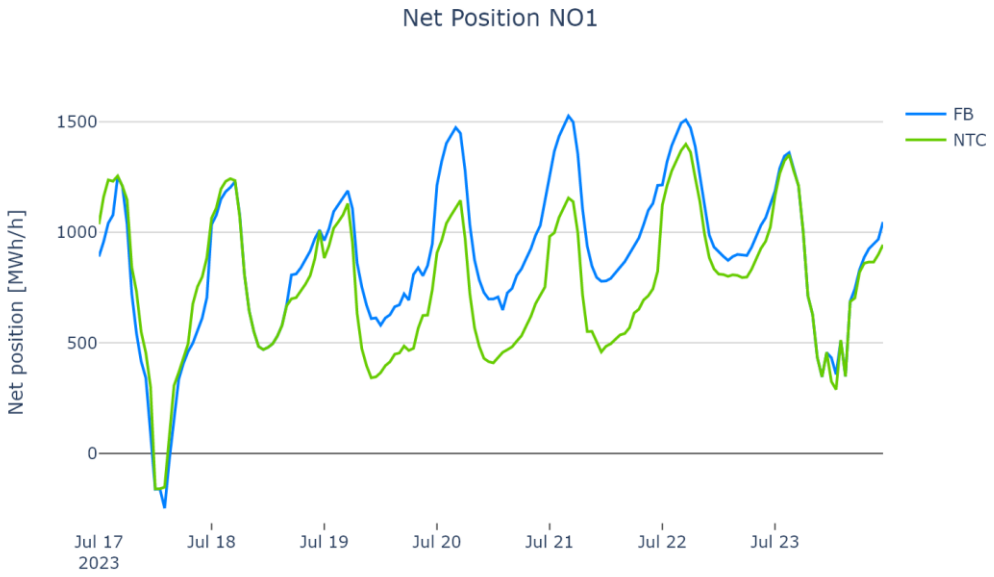

Total Net Position FI
FB
NTC
Net position [MWh/h]
2000
1500
1000
500
0
−500
−1000
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

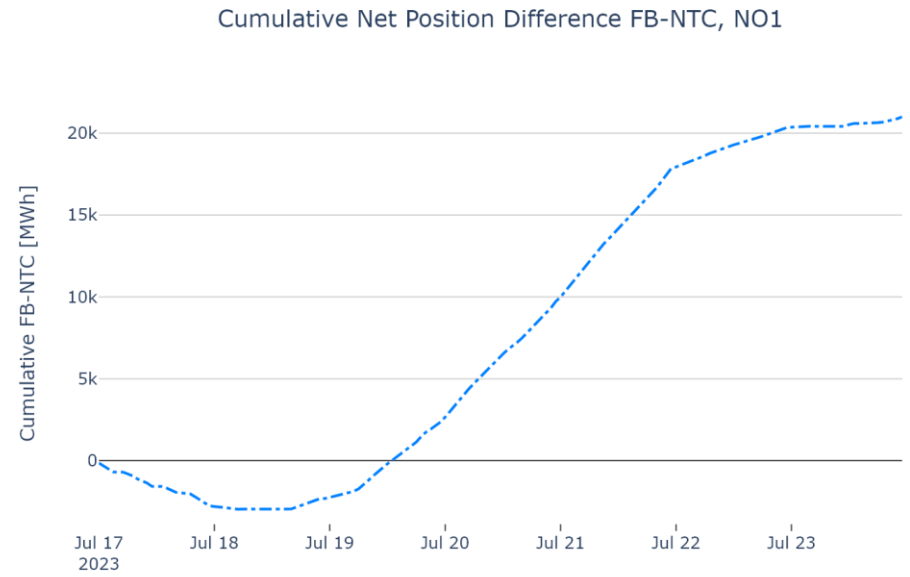

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
16k
14k
12k
10k
8k
6k
4k
2k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

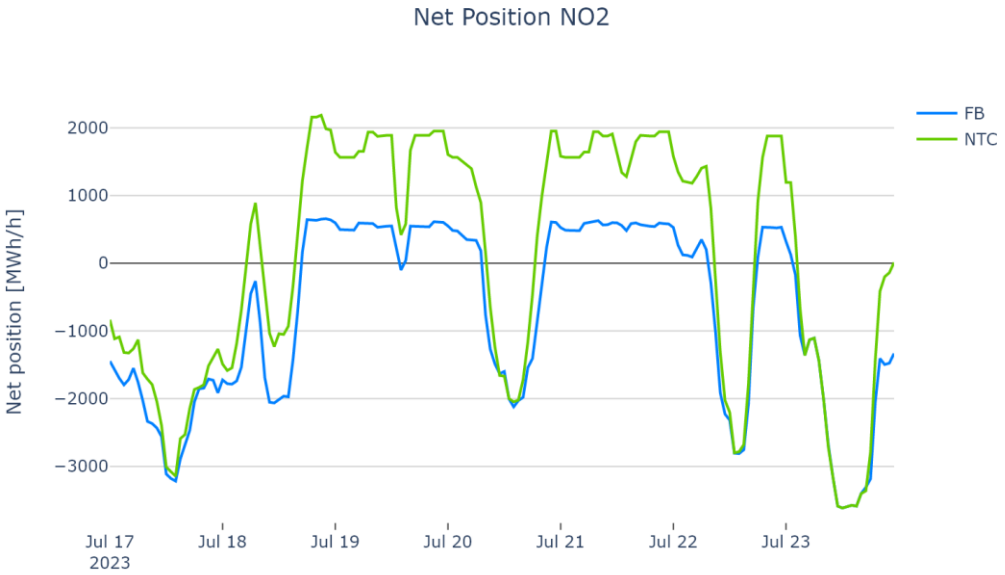
Norway

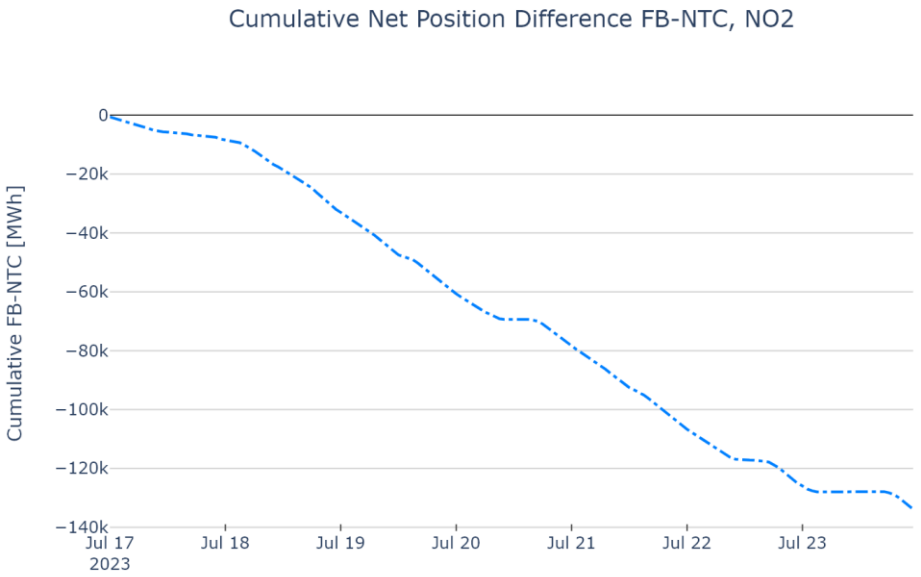

Total Net Position NO
FB
NTC
Net position [MWh/h]
6000
4000
2000
0
−2000
−4000
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

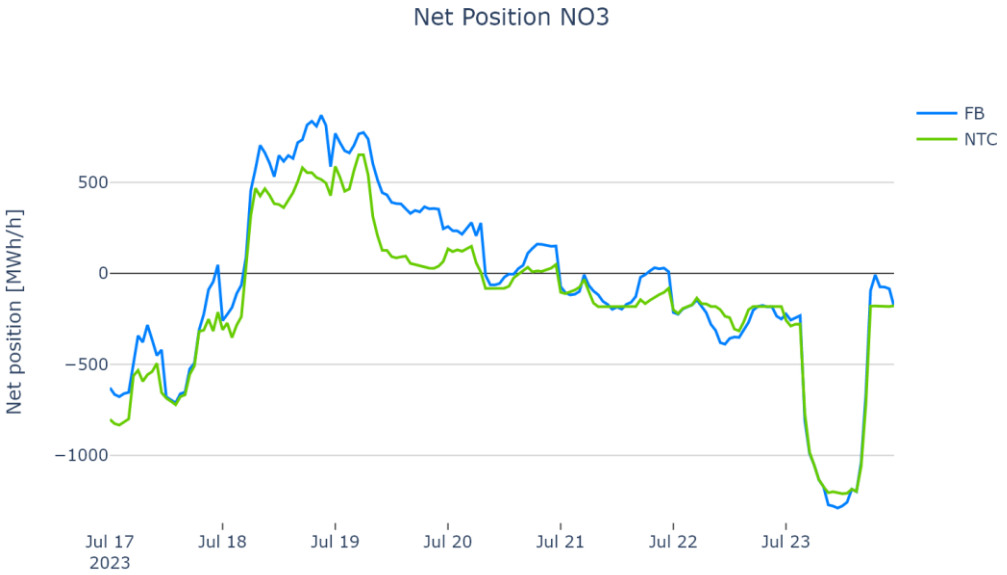

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
0
−20k
−40k
−60k
−80k
−100k
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

