Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 4 of 2024

Appendix

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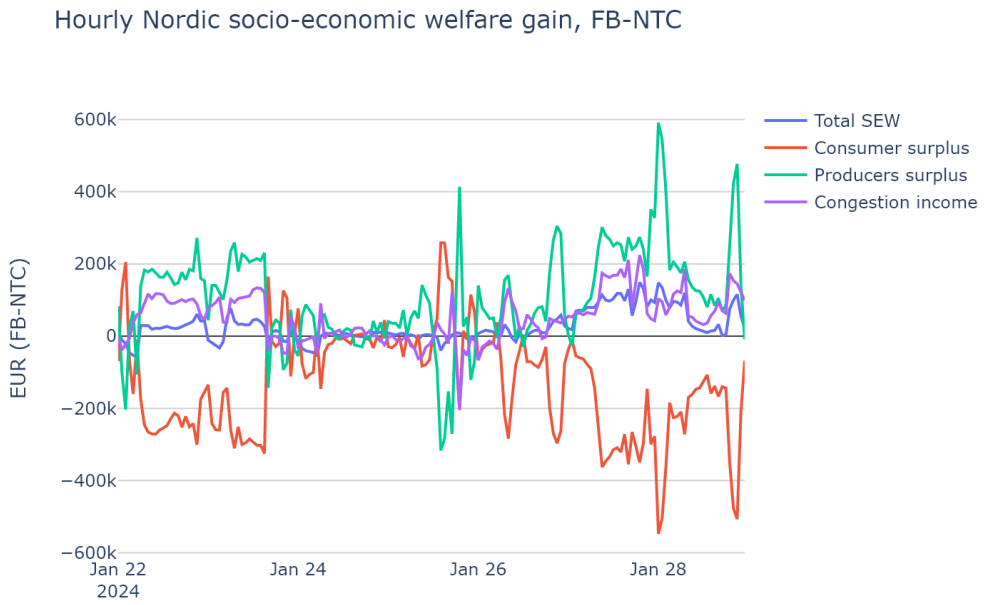
Domain validation

Energy Delivery Day:	Mon. 22.1.	Tue. 23.1.	Wed. 24.1.	Thu. 25.1.	Fri. 26.1.	Sat. 27.1.	Sun. 28.1.
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
FAV provision	1	1	0	0	0	2	1
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

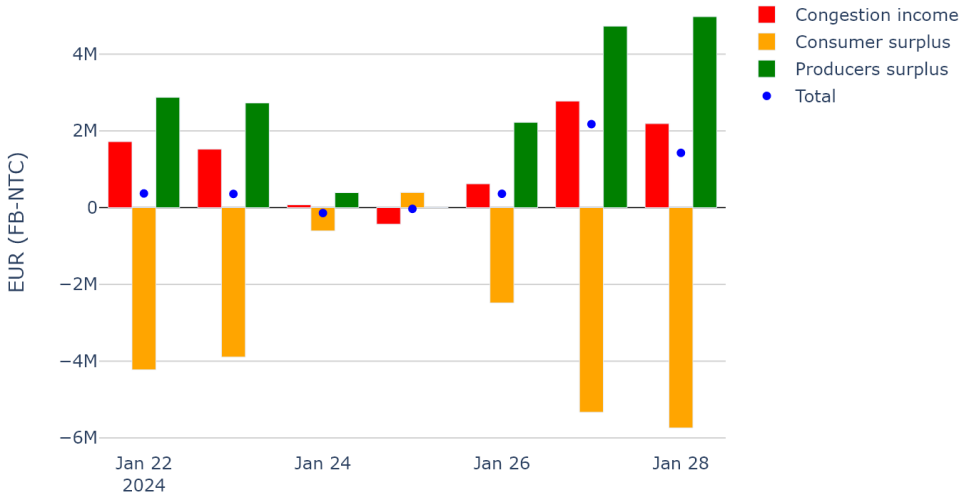
Socio Economic Welfare

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.

