Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 17 of 2024

Appendix

Contents

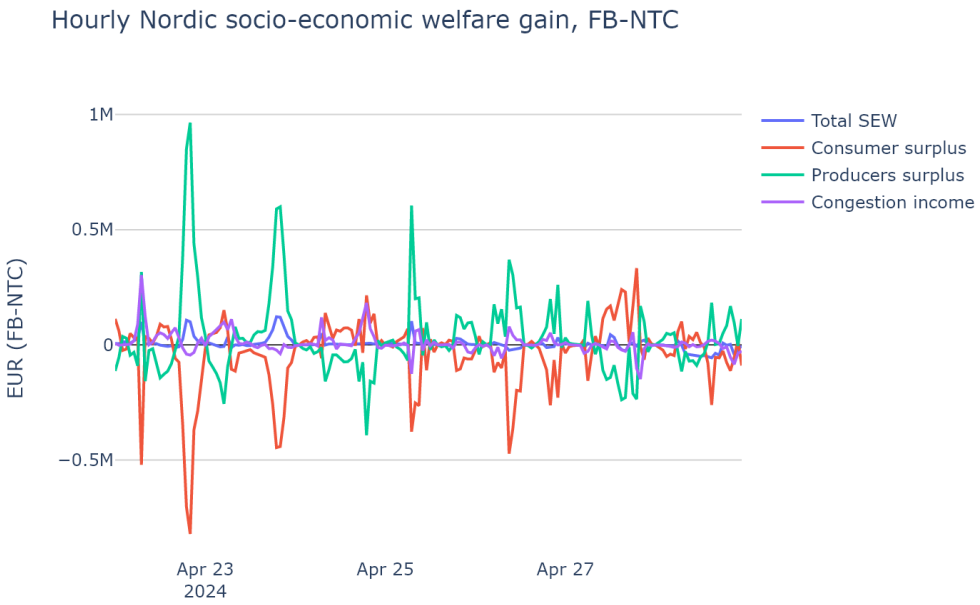
Domain validation

Energy Delivery Day:	Mon. 22.4	Tue. 23.4	Wed. 24.4	Thu. 25.4	Fri. 26.4	Sat. 27.4	Sun. 28.4
Invalid/missing IGMs	0	0	0	0	0	0	0
Substituted IGMs	0	0	0	0	0	0	0
Invalid CGMs	0	0	0	0	0	0	0
FB domain back-up	0	0	0	0	0	0	0
IVA provision	0	0	2	0	1	0	1
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

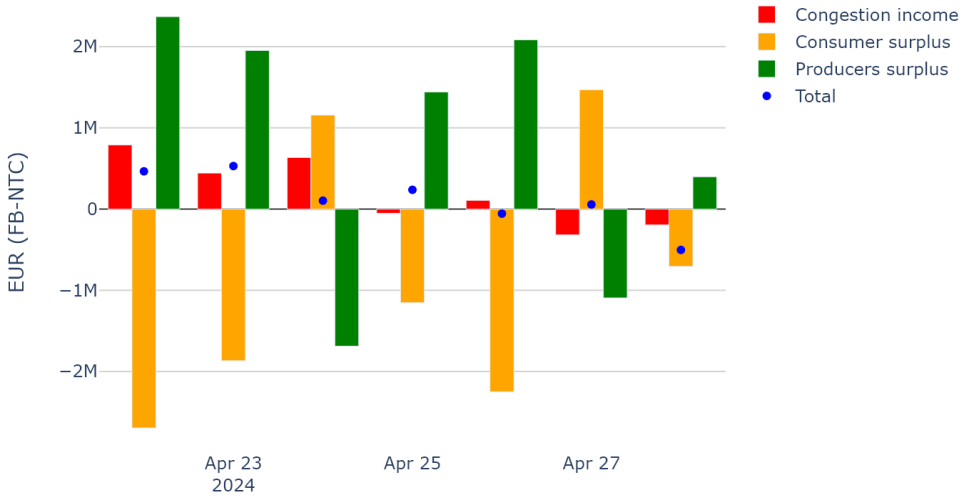
Socio Economic Welfare

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.

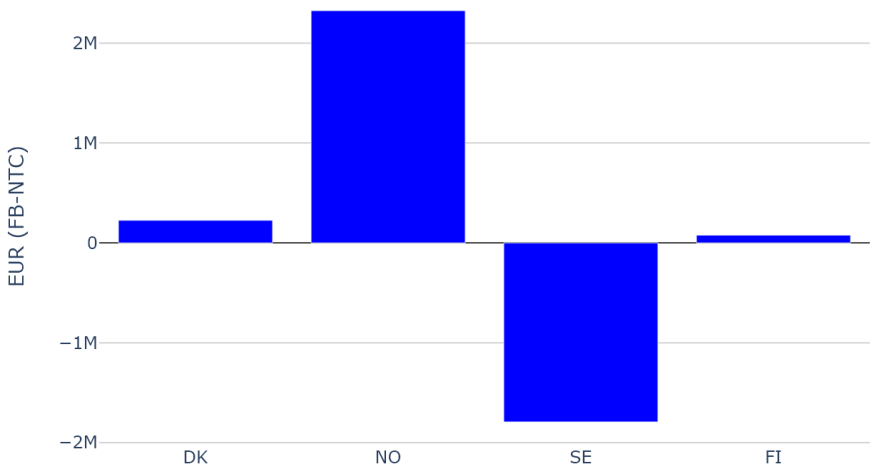
Nordics

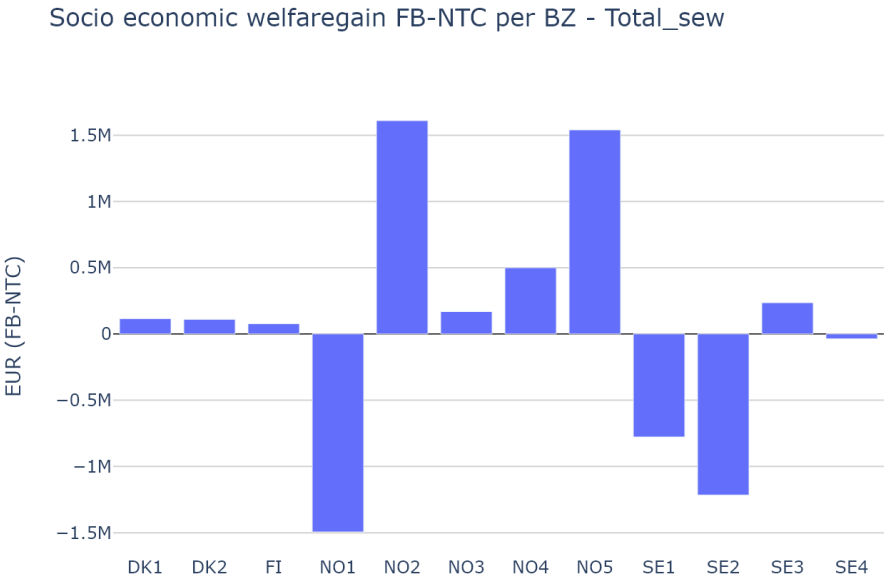


Nordics socio-economic welfare per stakeholder and day

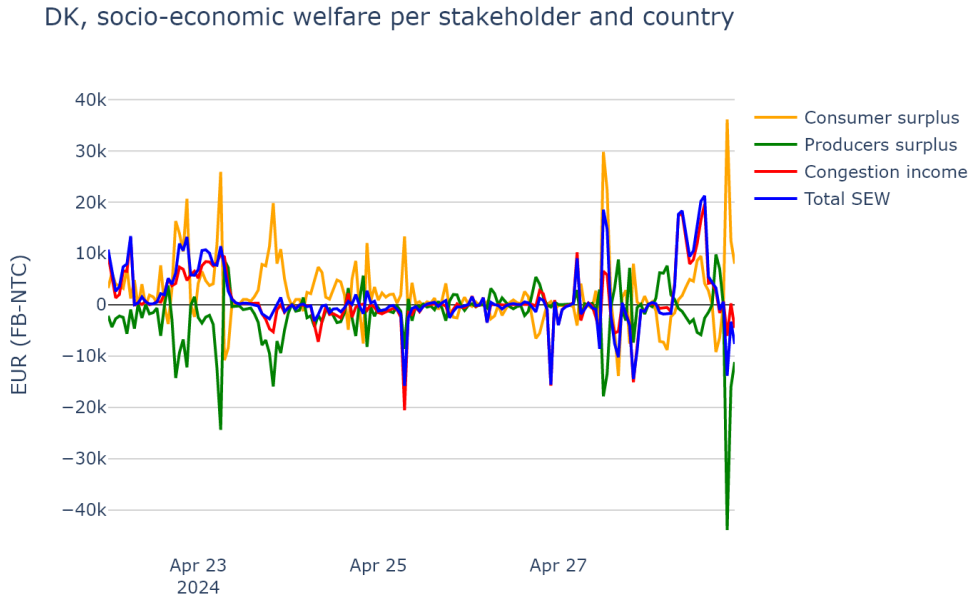


Total Nordic socio-economic welfare per country

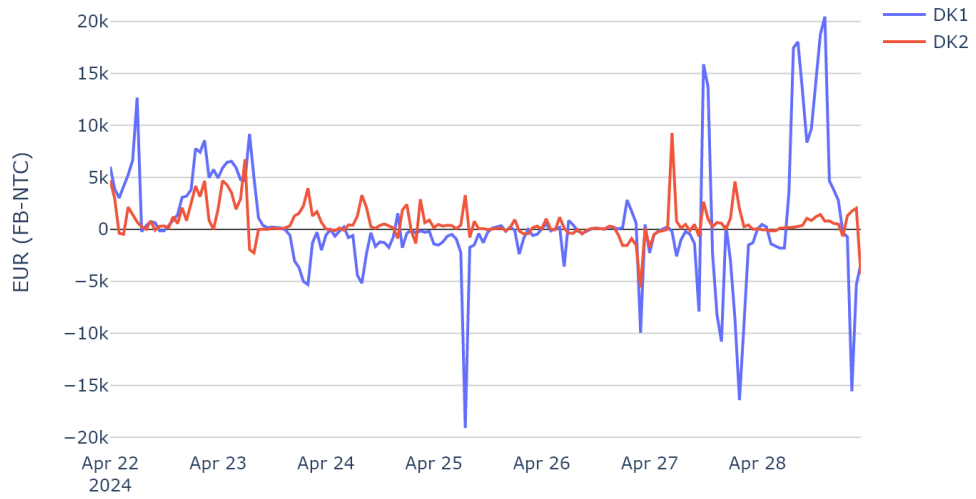



Socio economic welfaregain FB-NTC per BZ - Total_sew
EUR (FB-NTC)
1.5M
1M
0.5M
0
−0.5M
−1M
−1.5M
DK1
DK2
FI
NO1
NO2
NO3
NO4
NO5
SE1
SE2
SE3
SE4

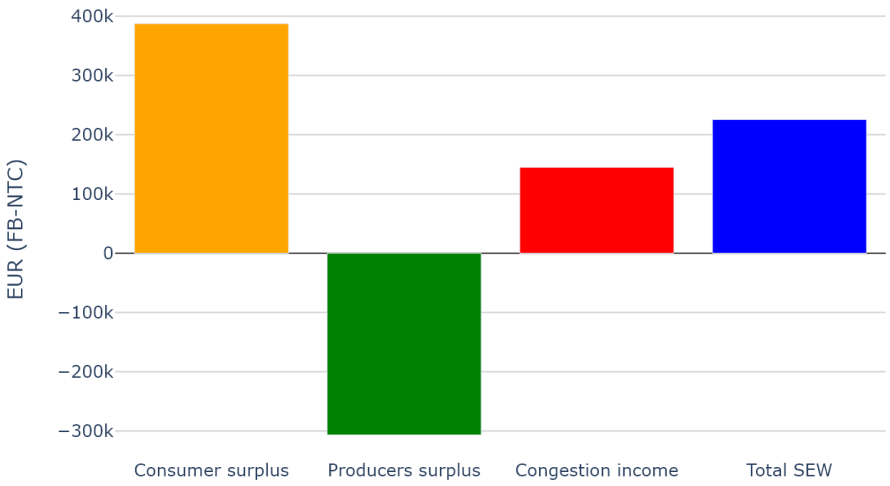
Denmark


DK, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
40k
30k
20k
10k
0
−10k
−20k
−30k
−40k
Apr 23
2024
Apr 25
Apr 27
Consumer surplus
Producers surplus
Congestion income
Total SEW

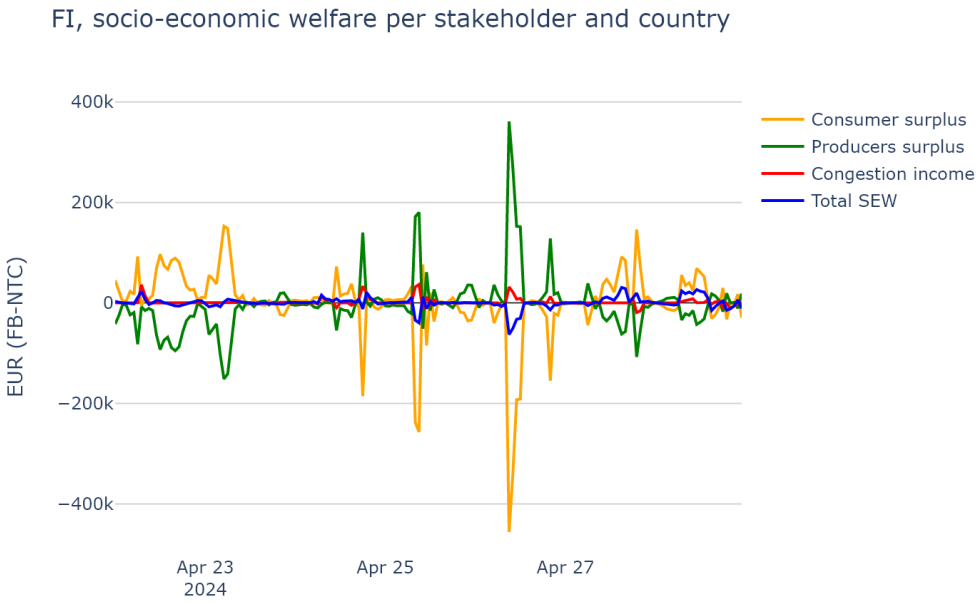
Total socio economic welfaregain FB-NTC per BZ in DK

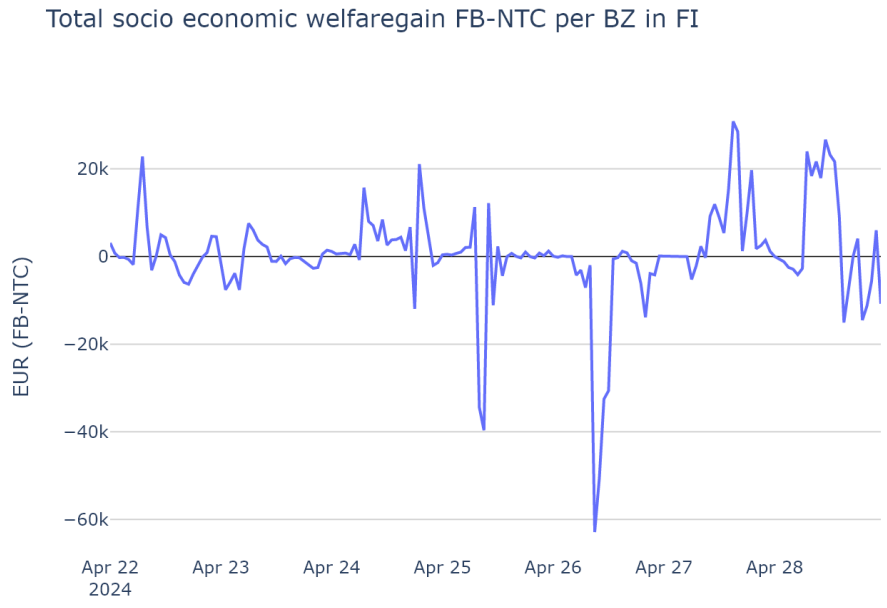


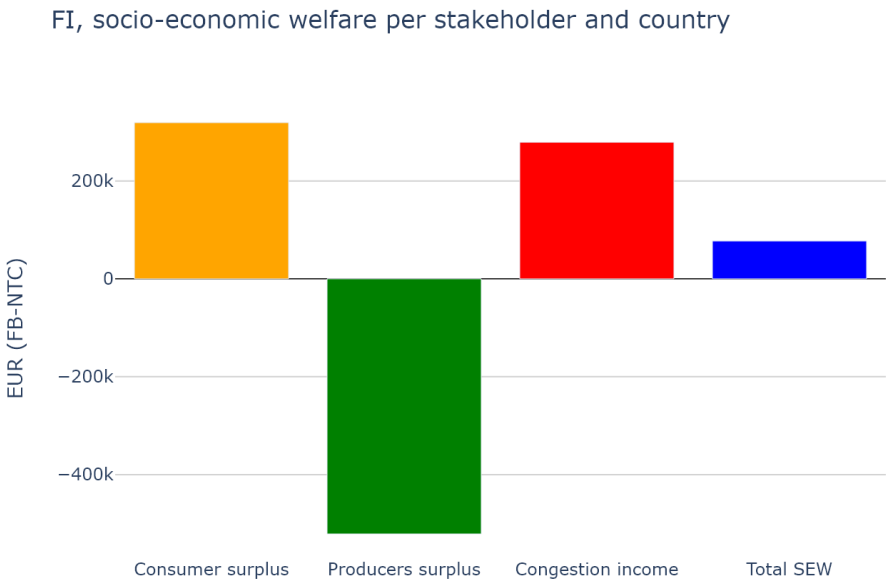
DK, socio-economic welfare per stakeholder and country