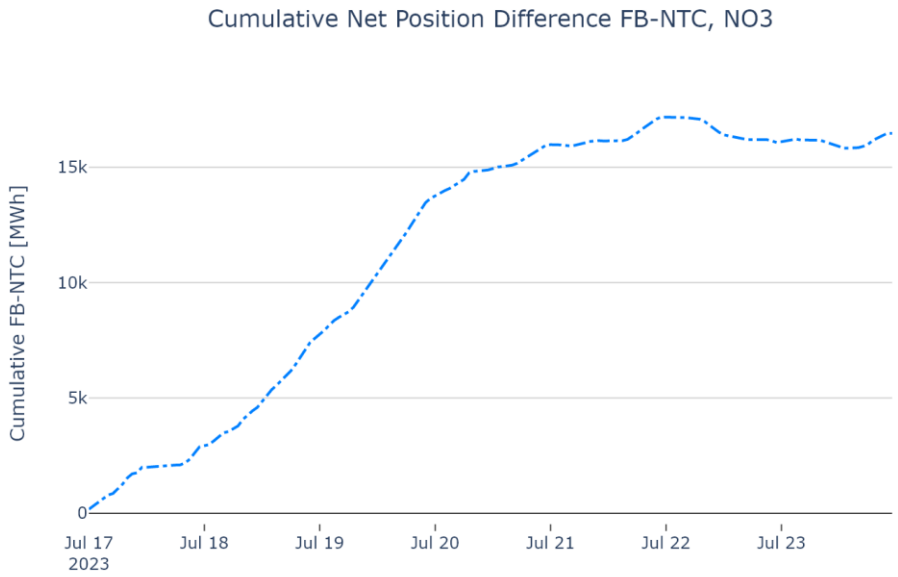

Net Position NO1
FB
NTC
Net position [MWh/h]
1500
1000
500
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

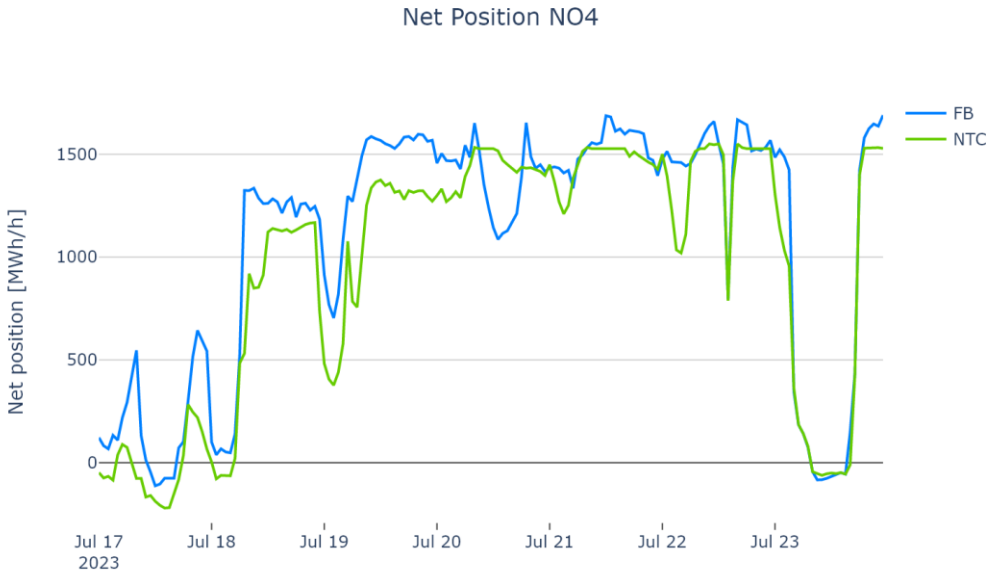

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
20k
15k
10k
5k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

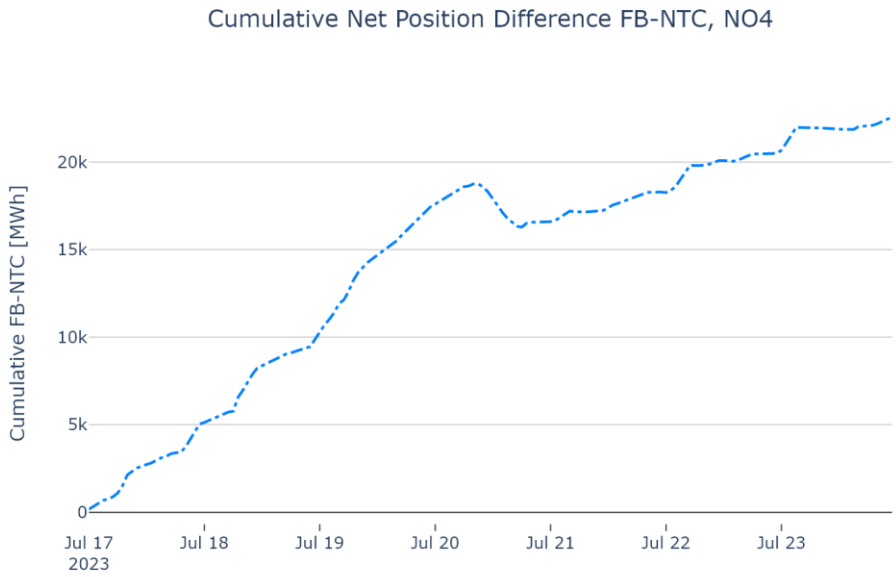

Net Position NO2
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
−3000
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

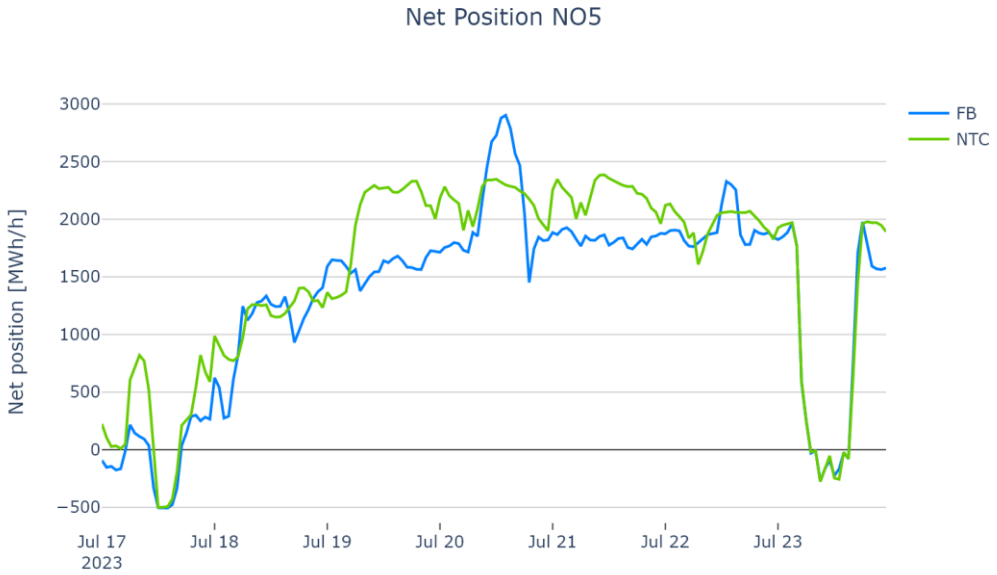

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
0
−20k
−40k
−60k
−80k
−100k
−120k
−140k
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

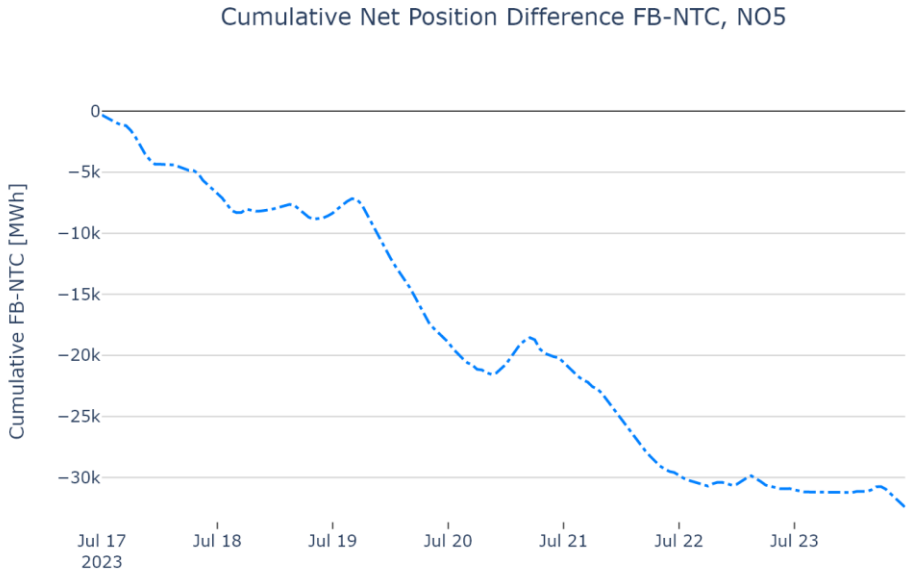

Net Position NO3
FB
NTC
Net position [MWh/h]
500
0
−500
−1000
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
15k
10k
5k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