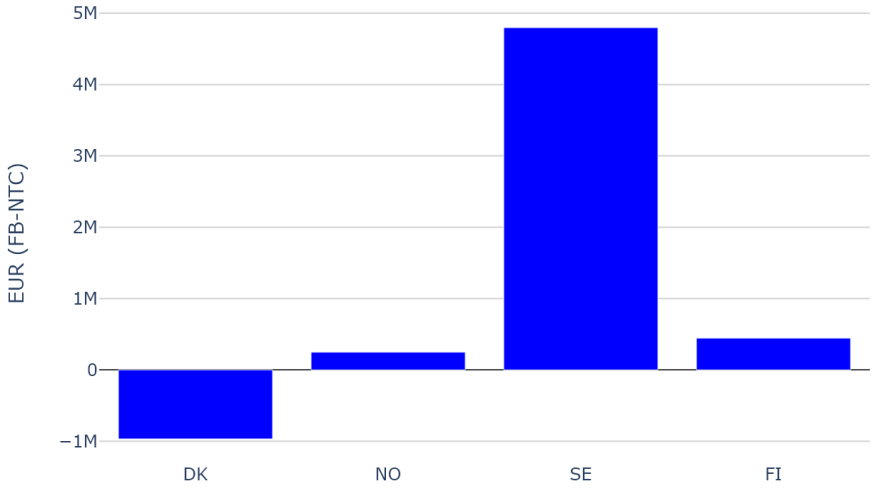
Nordics

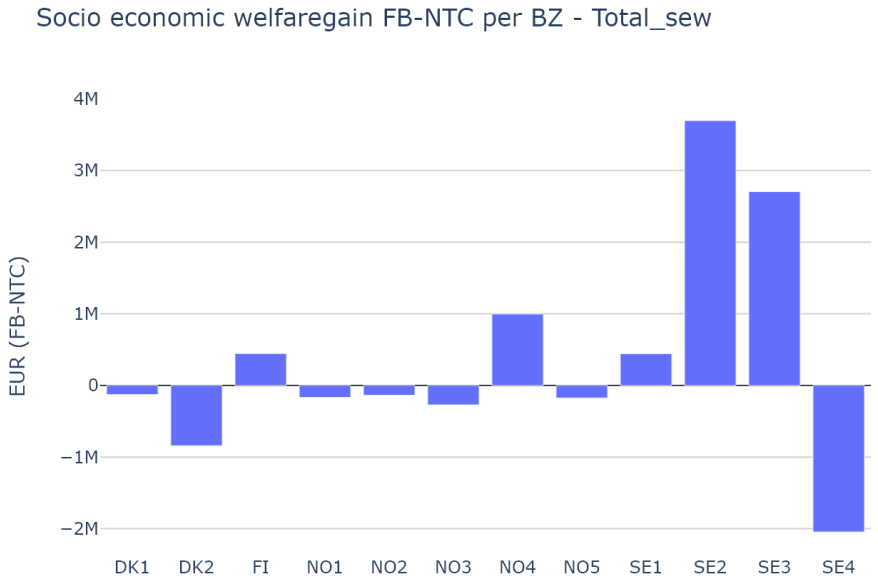


Nordics socio-economic welfare per stakeholder and day

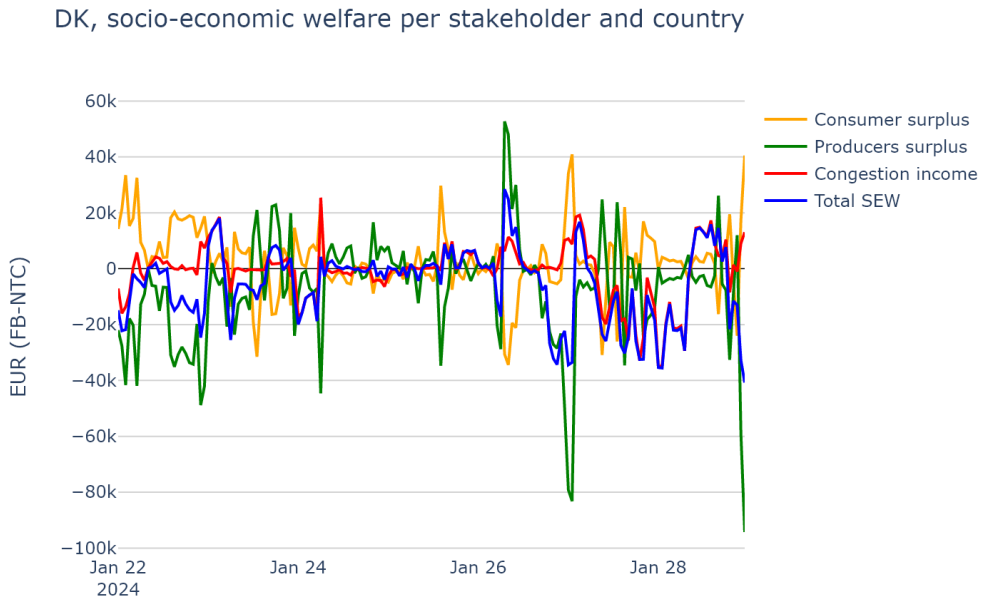


Total Nordic socio-economic welfare per country

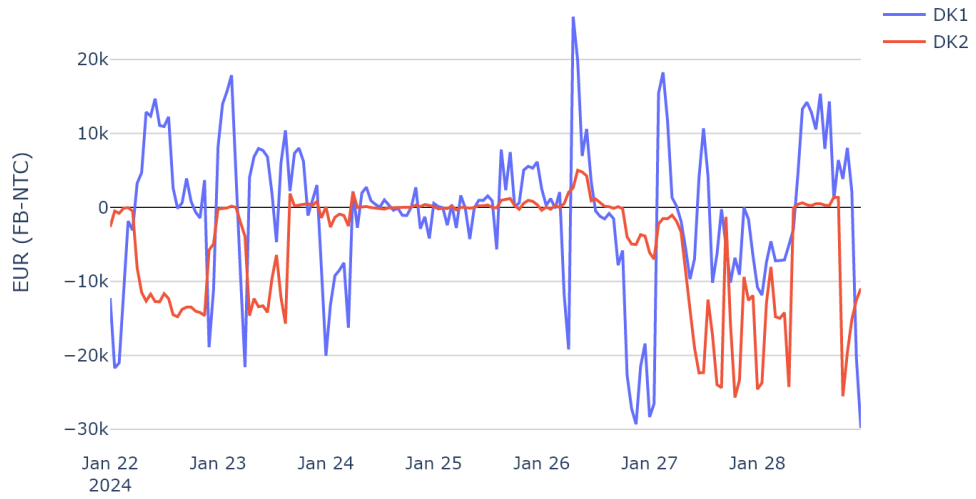



Socio economic welfaregain FB-NTC per BZ - Total_sew
EUR (FB-NTC)
4M
3M
2M
1M
0
−1M
−2M
DK1
DK2
FI
NO1
NO2
NO3
NO4
NO5
SE1
SE2
SE3
SE4

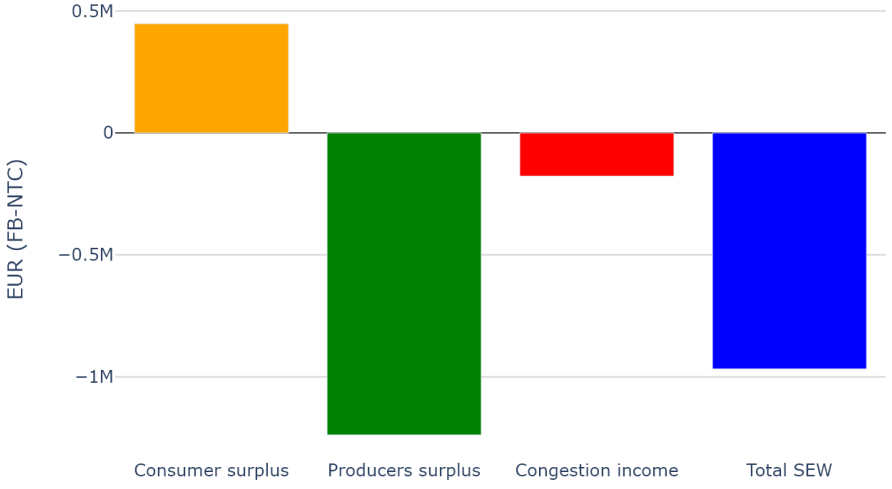
Denmark


DK, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
60k
40k
20k
0
−20k
−40k
−60k
−80k
−100k
Jan 22
2024
Jan 24
Jan 26
Jan 28
Consumer surplus
Producers surplus
Congestion income
Total SEW

