Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 13 of 2024

Contents

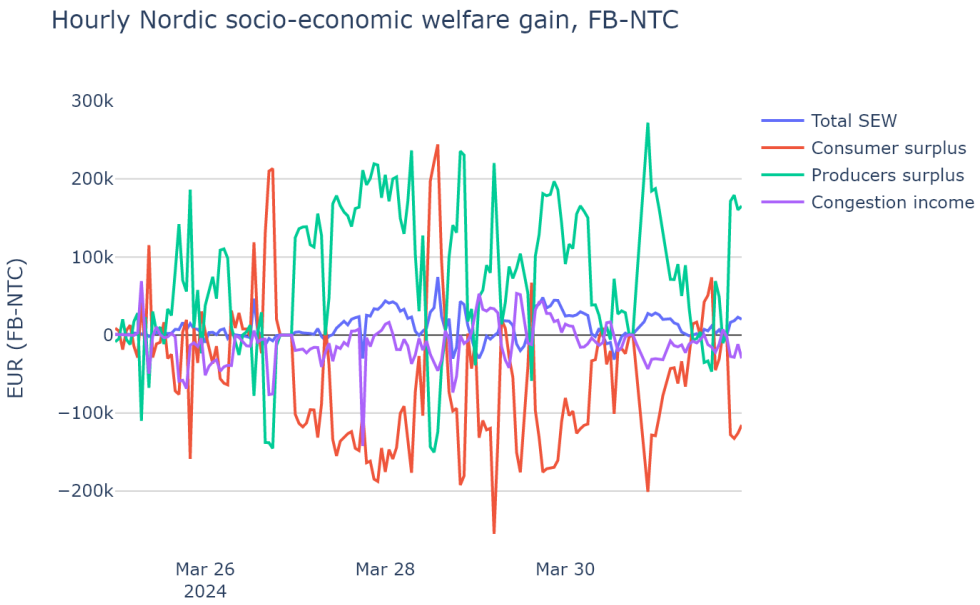
Domain validation

Energy Delivery Day:	Mon. 25.3.	Tue. 26.3.	Wed. 27.3.	Thu. 28.3.	Fri. 29.3.	Sat. 30.3.	Sun. 31.3.
Invalid/missing IGMs	0	0	8	0	0	0	5
Substituted IGMs	0	0	8	0	0	0	5
Invalid CGMs	0	0	0	0	0	0	0
FB domain back-up	0	0	0	0	0	0	0
FAV provision	0	0	1	0	0	0	0
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

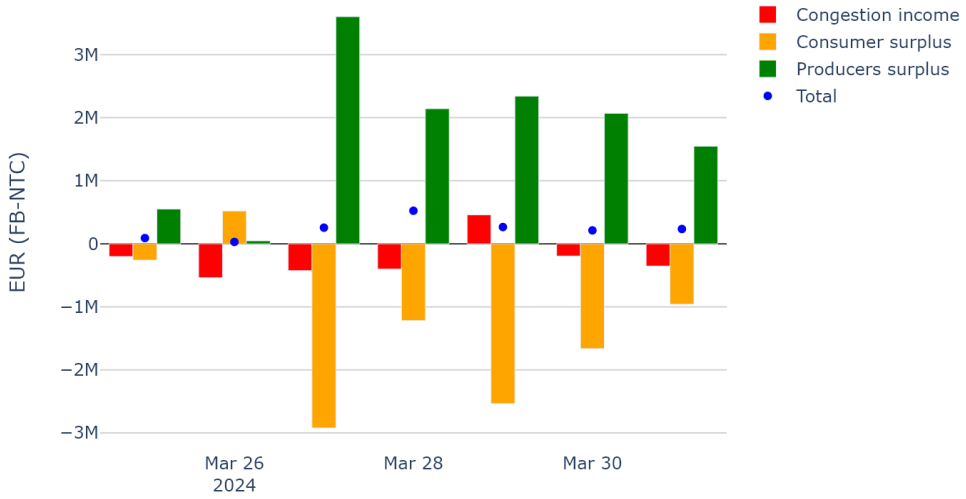
Socio Economic Welfare

For the socio-economic welfare graphs, the contribution from interconnectors out of the Nordic CCR is not included. Thus, the values for the congestion income are only from the Nordic internal bidding zones, and not from the contributions on the Hansa/Baltic borders. This includes the country specific socio-economic welfare graphs.

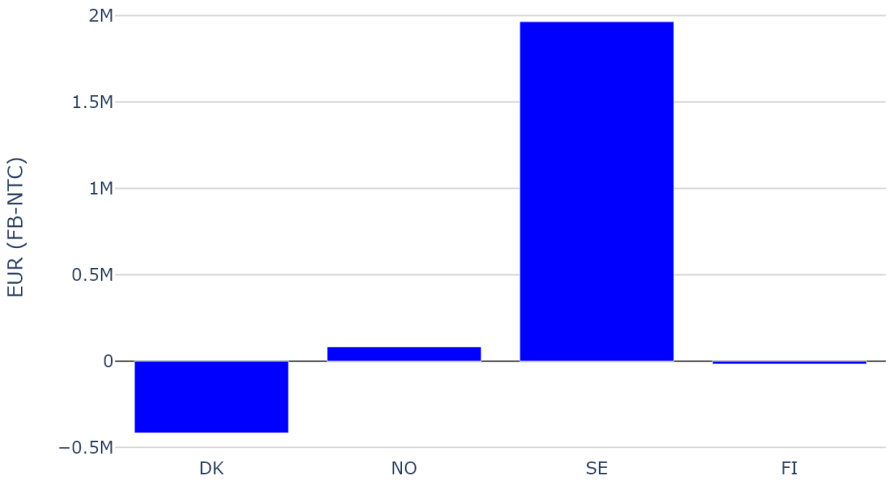
Nordics

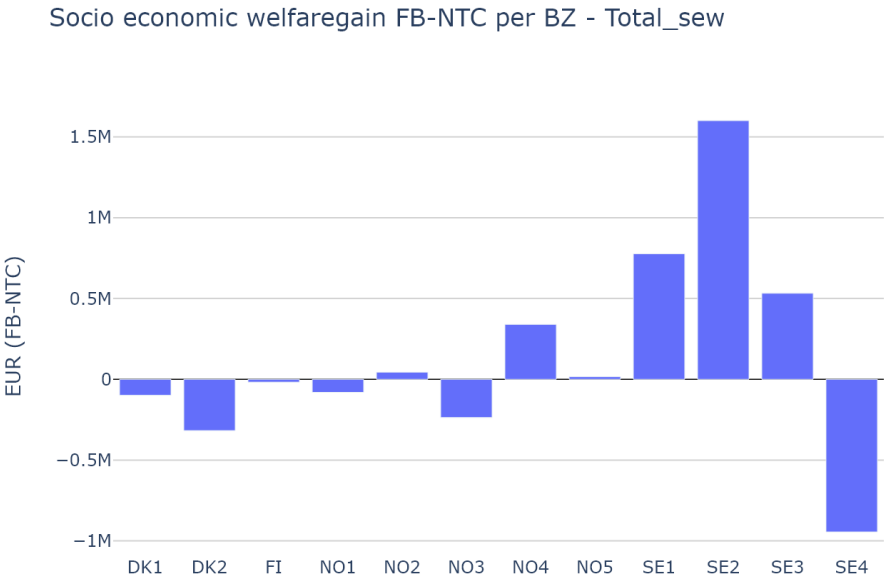


Nordics socio-economic welfare per stakeholder and day

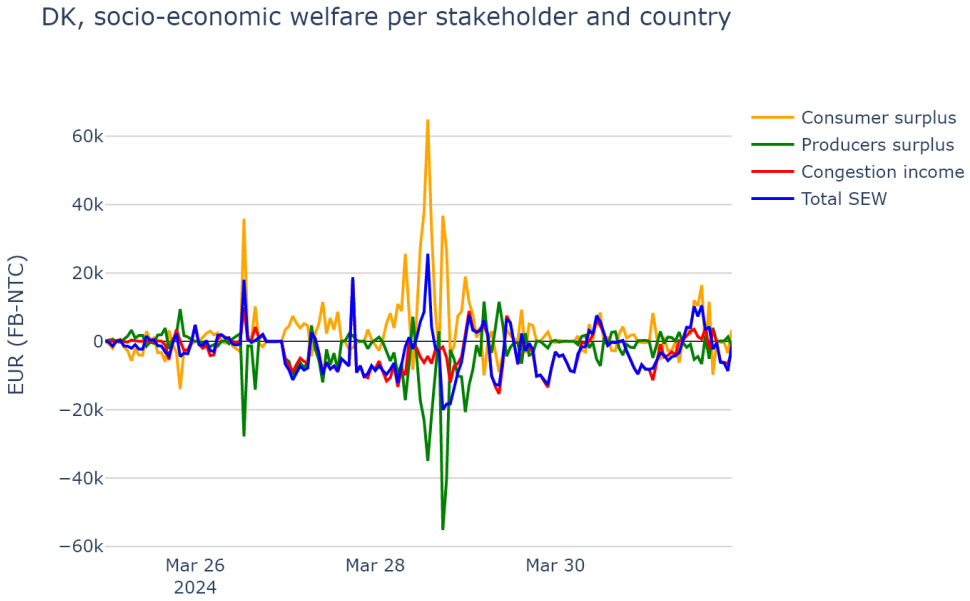


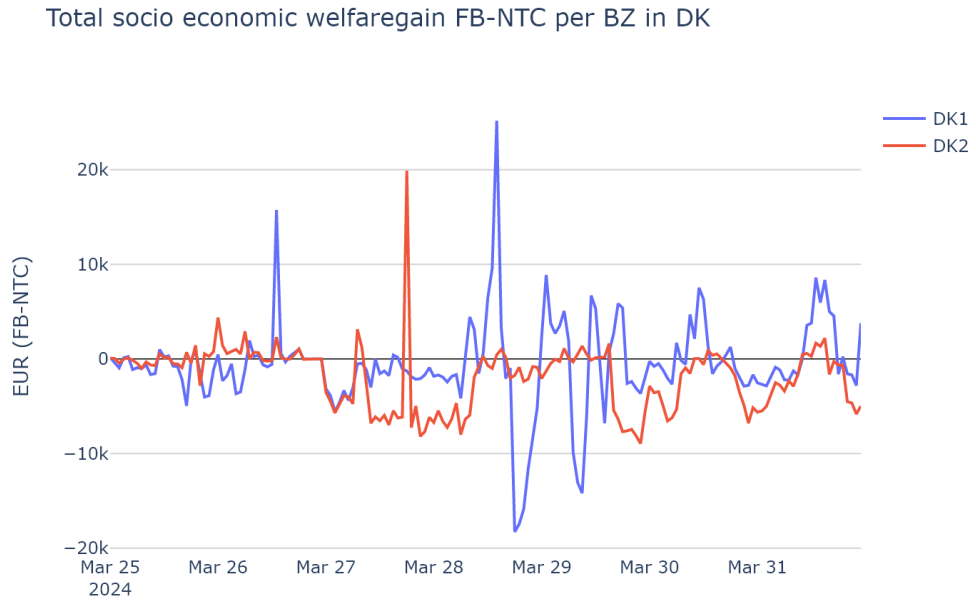
Total Nordic socio-economic welfare per country

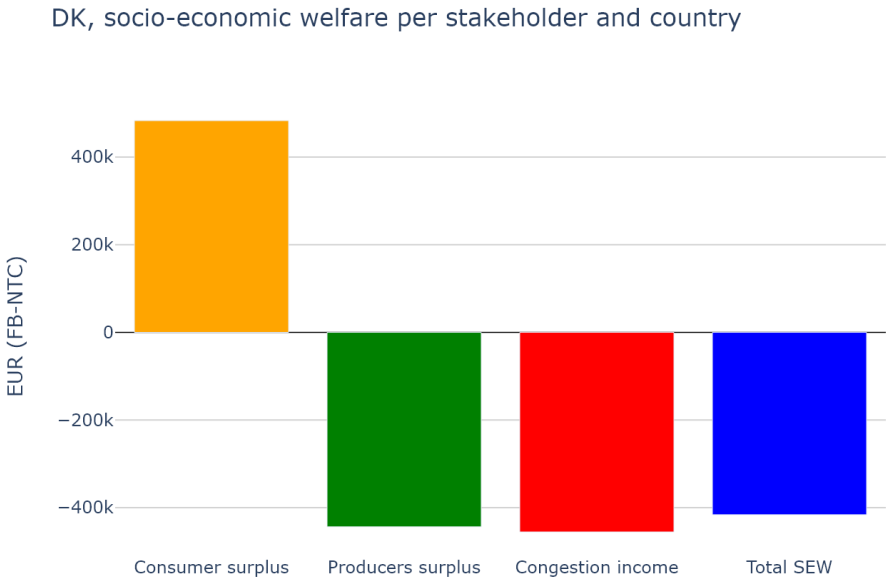



Socio economic welfaregain FB-NTC per BZ - Total_sew
EUR (FB-NTC)
1.5M
1M
0.5M
0
−0.5M
−1M
DK1
DK2
FI
NO1
NO2
NO3
NO4
NO5
SE1
SE2
SE3
SE4

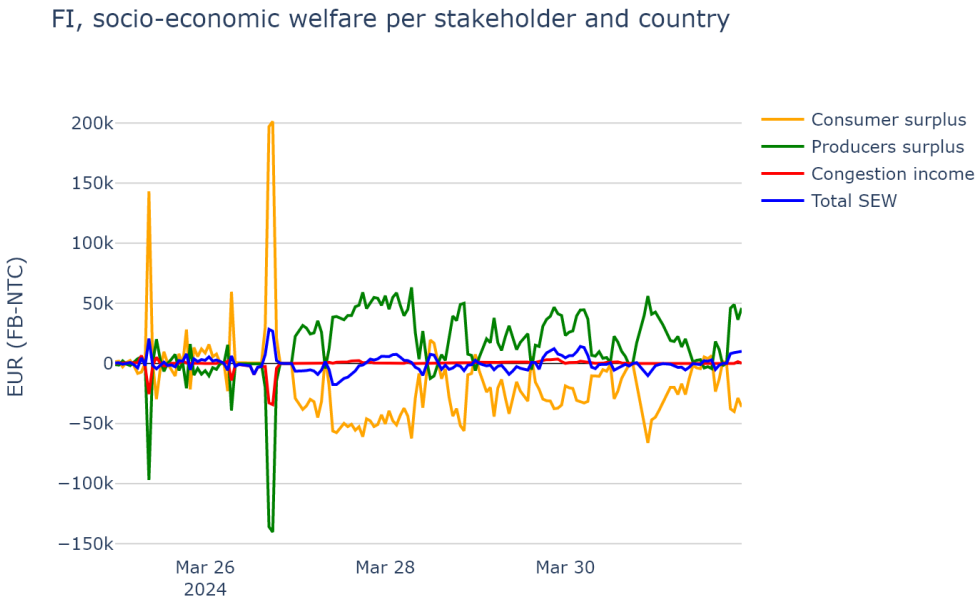
Denmark

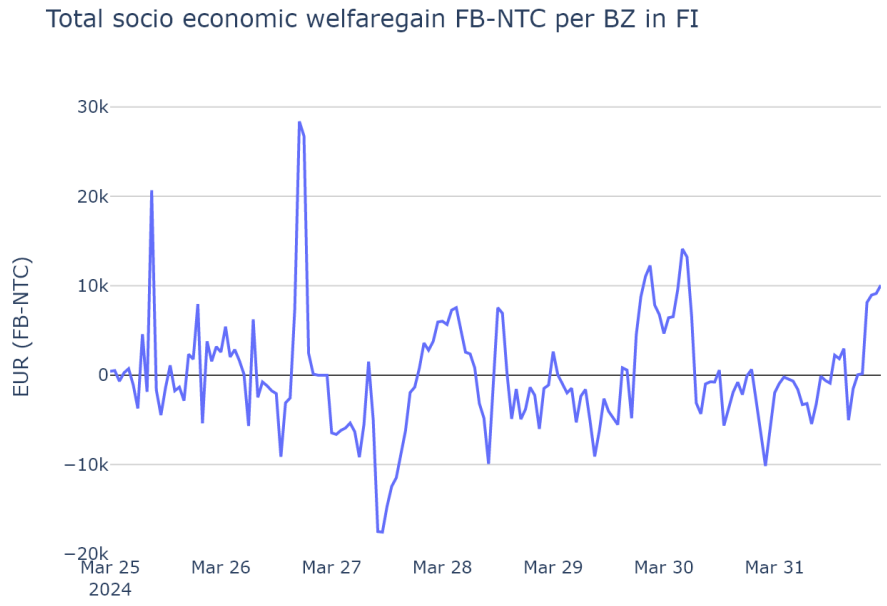

DK, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
60k
40k
20k
0
−20k
−40k
−60k
Mar 26
2024
Mar 28
Mar 30
Consumer surplus
Producers surplus
Congestion income
Total SEW