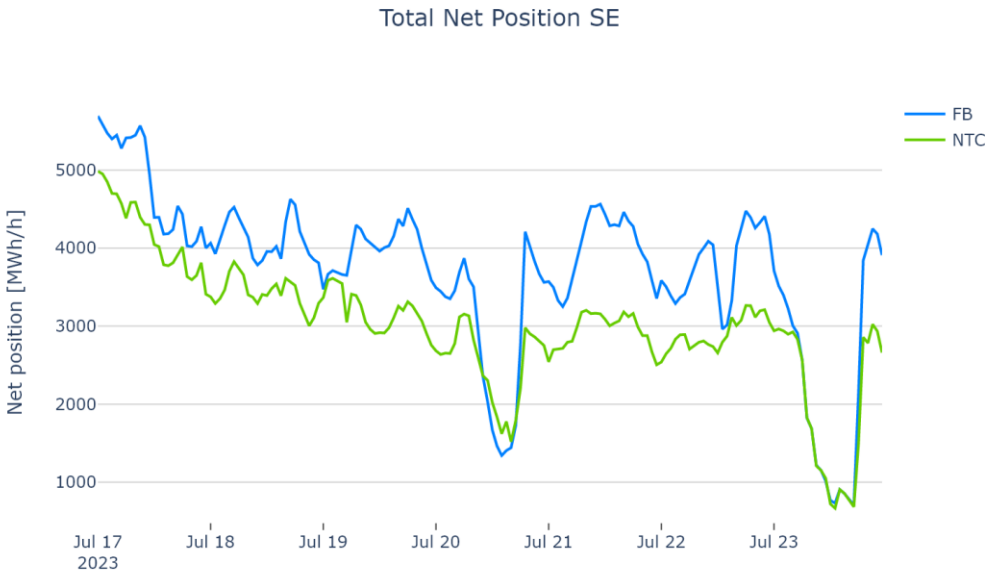

Net Position NO4
FB
NTC
Net position [MWh/h]
1500
1000
500
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

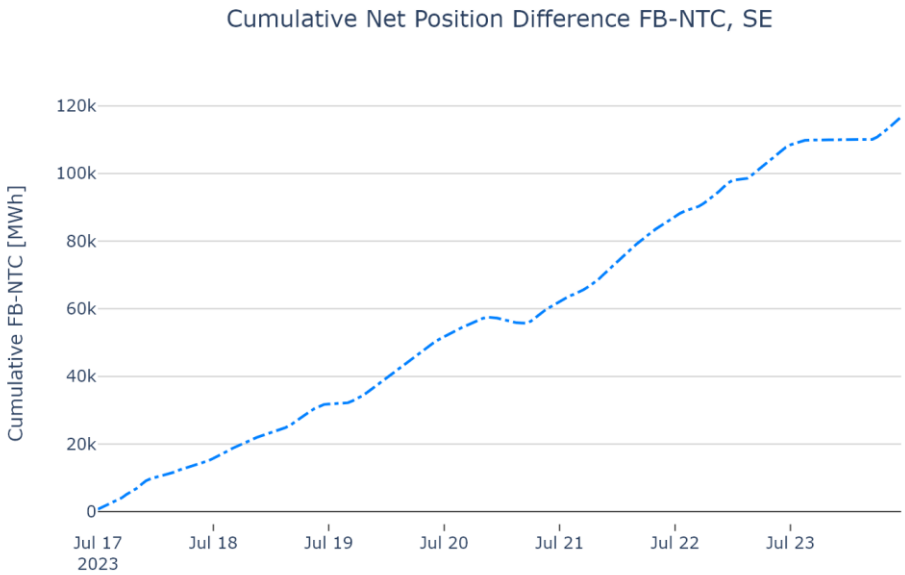

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
20k
15k
10k
5k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

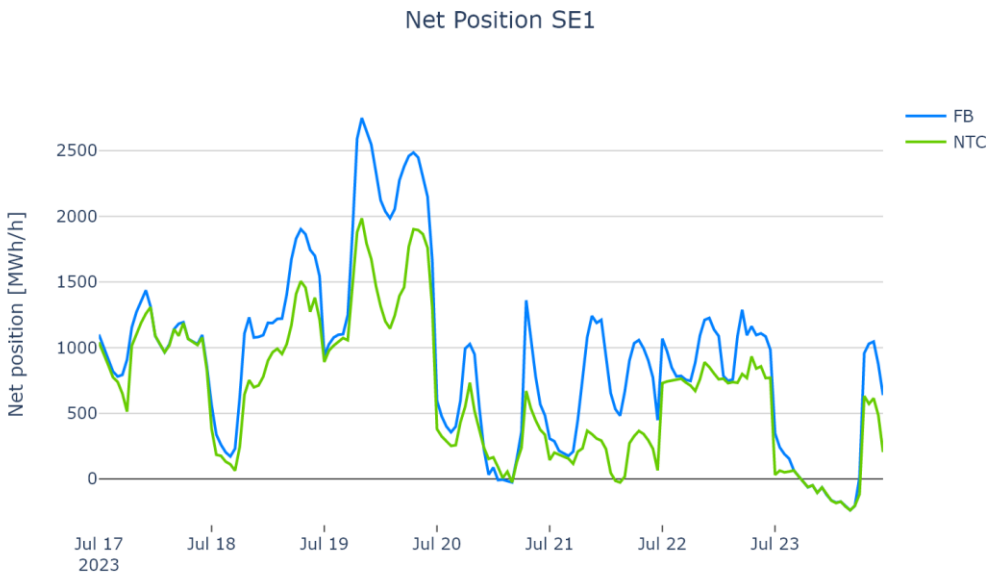

Net Position NO5
Net position [MWh/h]
3000
2500
2000
1500
1000
500
0
−500
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23
FB
NTC

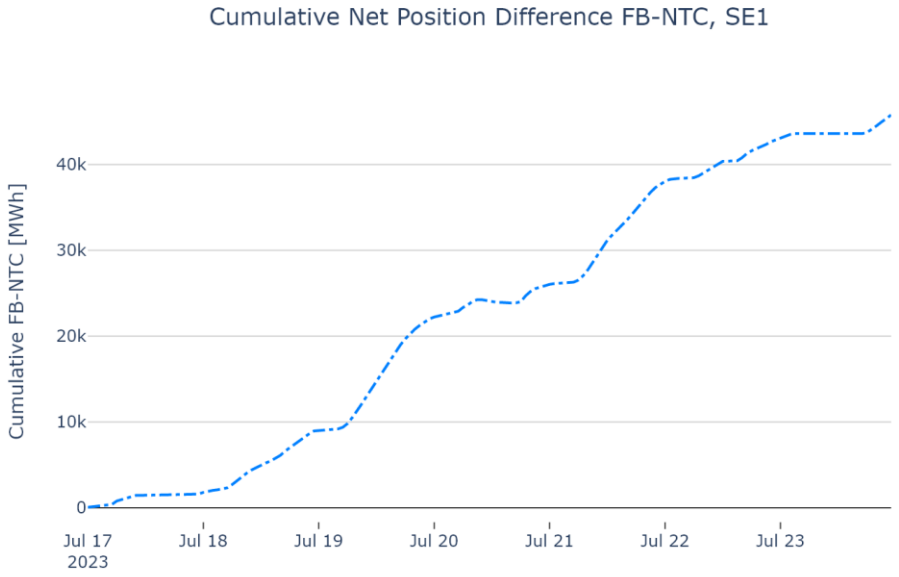

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
0
−5k
−10k
−15k
−20k
−25k
−30k
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