Total socio economic welfaregain FB-NTC per BZ in DK

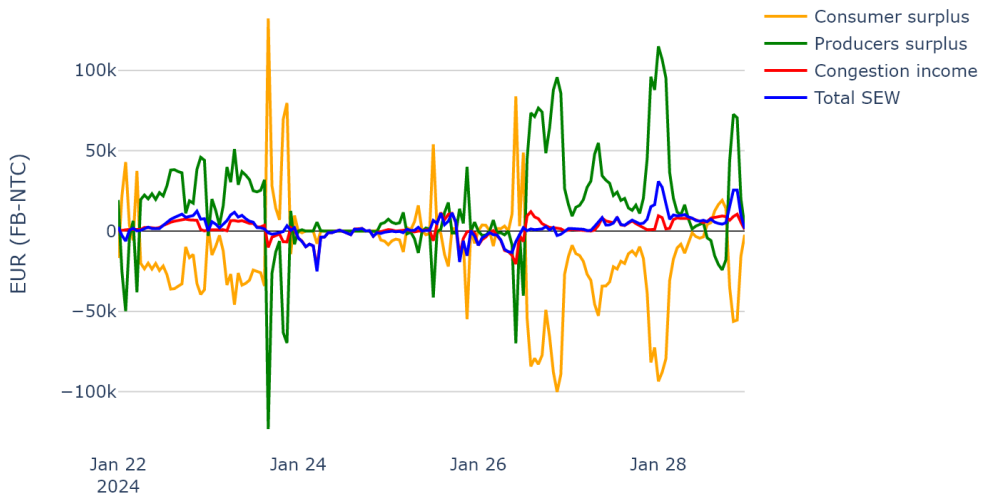


DK, socio-economic welfare per stakeholder and country

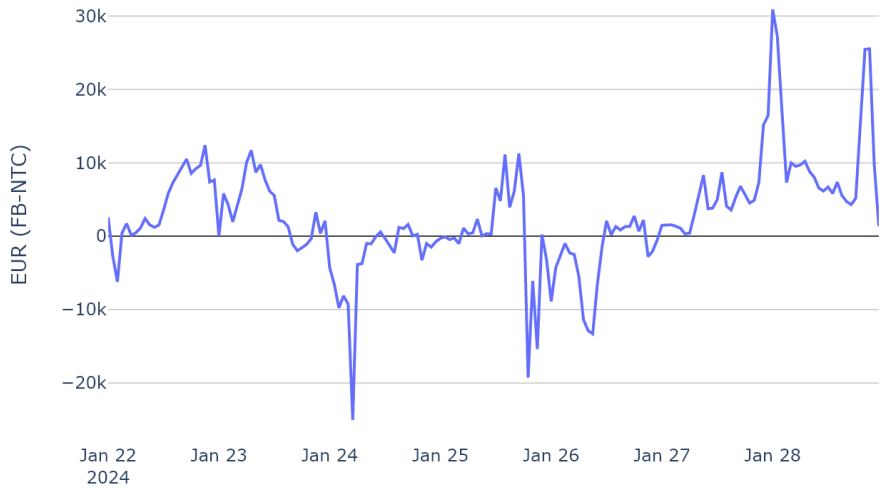


Finland

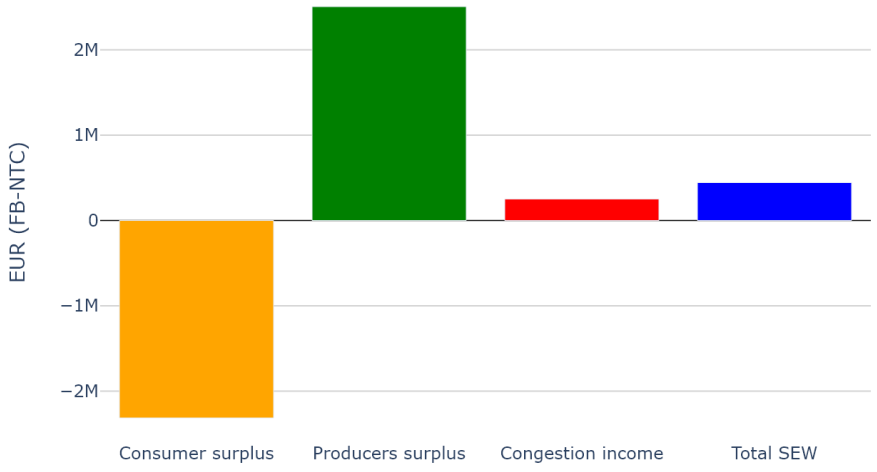
FI, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in FI