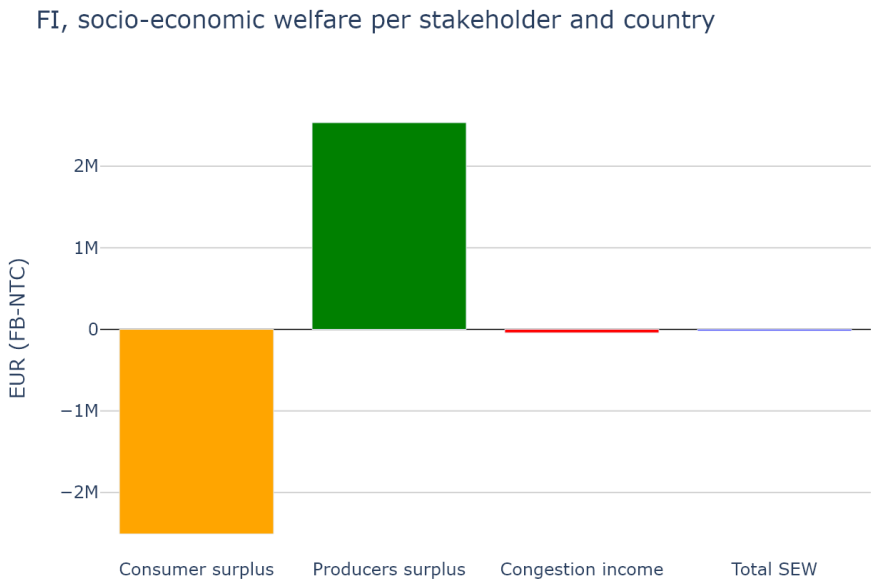

Total socio economic welfaregain FB-NTC per BZ in DK
DK1
DK2
EUR (FB-NTC)
20k
10k
0
−10k
−20k
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


DK, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
400k
200k
0
−200k
−400k
Consumer surplus
Producers surplus
Congestion income
Total SEW

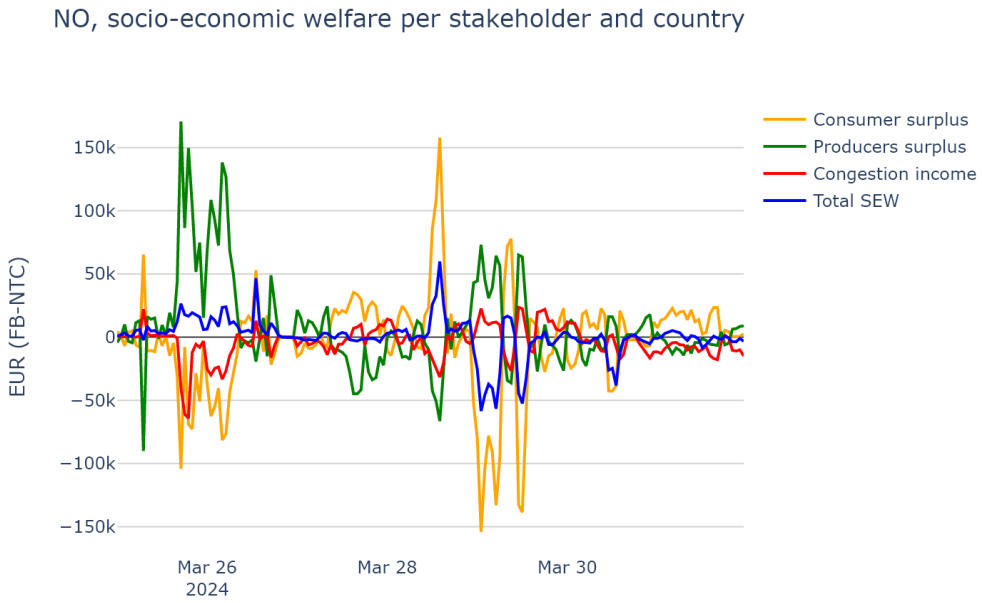
Finland

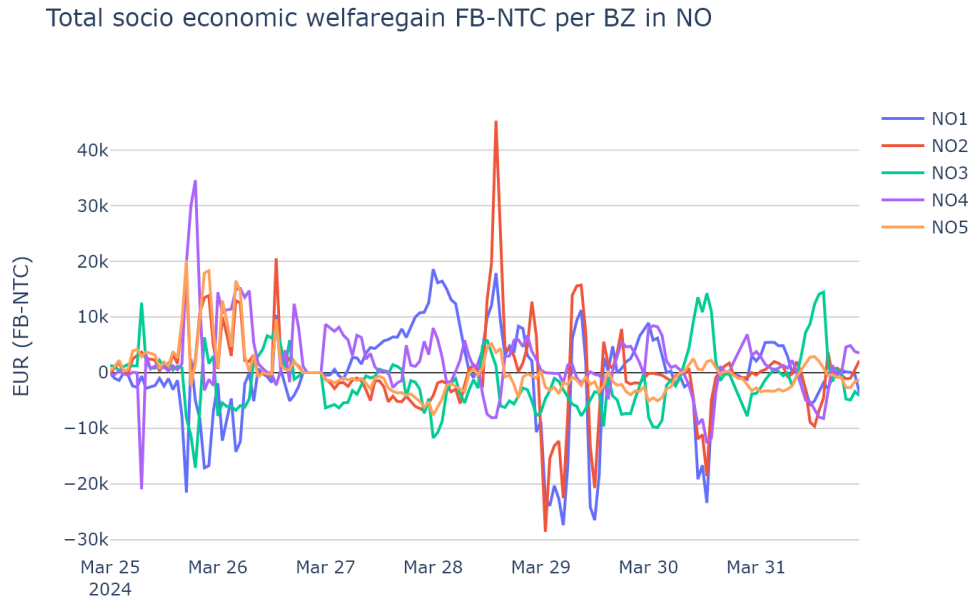

FI, socio-economic welfare per stakeholder and country
Consumer surplus
Producers surplus
Congestion income
Total SEW
EUR (FB-NTC)
200k
150k
100k
50k
0
−50k
−100k
−150k
Mar 26
2024
Mar 28
Mar 30

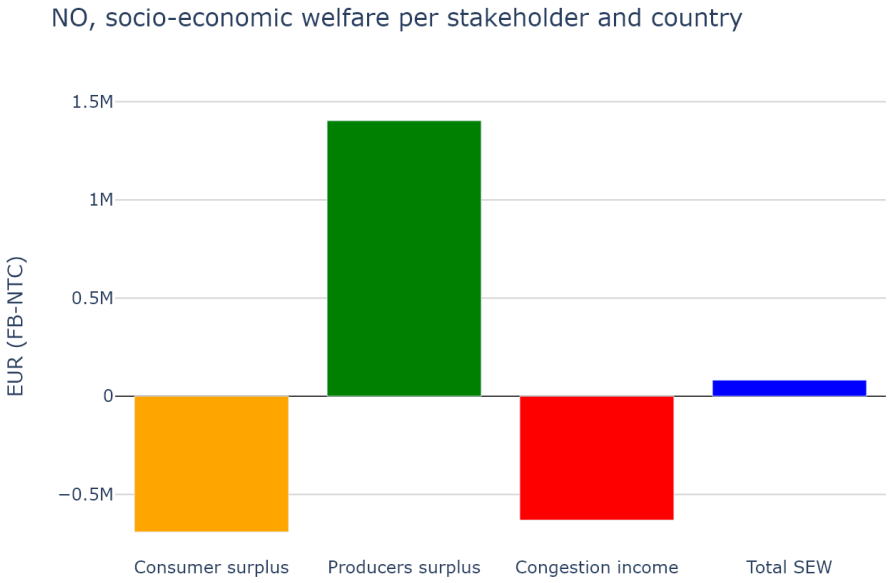

Total socio economic welfaregain FB-NTC per BZ in FI
EUR (FB-NTC)
30k
20k
10k
0
−10k
−20k
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


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

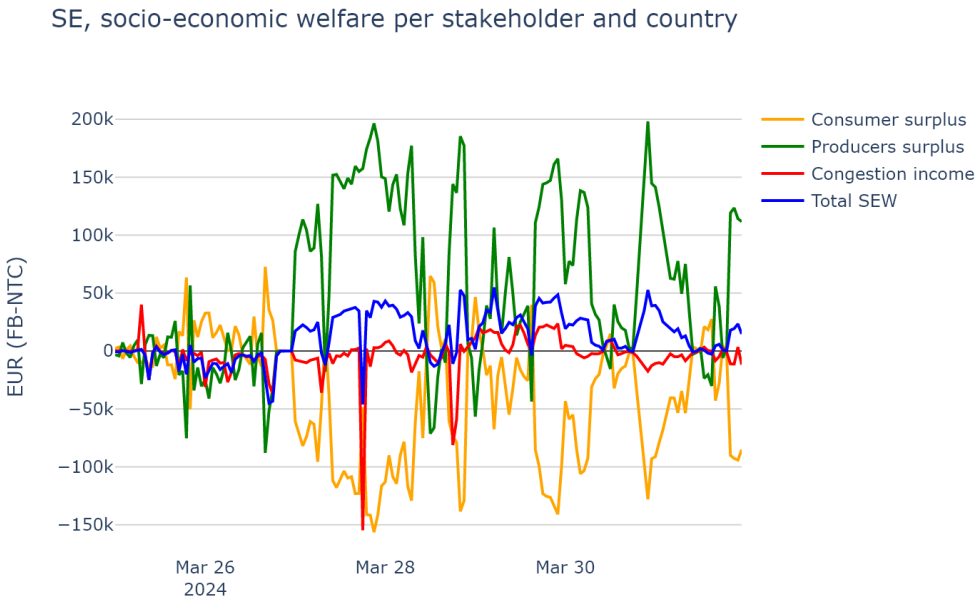
Norway

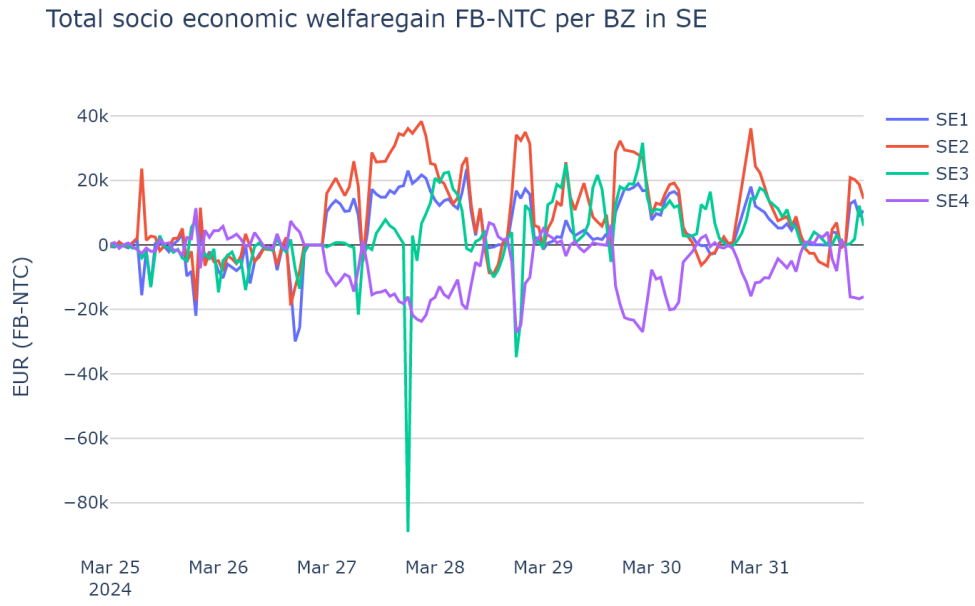

NO, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
150k
100k
50k
0
−50k
−100k
−150k
Mar 26
2024
Mar 28
Mar 30
Consumer surplus
Producers surplus
Congestion income
Total SEW

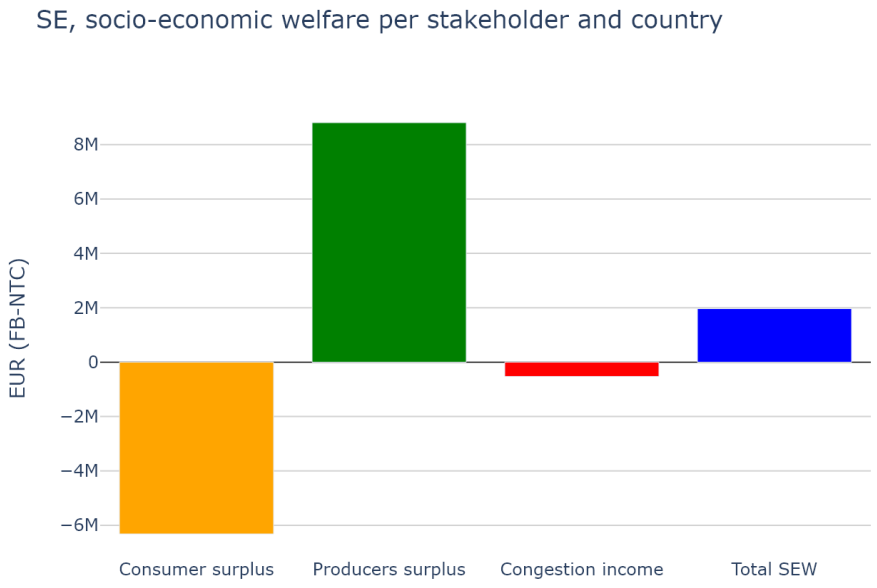

Total socio economic welfaregain FB-NTC per BZ in NO
NO1
NO2
NO3
NO4
NO5
EUR (FB-NTC)
40k
30k
20k
10k
0
−10k
−20k
−30k
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


NO, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
1.5M
1M
0.5M
0
−0.5M
Consumer surplus
Producers surplus
Congestion income
Total SEW

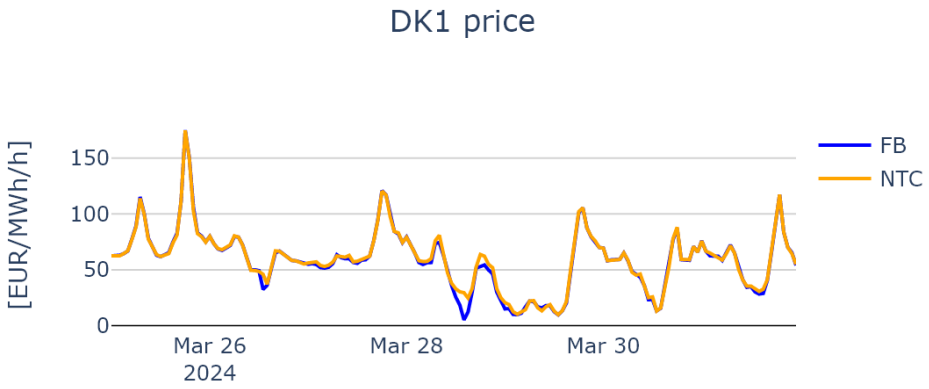
Sweden


SE, socio-economic welfare per stakeholder and country
Consumer surplus
Producers surplus
Congestion income
Total SEW
EUR (FB-NTC)
200k
150k
100k
50k
0
−50k
−100k
−150k
Mar 26
2024
Mar 28
Mar 30

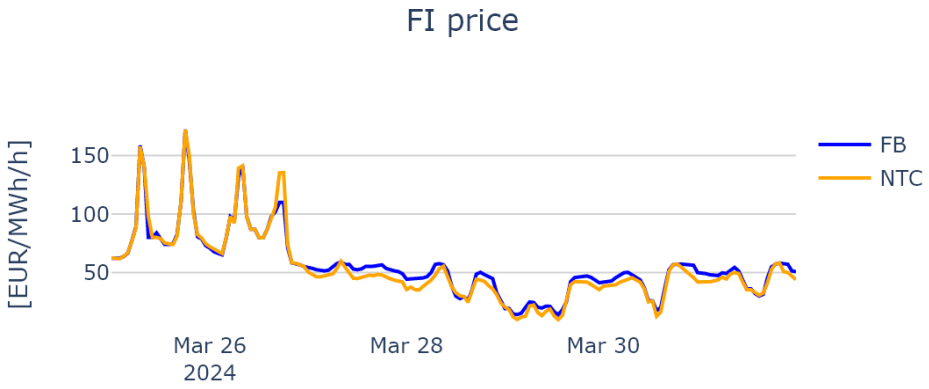

Total socio economic welfaregain FB-NTC per BZ in SE
SE1
SE2
SE3
SE4
EUR (FB-NTC)
40k
20k
0
−20k
−40k
−60k
−80k
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