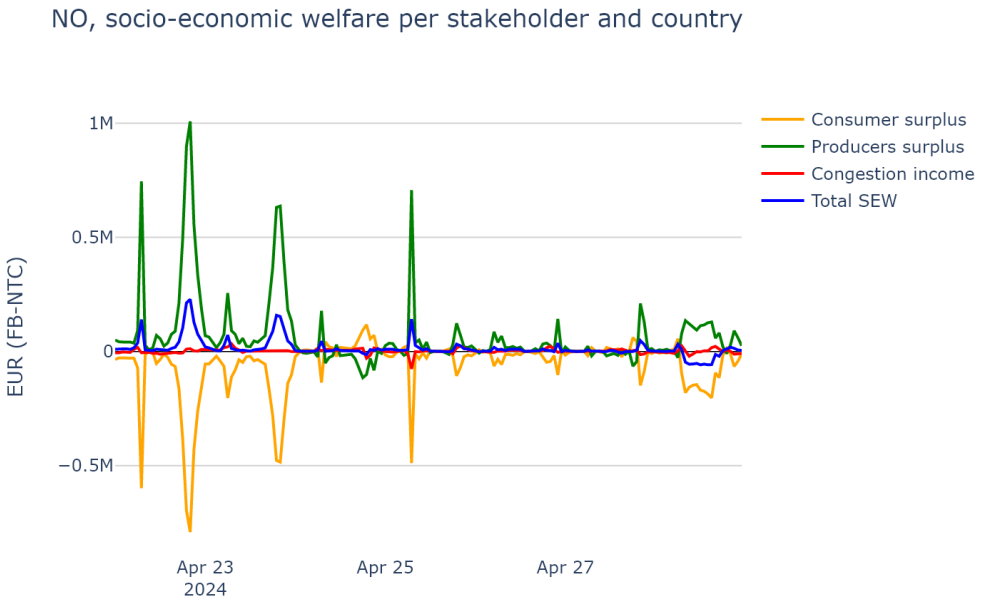
Finland

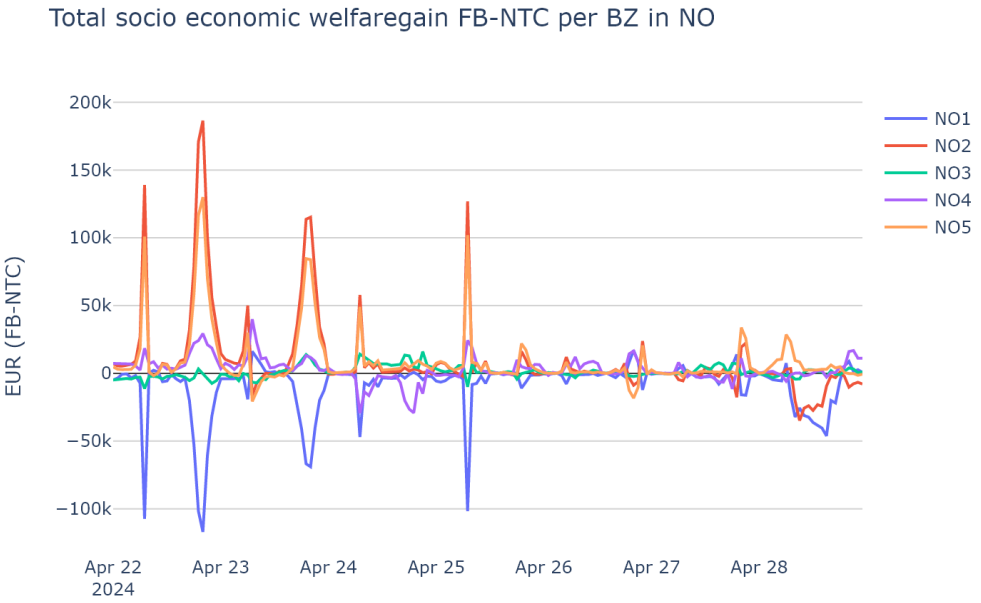

FI, socio-economic welfare per stakeholder and country
400k
200k
0
−200k
−400k
EUR (FB-NTC)
Consumer surplus
Producers surplus
Congestion income
Total SEW
Apr 23
2024
Apr 25
Apr 27

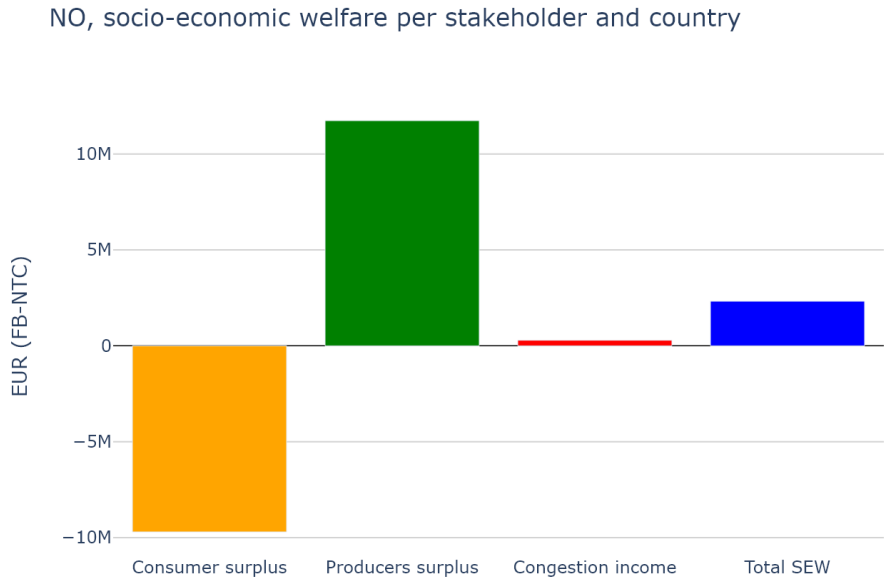

Total socio economic welfaregain FB-NTC per BZ in FI
20k
0
−20k
−40k
−60k
EUR (FB-NTC)
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28


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

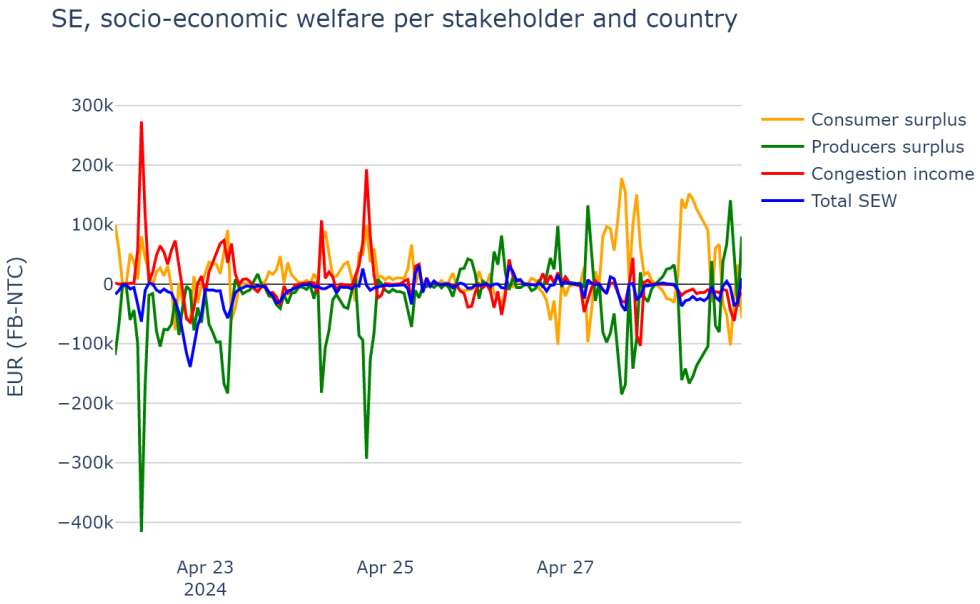
Norway

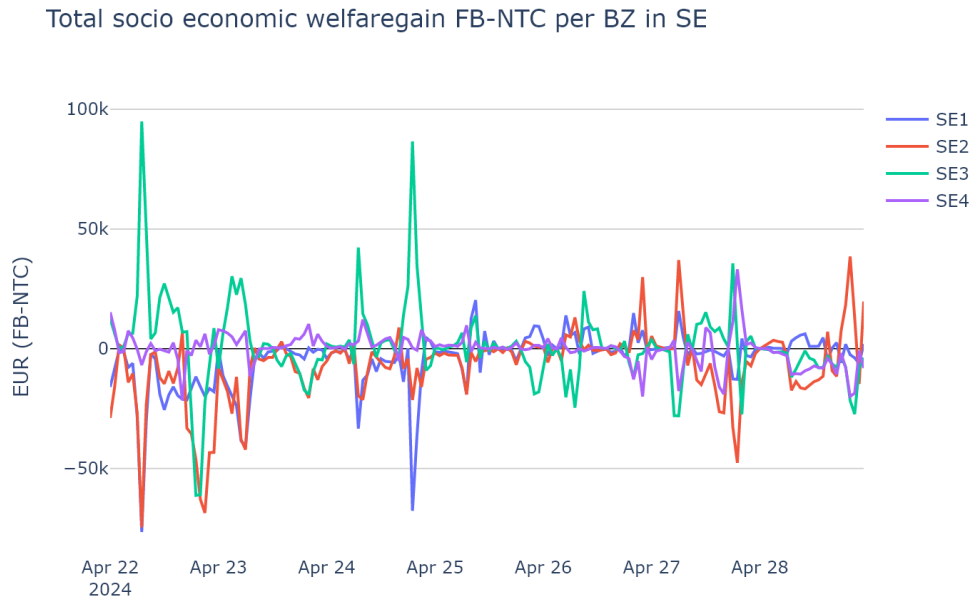

NO, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
1M
0.5M
0
−0.5M
Apr 23
2024
Apr 25
Apr 27
Consumer surplus
Producers surplus
Congestion income
Total SEW

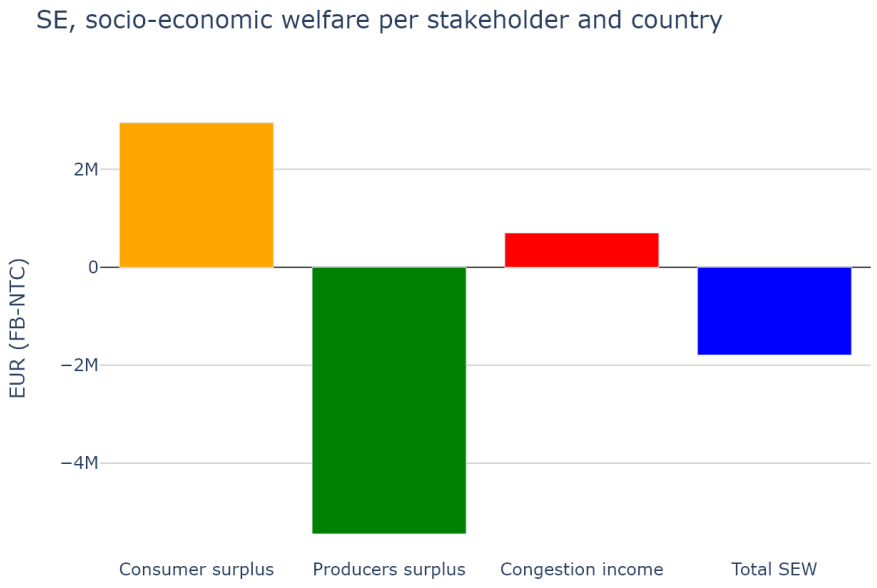

Total socio economic welfaregain FB-NTC per BZ in NO
EUR (FB-NTC)
200k
150k
100k
50k
0
−50k
−100k
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28
NO1
NO2
NO3
NO4
NO5


NO, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
10M
5M
0
−5M
−10M
Consumer surplus
Producers surplus
Congestion income
Total SEW

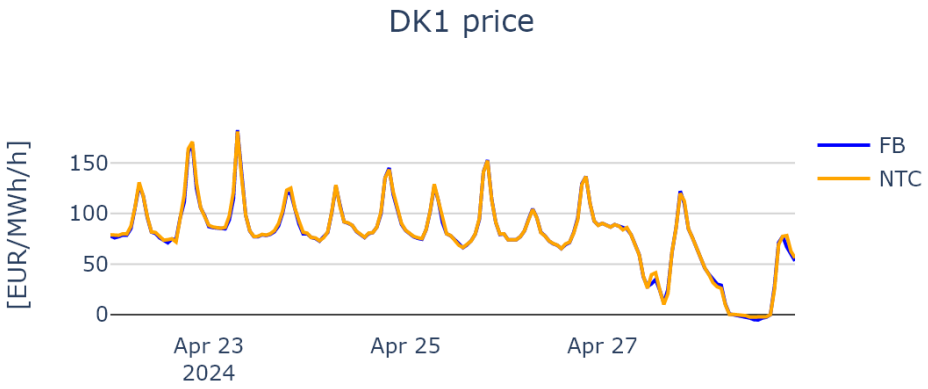
Sweden

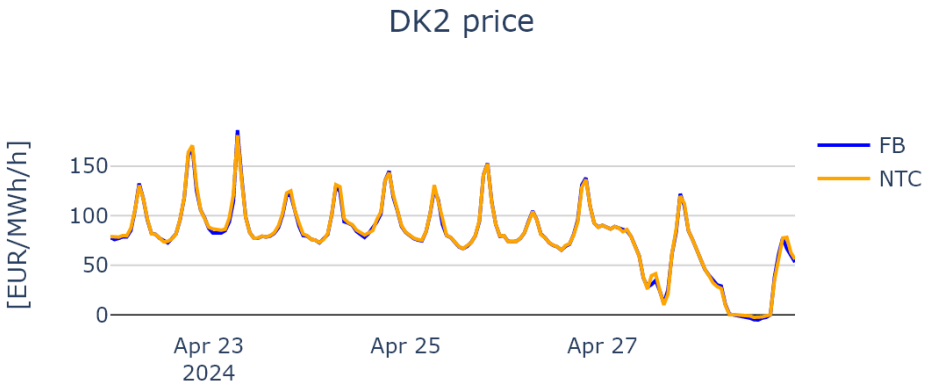

SE, socio-economic welfare per stakeholder and country
300k
200k
100k
0
−100k
−200k
−300k
−400k
EUR (FB-NTC)
Apr 23
2024
Apr 25
Apr 27
Consumer surplus
Producers surplus
Congestion income
Total SEW

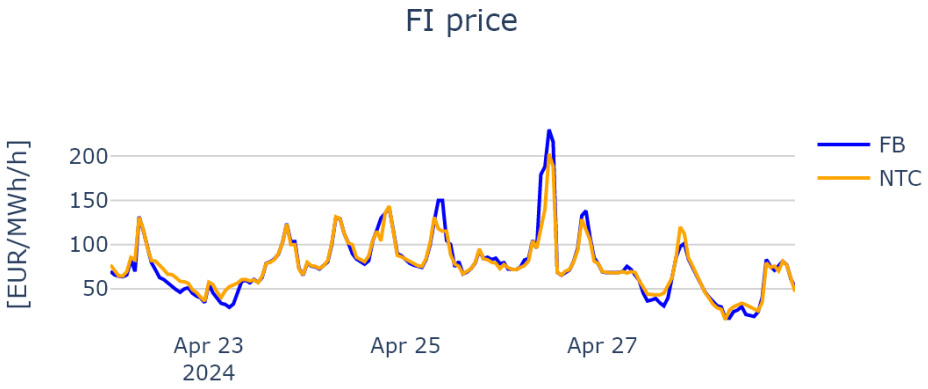

Total socio economic welfaregain FB-NTC per BZ in SE
100k
50k
0
−50k
EUR (FB-NTC)
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28
SE1
SE2
SE3
SE4