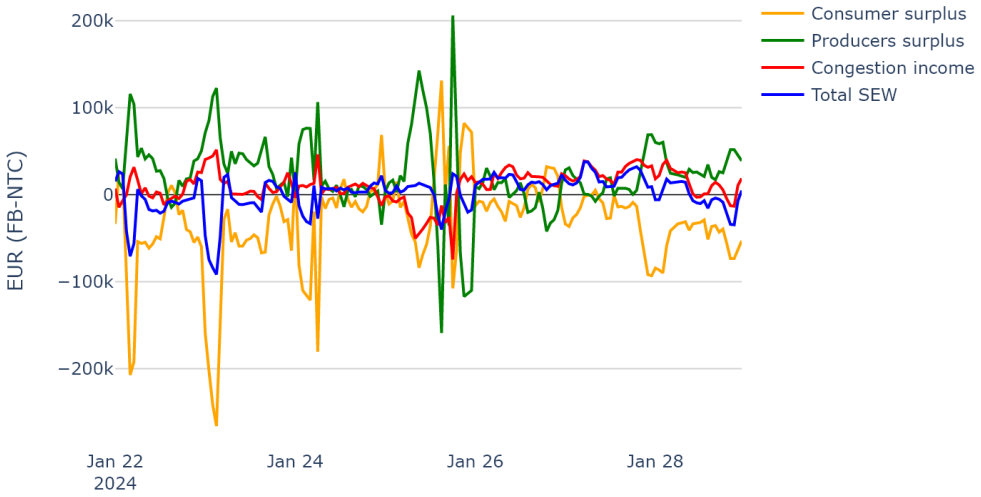


FI, socio-economic welfare per stakeholder and country

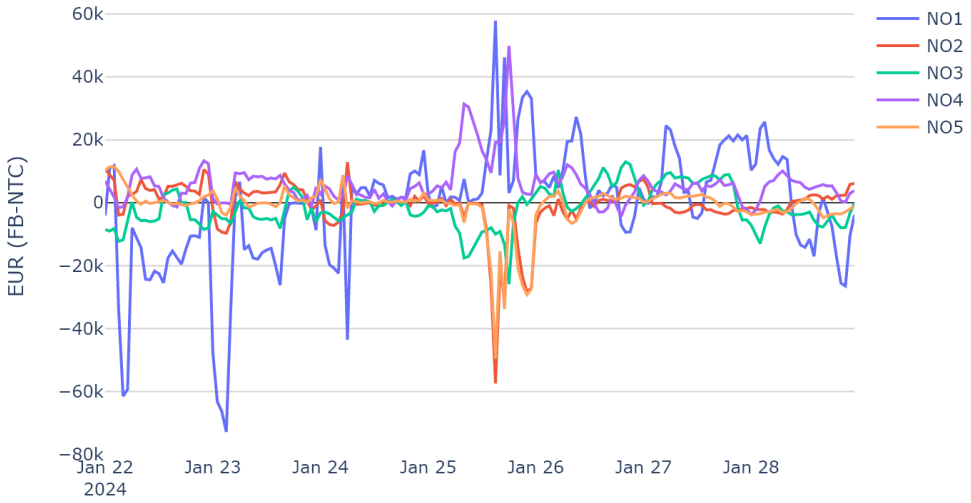


Norway

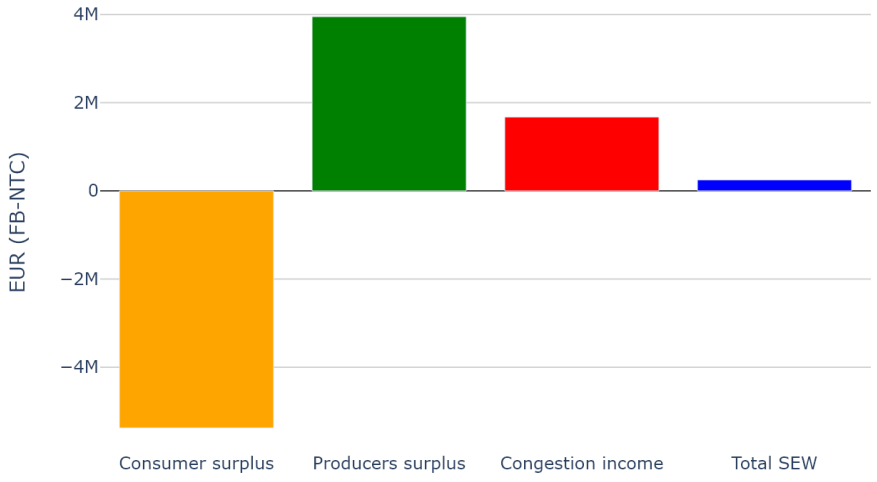
NO, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in NO