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

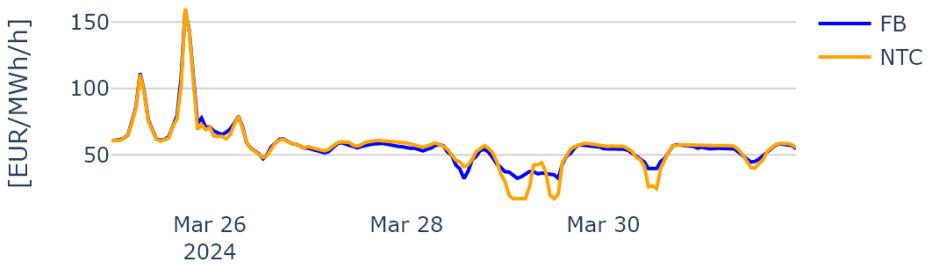
Prices


DK1 price
[EUR/MWh/h]
150
100
50
0
Mar 26
2024
Mar 28
Mar 30
FB
NTC

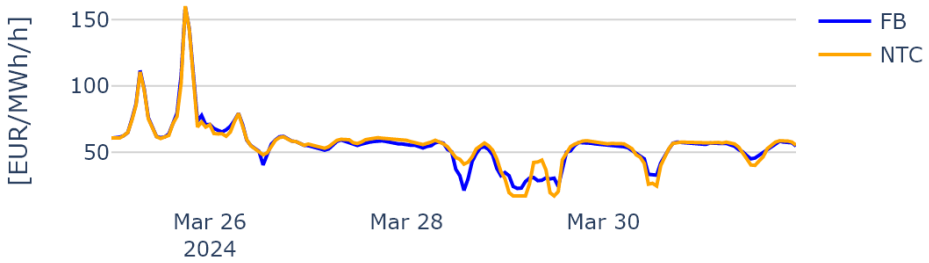

DK2 price
[EUR/MWh/h]
150
100
50
Mar 26
2024
Mar 28
Mar 30
FB
NTC


FI price
[EUR/MWh/h]
150
100
50
Mar 26
2024
Mar 28
Mar 30
FB
NTC

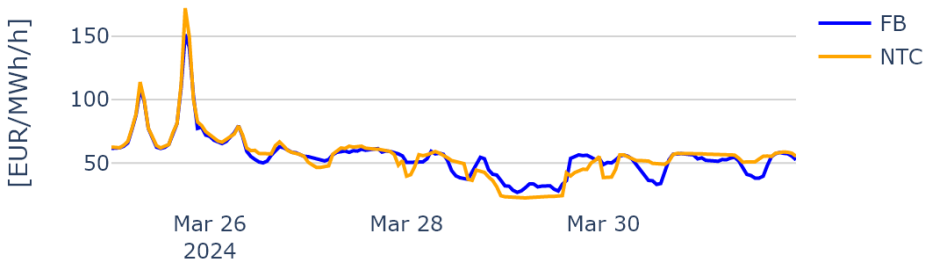
NO1 price



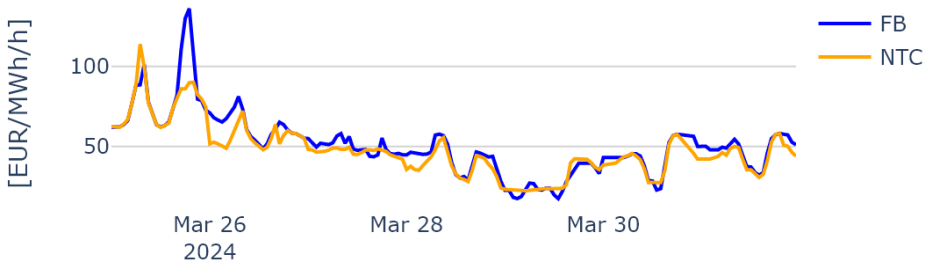
NO2 price



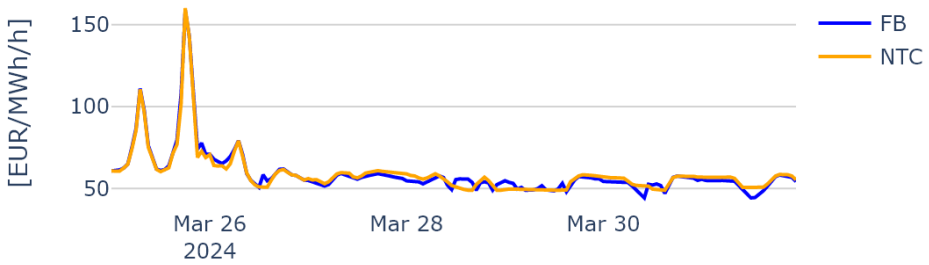
NO3 price



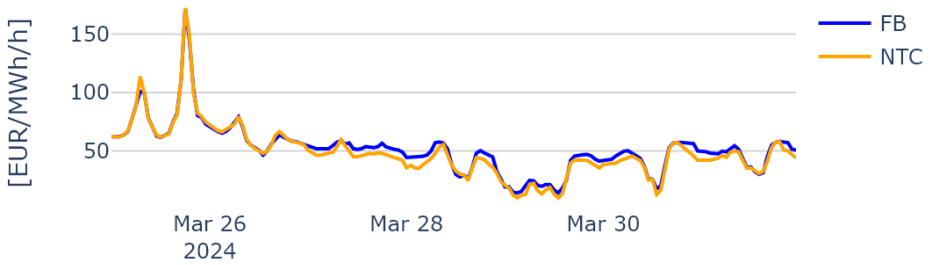
NO4 price



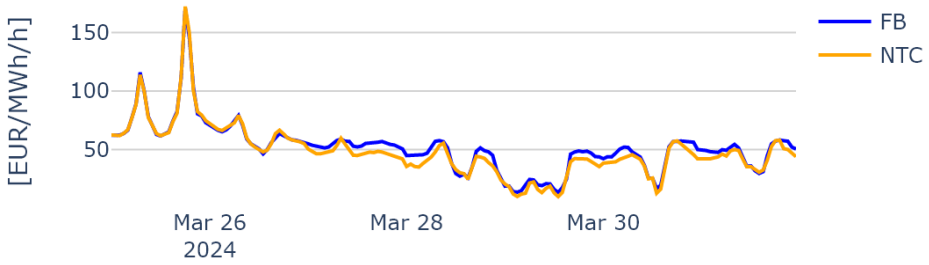
NO5 price



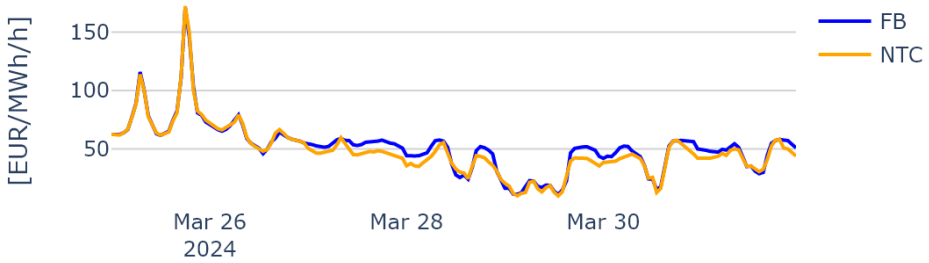
SE1 price



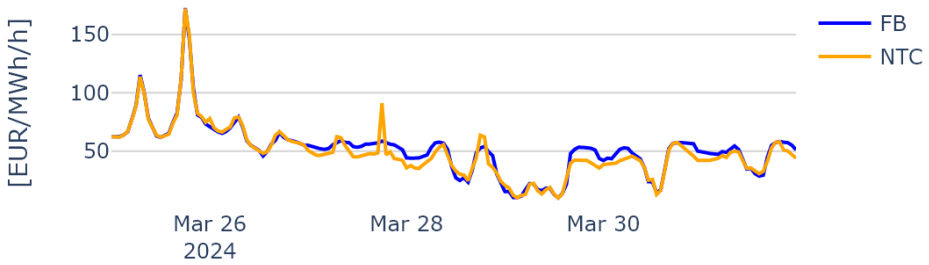
SE2 price



SE3 price

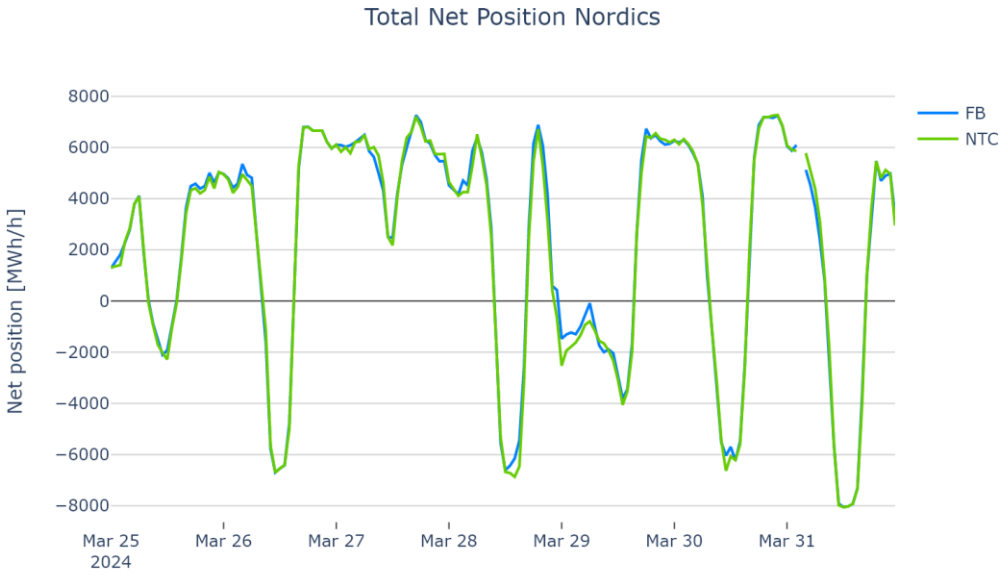


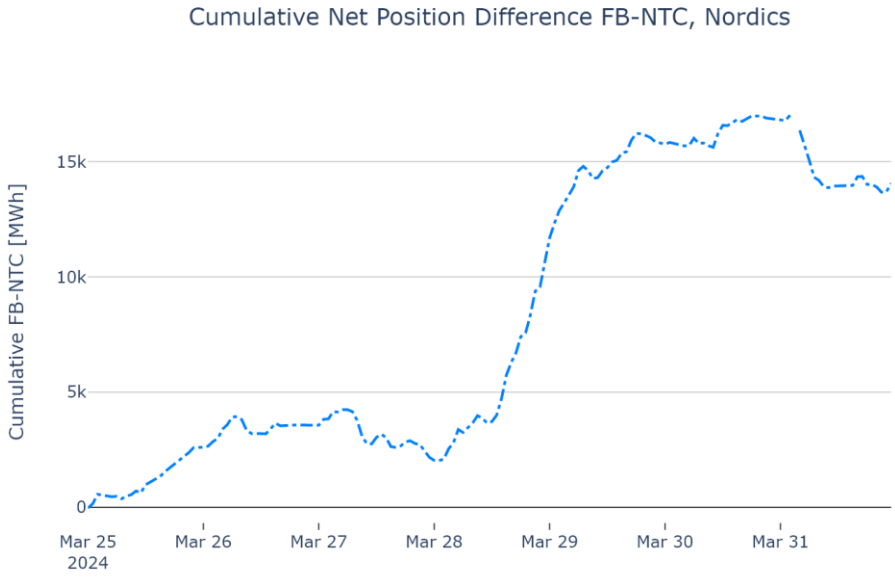
SE4 price



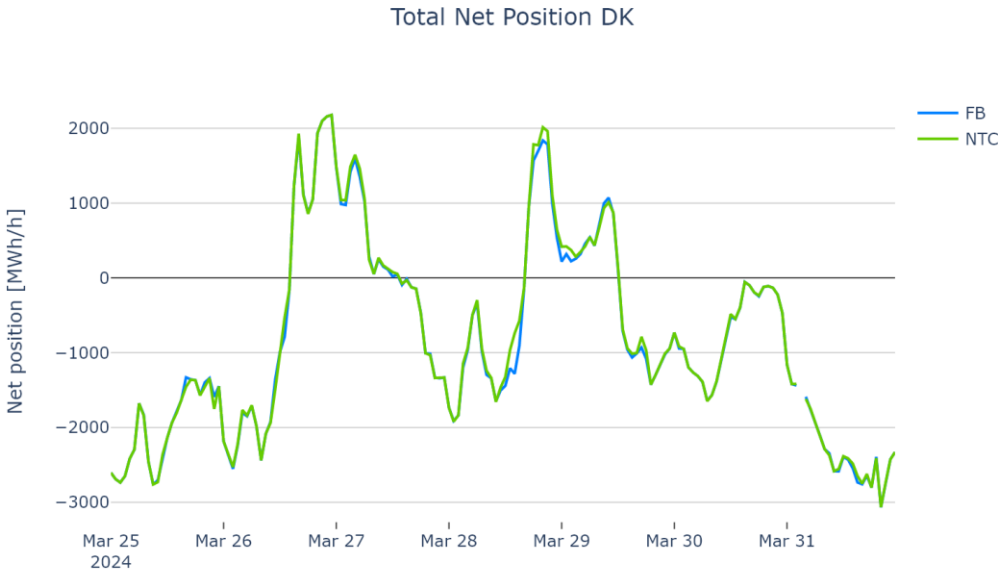
Net positions

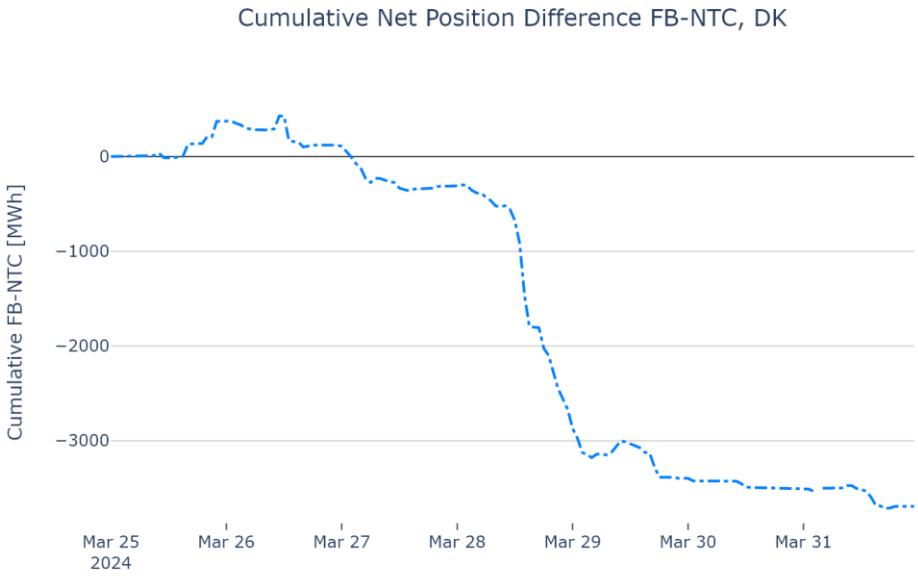
Nordics

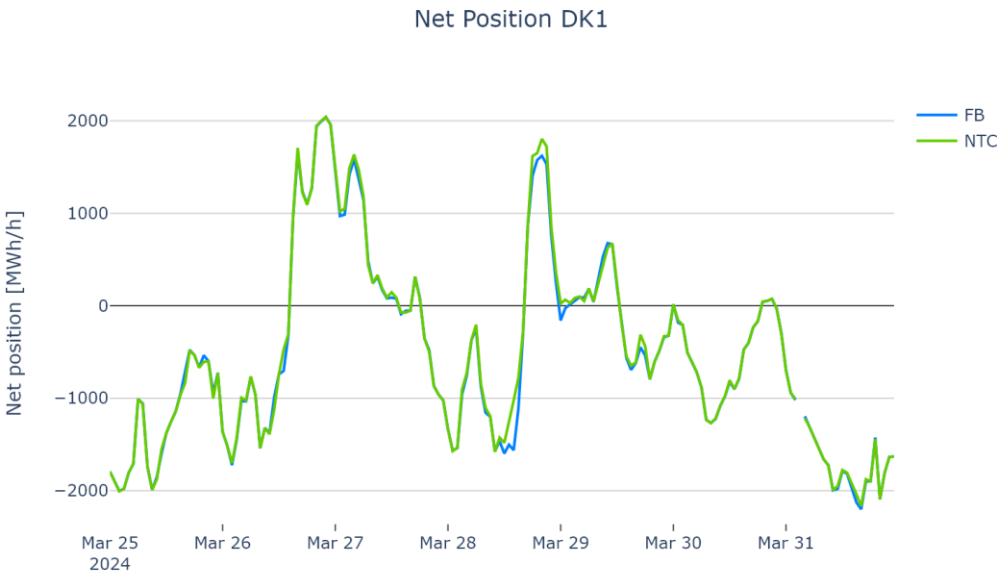


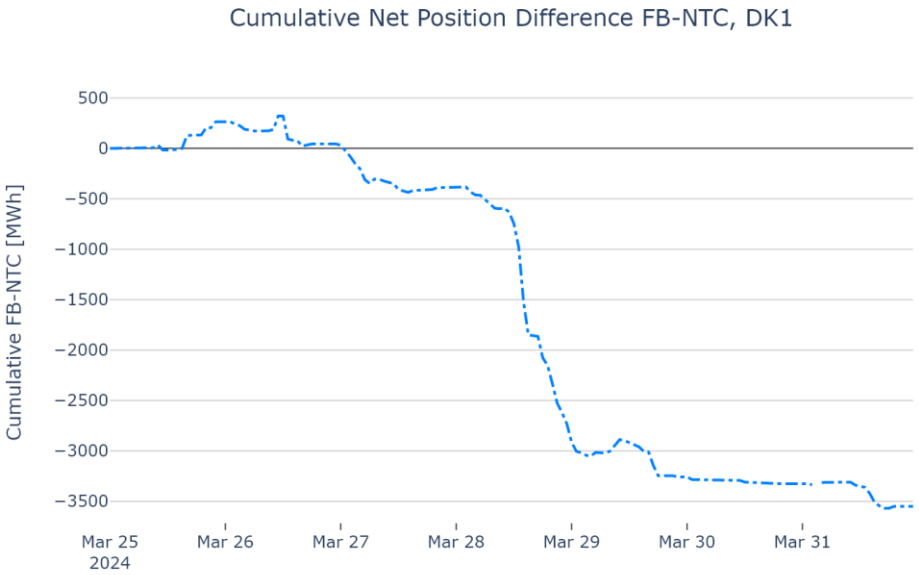


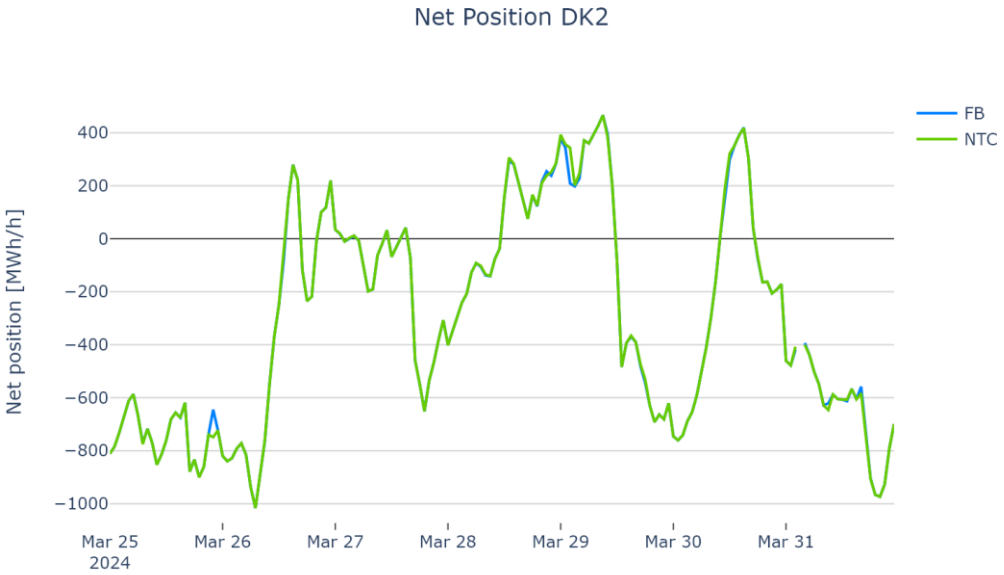
Denmark

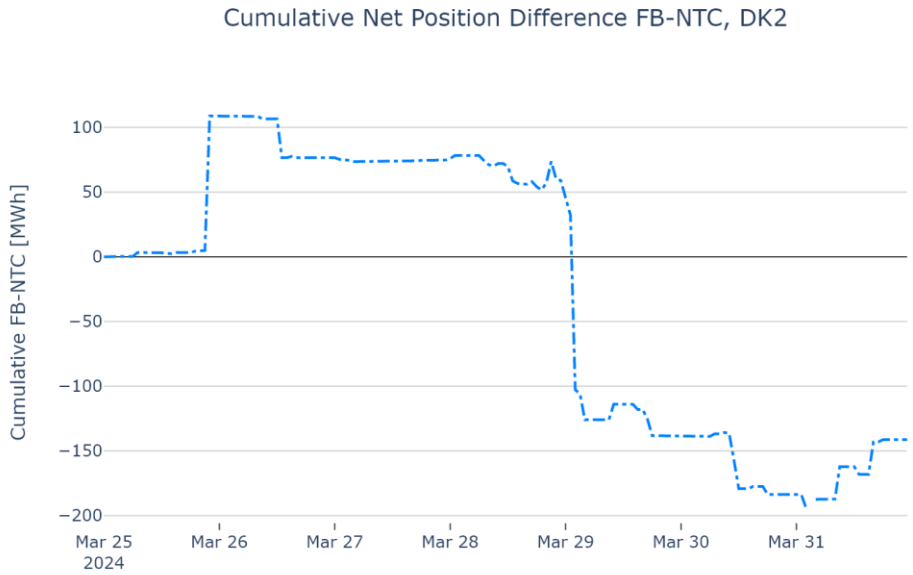

Total Net Position DK
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