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

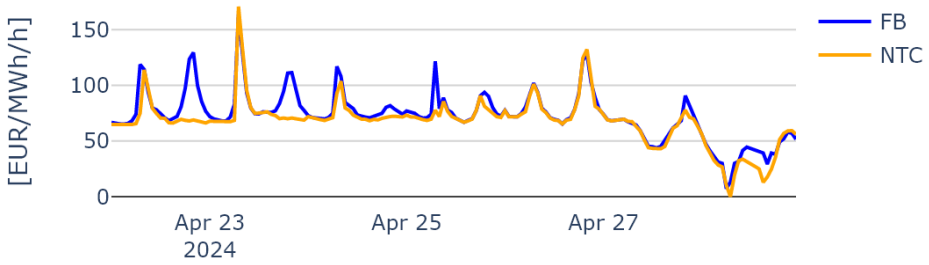
Prices


DK1 price
[EUR/MWh/h]
150
100
50
0
Apr 23
2024
Apr 25
Apr 27
FB
NTC

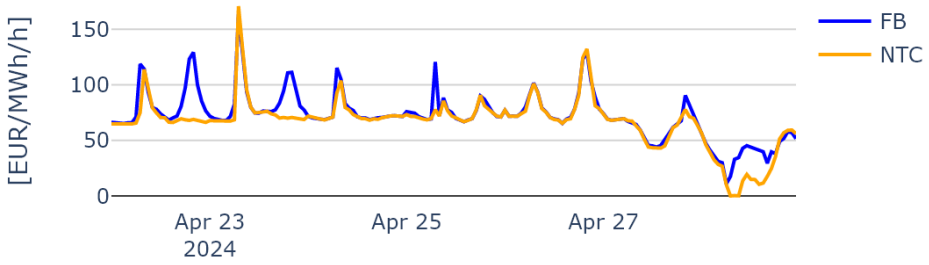

DK2 price
[EUR/MWh/h]
150
100
50
0
Apr 23
2024
Apr 25
Apr 27
FB
NTC


FI price
[EUR/MWh/h]
200
150
100
50
Apr 23
2024
Apr 25
Apr 27
FB
NTC

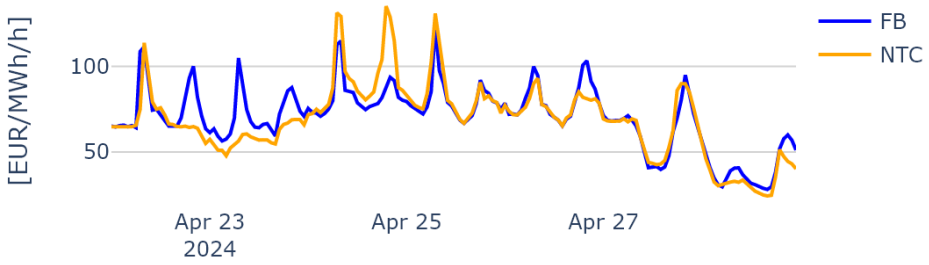
NO1 price



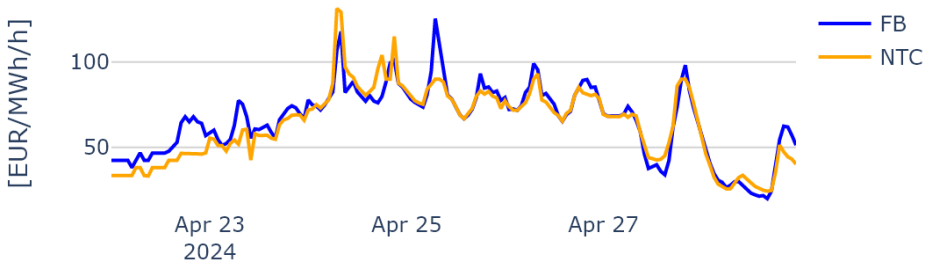
NO2 price



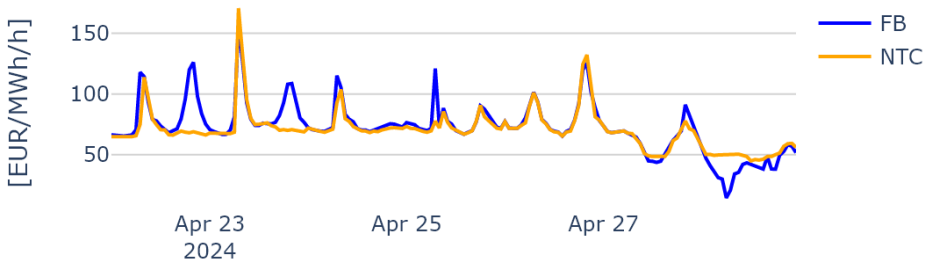
NO3 price



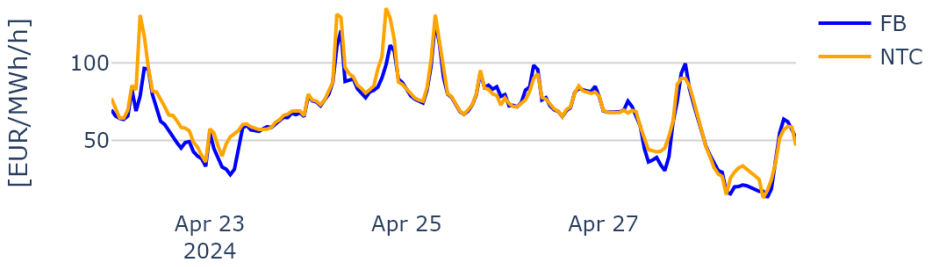
NO4 price



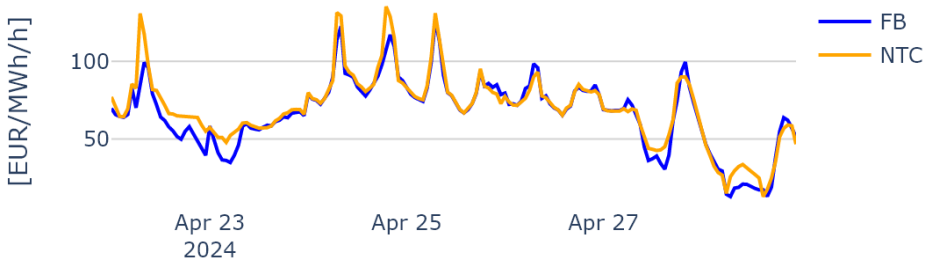
NO5 price



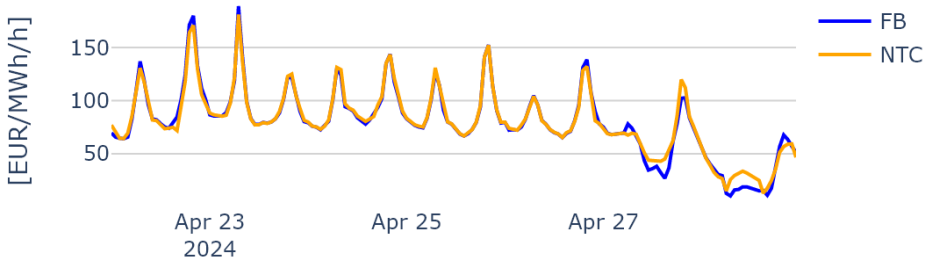
SE1 price



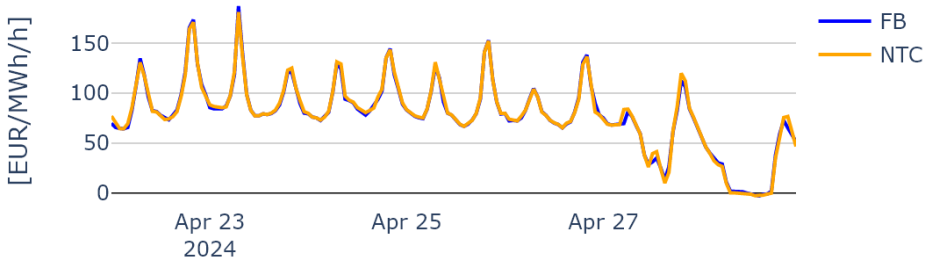
SE2 price



SE3 price

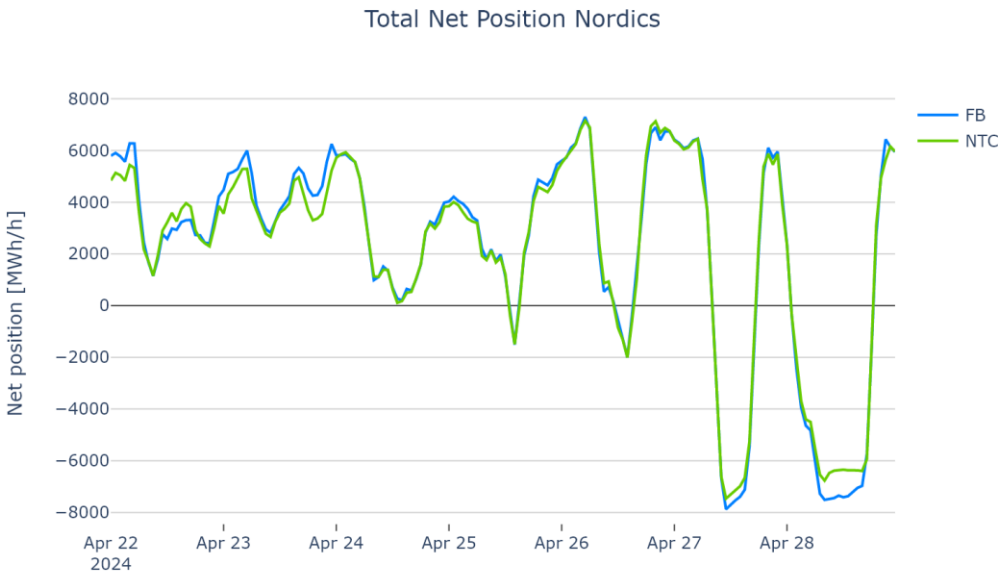


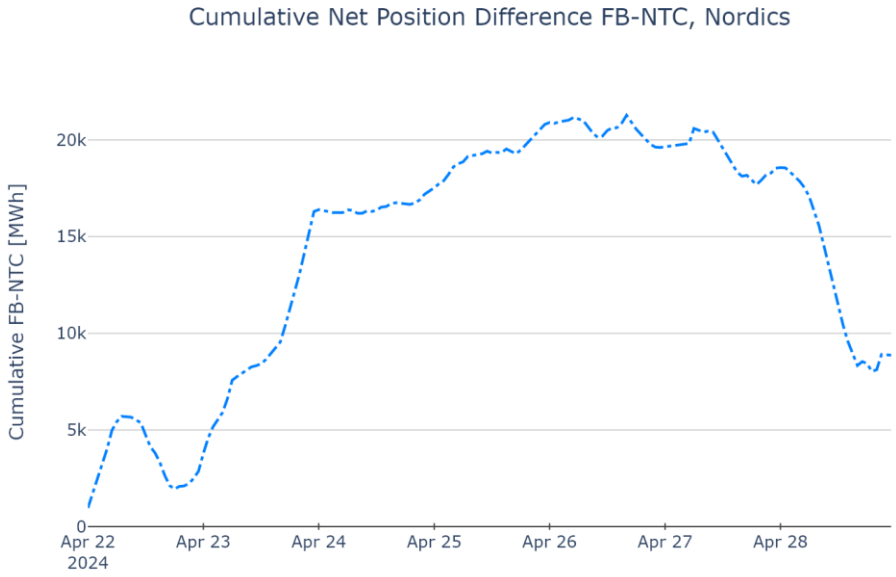
SE4 price



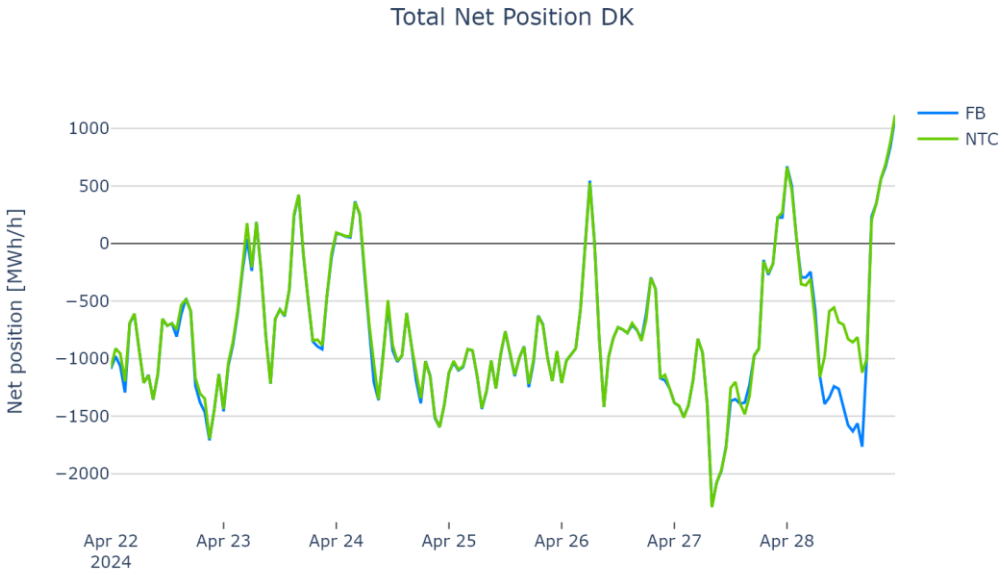
Net positions

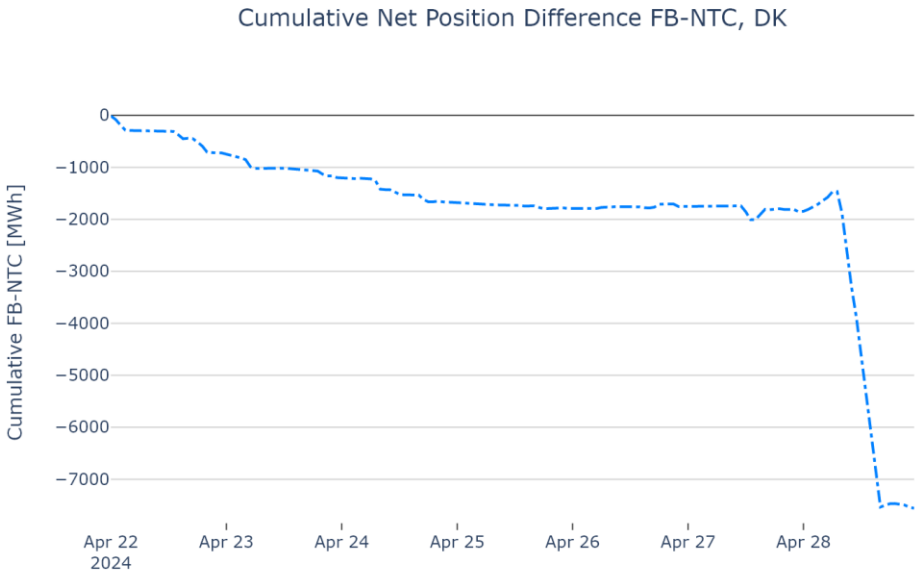
Nordics

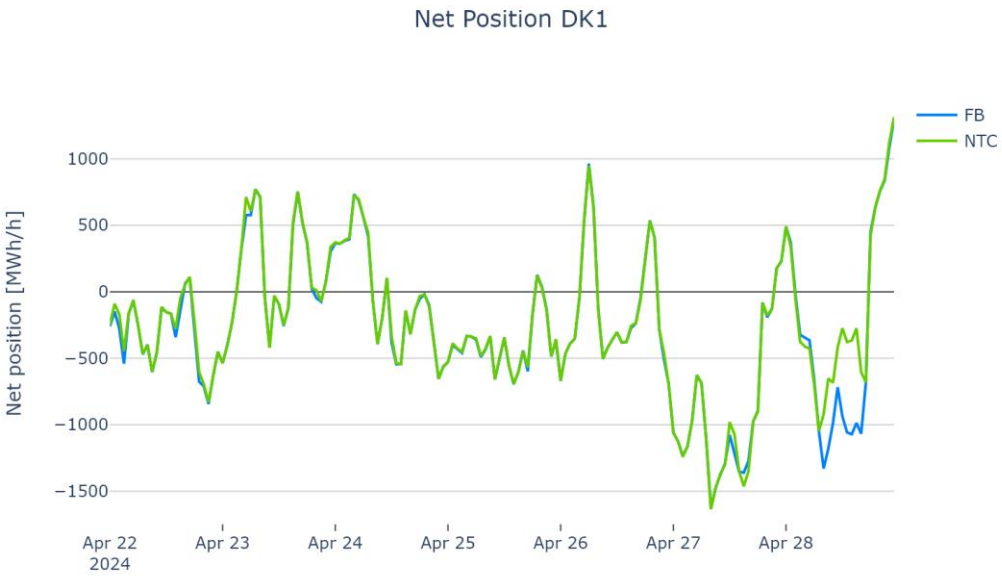


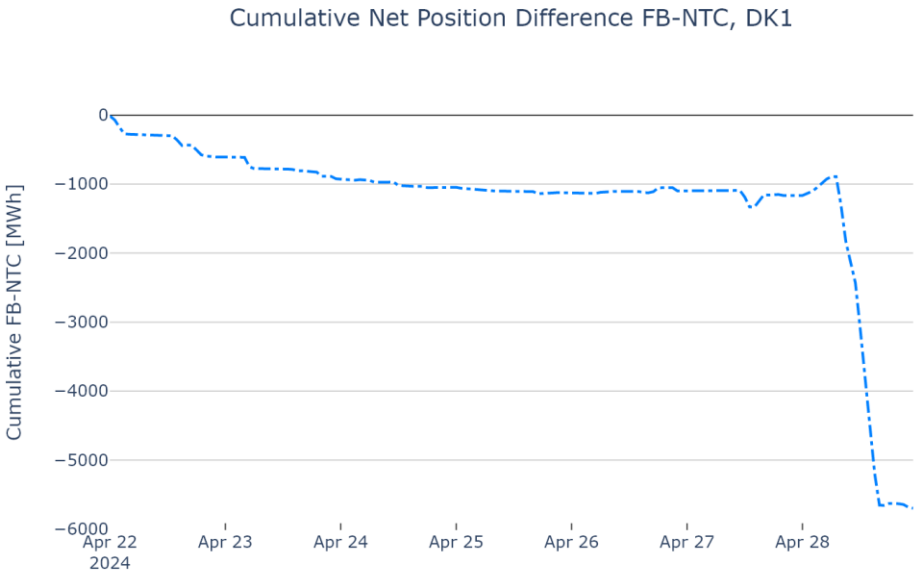


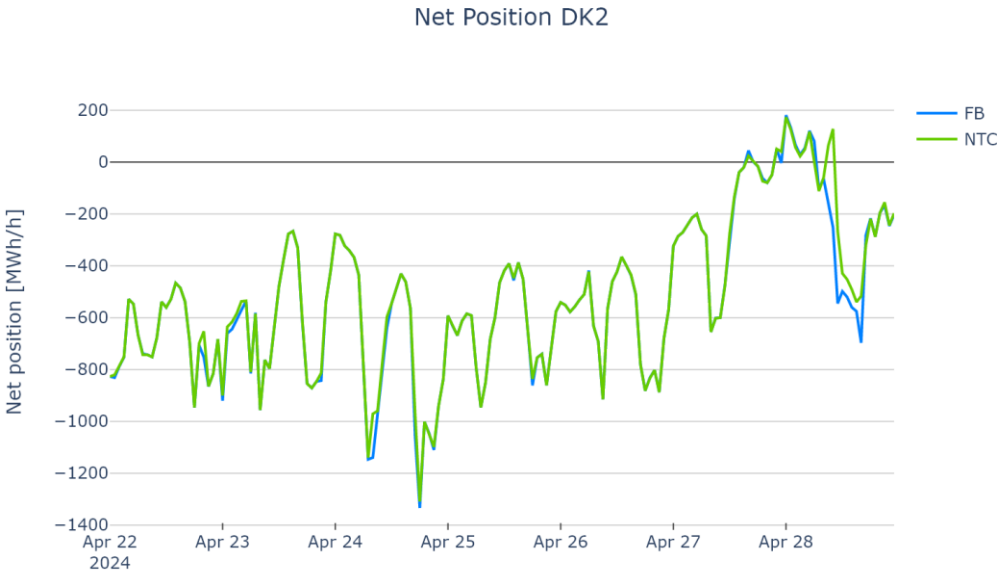
Denmark

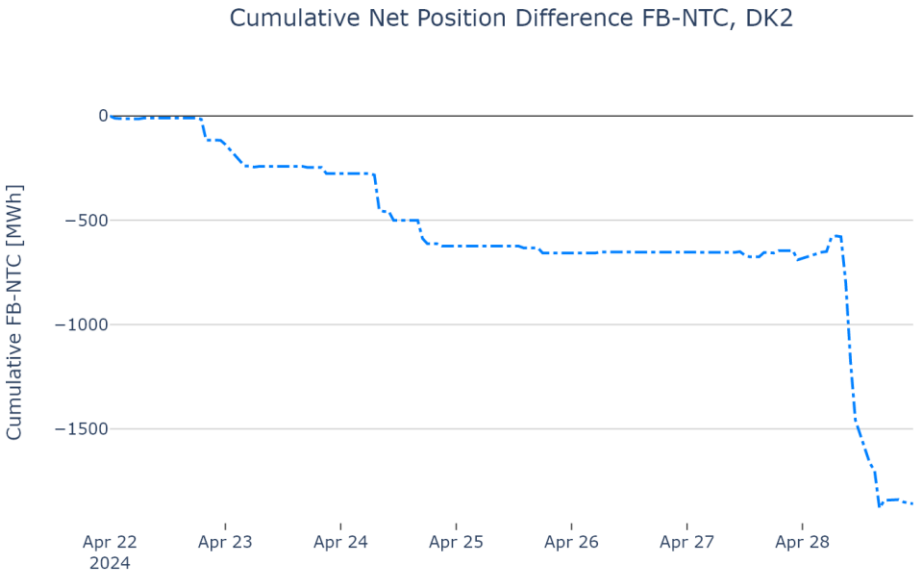

Total Net Position DK
FB
NTC
Net position [MWh/h]