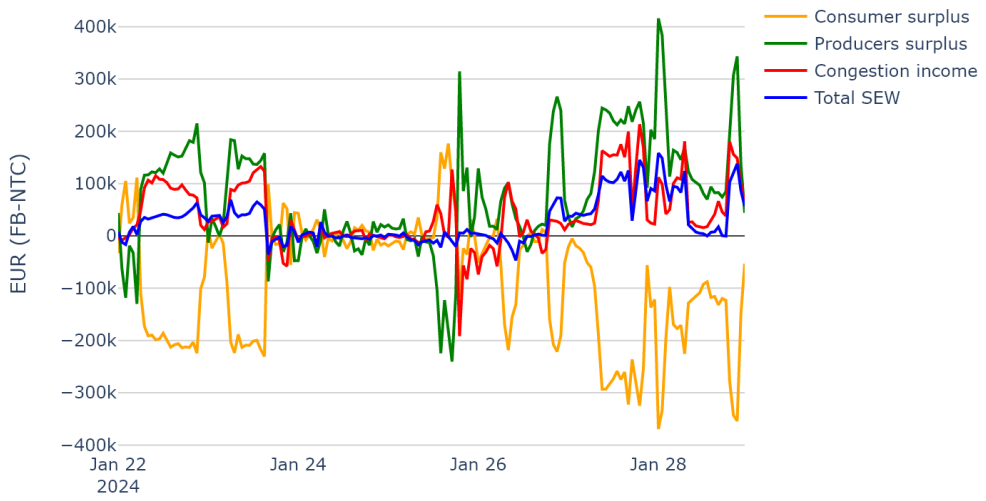


NO, socio-economic welfare per stakeholder and country

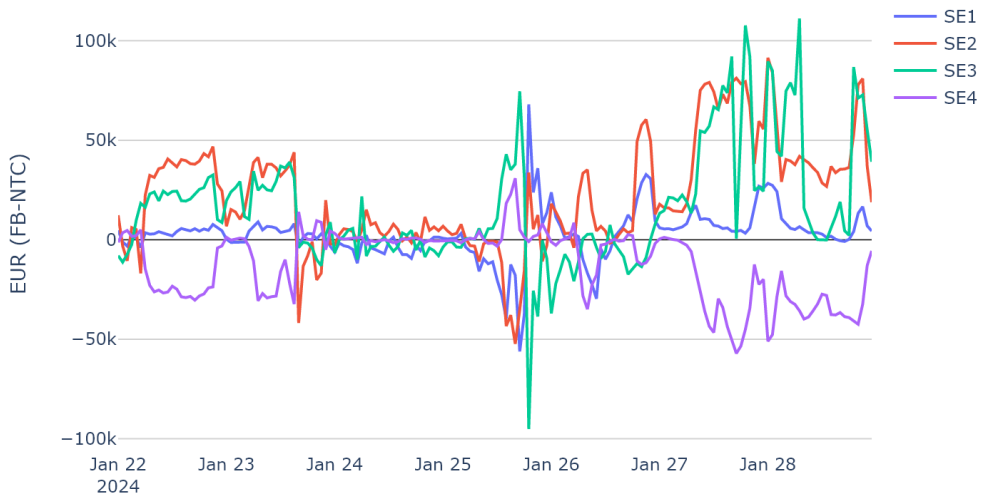


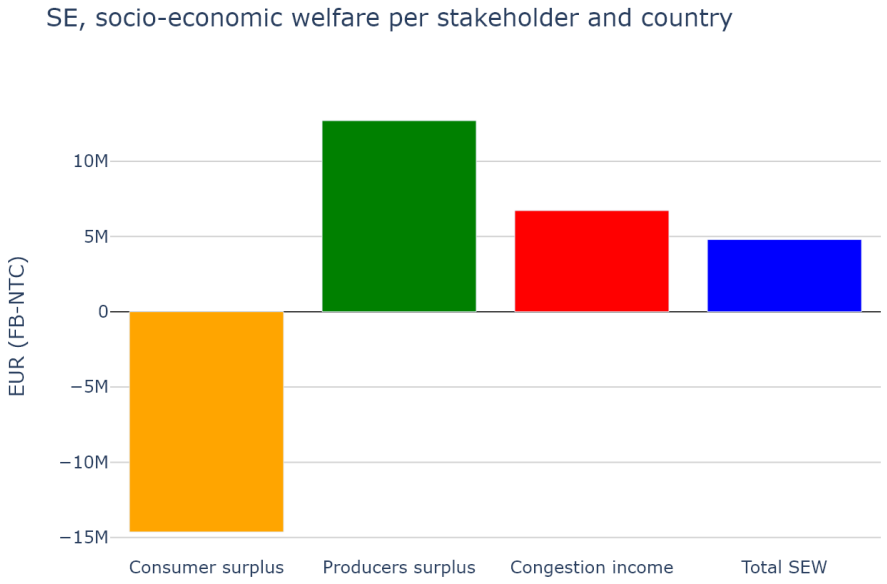
Sweden

SE, socio-economic welfare per stakeholder and country

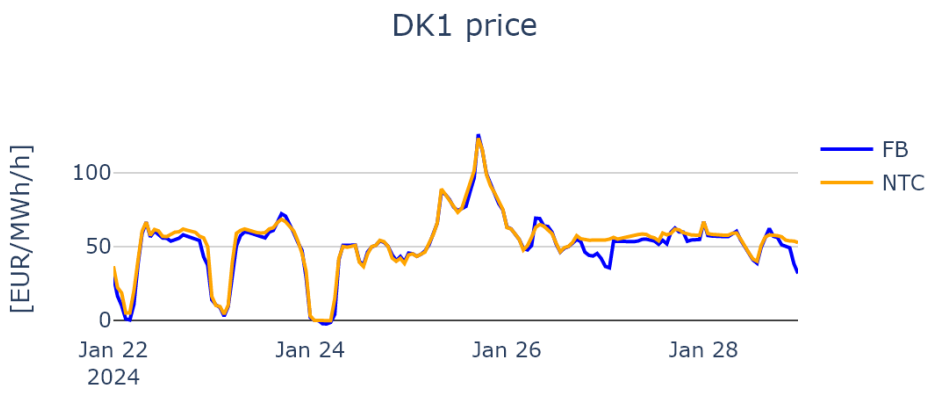


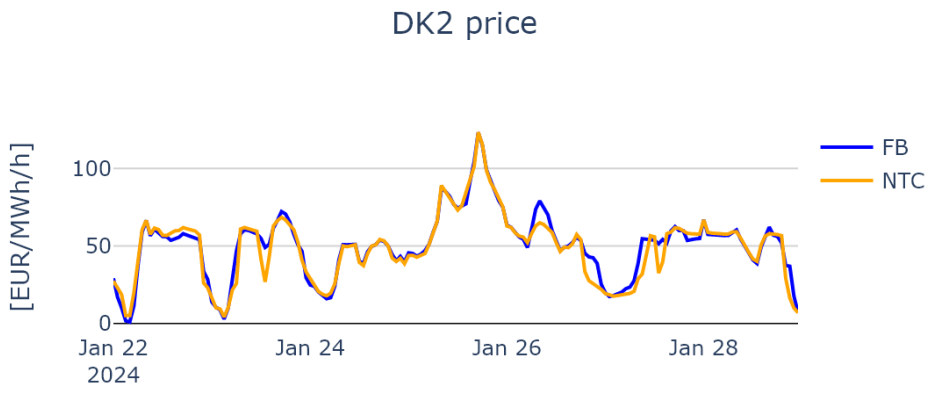
Total socio economic welfaregain FB-NTC per BZ in SE

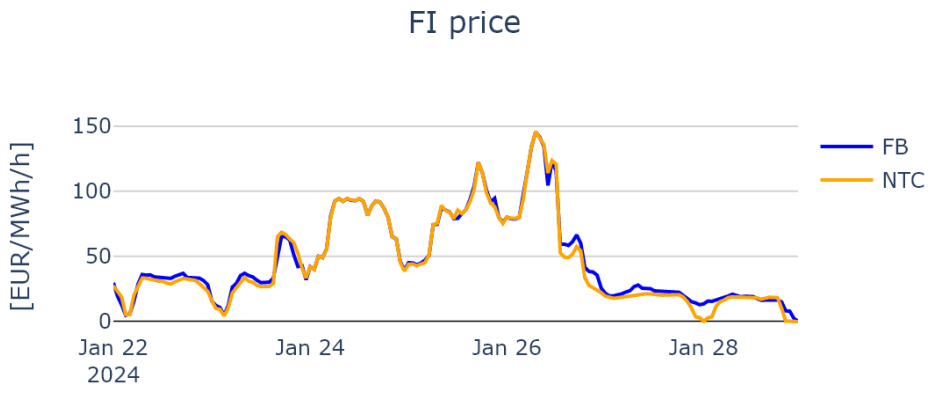


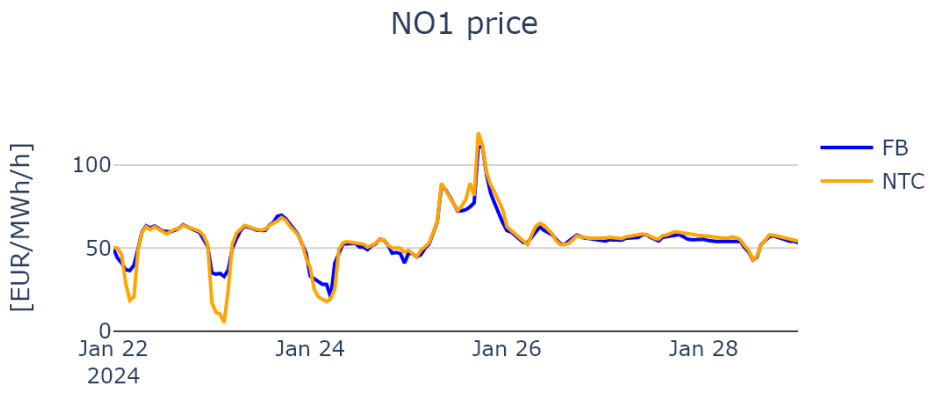

SE, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
10M
5M
0
−5M
−10M
−15M
Consumer surplus
Producers surplus
Congestion income
Total SEW