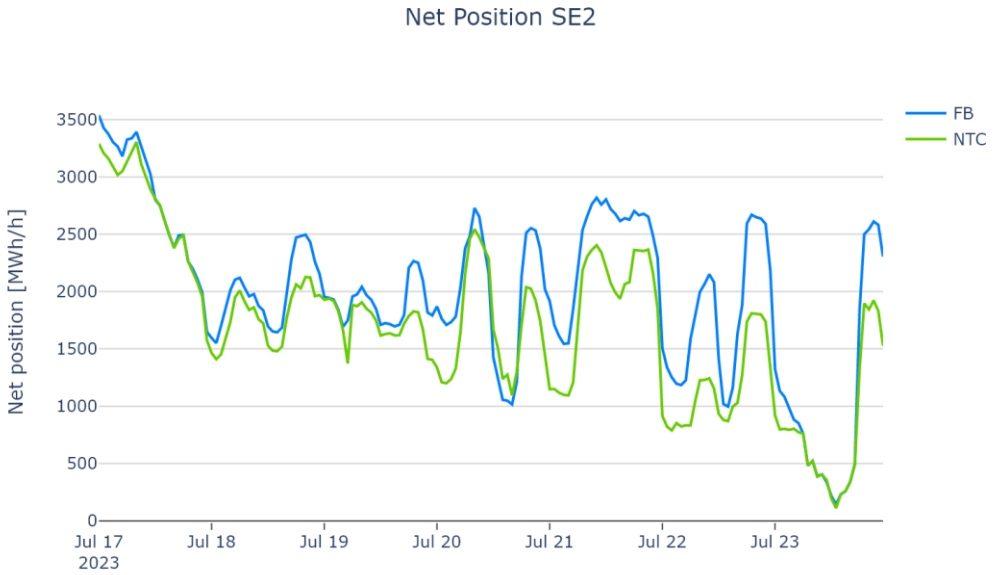
Sweden

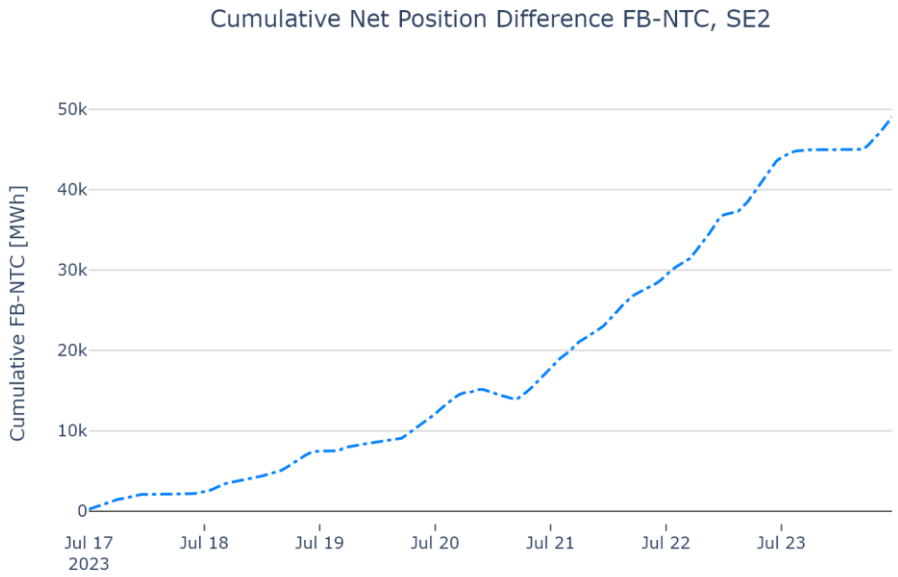

Total Net Position SE
FB
NTC
Net position [MWh/h]
5000
4000
3000
2000
1000
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

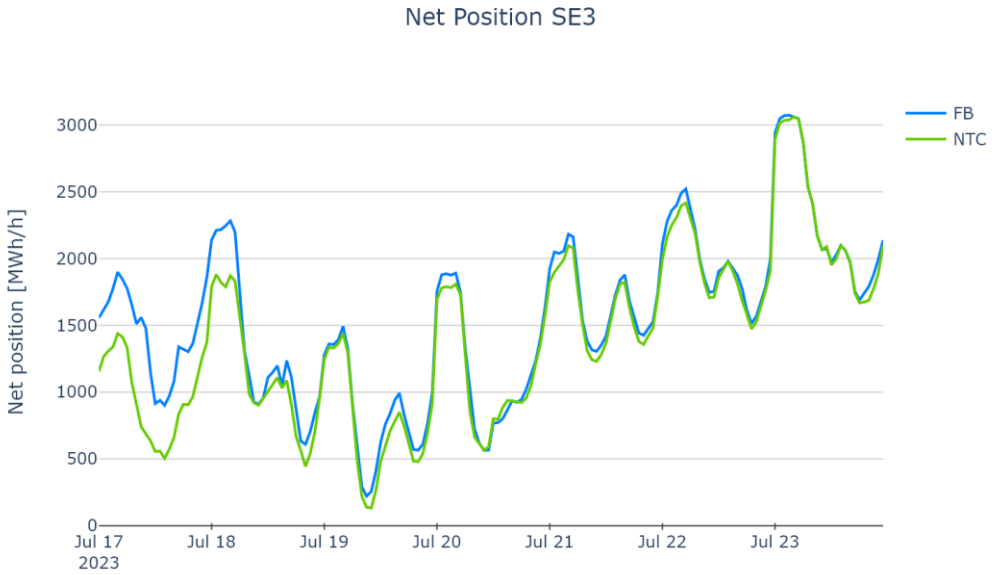

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
120k
100k
80k
60k
40k
20k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

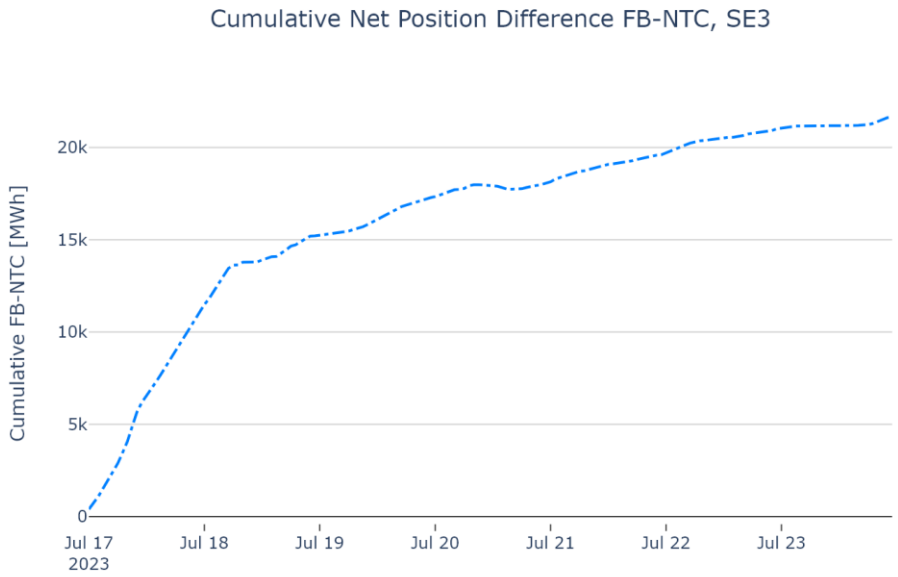

Net Position SE1
FB
NTC
Net position [MWh/h]
2500
2000
1500
1000
500
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

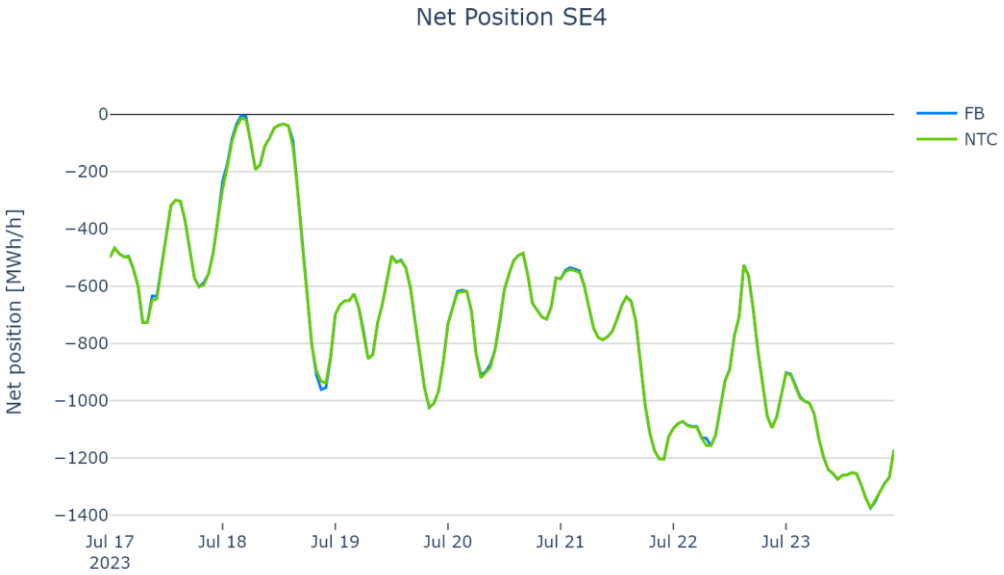

Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
40k
30k
20k
10k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