−3000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


Cumulative Net Position Difference FB-NTC, DK
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

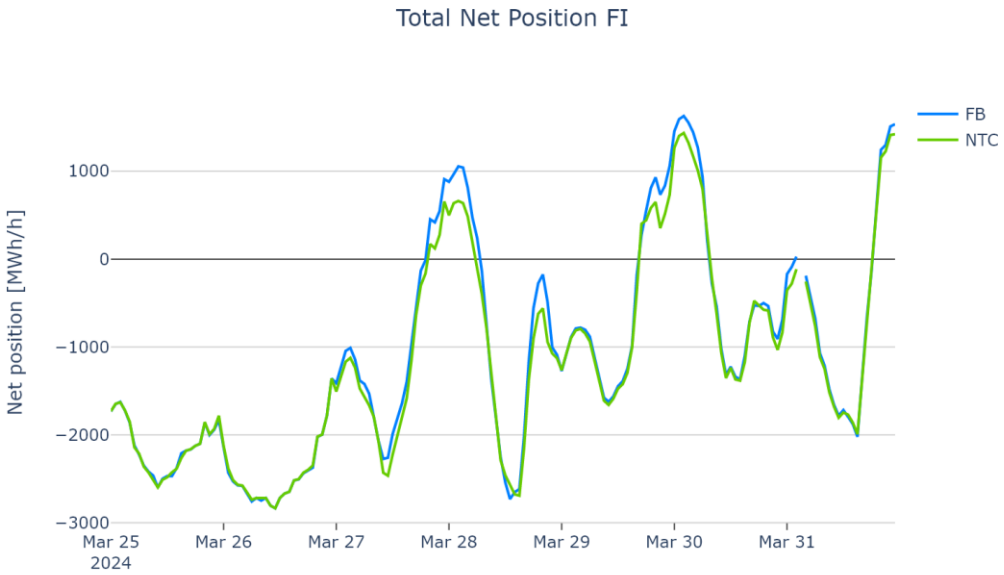

Net Position DK1
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

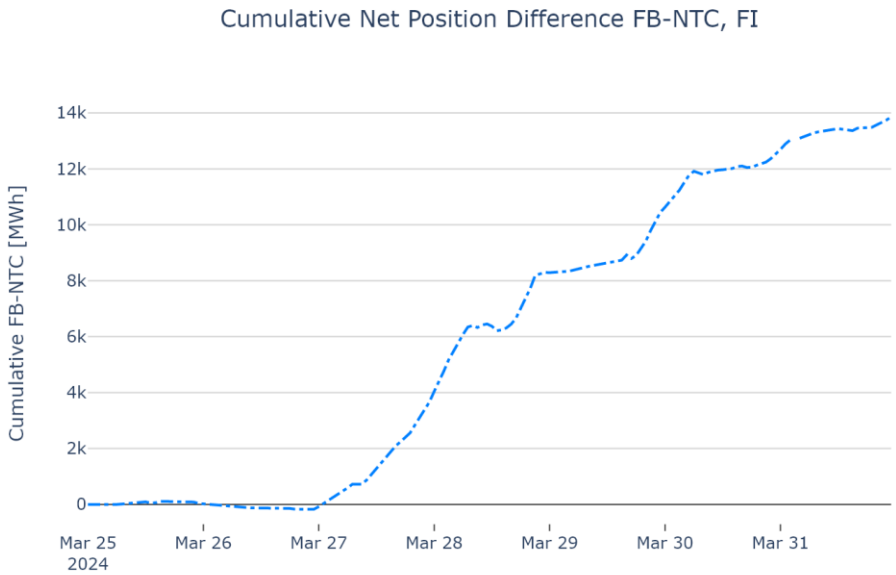

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
500
0
−500
−1000
−1500
−2000
−2500
−3000
−3500
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


Net Position DK2
FB
NTC
Net position [MWh/h]
400
200
0
−200
−400
−600
−800
−1000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

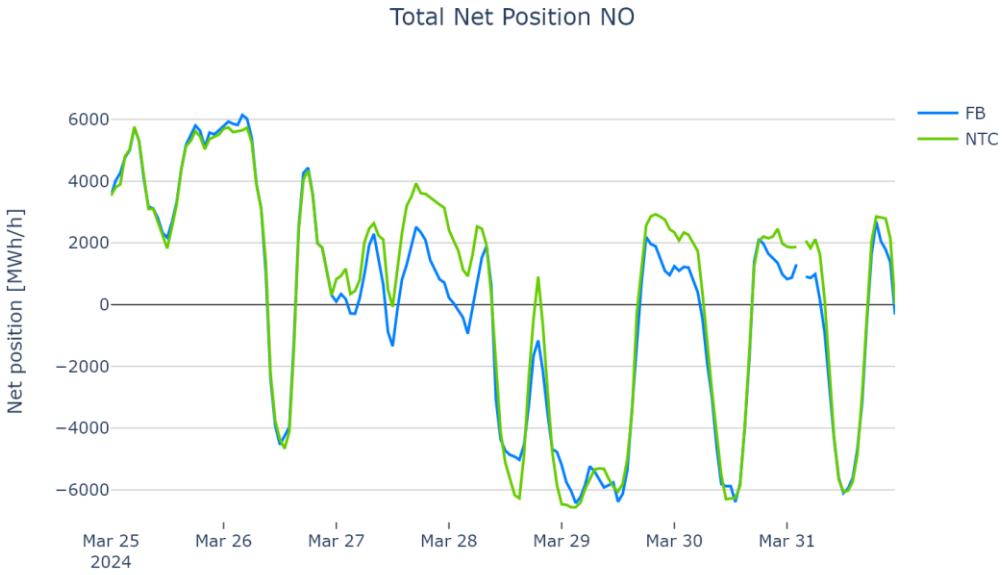

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
100
50
0
−50
−100
−150
−200
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

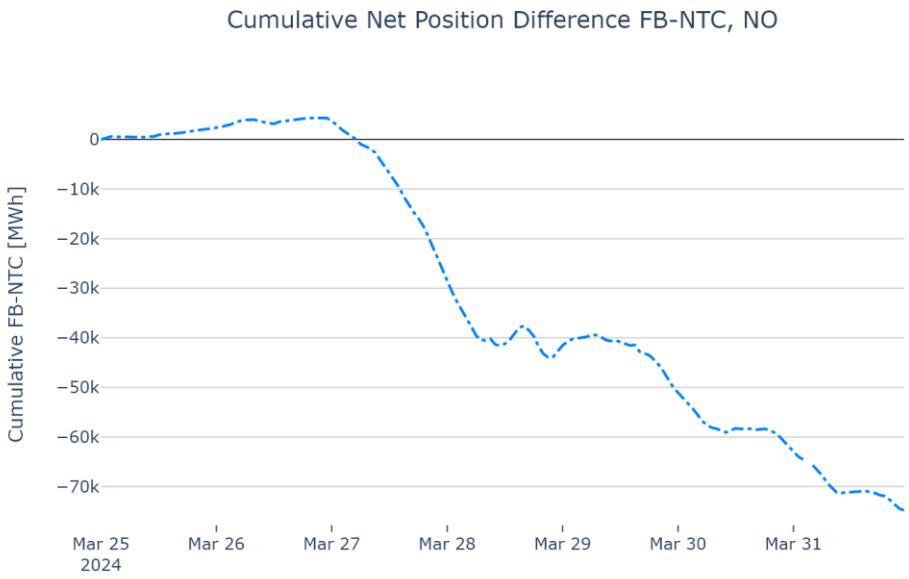
Finland

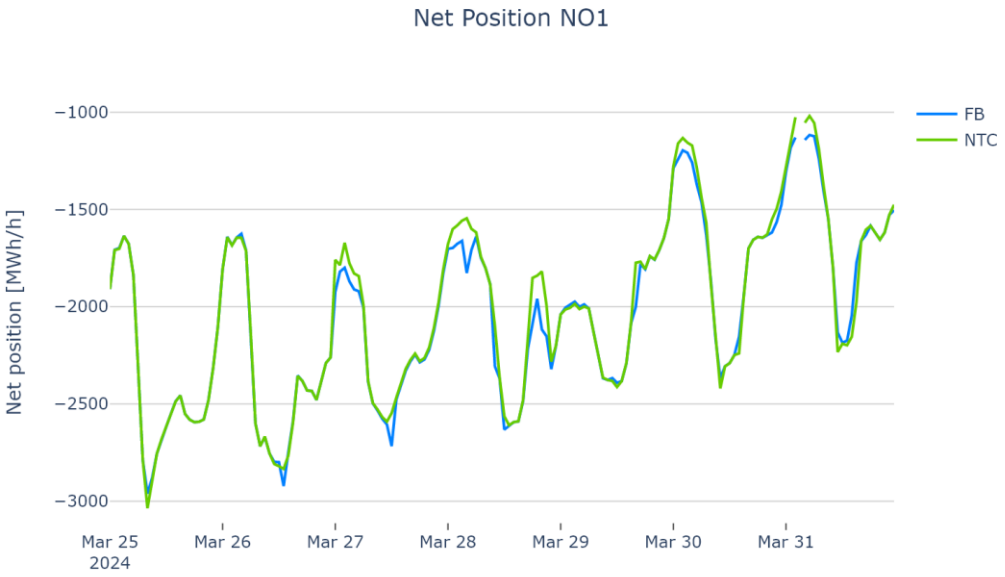

Total Net Position FI
FB
NTC
Net position [MWh/h]
1000
0
−1000
−2000
−3000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

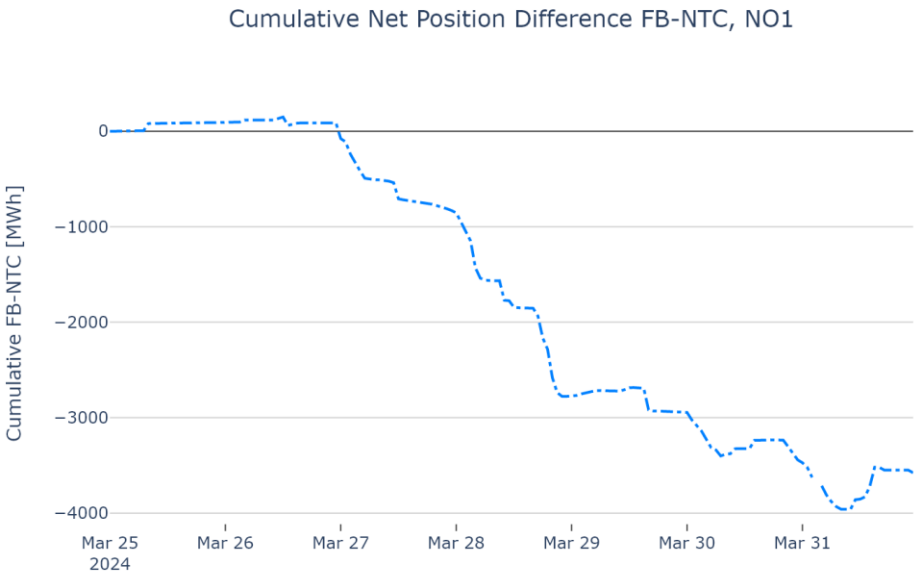

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
14k
12k
10k
8k
6k
4k
2k
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