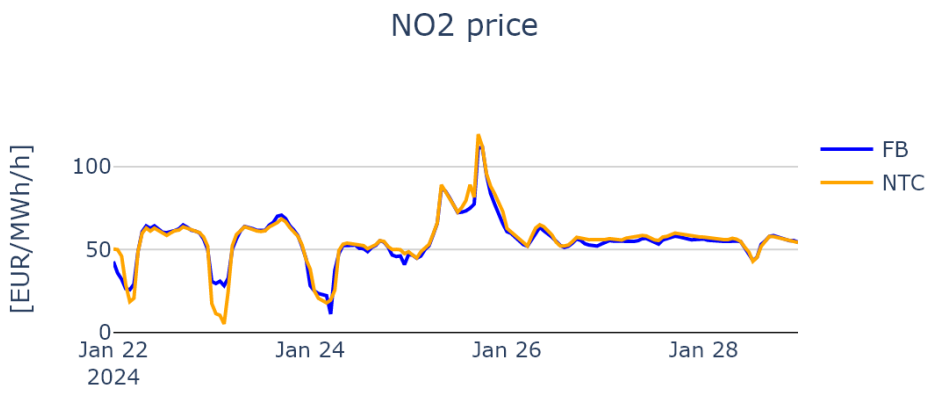
Prices

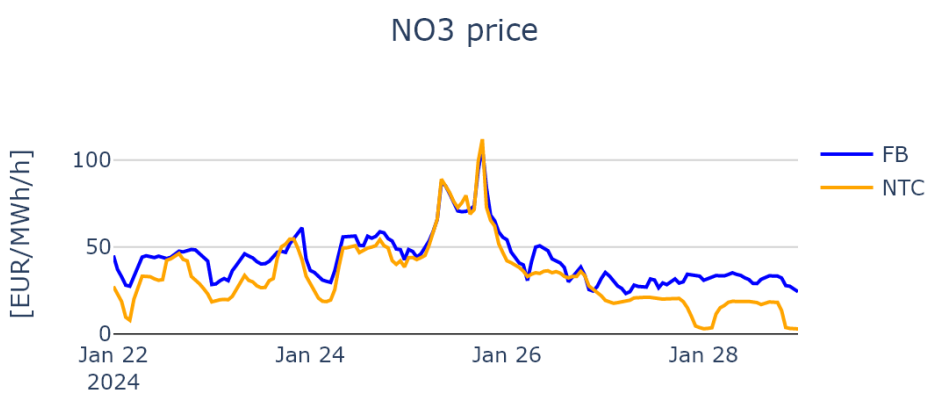

DK1 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC


DK2 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

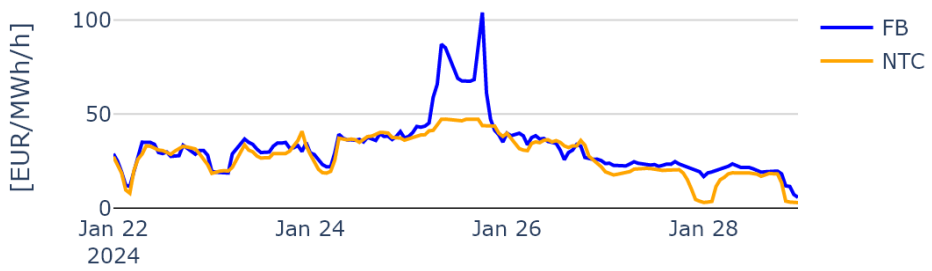

FI price
[EUR/MWh/h]
150
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC


NO1 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

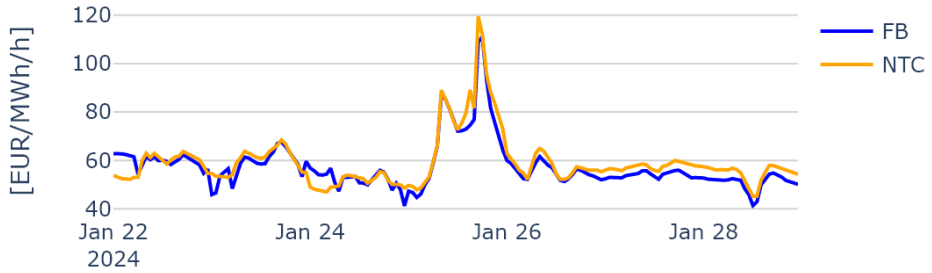

NO2 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC