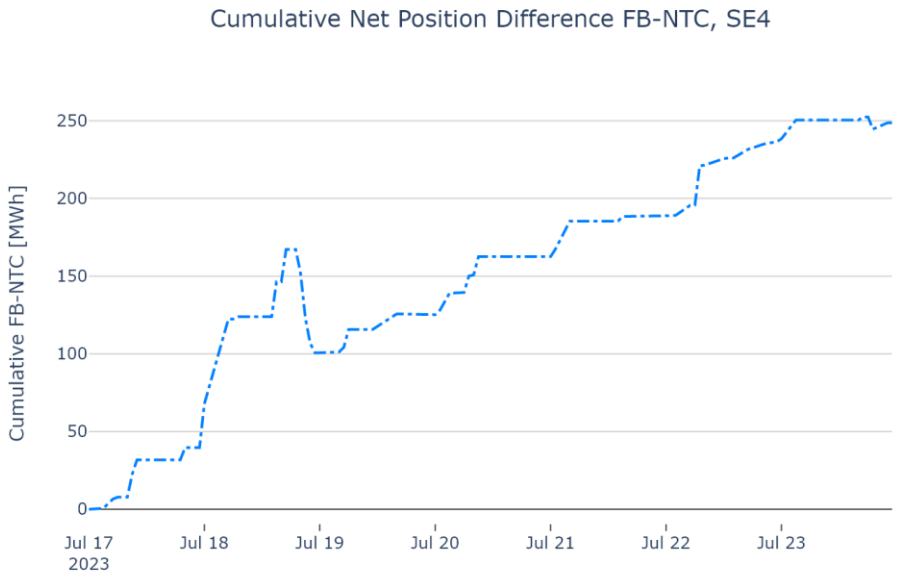

Net Position SE2
FB
NTC
Net position [MWh/h]
3500
3000
2500
2000
1500
1000
500
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23


Cumulative Net Position Difference FB-NTC, SE2
Cumulative FB-NTC [MWh]
50k
40k
30k
20k
10k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23


Net Position SE3
FB
NTC
Net position [MWh/h]
3000
2500
2000
1500
1000
500
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

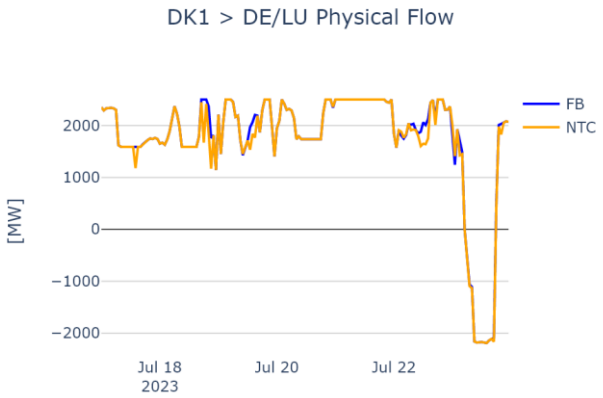

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
20k
15k
10k
5k
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

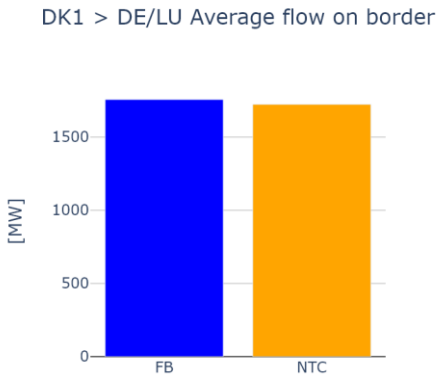

Net Position SE4
FB
NTC
Net position [MWh/h]
0
−200
−400
−600
−800
−1000
−1200
−1400
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

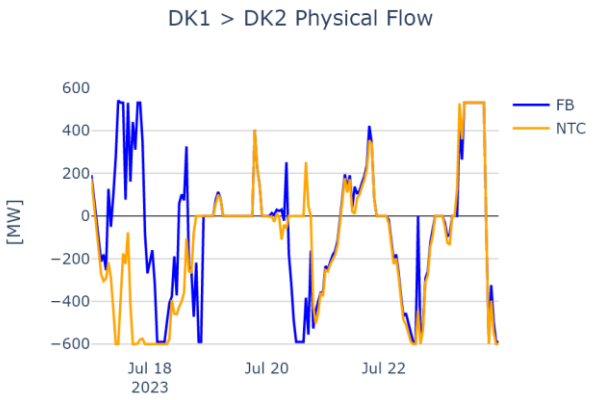

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
250
200
150
100
50
0
Jul 17
2023
Jul 18
Jul 19
Jul 20
Jul 21
Jul 22
Jul 23

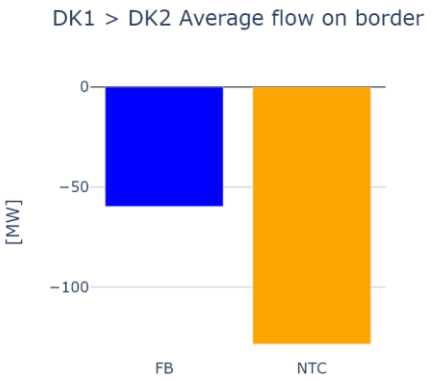
Border flow

The flows present here, both in FB and NTC, represent the physical flow on the lines and are calculated as the product of the NP and the PTDF matrix. When comparing the NTC-results in this report with those present in the DA market there will be a difference as the DA flows are calculated without the use of PTDF matrixes and therefore the flow from DA will not yield the same result.