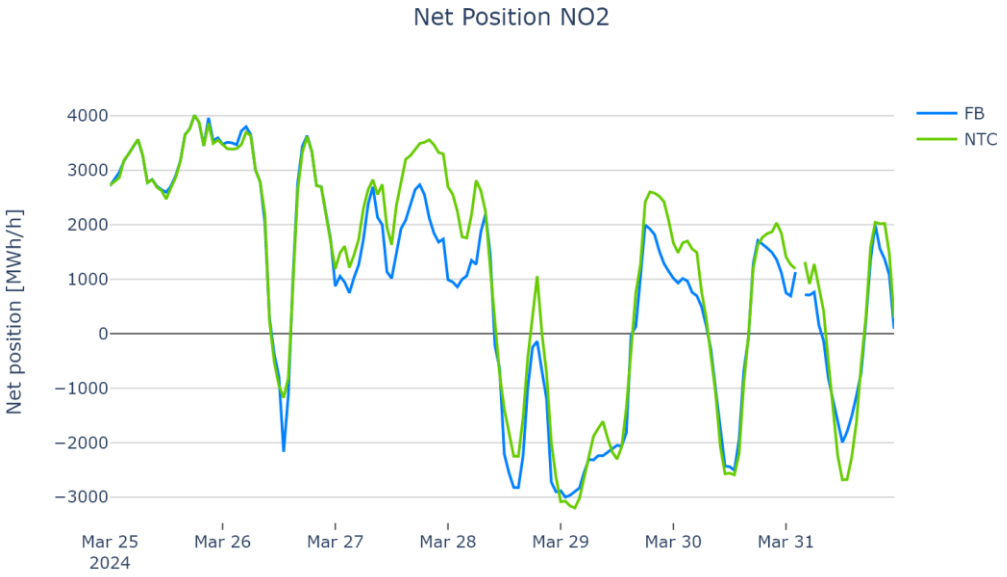
Norway

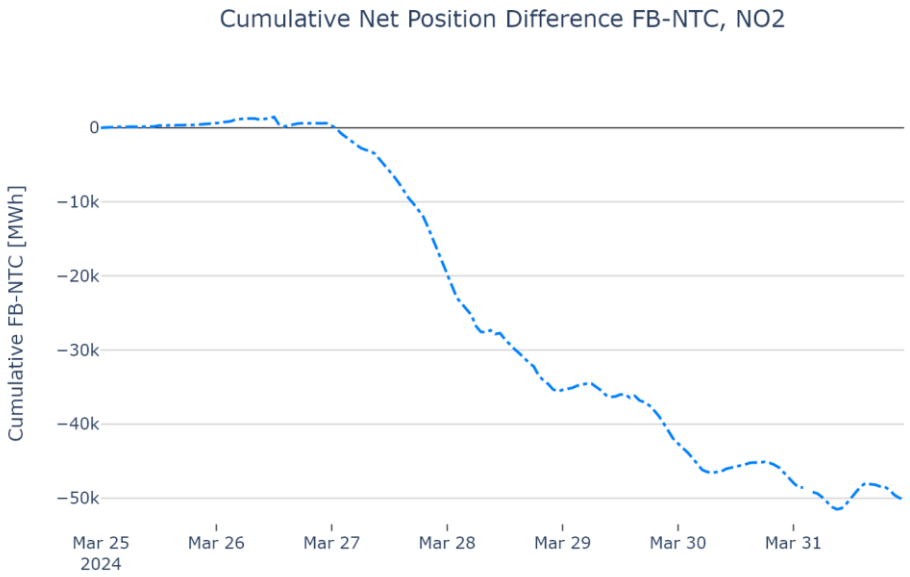

Total Net Position NO
FB
NTC
Net position [MWh/h]
6000
4000
2000
0
−2000
−4000
−6000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

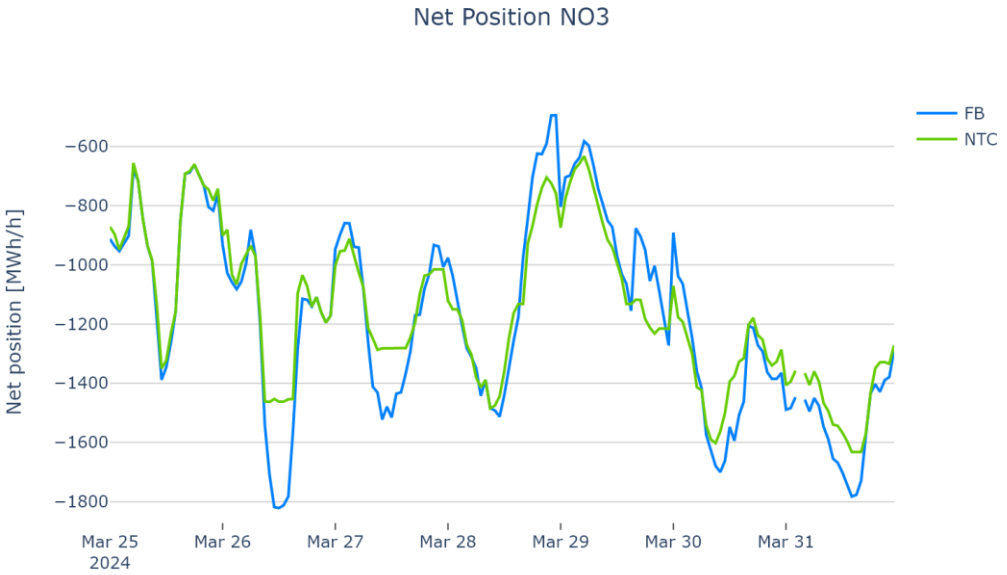

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
−60k
−70k
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

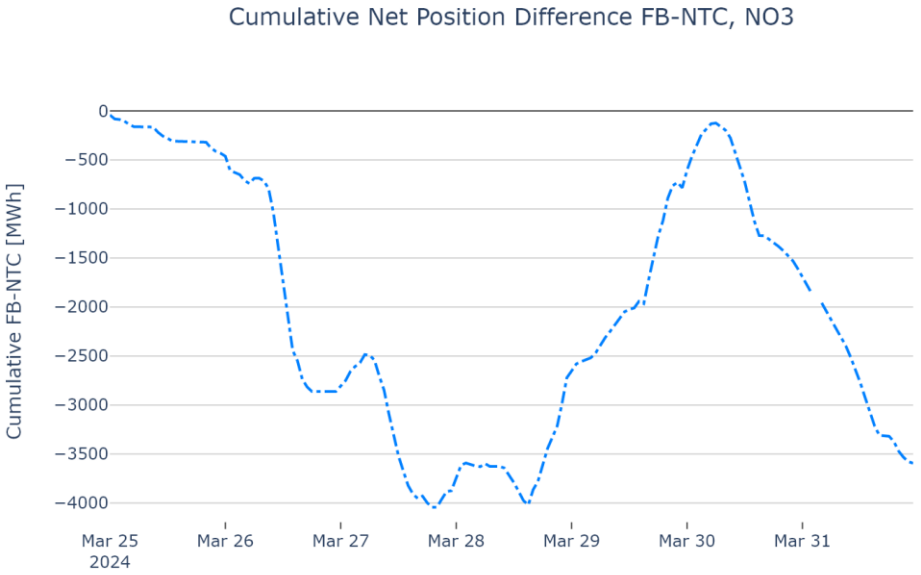

Net Position NO1
FB
NTC
Net position [MWh/h]
−1000
−1500
−2000
−2500
−3000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

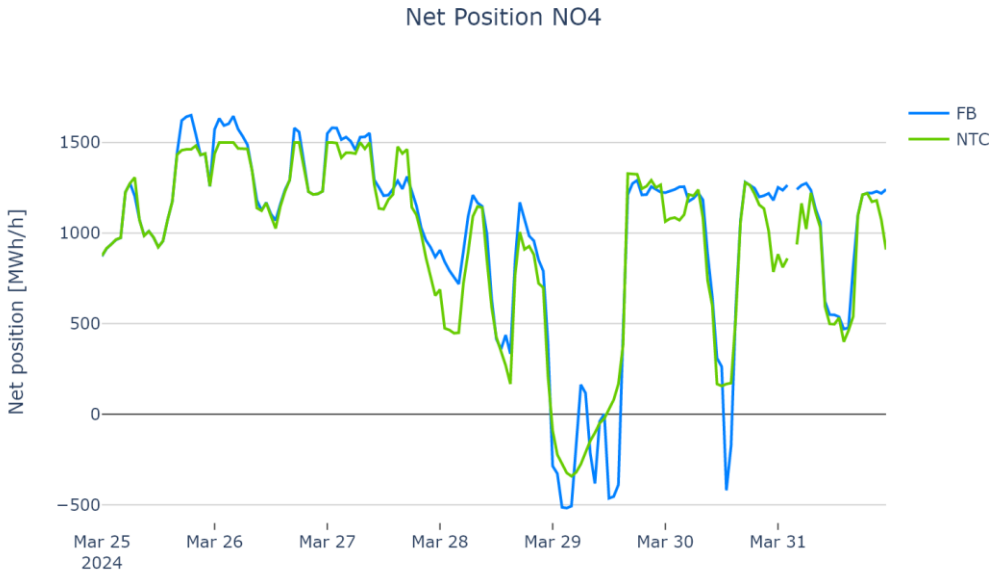

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
−4000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

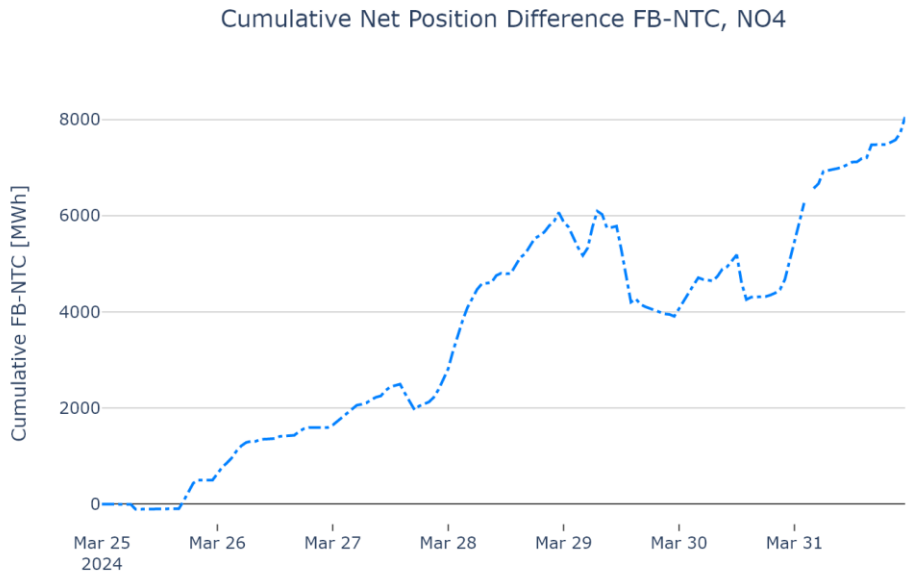

Net Position NO2
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
−3000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

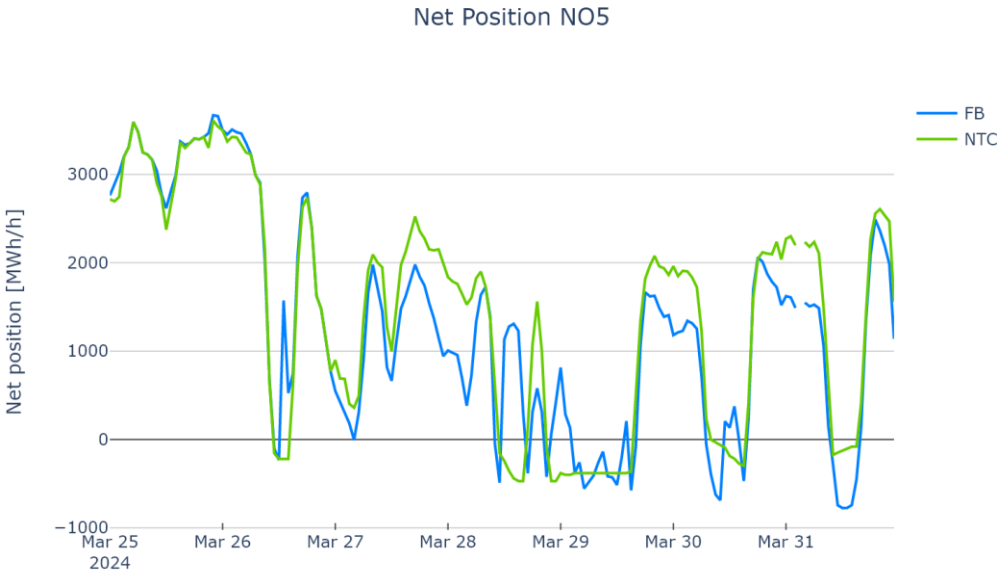

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

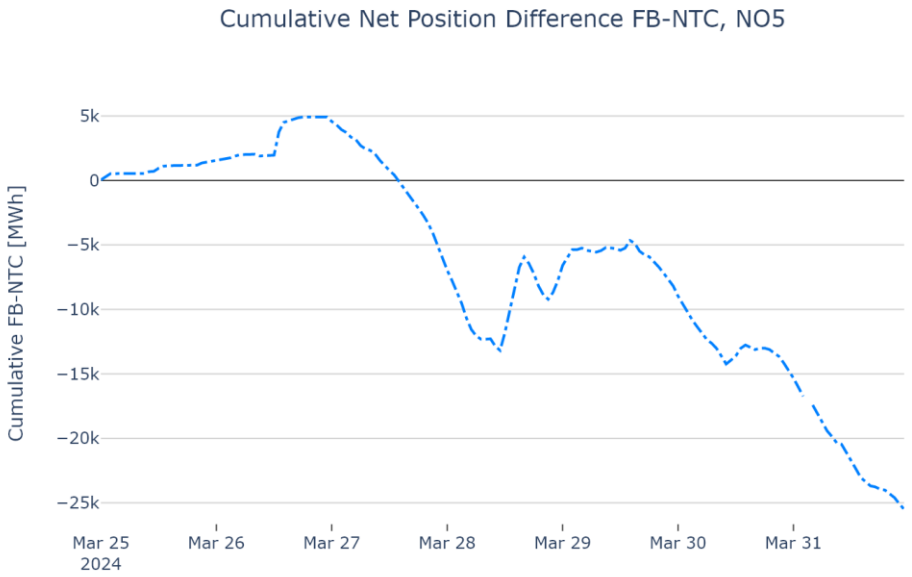

Net Position NO3
FB
NTC
Net position [MWh/h]
−600
−800
−1000
−1200
−1400
−1600
−1800
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
0
−500
−1000
−1500
−2000
−2500
−3000
−3500
−4000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

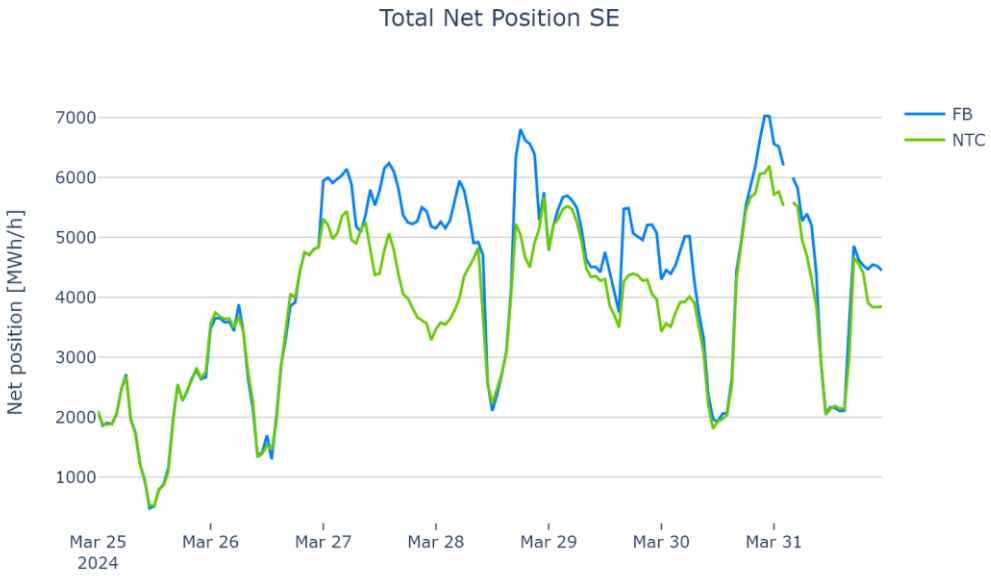

Net Position NO4
FB
NTC
Net position [MWh/h]
1500
1000
500
0
−500
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