1000
500
0
−500
−1000
−1500
−2000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28


Cumulative Net Position Difference FB-NTC, DK
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
−4000
−5000
−6000
−7000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

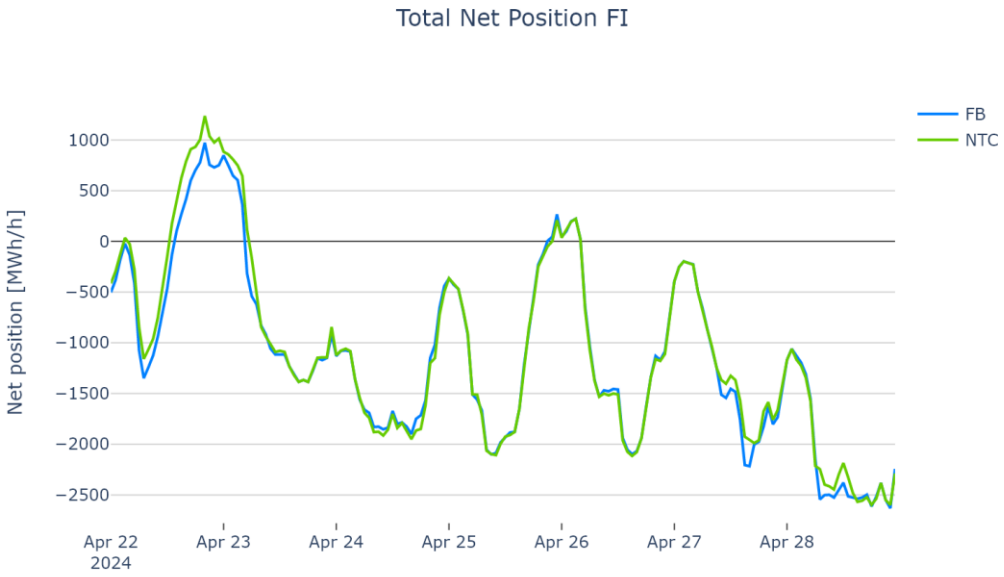

Net Position DK1
FB
NTC
Net position [MWh/h]
1000
500
0
−500
−1000
−1500
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

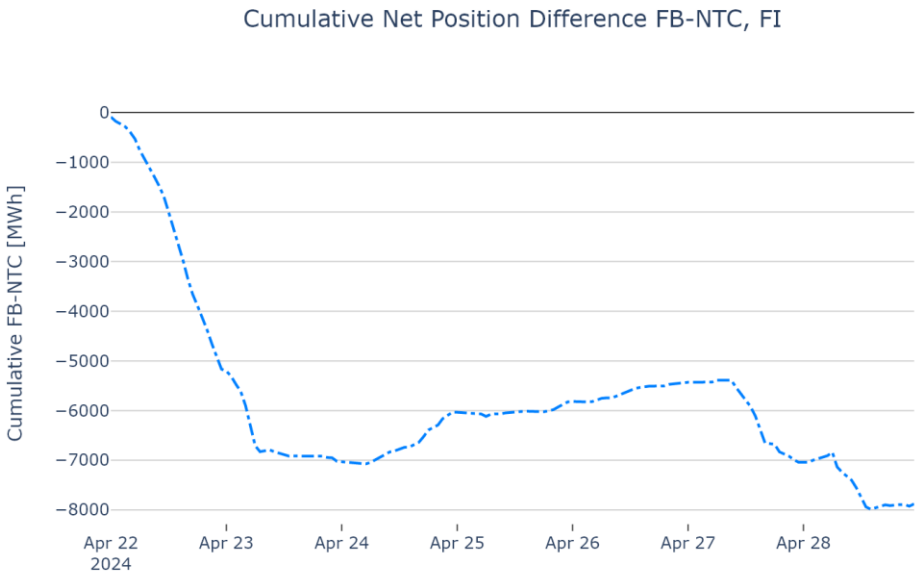

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
−4000
−5000
−6000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28


Net Position DK2
Net position [MWh/h]
200
0
−200
−400
−600
−800
−1000
−1200
−1400
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28
FB
NTC

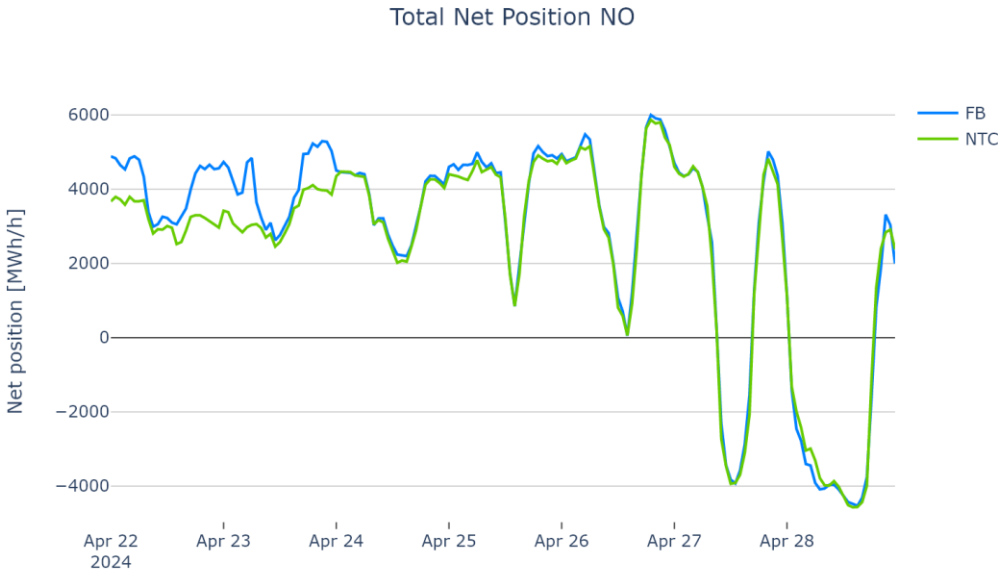

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
0
−500
−1000
−1500
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

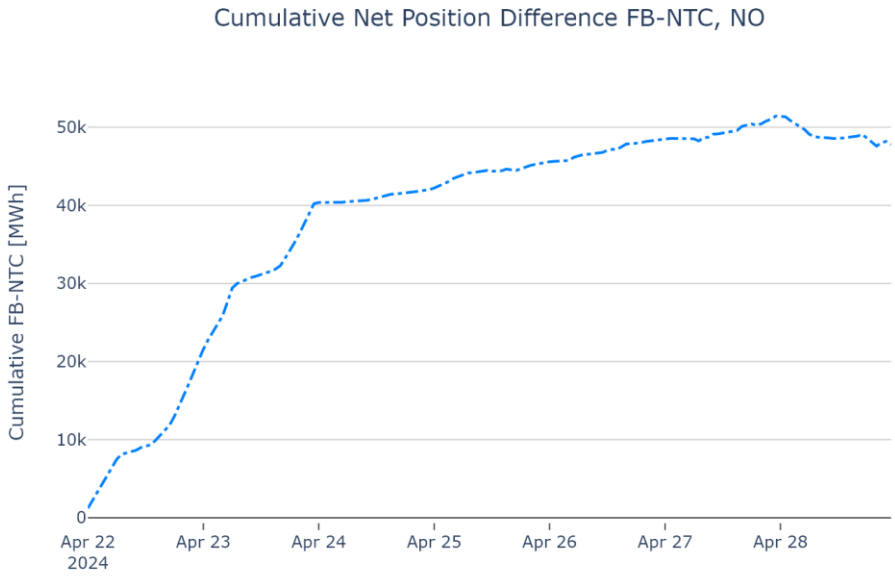
Finland

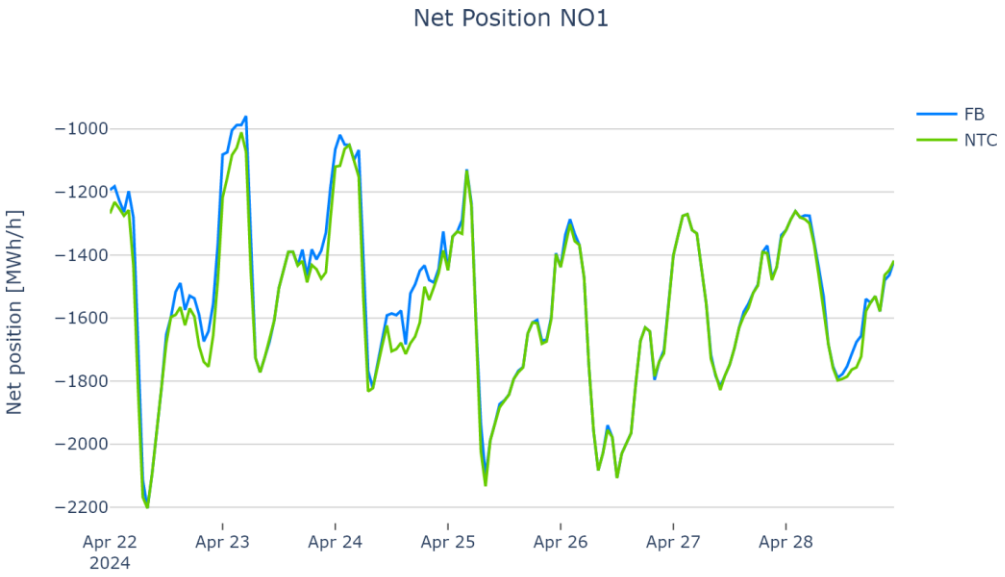

Total Net Position FI
FB
NTC
Net position [MWh/h]
1000
500
0
−500
−1000
−1500
−2000
−2500
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