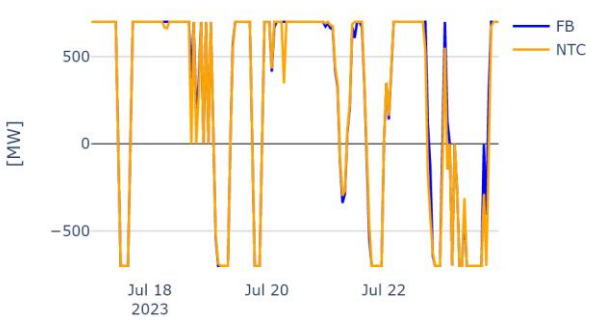




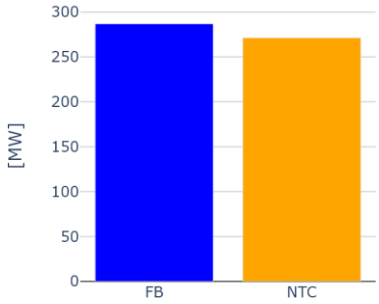




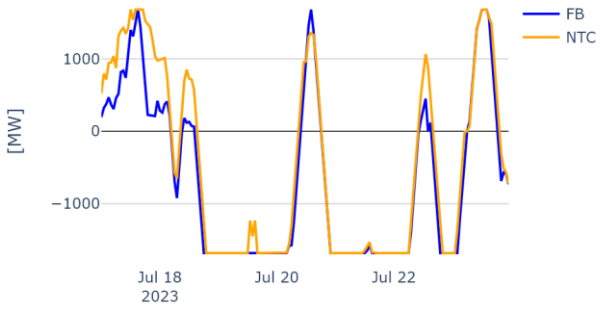
DK1 > NL Physical Flow



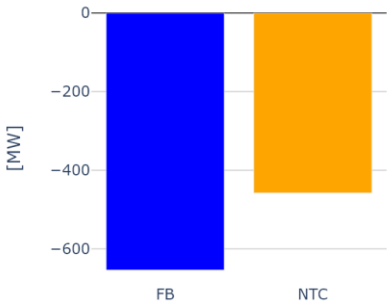
DK1 > NL Average flow on border



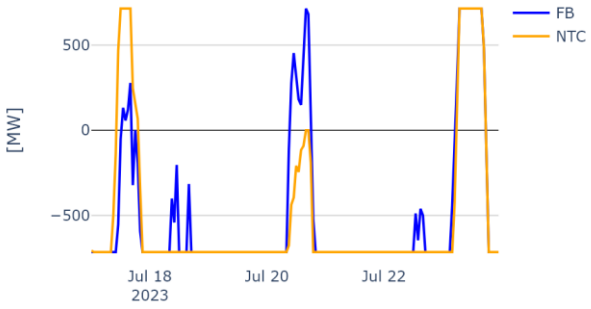
DK1 > NO2 Physical Flow



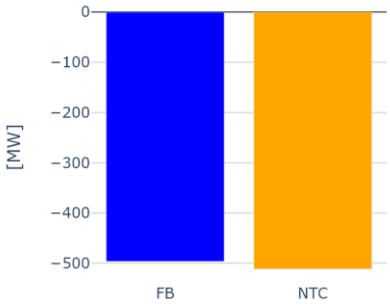
DK1 > NO2 Average flow on border



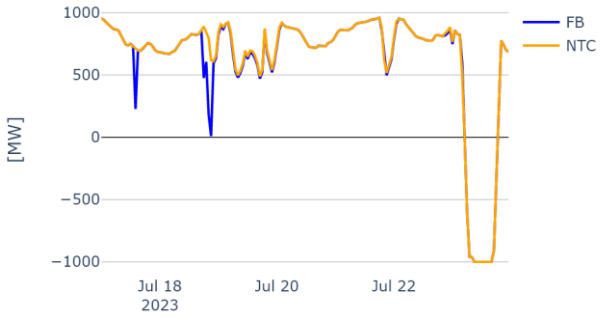
DK1 > SE3 Physical Flow



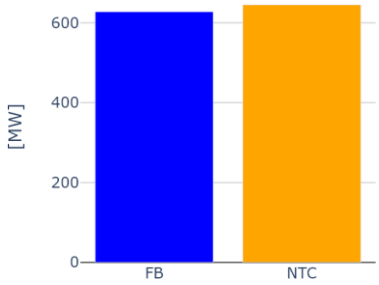
DK1 > SE3 Average flow on border



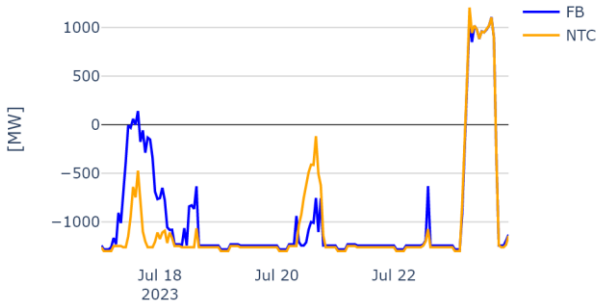
DK2 > DE/LU Physical Flow



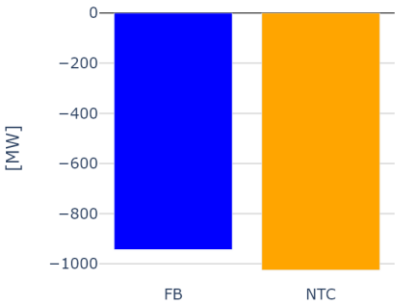
DK2 > DE/LU Average flow on border



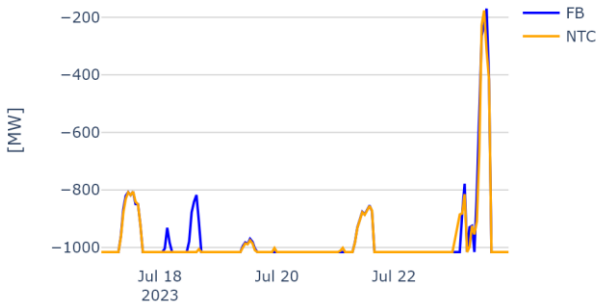
DK2 > SE4 Physical Flow



DK2 > SE4 Average flow on border

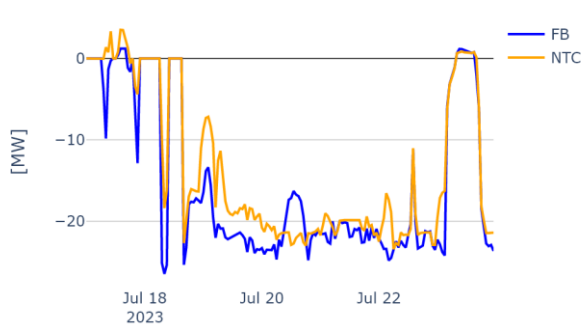


EE > FI Physical Flow



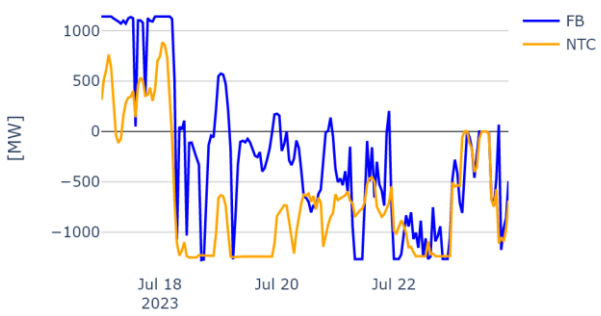
EE > FI Average flow on border

FI > NO4 Physical Flow

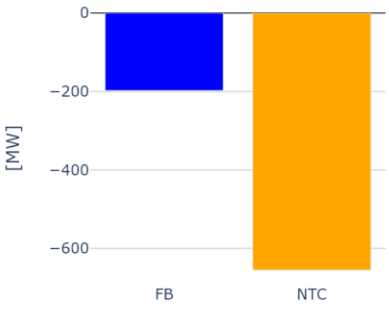


FI > NO4 Average flow on border

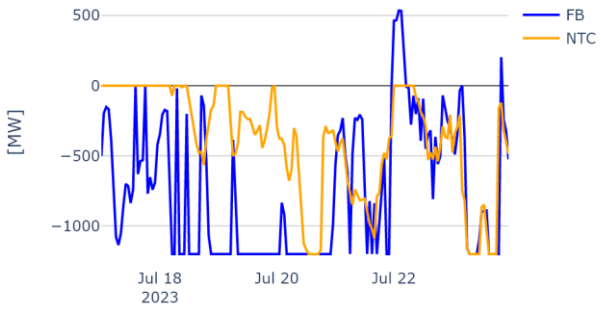
FI > SE1 Physical Flow



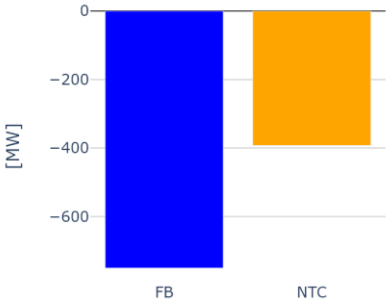
FI > SE1 Average flow on border



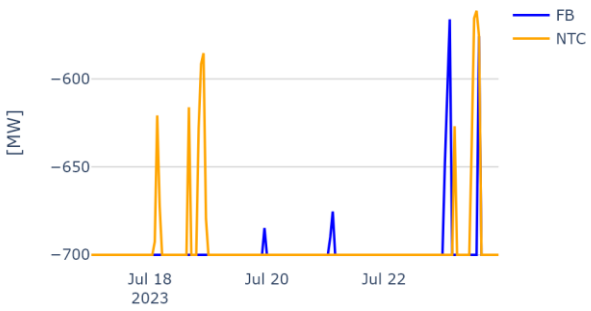
FI > SE3 Physical Flow



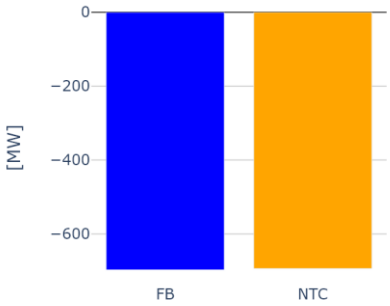
FI > SE3 Average flow on border



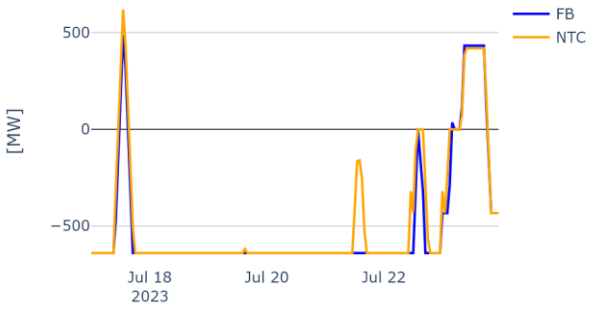
LT > SE4 Physical Flow



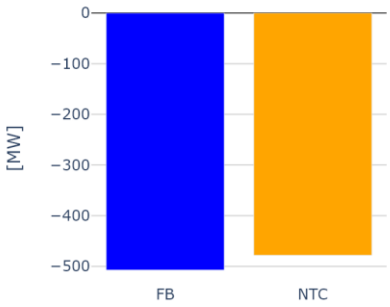
LT > SE4 Average flow on border



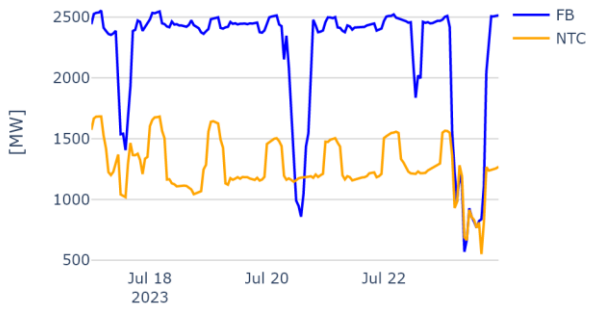
NL > NO2 Physical Flow



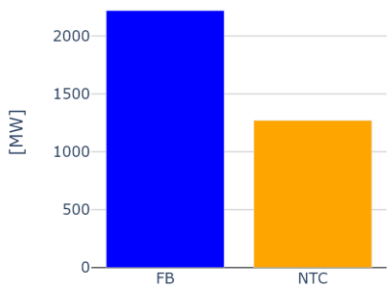
NL > NO2 Average flow on border



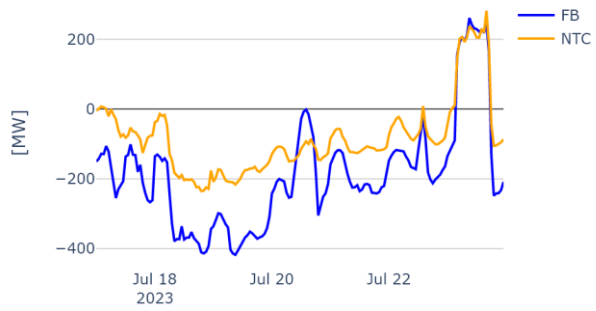
NO1 > NO2 Physical Flow



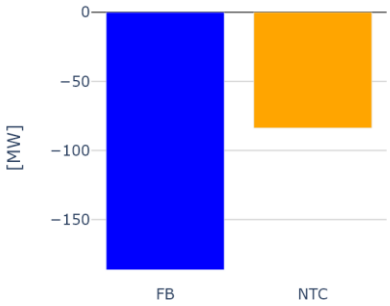
NO1 > NO2 Average flow on border