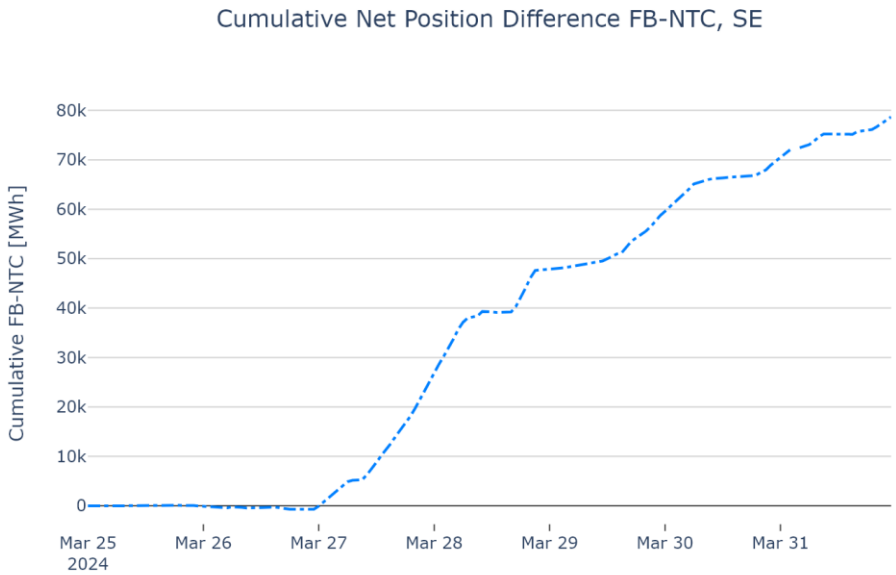

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
8000
6000
4000
2000
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

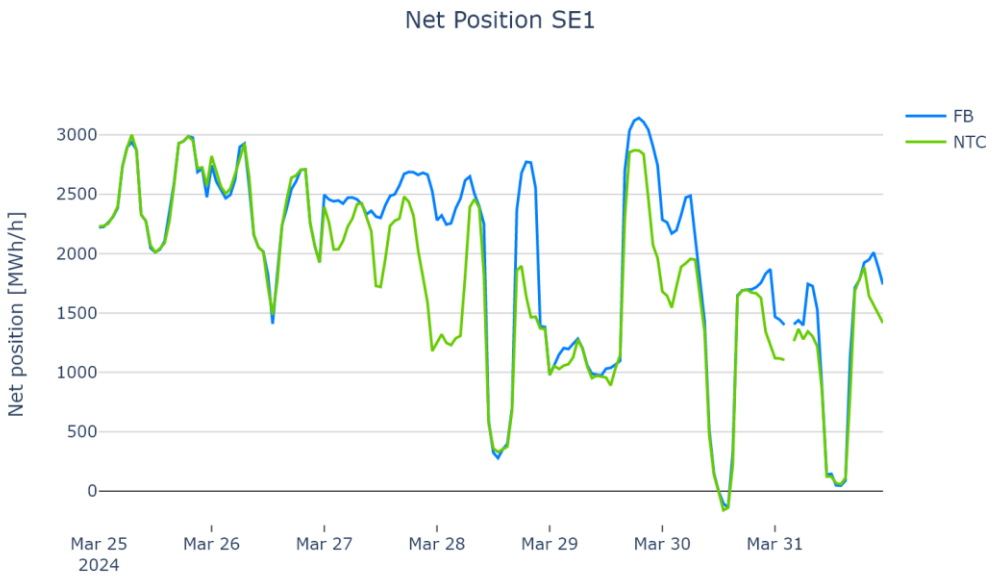

Net Position NO5
FB
NTC
Net position [MWh/h]
3000
2000
1000
0
−1000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

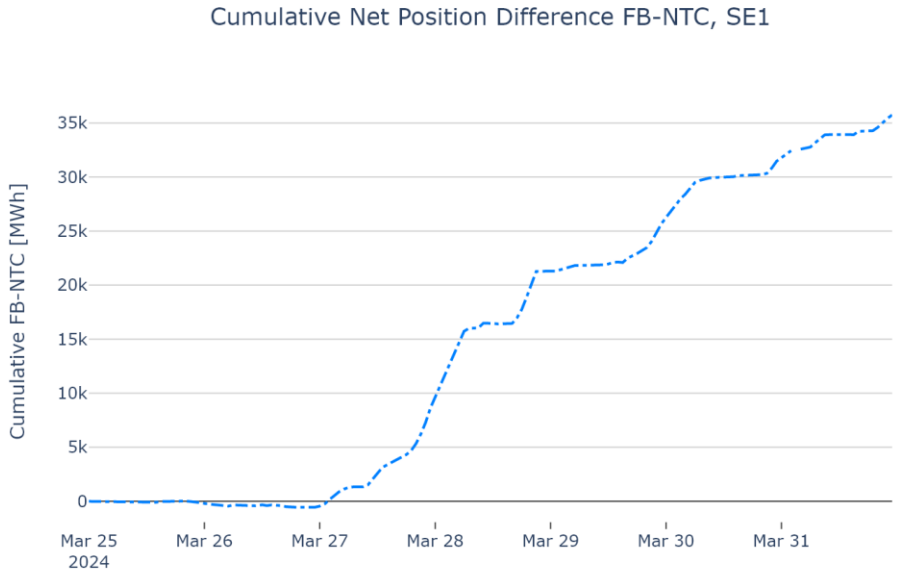

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
5k
0
−5k
−10k
−15k
−20k
−25k
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

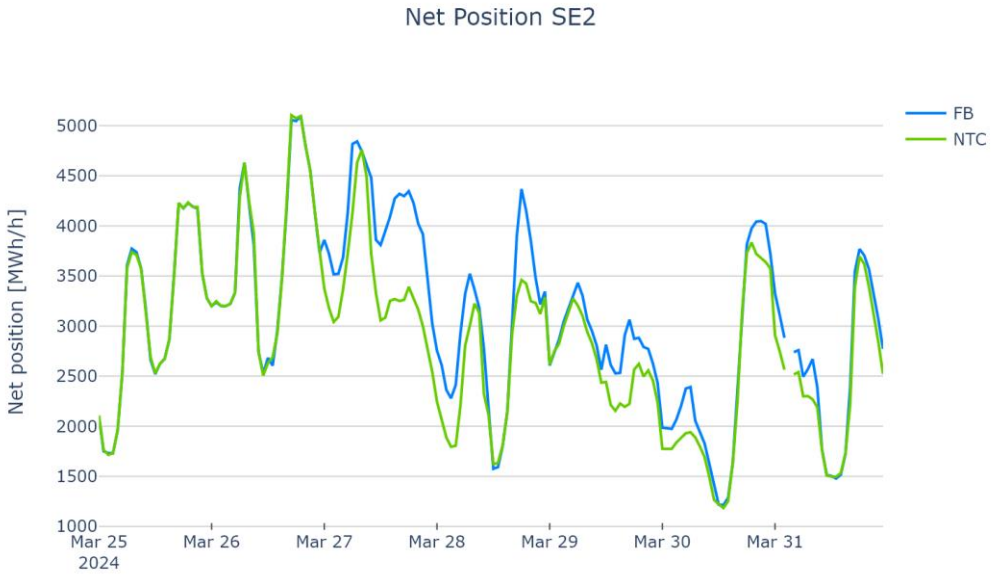
Sweden

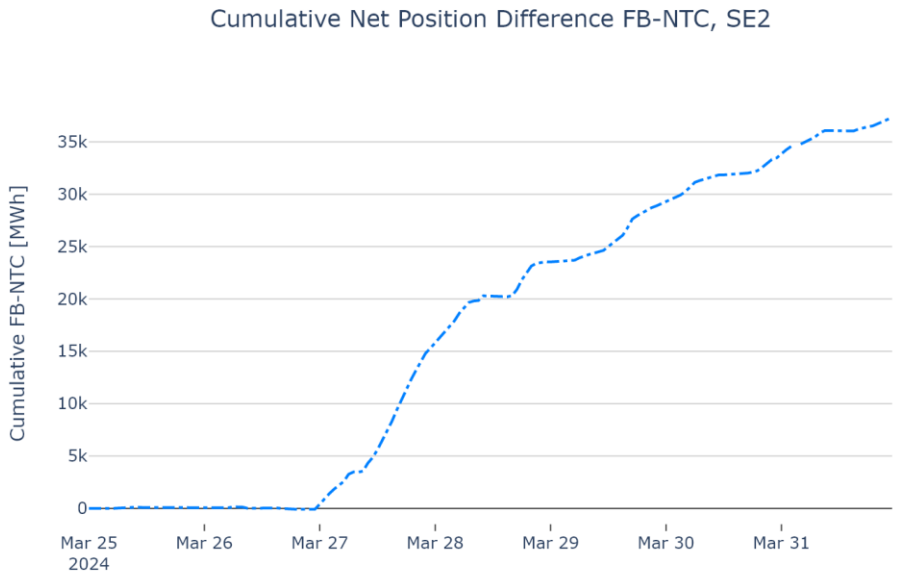

Total Net Position SE
Net position [MWh/h]
7000
6000
5000
4000
3000
2000
1000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31
FB
NTC

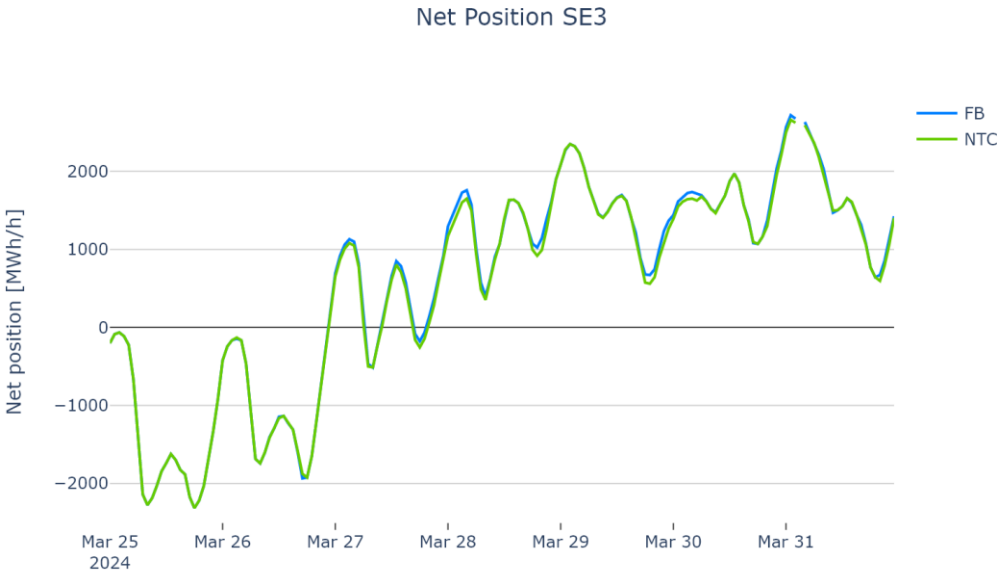

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
80k
70k
60k
50k
40k
30k
20k
10k
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

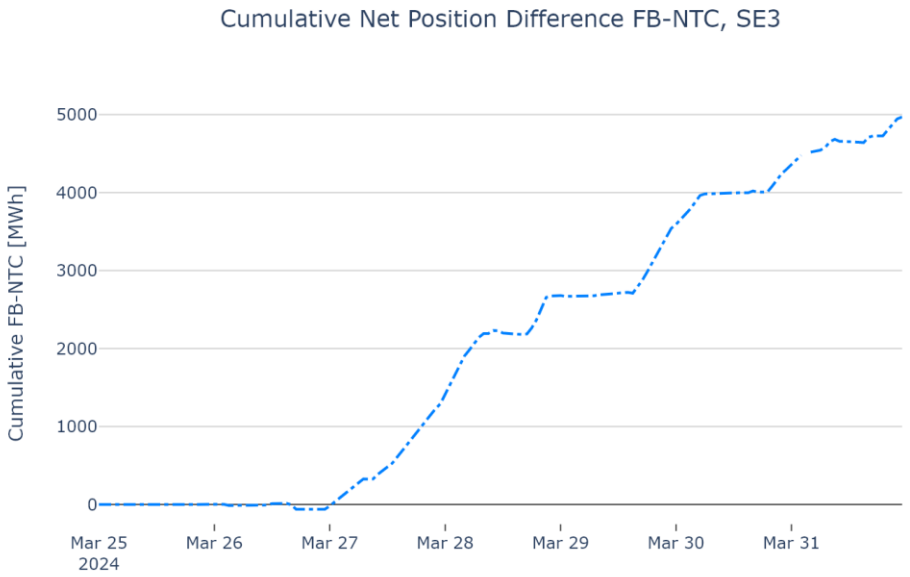

Net Position SE1
FB
NTC
Net position [MWh/h]
3000
2500
2000
1500
1000
500
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

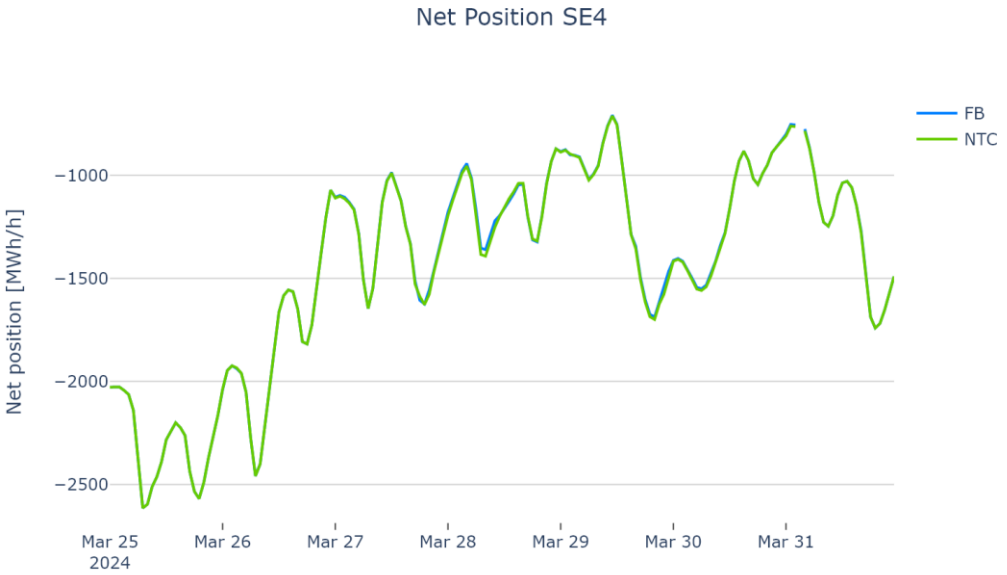

Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
35k
30k
25k
20k
15k
10k
5k
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

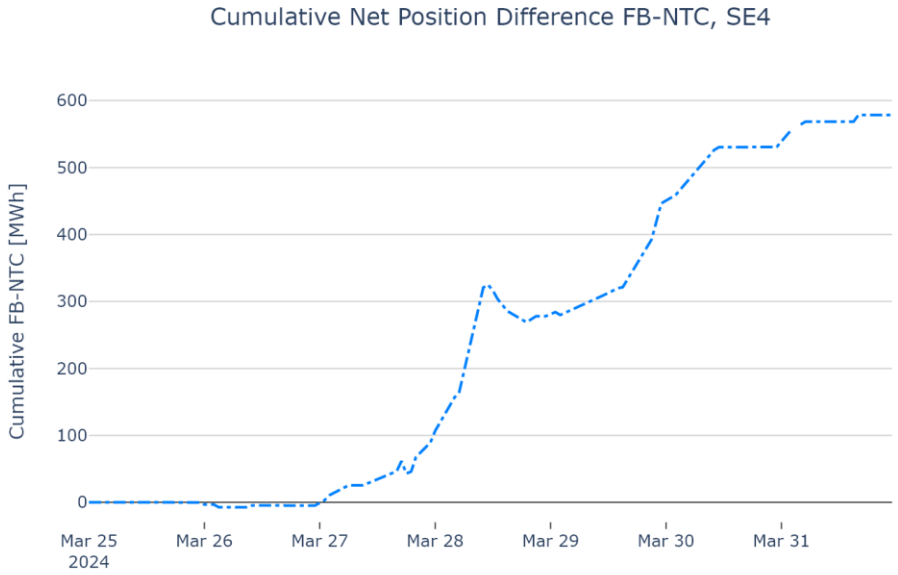

Net Position SE2
FB
NTC
Net position [MWh/h]
5000
4500
4000
3500
3000
2500
2000
1500
1000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