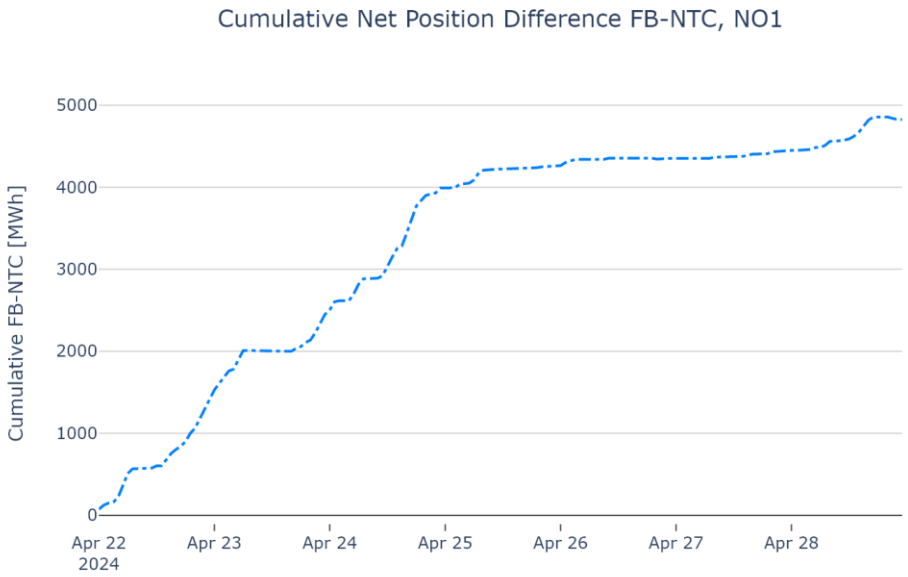

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
−4000
−5000
−6000
−7000
−8000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

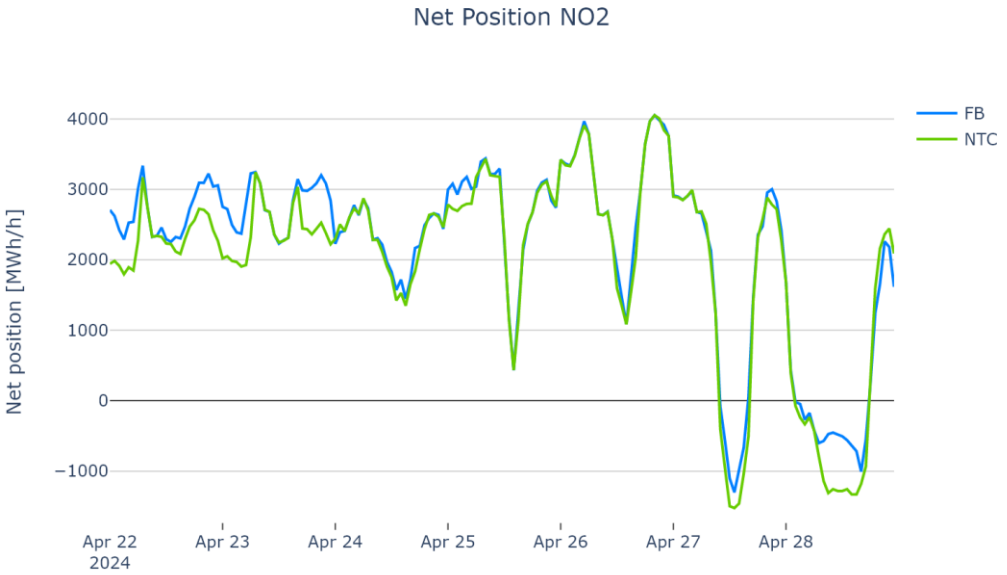
Norway

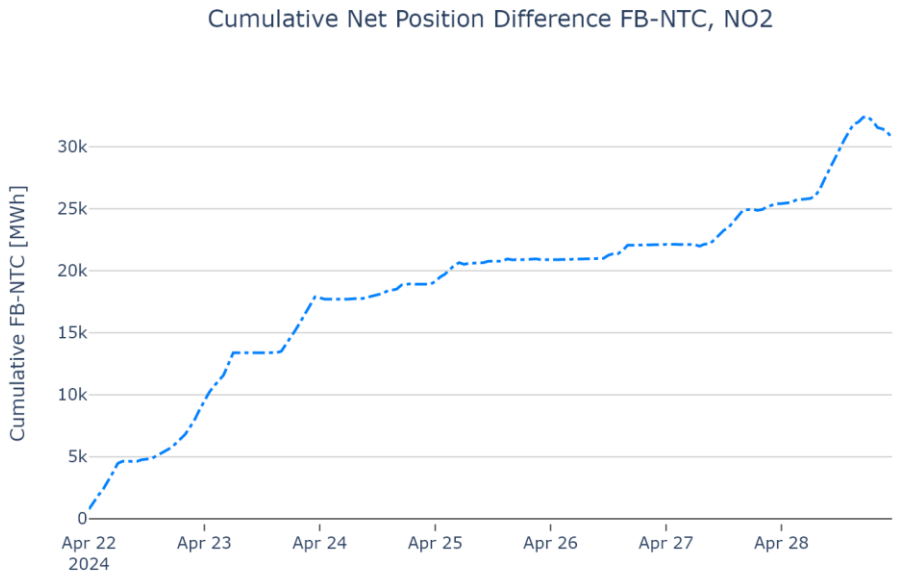

Total Net Position NO
Net position [MWh/h]
6000
4000
2000
0
−2000
−4000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28
FB
NTC

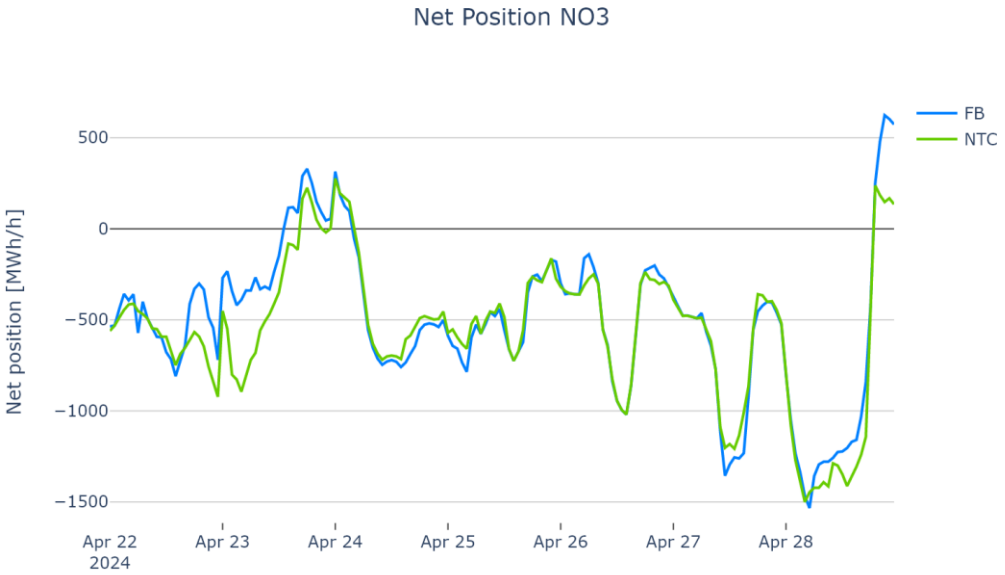

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
50k
40k
30k
20k
10k
0
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

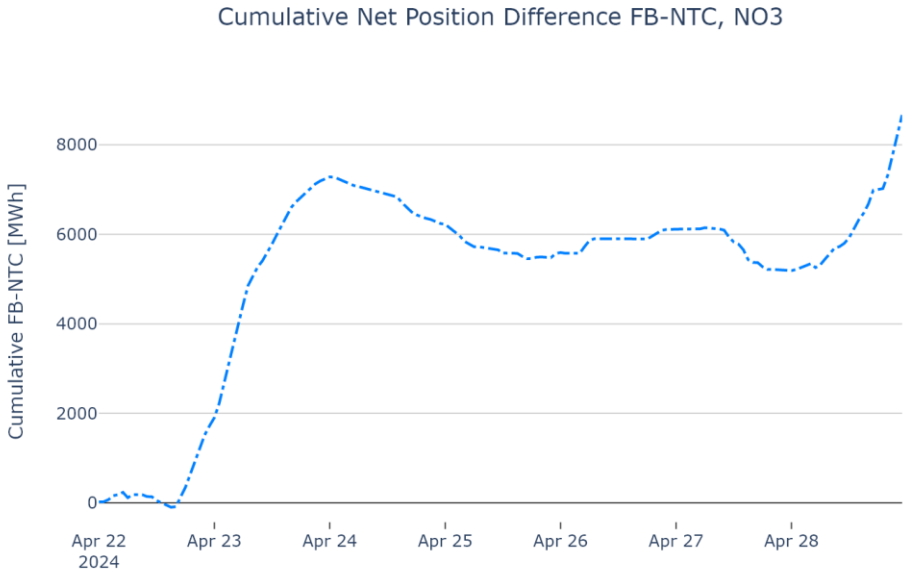

Net Position NO1
FB
NTC
Net position [MWh/h]
−1000
−1200
−1400
−1600
−1800
−2000
−2200
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

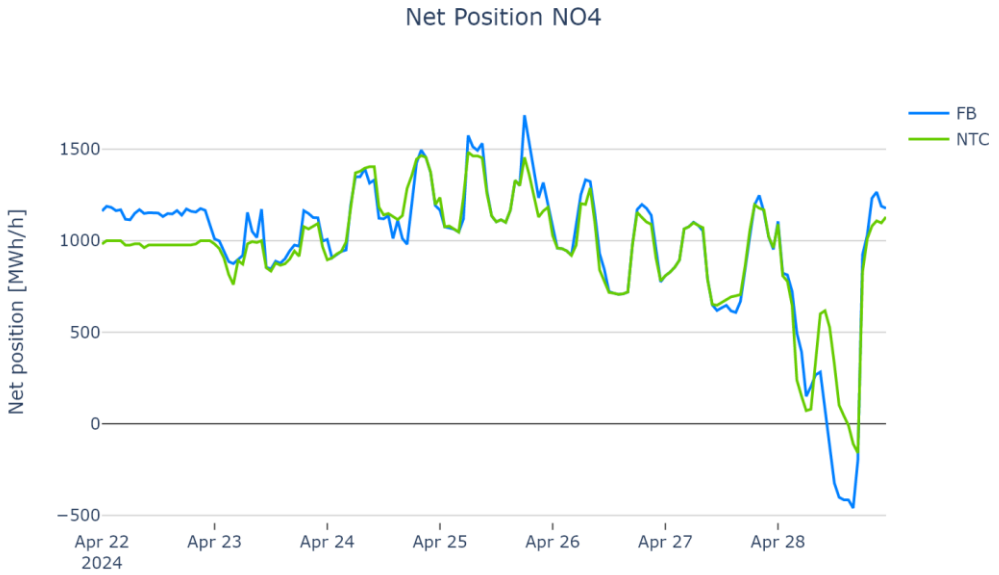

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
5000
4000
3000
2000
1000
0
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

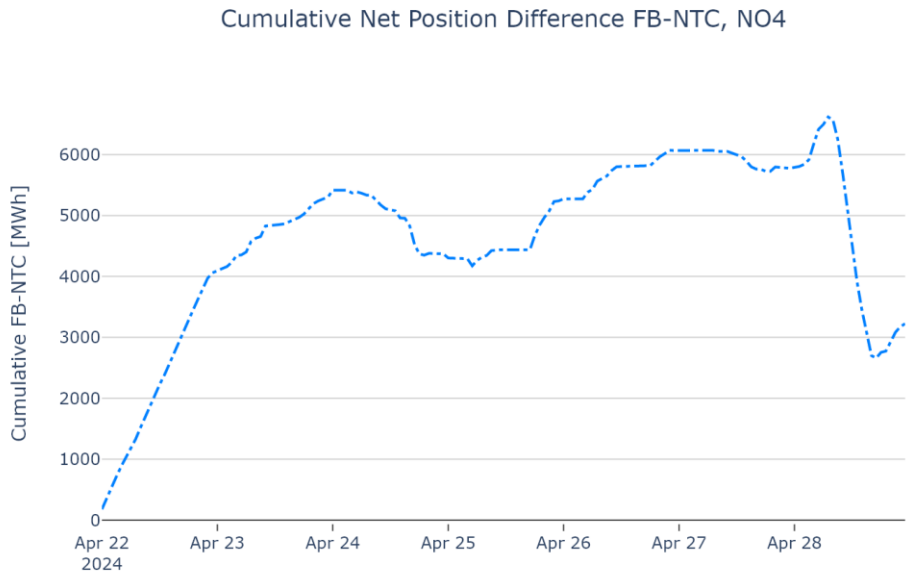

Net Position NO2
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

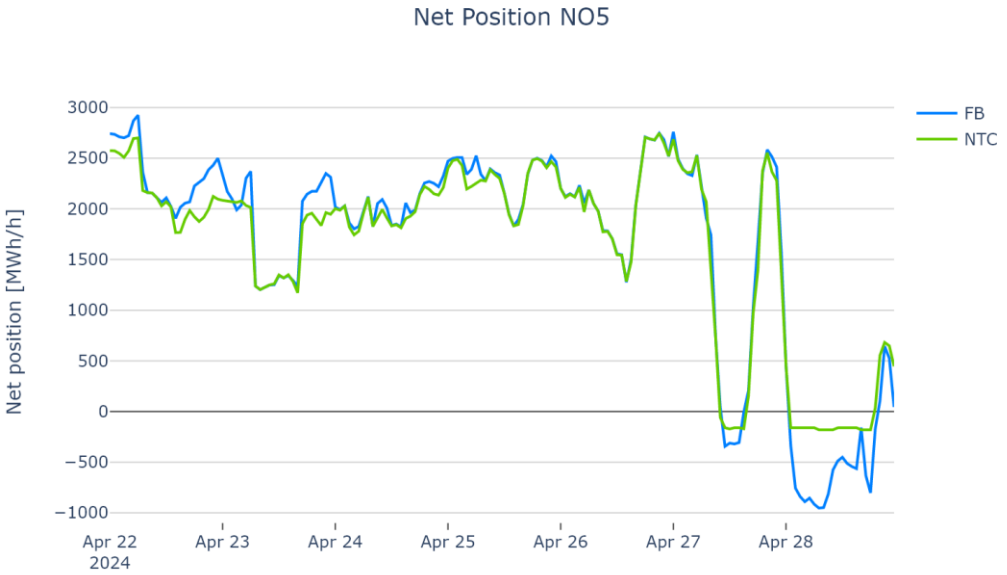

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
30k
25k
20k
15k
10k
5k
0
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

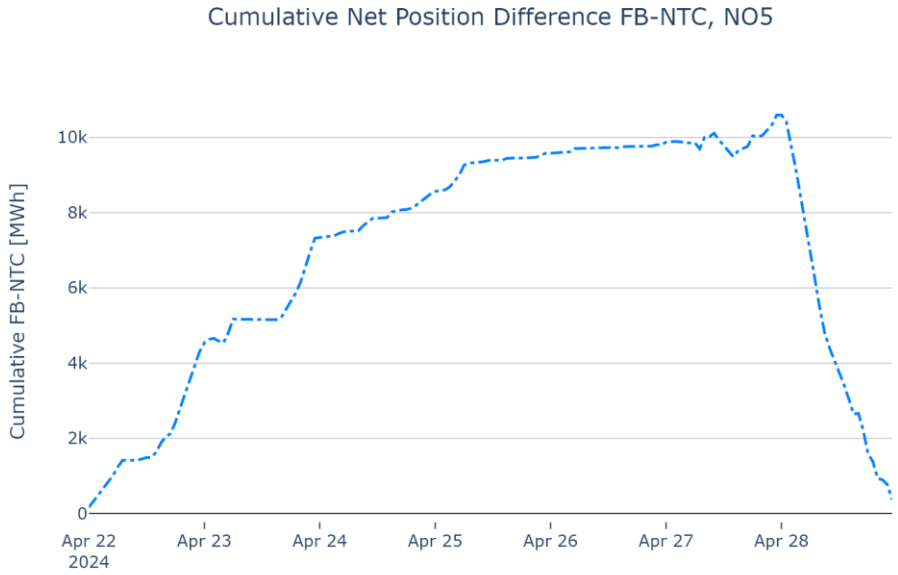

Net Position NO3
FB
NTC
Net position [MWh/h]
500
0
−500
−1000
−1500
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
8000
6000
4000
2000
0
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