NO3 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

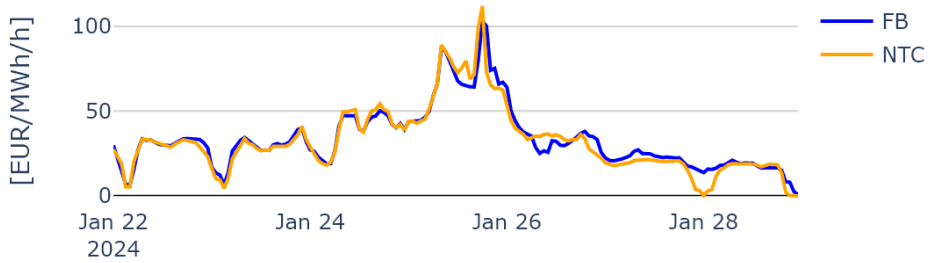
NO4 price

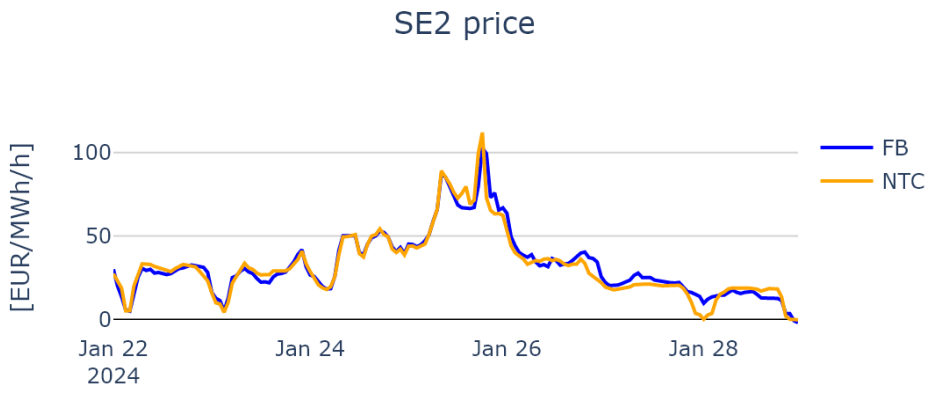


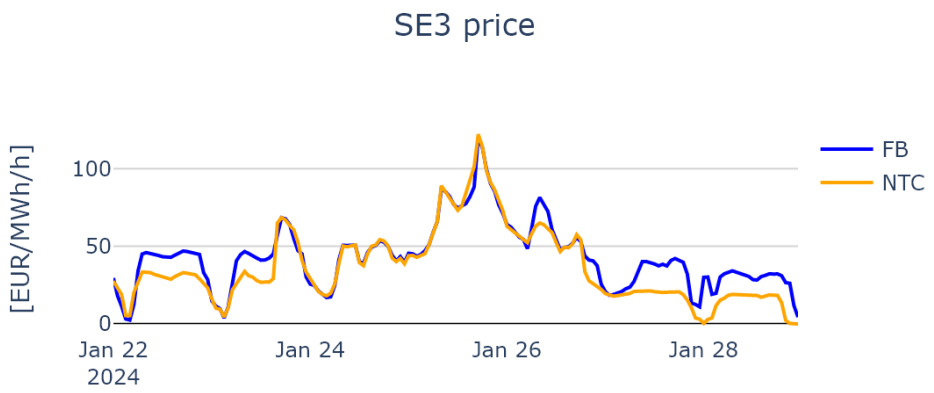
NO5 price

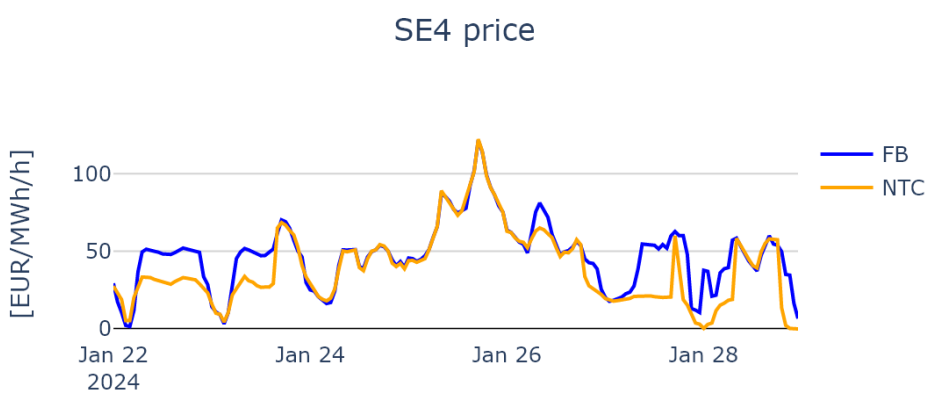


SE1 price



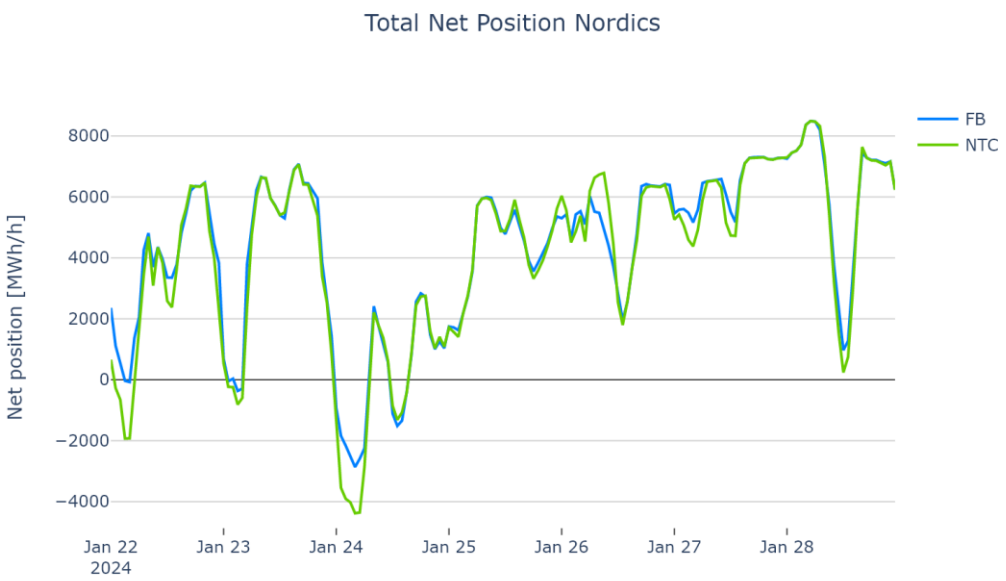

SE2 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

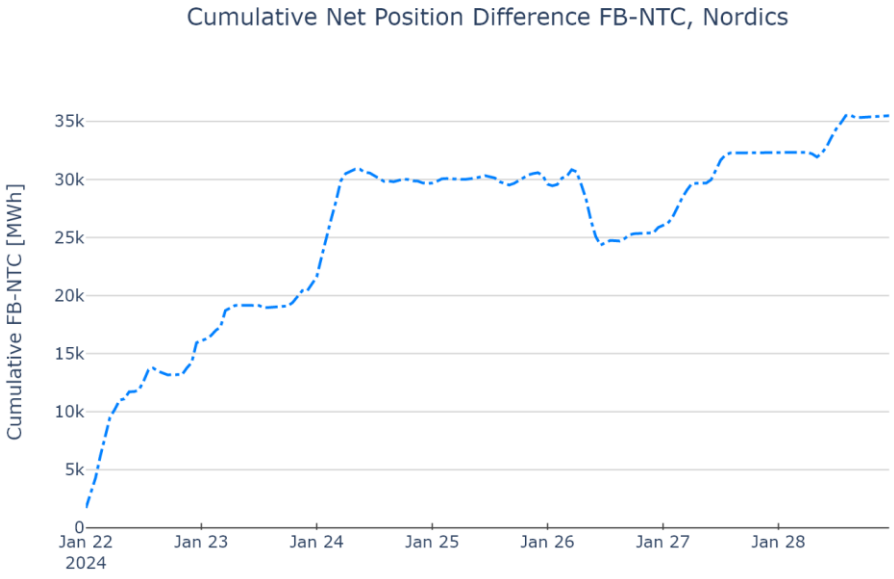

SE3 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC


SE4 price
[EUR/MWh/h]
100
50
0
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