Cumulative Net Position Difference FB-NTC, SE2
Cumulative FB-NTC [MWh]
35k
30k
25k
20k
15k
10k
5k
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31


Net Position SE3
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

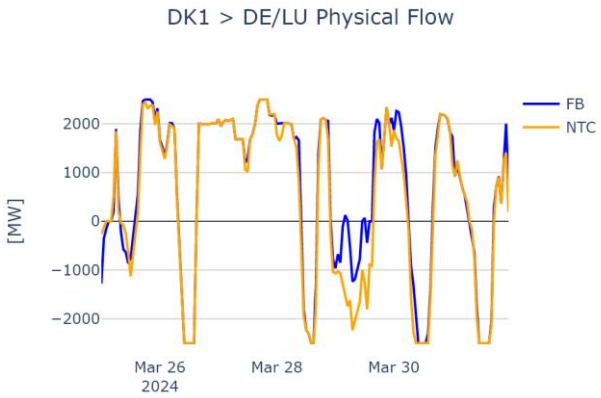

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
5000
4000
3000
2000
1000
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

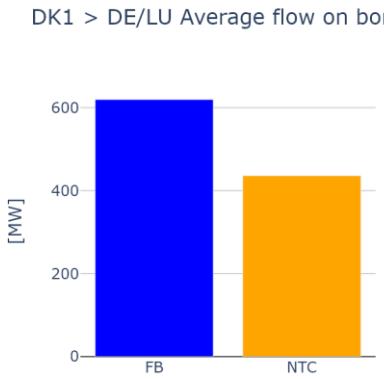

Net Position SE4
FB
NTC
Net position [MWh/h]
−1000
−1500
−2000
−2500
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

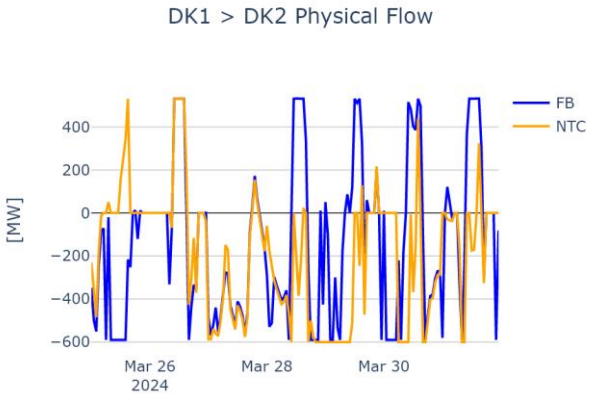

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
600
500
400
300
200
100
0
Mar 25
2024
Mar 26
Mar 27
Mar 28
Mar 29
Mar 30
Mar 31

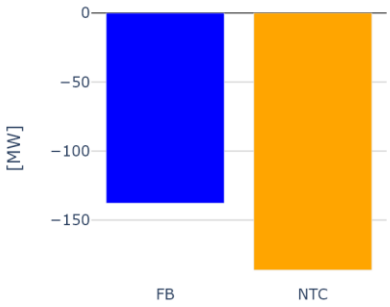
Border flow

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.