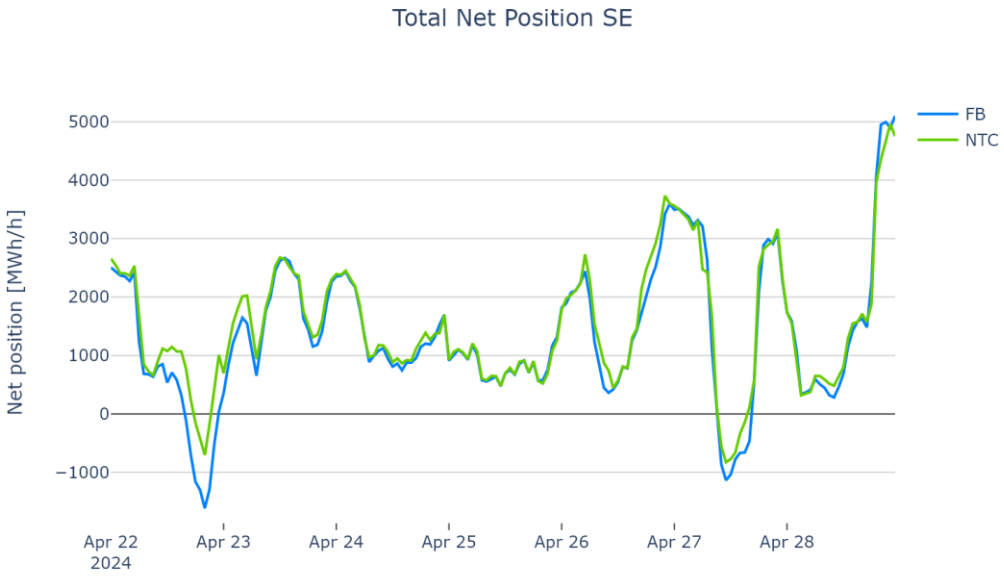

Net Position NO4
FB
NTC
Net position [MWh/h]
1500
1000
500
0
−500
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

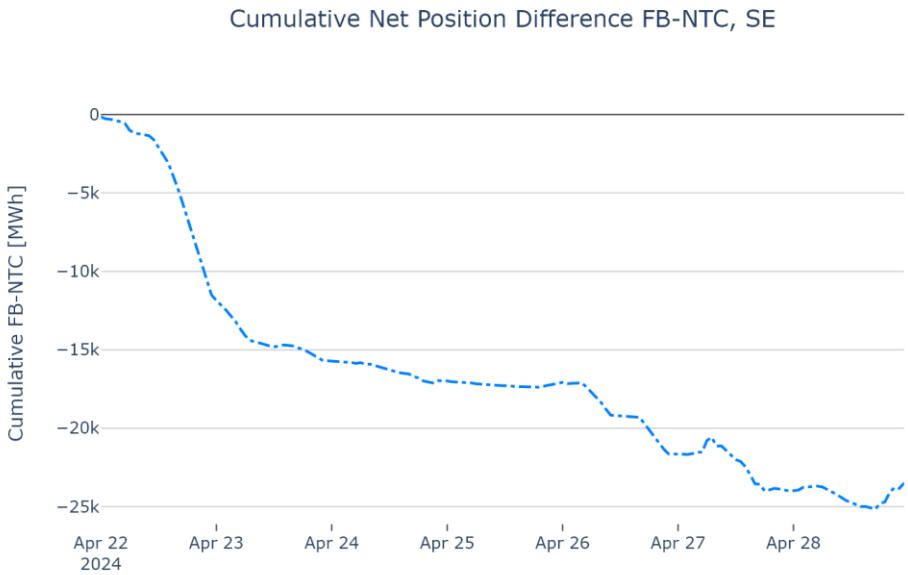

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
6000
5000
4000
3000
2000
1000
0
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

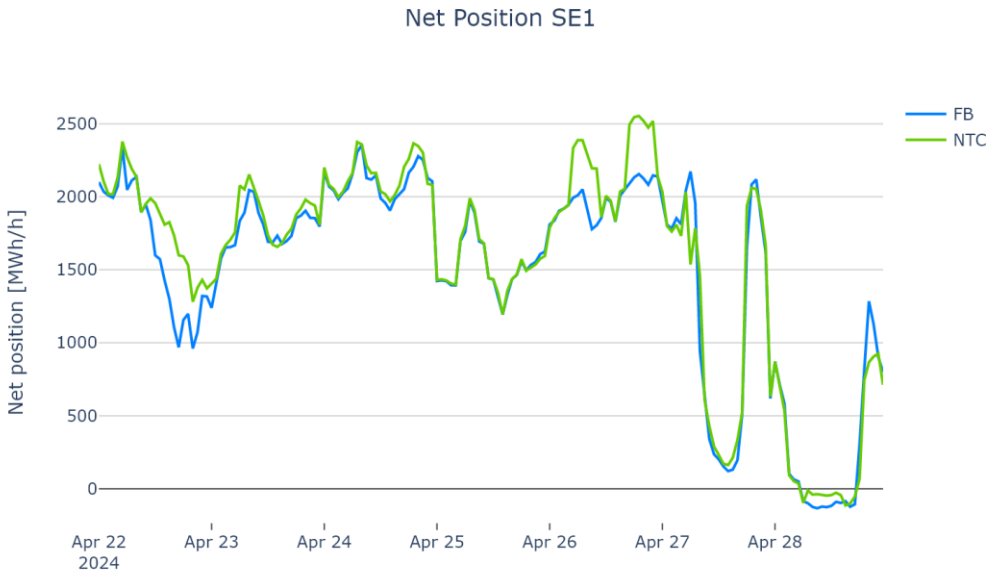

Net Position NO5
Net position [MWh/h]
3000
2500
2000
1500
1000
500
0
−500
−1000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28
FB
NTC

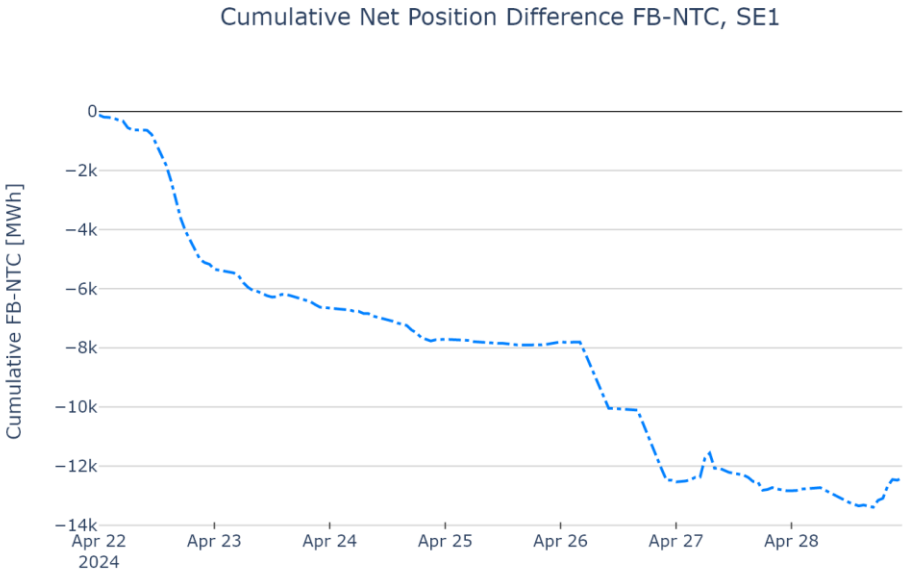

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
10k
8k
6k
4k
2k
0
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

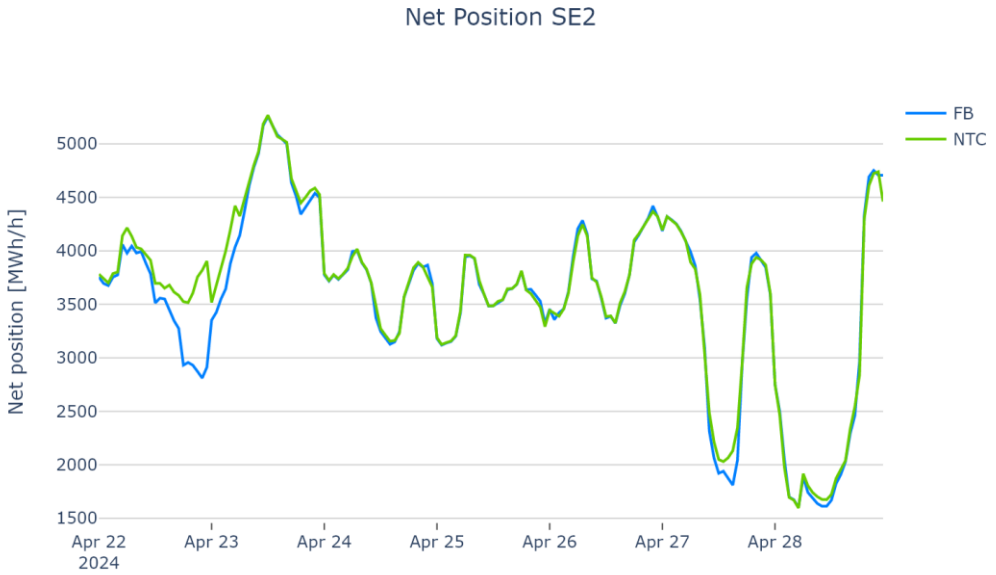
Sweden

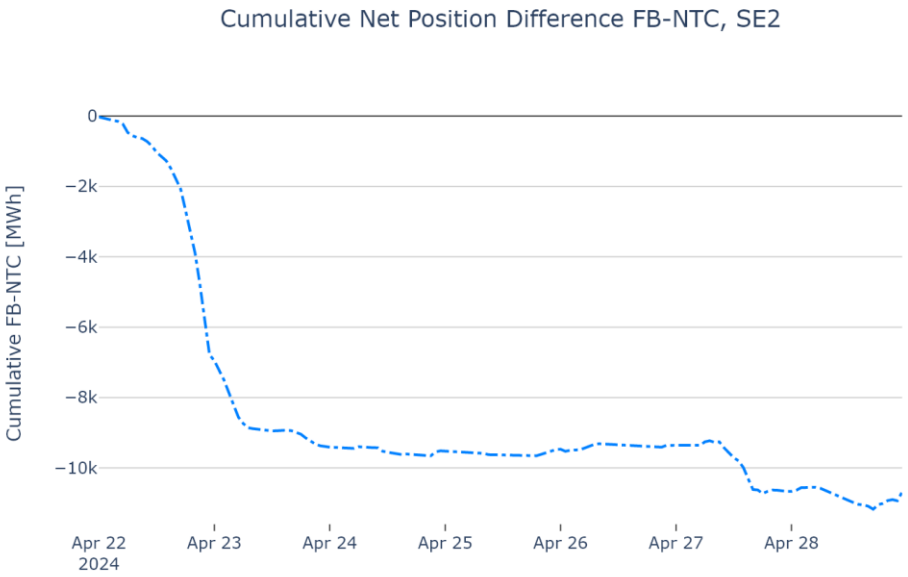

Total Net Position SE
Net position [MWh/h]
5000
4000
3000
2000
1000
0
−1000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28
FB
NTC

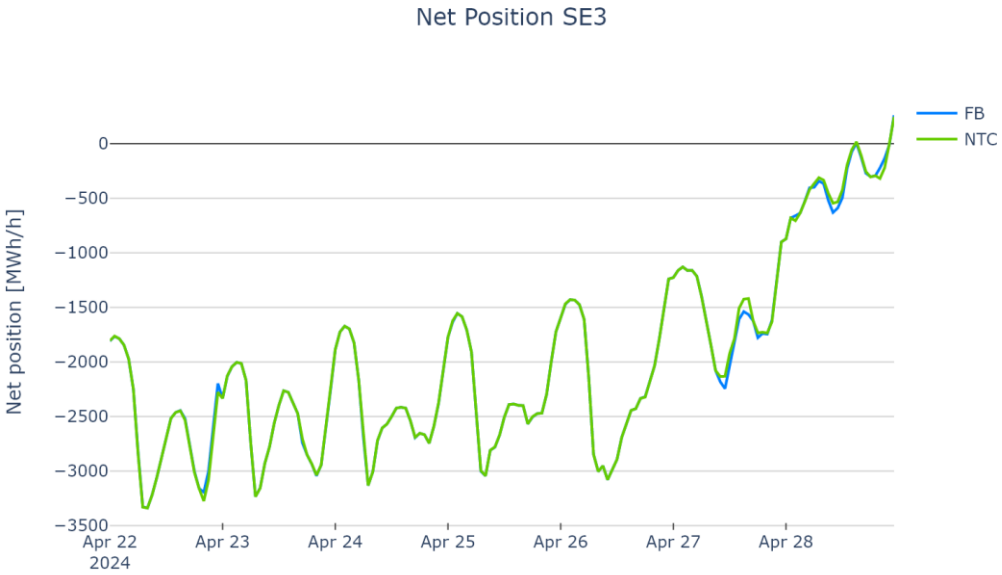

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
0
−5k
−10k
−15k
−20k
−25k
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

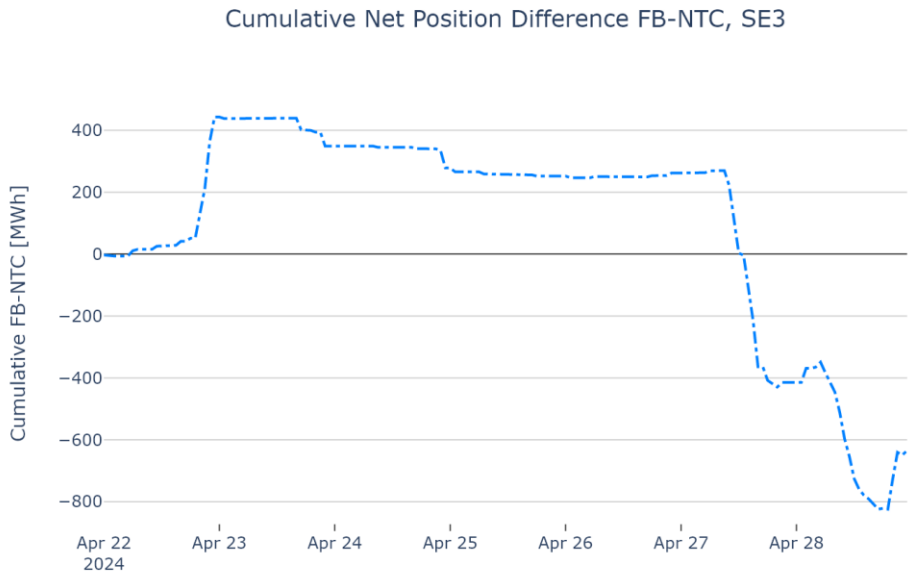

Net Position SE1
FB
NTC
Net position [MWh/h]
2500
2000
1500
1000
500
0
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28


Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
−12k
−14k
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

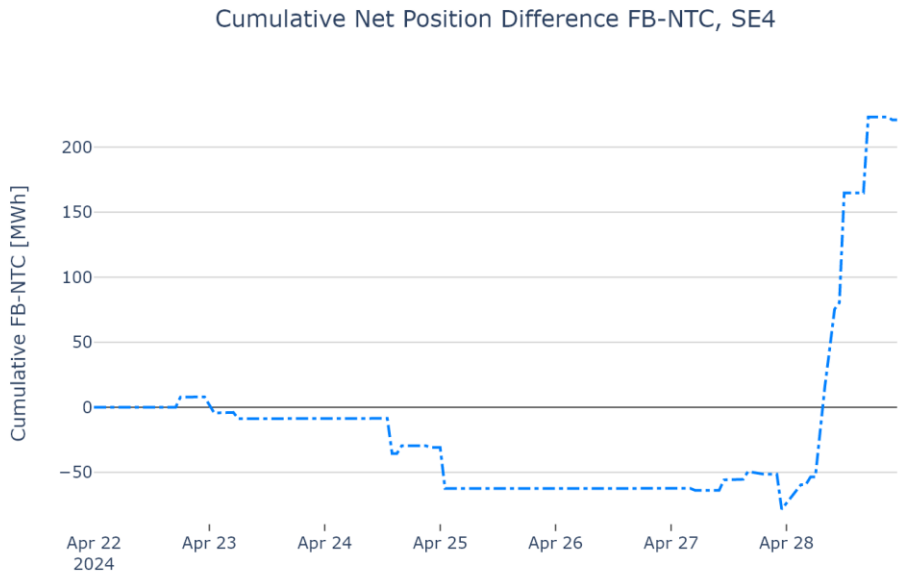

Net Position SE2
FB
NTC
Net position [MWh/h]
5000
4500
4000
3500
3000
2500
2000
1500
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28


Cumulative Net Position Difference FB-NTC, SE2
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28