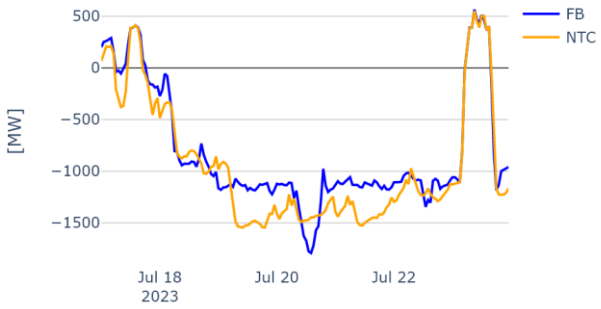
NO1 > NO3 Physical Flow



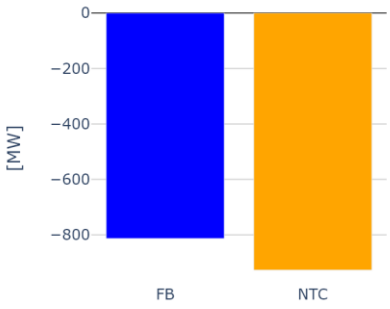
NO1 > NO3 Average flow on border



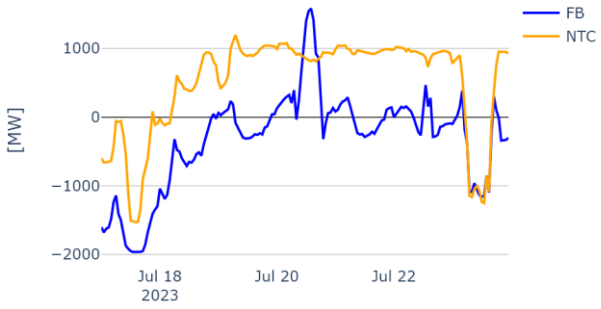
NO1 > NO5 Physical Flow



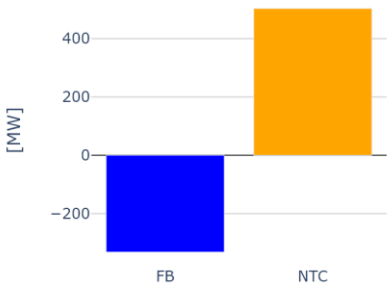
NO1 > NO5 Average flow on border



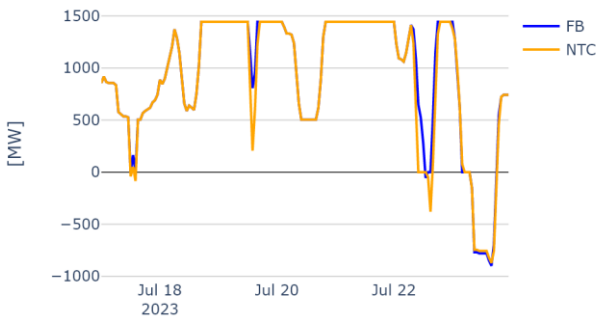
NO1 > SE3 Physical Flow



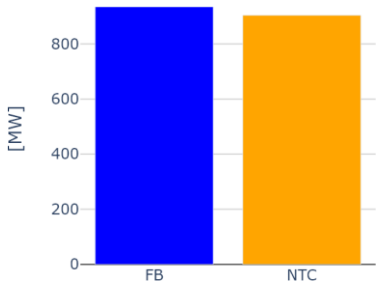
NO1 > SE3 Average flow on border



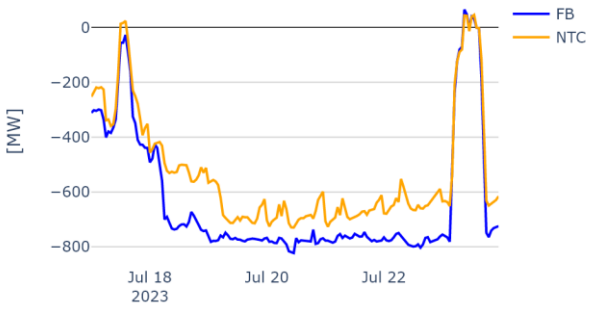
NO2 > DE/LU Physical Flow



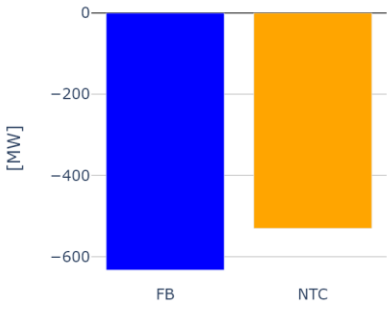
NO2 > DE/LU Average flow on border



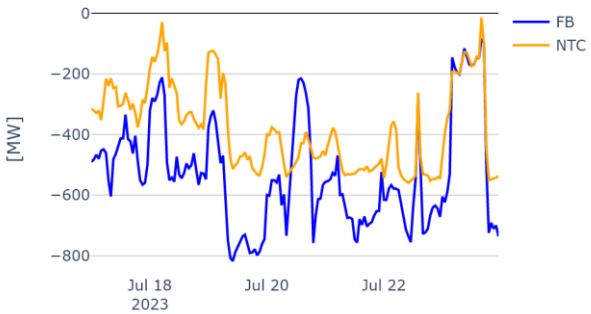
NO2 > NO5 Physical Flow



NO2 > NO5 Average flow on border

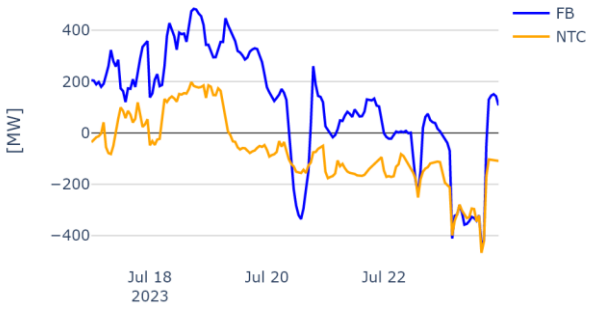


NO3 > NO4 Physical Flow

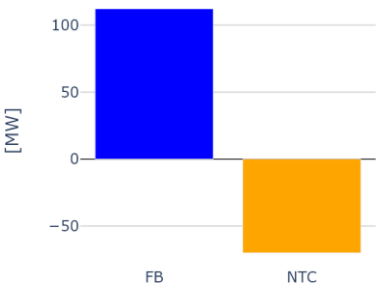


NO3 > NO4 Average flow on border

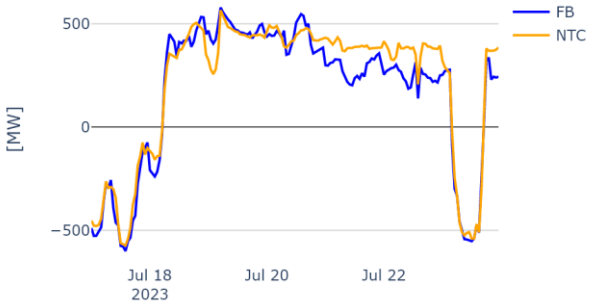
NO3 > NO5 Physical Flow



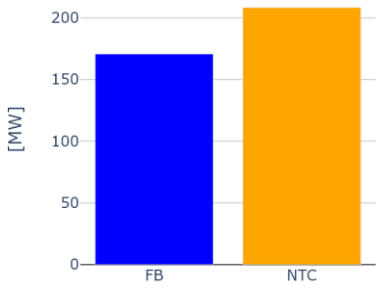
NO3 > NO5 Average flow on border



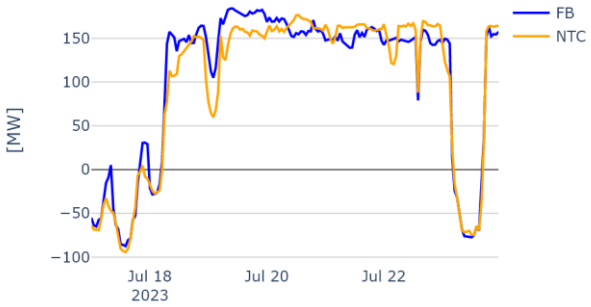
NO3 > SE2 Physical Flow



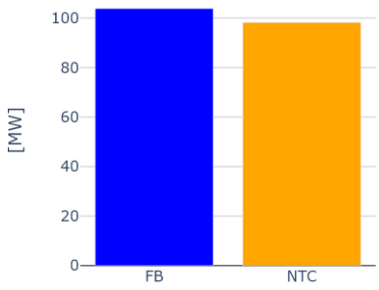
NO3 > SE2 Average flow on border



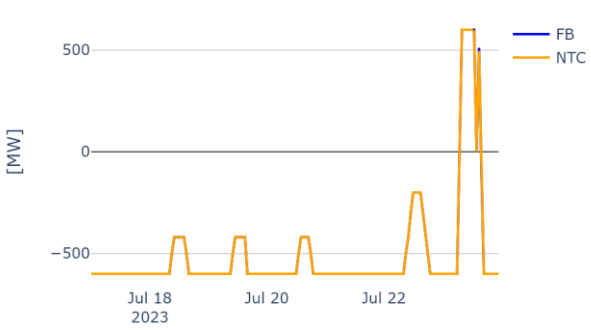
NO4 > SE2 Physical Flow



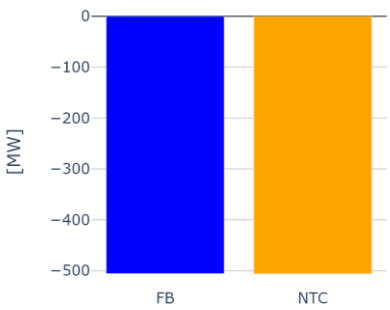
NO4 > SE2 Average flow on border



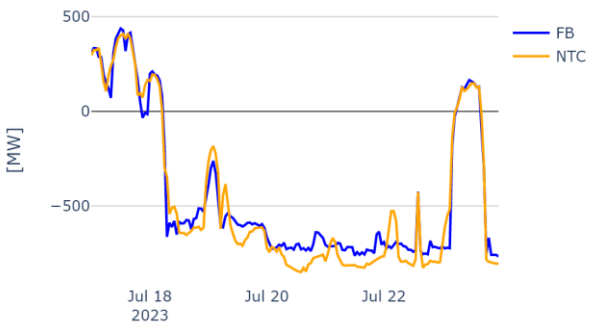
PL > SE4 Physical Flow



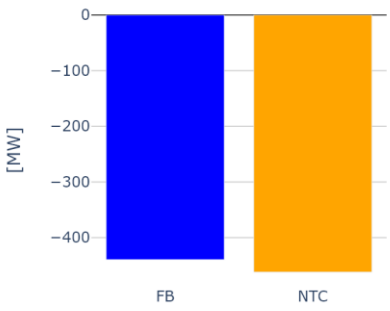
PL > SE4 Average flow on border



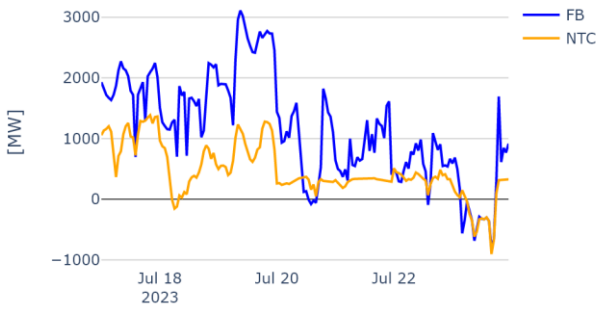
SE1 > NO4 Physical Flow



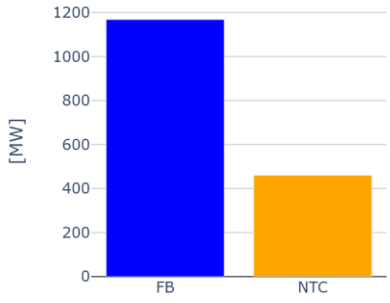
SE1 > NO4 Average flow on border



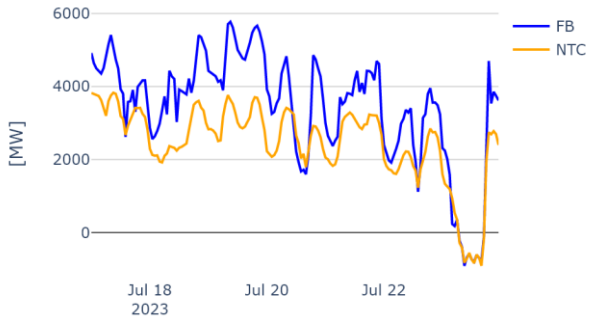
SE1 > SE2 Physical Flow



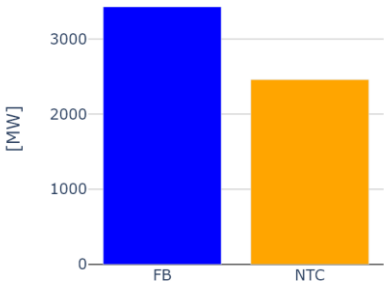
SE1 > SE2 Average flow on border



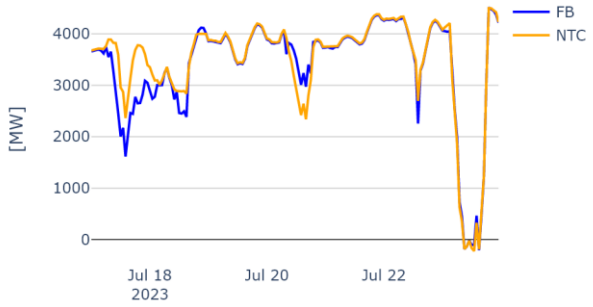