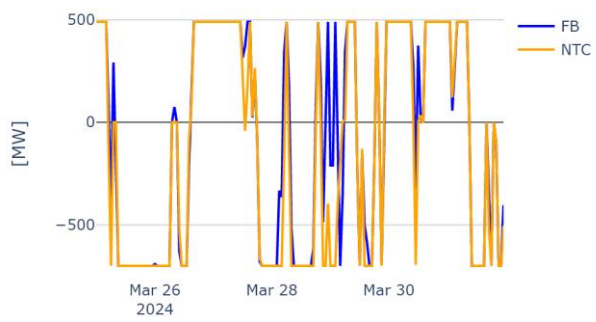




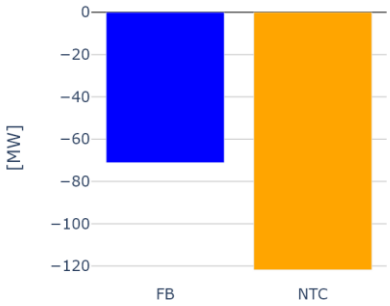




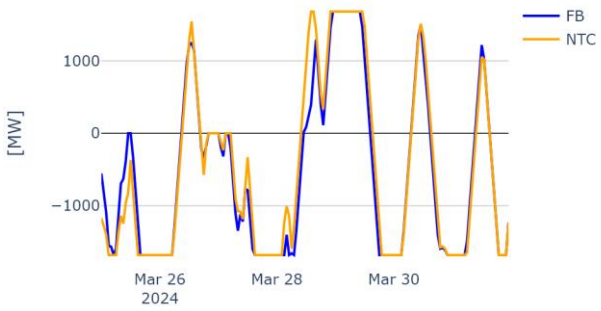
DK1 > NL Physical Flow



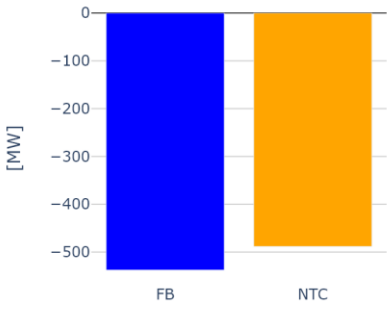
DK1 > NL Average flow on border



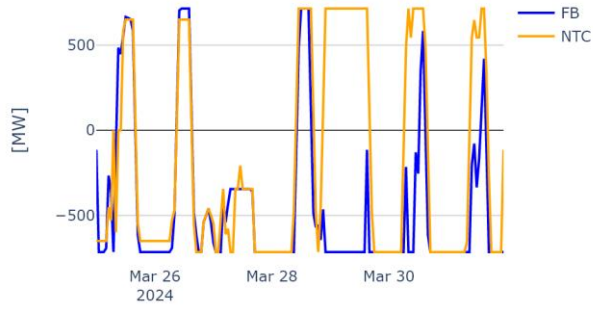
DK1 > NO2 Physical Flow



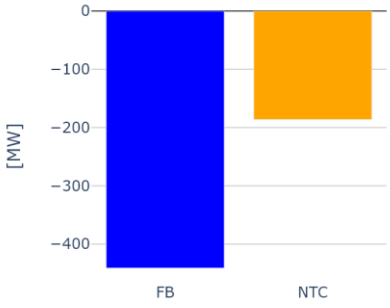
DK1 > NO2 Average flow on border



DK1 > SE3 Physical Flow

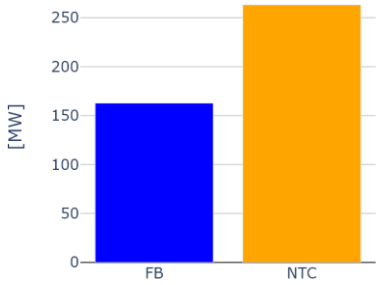


DK1 > SE3 Average flow on border

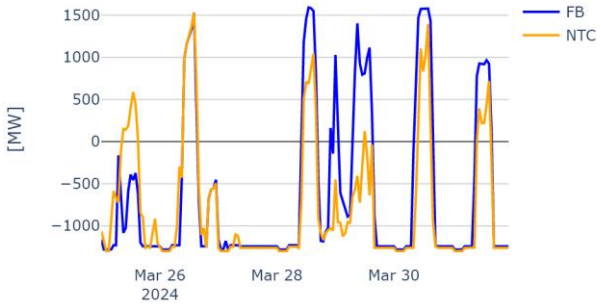


DK2 > DE/LU Physical Flow

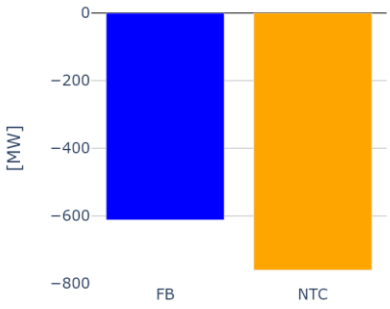
DK2 > DE/LU Average flow on border



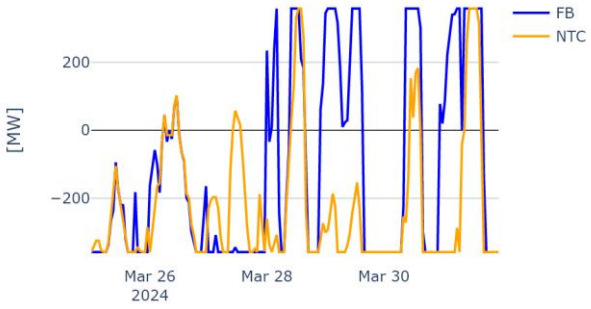
DK2 > SE4 Physical Flow



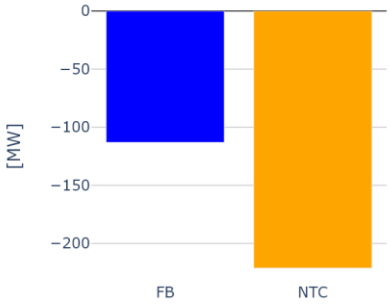
DK2 > SE4 Average flow on border



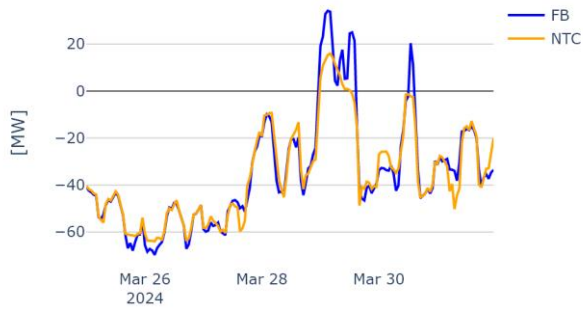
EE > FI Physical Flow



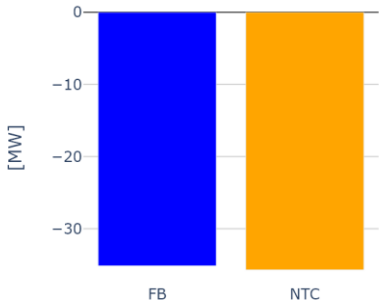
EE > FI Average flow on border



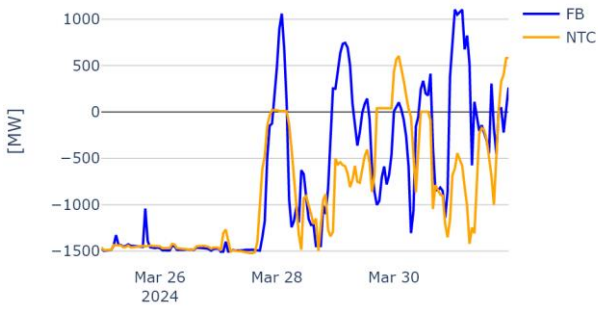
FI > NO4 Physical Flow



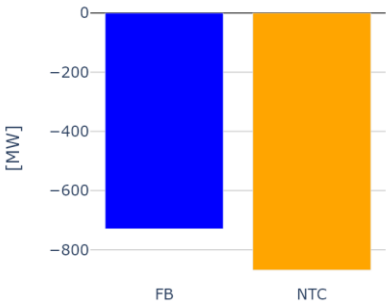
FI > NO4 Average flow on border



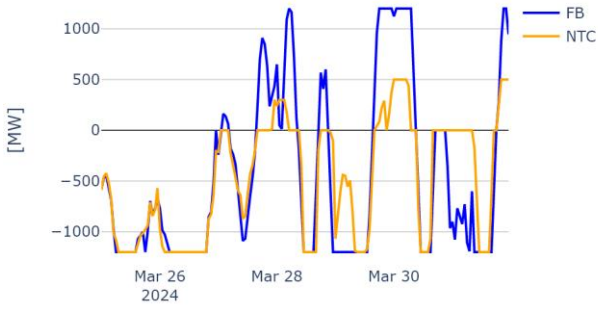
FI > SE1 Physical Flow



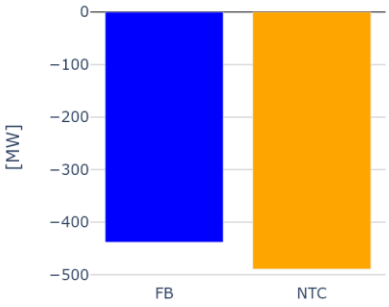
FI > SE1 Average flow on border



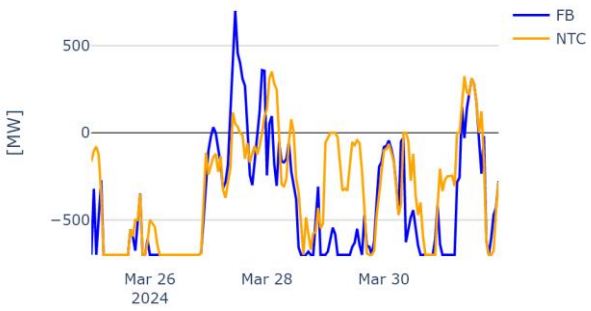
FI > SE3 Physical Flow



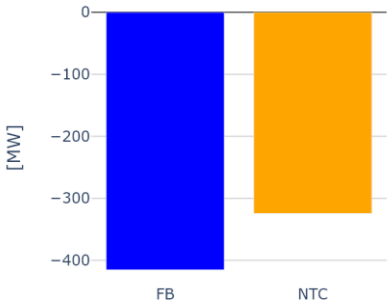
FI > SE3 Average flow on border



LT > SE4 Physical Flow

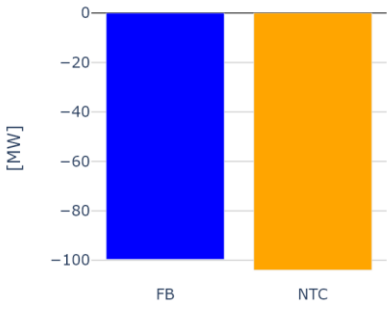


LT > SE4 Average flow on border

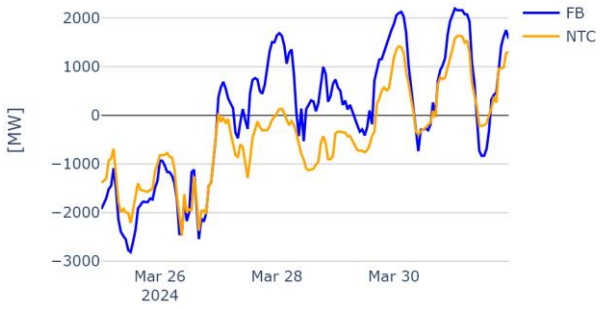


NL > NO2 Physical Flow

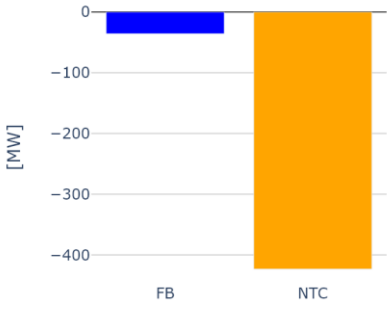
NL > NO2 Average flow on border



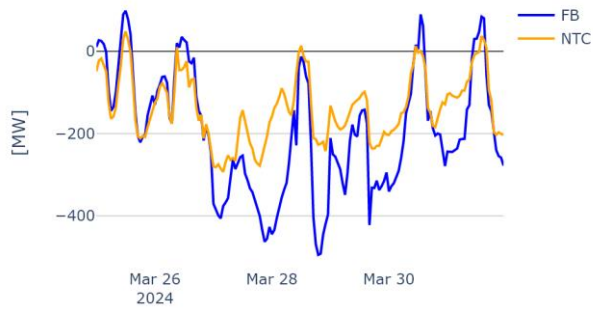
NO1 > NO2 Physical Flow



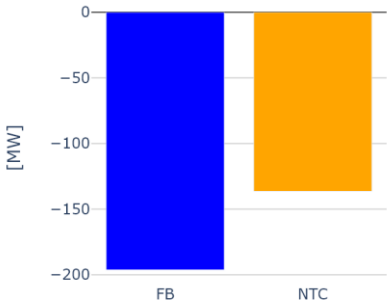
NO1 > NO2 Average flow on border



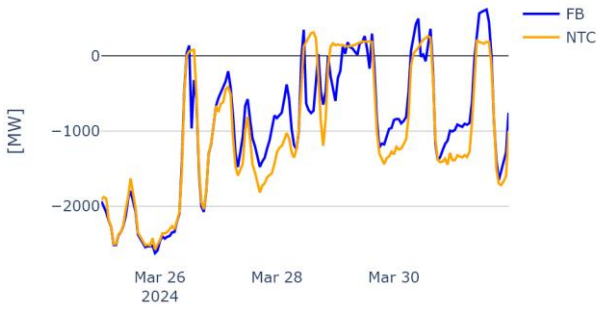
NO1 > NO3 Physical Flow



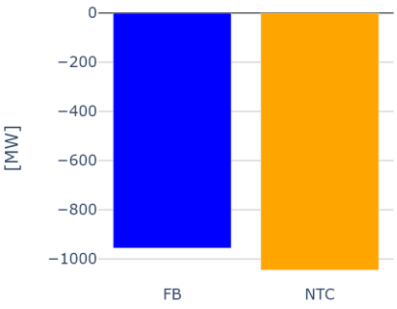
NO1 > NO3 Average flow on border



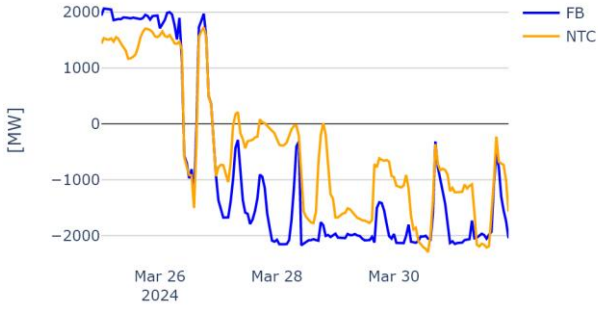
NO1 > NO5 Physical Flow



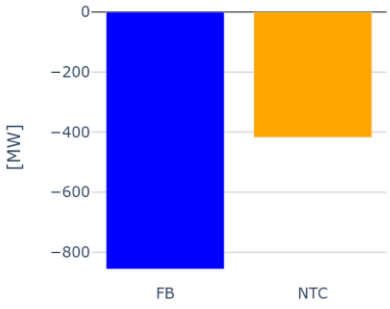
NO1 > NO5 Average flow on border



NO1 > SE3 Physical Flow

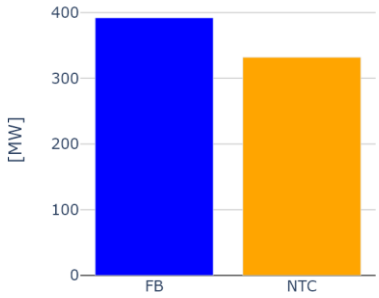


NO1 > SE3 Average flow on border

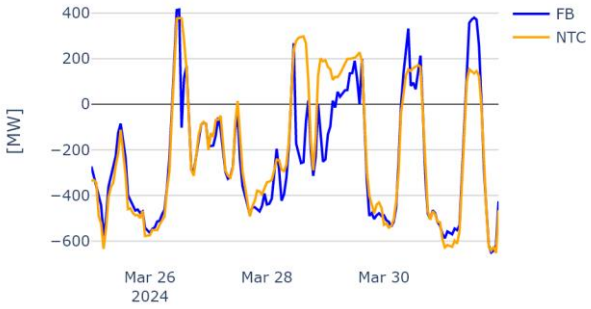


NO2 > DE/LU Physical Flow

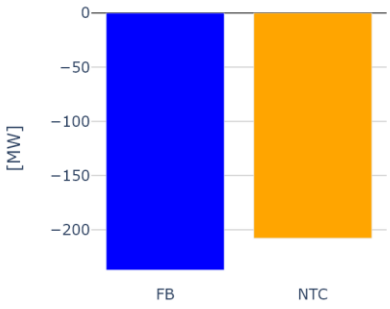
NO2 > DE/LU Average flow on border



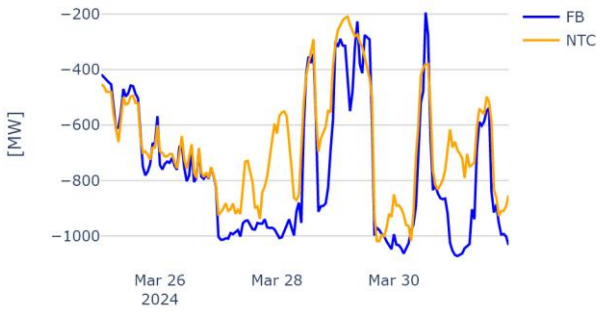
NO2 > NO5 Physical Flow



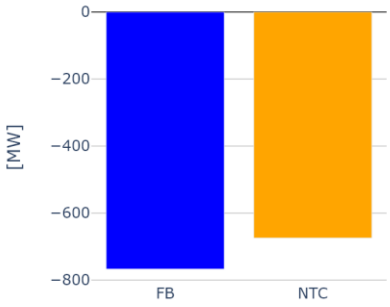
NO2 > NO5 Average flow on border



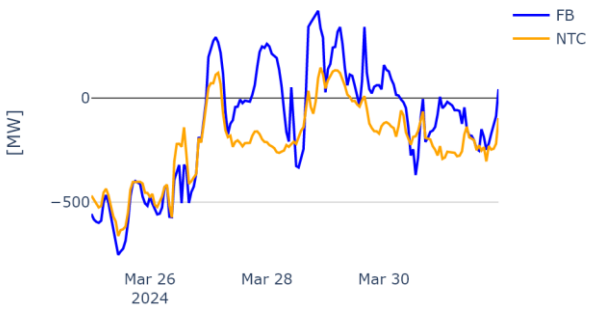
NO3 > NO4 Physical Flow



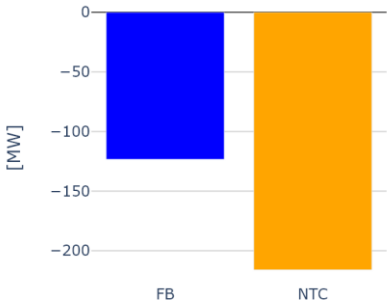
NO3 > NO4 Average flow on border



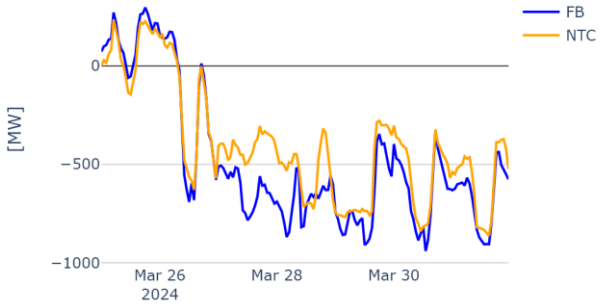
NO3 > NO5 Physical Flow



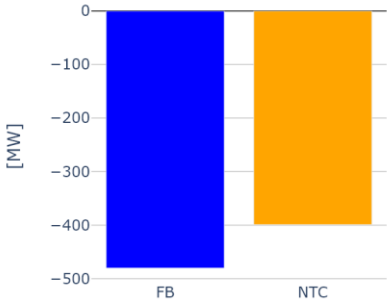
NO3 > NO5 Average flow on border



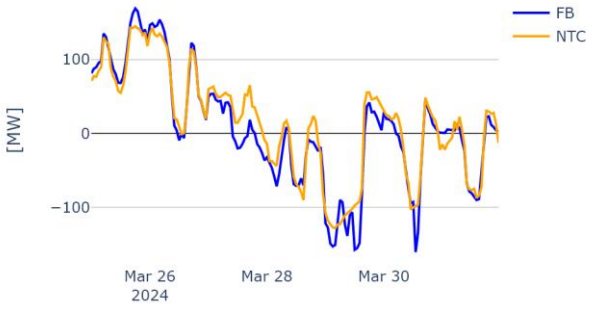
NO3 > SE2 Physical Flow



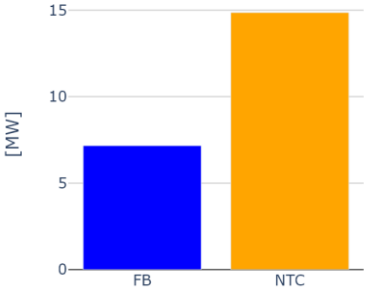
NO3 > SE2 Average flow on border



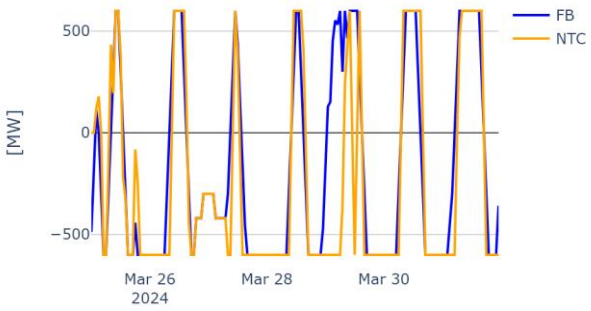
NO4 > SE2 Physical Flow



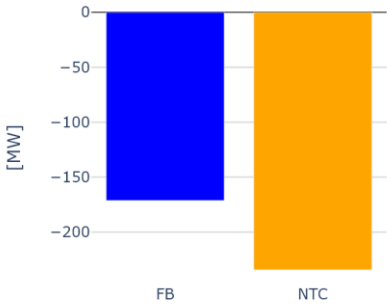
NO4 > SE2 Average flow on border



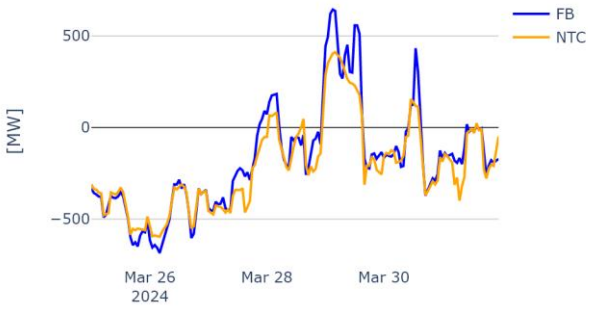
PL > SE4 Physical Flow



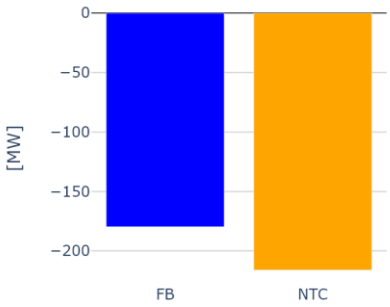
PL > SE4 Average flow on border



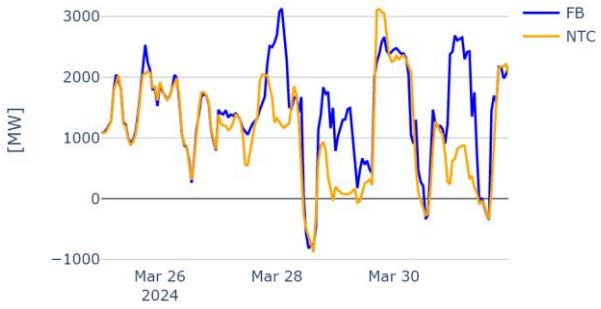
SE1 > NO4 Physical Flow



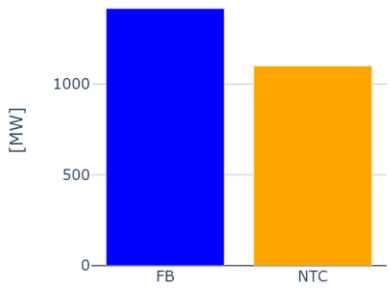
SE1 > NO4 Average flow on border



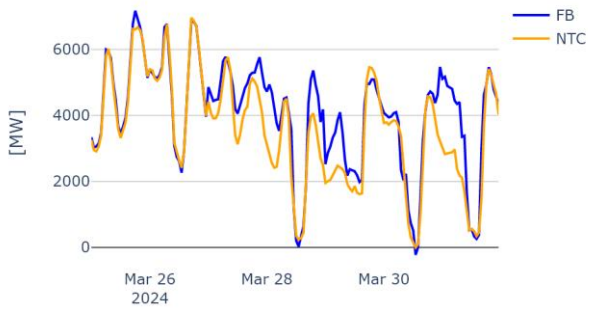
SE1 > SE2 Physical Flow



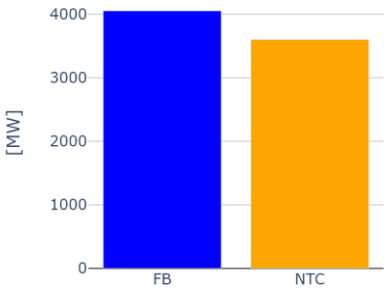
SE1 > SE2 Average flow on border



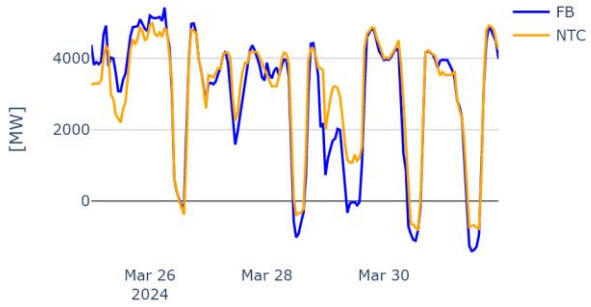
SE2 > SE3 Physical Flow



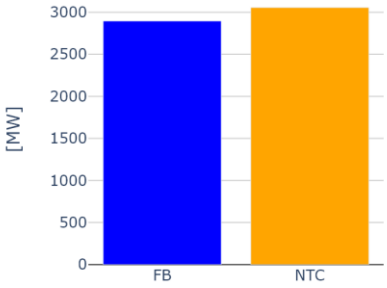
SE2 > SE3 Average flow on border



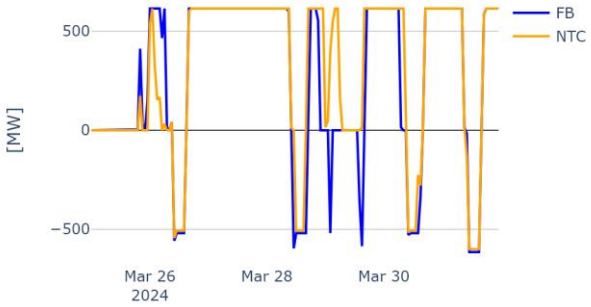
SE3 > SE4 Physical Flow



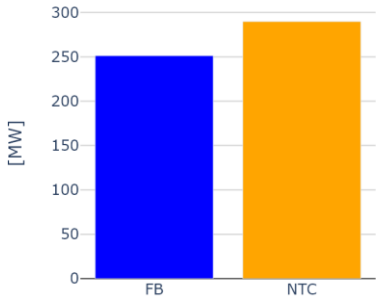
SE3 > SE4 Average flow on border



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	1539576	4
DK1 > DK2	66184	1
DK1 > NL	708613	8
DK1 > NO2	1810117	9
DK1 > SE3	942372	8
DK2 > DE/LU	646343	5
DK2 > SE4	1532144	7
EE > FI	124426	2
FI > NO4	54091	6
FI > SE1	1129294	5
FI > SE3	1032562	5
LT > SE4	681980	6
NL > NO2	1098586	15
NO1 > NO2	13419	0
NO1 > NO3	37181	1
NO1 > NO5	-88048	0
NO1 > SE3	1878197	6
NO2 > DE/LU	2290564	14
NO2 > NO5	-15095	0
NO3 > NO4	610400	5
NO3 > NO5	14020	1
NO3 > SE2	464676	4
NO4 > SE2	22906	1
PL > SE4	1080950	11
SE1 > NO4	86226	1
SE1 > SE2	147654	0
SE2 > SE3	55611	0
SE3 > SE4	112039	0
SE4 > DE/LU	1129725	12

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	0	0	0
DK1 > NL	0	0	0
DK1 > NO2	8	-30374	-5
DK1 > SE3	21	-18547	-1
DK2 > DE/LU	2	-1250	-1
DK2 > SE4	4	-931	0
EE > FI	1	-8	0
FI > NO4	19	-829	-2
FI > SE1	4	-148	0
FI > SE3	14	-3178	0
LT > SE4	22	-3569	0
NL > NO2	4	-5355	-7
NO1 > NO2	28	-39766	-3
NO1 > NO3	35	-21453	-2
NO1 > NO5	41	-111919	-3
NO1 > SE3	2	-270	0
NO2 > DE/LU	4	-6350	-2
NO2 > NO5	44	-50424	-4
NO3 > NO4	22	-25785	-1
NO3 > NO5	32	-67215	-5
NO3 > SE2	4	-4884	-1
NO4 > SE2	31	-3599	-3
PL > SE4	18	-337204	-28
SE1 > NO4	29	-14378	-1
SE1 > SE2	19	-12371	0
SE2 > SE3	35	-146185	-1
SE3 > SE4	17	-25151	-1
SE4 > DE/LU	1	-94	-5