Net Position SE3
FB
NTC
Net position [MWh/h]
0
−500
−1000
−1500
−2000
−2500
−3000
−3500
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

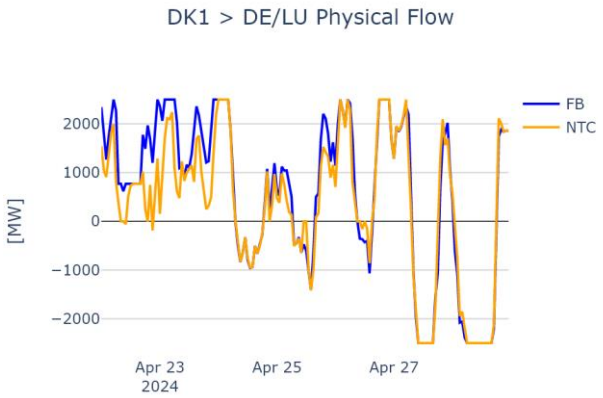

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
400
200
0
−200
−400
−600
−800
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

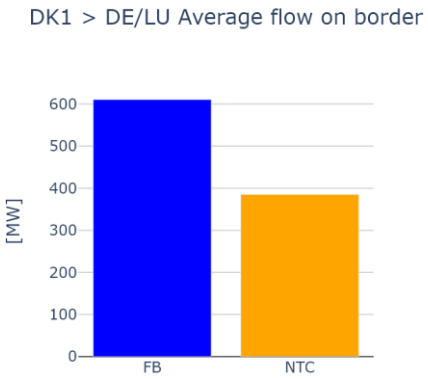

Net Position SE4
FB
NTC
Net position [MWh/h]
−500
−1000
−1500
−2000
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

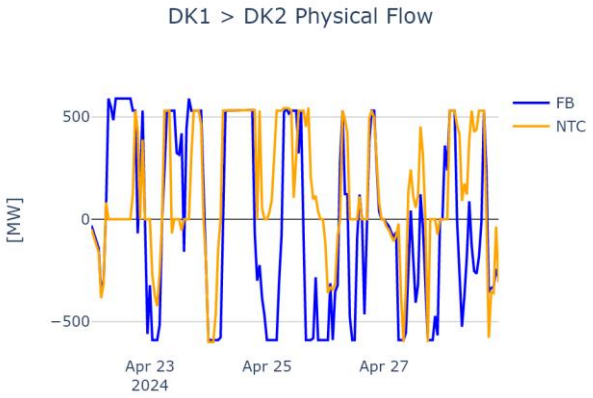

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
200
150
100
50
0
−50
Apr 22
2024
Apr 23
Apr 24
Apr 25
Apr 26
Apr 27
Apr 28

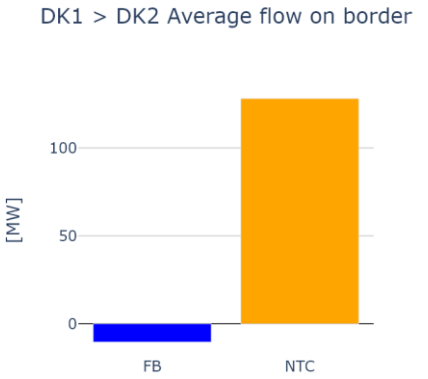
Border flow

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.