SE2 > SE3 Physical Flow



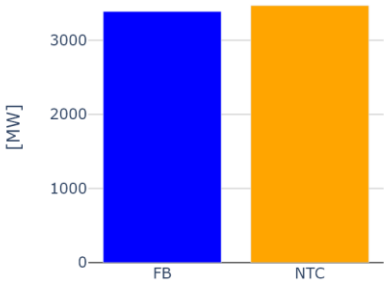
SE2 > SE3 Average flow on border



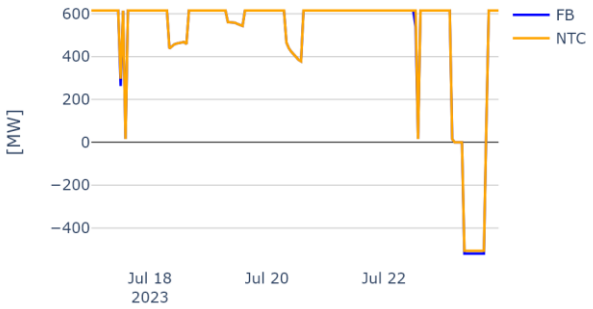
SE3 > SE4 Physical Flow



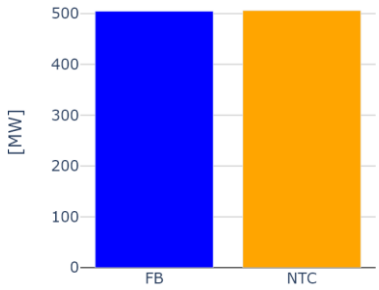
SE3 > SE4 Average flow on border



SE4 > DE/LU Physical Flow



SE4 > DE/LU Average flow on border



Flows per border (FB)

Values are rounded to the nearest integer.

Border	Congestion Income (total)	Avg. Price Spread
DK1 > DE/LU	8071585	25
DK1 > DK2	111544	1
DK1 > NL	2347590	20
DK1 > NO2	4122125	16
DK1 > SE3	4321557	36
DK2 > DE/LU	3447036	26
DK2 > SE4	7291262	35
EE > FI	9704761	57
FI > NO4	23516	7
FI > SE1	10489	0
FI > SE3	-7738	0
LT > SE4	7875094	67
NL > NO2	3375626	35
NO1 > NO2	8469472	21
NO1 > NO3	221612	5
NO1 > NO5	1936413	10
NO1 > SE3	6120	0
NO2 > DE/LU	6804354	41
NO2 > NO5	3987918	31
NO3 > NO4	91954	1
NO3 > NO5	-119526	-4
NO3 > SE2	326452	5
NO4 > SE2	170266	6
PL > SE4	8554290	88
SE1 > NO4	719259	6
SE1 > SE2	-16486	0
SE2 > SE3	171531	0
SE3 > SE4	79690	0
SE4 > DE/LU	5900277	61

Non-Intuitive flows (FB)

Values are rounded to the nearest integer.

Border	Pct. of non-intuitive flows	Negative congestion income	Avg. price spread for non-intuitive flows
DK1 > DE/LU	0	0	0
DK1 > DK2	2	-11	0
DK1 > NL	0	0	0
DK1 > NO2	7	-65847	-13
DK1 > SE3	8	-270	0
DK2 > DE/LU	1	-559	-2
DK2 > SE4	7	-544	0
EE > FI	0	0	0
FI > NO4	17	-14	0
FI > SE1	6	-172	0
FI > SE3	40	-15591	0
LT > SE4	4	-156	0
NL > NO2	2	-1204	-1
NO1 > NO2	0	0	0
NO1 > NO3	7	-95	0
NO1 > NO5	13	-4886	0
NO1 > SE3	48	-20317	-1
NO2 > DE/LU	1	-198	-2
NO2 > NO5	0	0	0
NO3 > NO4	20	-13588	-1
NO3 > NO5	55	-135845	-8
NO3 > SE2	5	-1795	-1
NO4 > SE2	8	-126	0
PL > SE4	4	-298405	-73
SE1 > NO4	5	-331	0
SE1 > SE2	66	-17102	0
SE2 > SE3	14	-4707	0
SE3 > SE4	15	-2158	0
SE4 > DE/LU	0	0	0