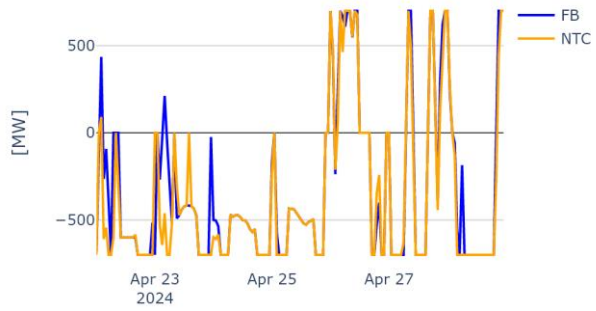




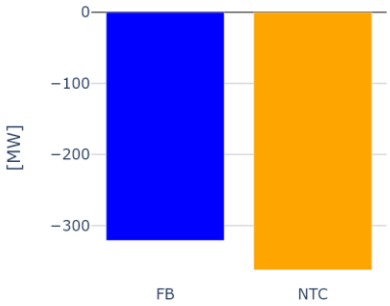




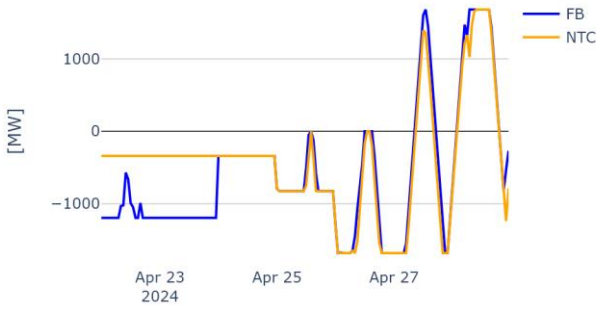
DK1 > NL Physical Flow



DK1 > NL Average flow on border

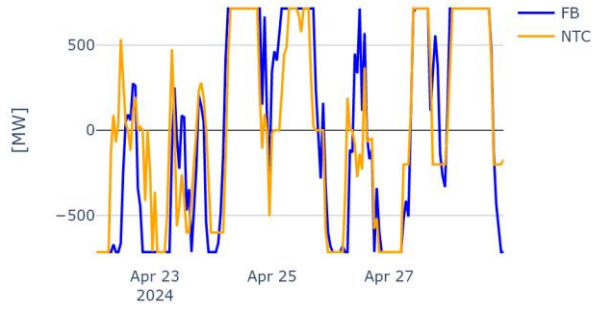


DK1 > NO2 Physical Flow

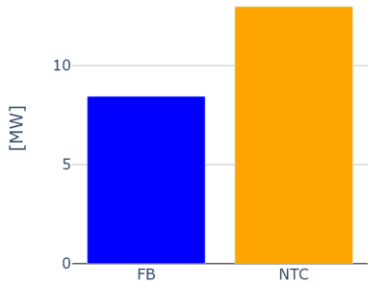


DK1 > NO2 Average flow on border

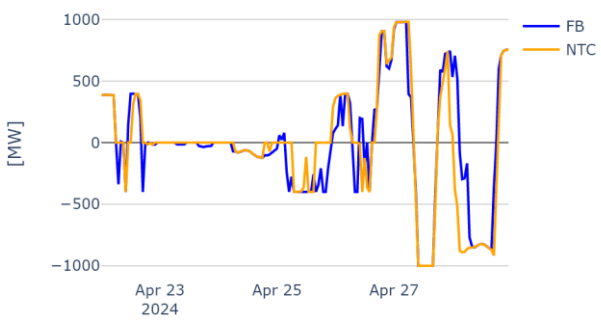
DK1 > SE3 Physical Flow



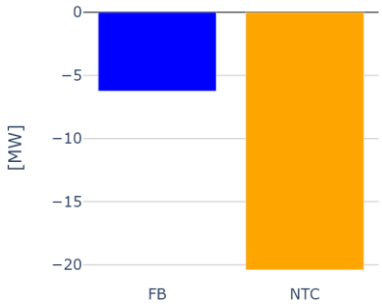
DK1 > SE3 Average flow on border



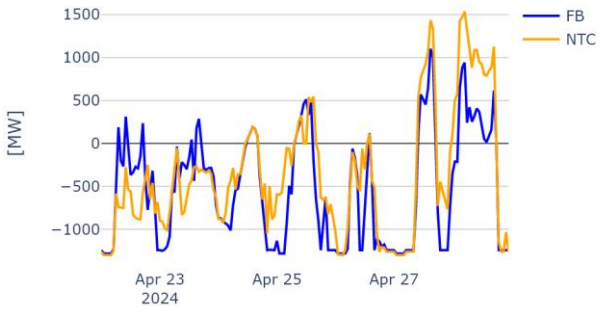
DK2 > DE/LU Physical Flow



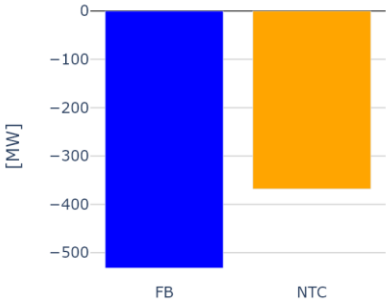
DK2 > DE/LU Average flow on border



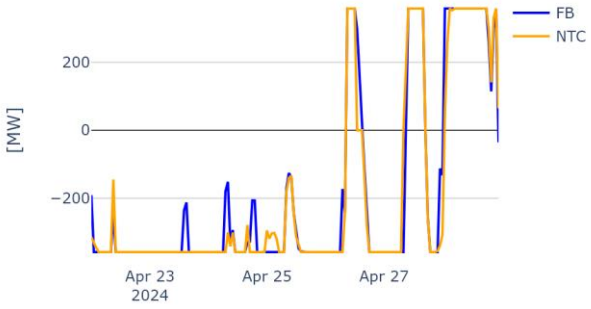
DK2 > SE4 Physical Flow



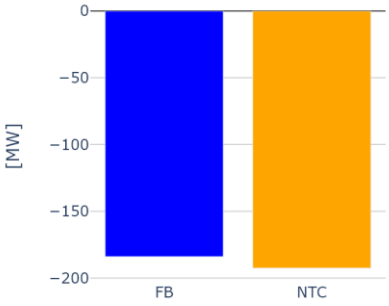
DK2 > SE4 Average flow on border



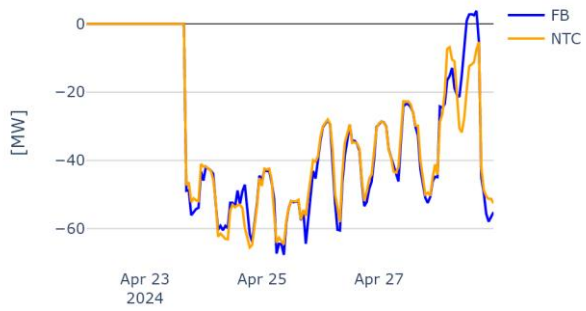
EE > FI Physical Flow



EE > FI Average flow on border

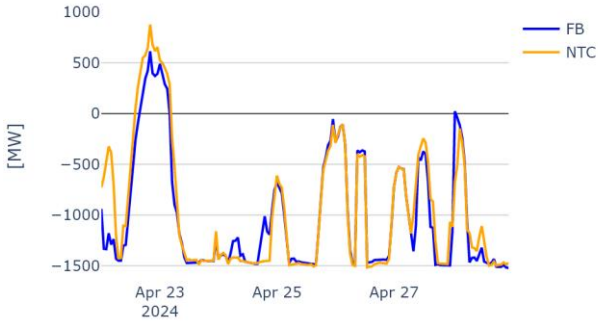


FI > NO4 Physical Flow



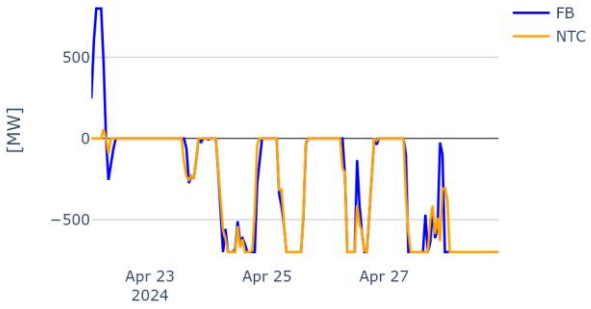
FI > NO4 Average flow on border

FI > SE1 Physical Flow

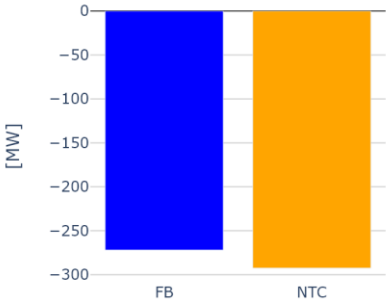


FI > SE1 Average flow on border

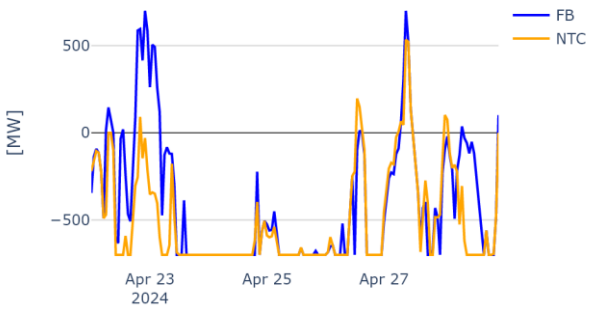
FI > SE3 Physical Flow



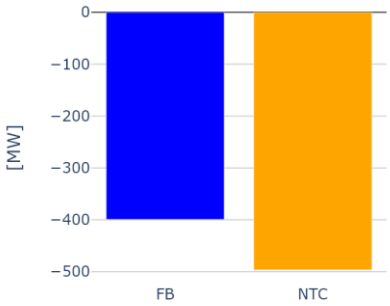
FI > SE3 Average flow on border



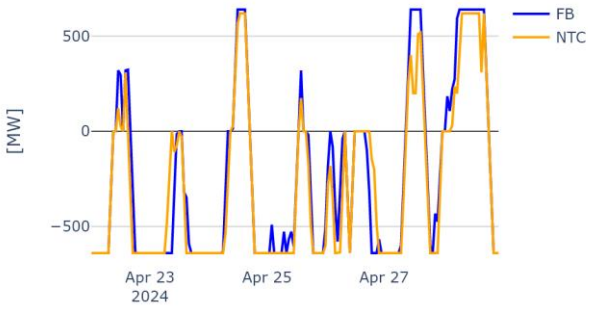
LT > SE4 Physical Flow



LT > SE4 Average flow on border

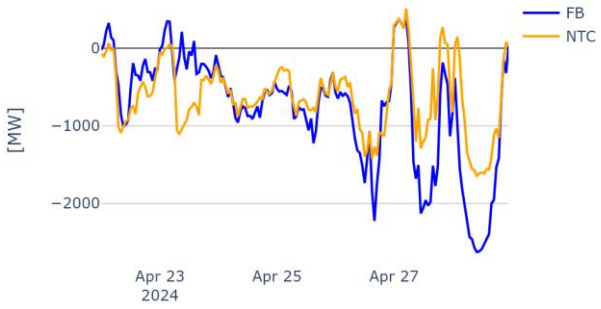


NL > NO2 Physical Flow

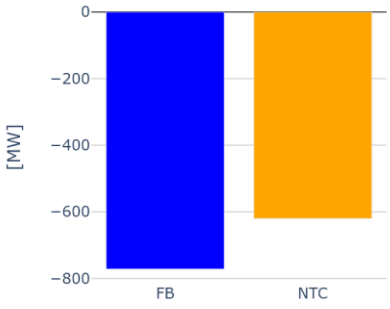


NL > NO2 Average flow on border

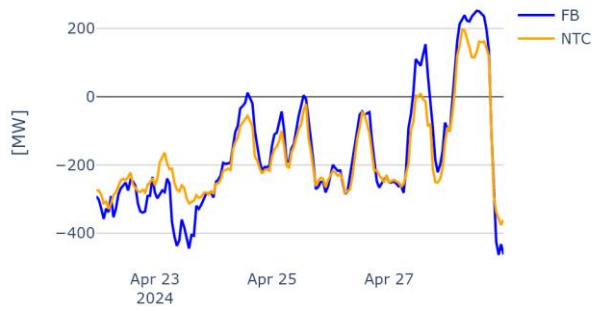
NO1 > NO2 Physical Flow



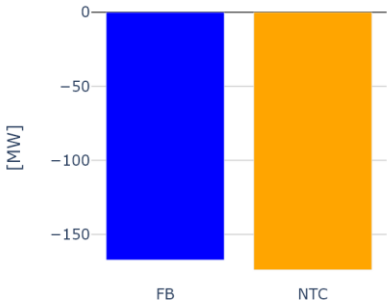
NO1 > NO2 Average flow on border



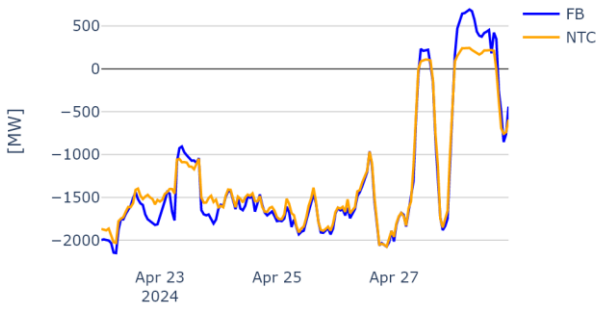
NO1 > NO3 Physical Flow



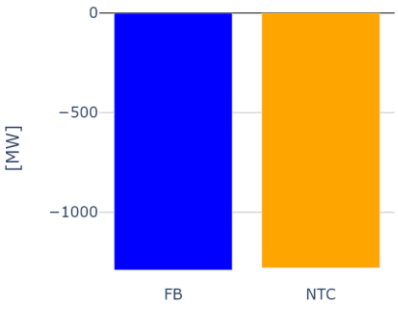
NO1 > NO3 Average flow on border



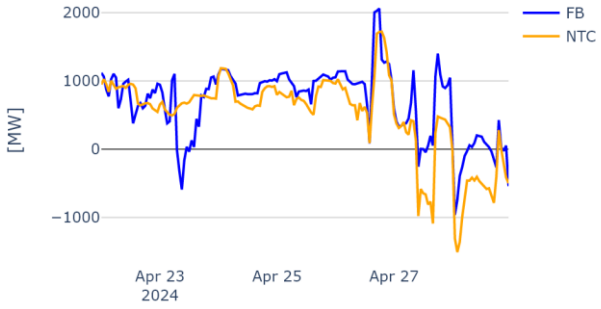
NO1 > NO5 Physical Flow



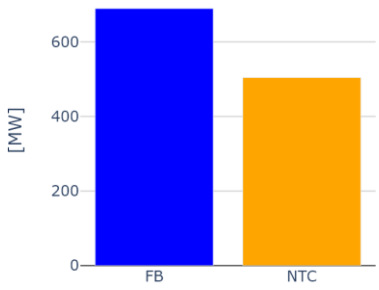
NO1 > NO5 Average flow on border



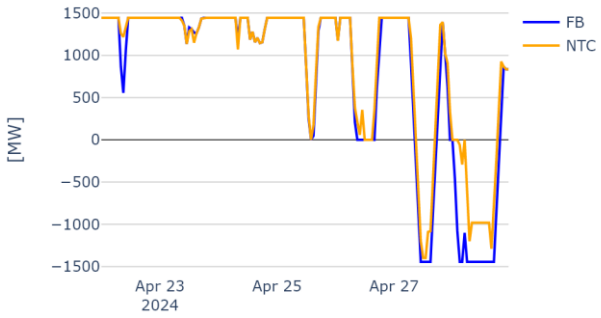
NO1 > SE3 Physical Flow



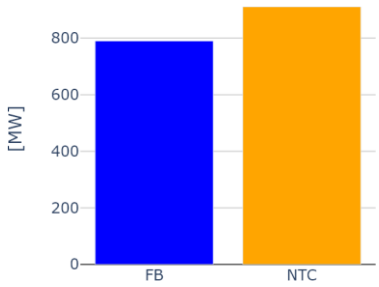
NO1 > SE3 Average flow on border



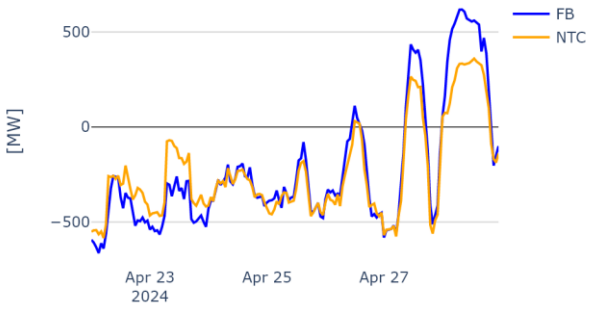
NO2 > DE/LU Physical Flow



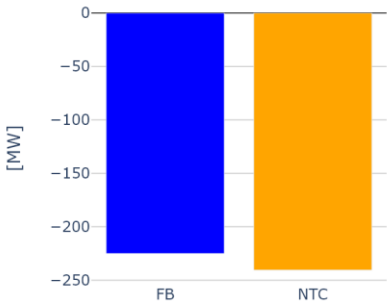
NO2 > DE/LU Average flow on border



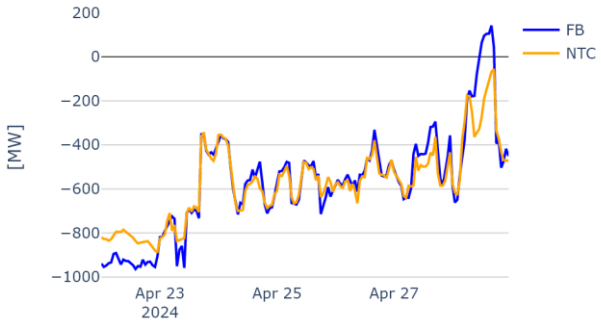
NO2 > NO5 Physical Flow



NO2 > NO5 Average flow on border

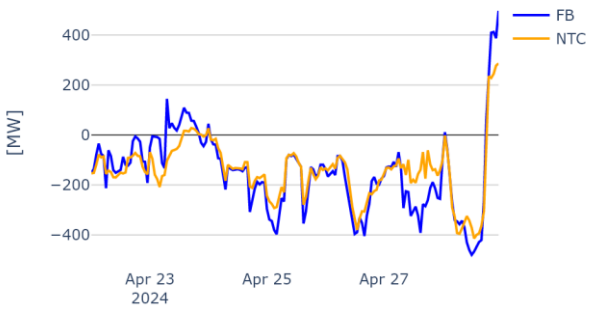


NO3 > NO4 Physical Flow

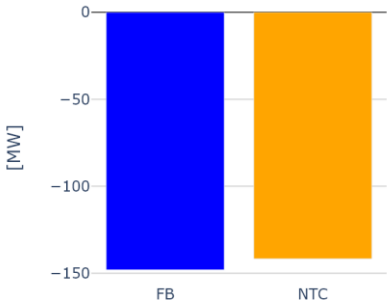


NO3 > NO4 Average flow on border

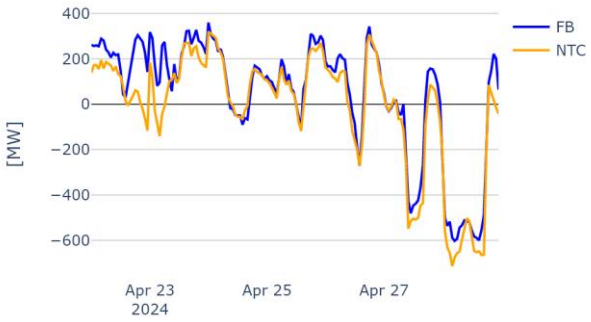
NO3 > NO5 Physical Flow



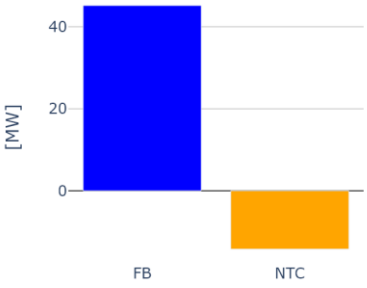
NO3 > NO5 Average flow on border



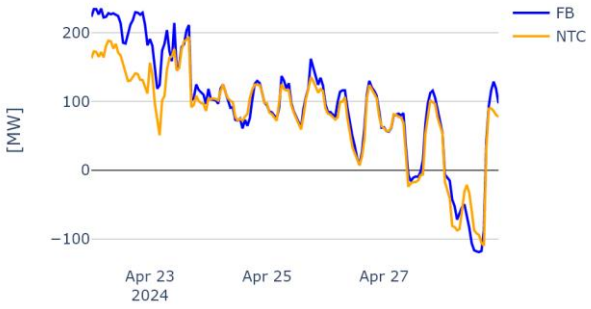
NO3 > SE2 Physical Flow



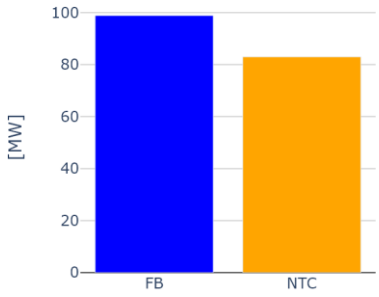
NO3 > SE2 Average flow on border



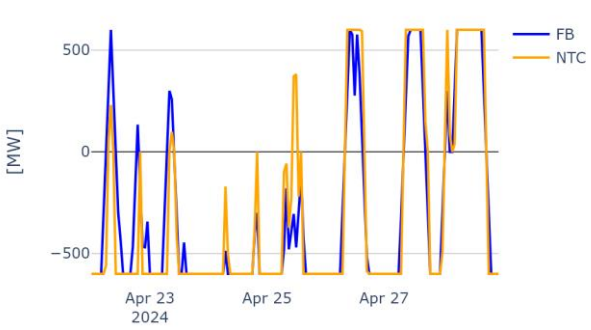
NO4 > SE2 Physical Flow



NO4 > SE2 Average flow on border

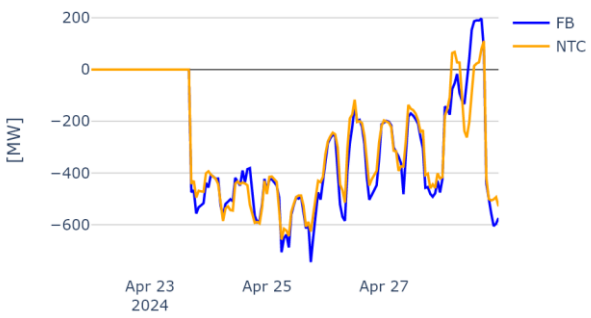


PL > SE4 Physical Flow

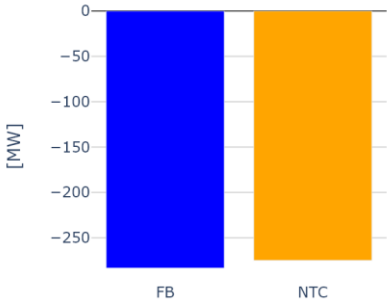


PL > SE4 Average flow on border

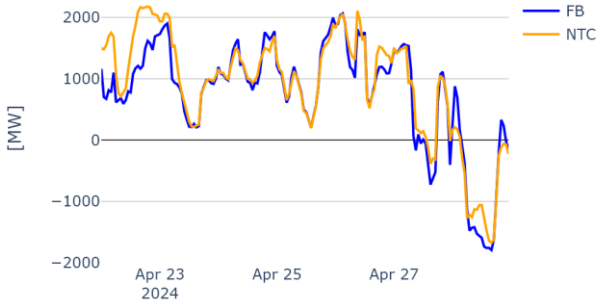
SE1 > NO4 Physical Flow



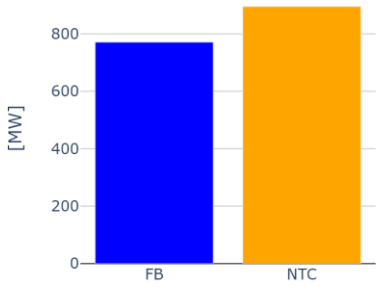
SE1 > NO4 Average flow on border



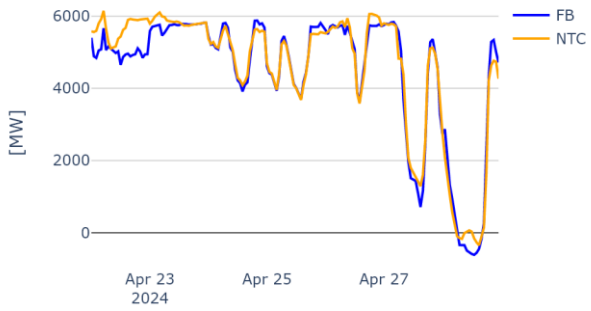
SE1 > SE2 Physical Flow



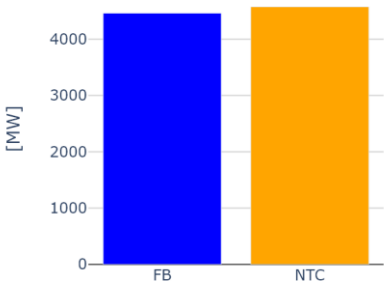
SE1 > SE2 Average flow on border



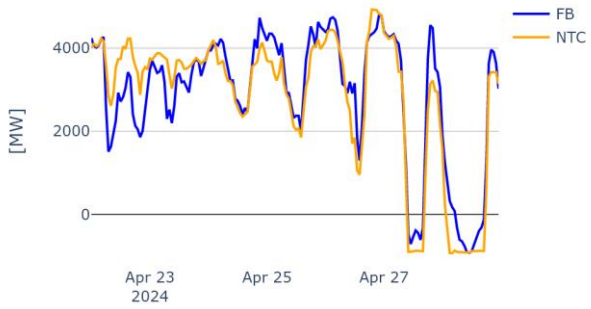
SE2 > SE3 Physical Flow



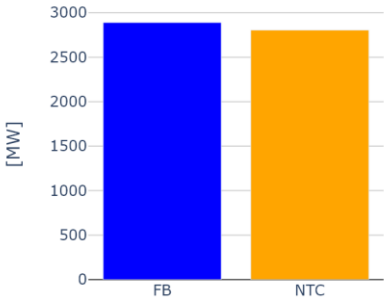
SE2 > SE3 Average flow on border



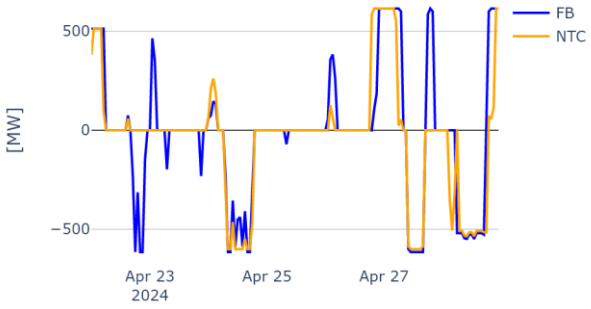
SE3 > SE4 Physical Flow



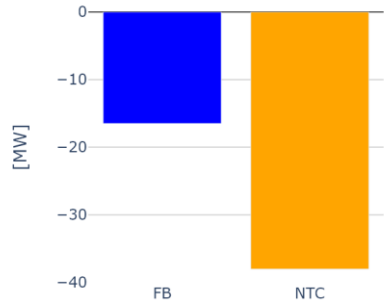
SE3 > SE4 Average flow on border



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	1183294	3
DK1 > DK2	66173	1
DK1 > NL	641877	6
DK1 > NO2	1984901	14
DK1 > SE3	305488	3
DK2 > DE/LU	414388	3
DK2 > SE4	274588	1
EE > FI	1140062	19
FI > NO4	68108	8
FI > SE1	1880856	10
FI > SE3	746456	6
LT > SE4	493281	4
NL > NO2	1297587	15
NO1 > NO2	24812	1
NO1 > NO3	170177	2
NO1 > NO5	265749	1
NO1 > SE3	1279393	7
NO2 > DE/LU	3271921	16
NO2 > NO5	15890	0
NO3 > NO4	627513	4
NO3 > NO5	4042	1
NO3 > SE2	4244	-2
NO4 > SE2	64628	2
PL > SE4	640627	6
SE1 > NO4	19538	0
SE1 > SE2	229260	1
SE2 > SE3	12692076	14
SE3 > SE4	172249	1
SE4 > DE/LU	388652	5

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	-55	0
DK1 > NL	1	-177	0
DK1 > NO2	1	-2767	-12
DK1 > SE3	35	-83286	-3
DK2 > DE/LU	0	0	0
DK2 > SE4	23	-28848	-1
EE > FI	0	0	0
FI > NO4	15	-1431	-5
FI > SE1	9	-5431	-1
FI > SE3	15	-8744	-1
LT > SE4	18	-29437	-3
NL > NO2	1	-6709	-18
NO1 > NO2	22	-53219	-1
NO1 > NO3	49	-59627	-4
NO1 > NO5	16	-10370	-1
NO1 > SE3	12	-37698	-14
NO2 > DE/LU	1	-6725	-22
NO2 > NO5	48	-21884	-1
NO3 > NO4	43	-104156	-3
NO3 > NO5	40	-80499	-7
NO3 > SE2	38	-166117	-13
NO4 > SE2	31	-60294	-7
PL > SE4	12	-128091	-16
SE1 > NO4	26	-43339	-3
SE1 > SE2	15	-8811	0
SE2 > SE3	7	-16806	-2
SE3 > SE4	33	-147896	-1
SE4 > DE/LU	0	0	0