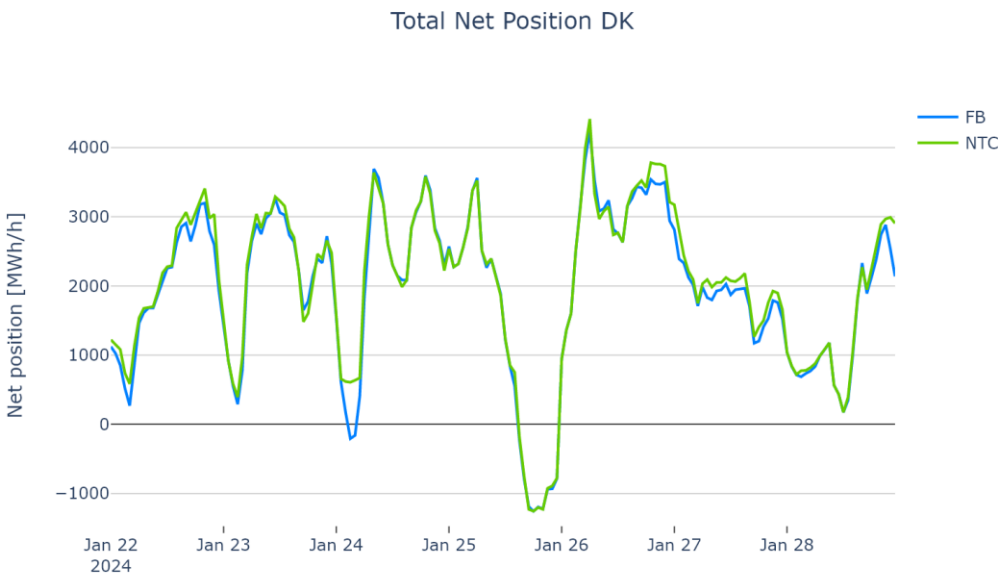
Net positions

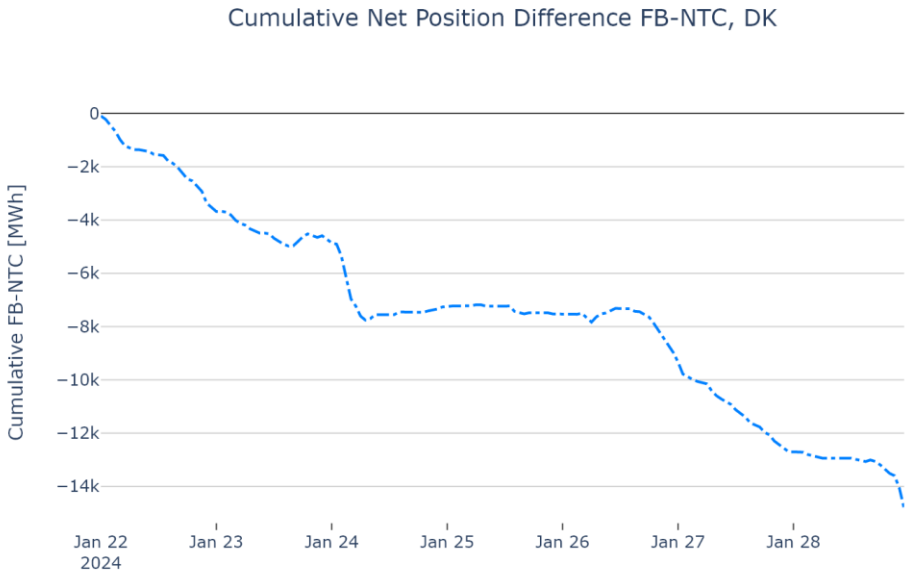
Nordics

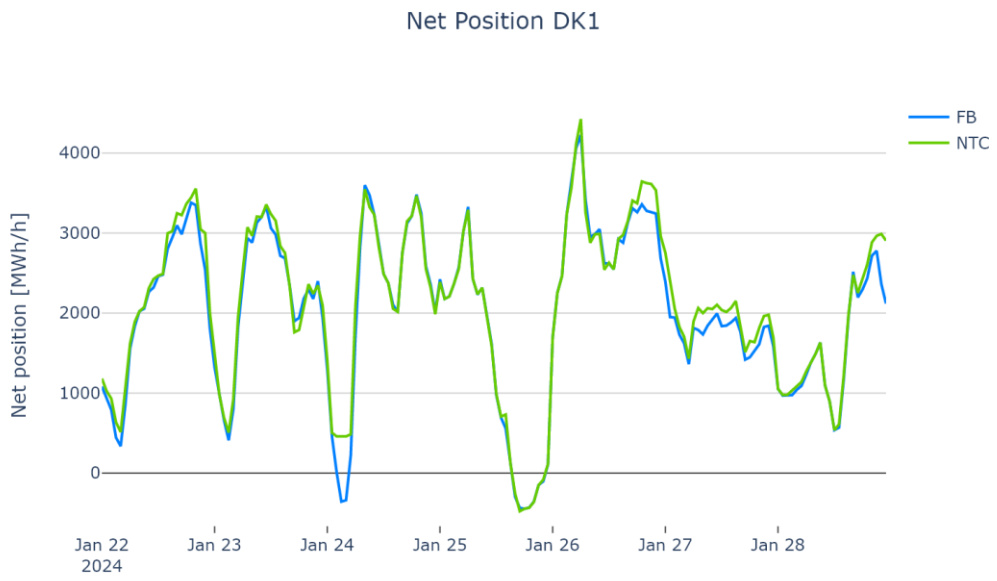


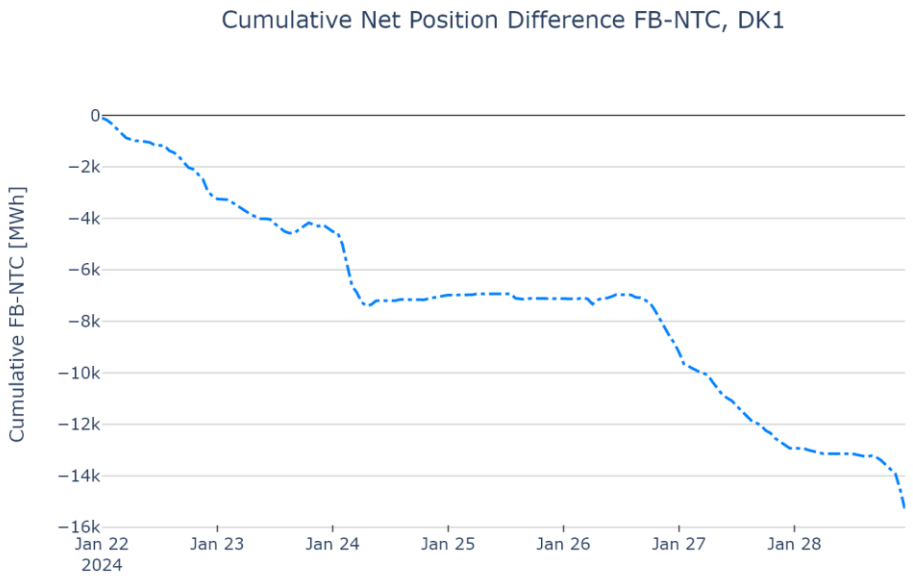


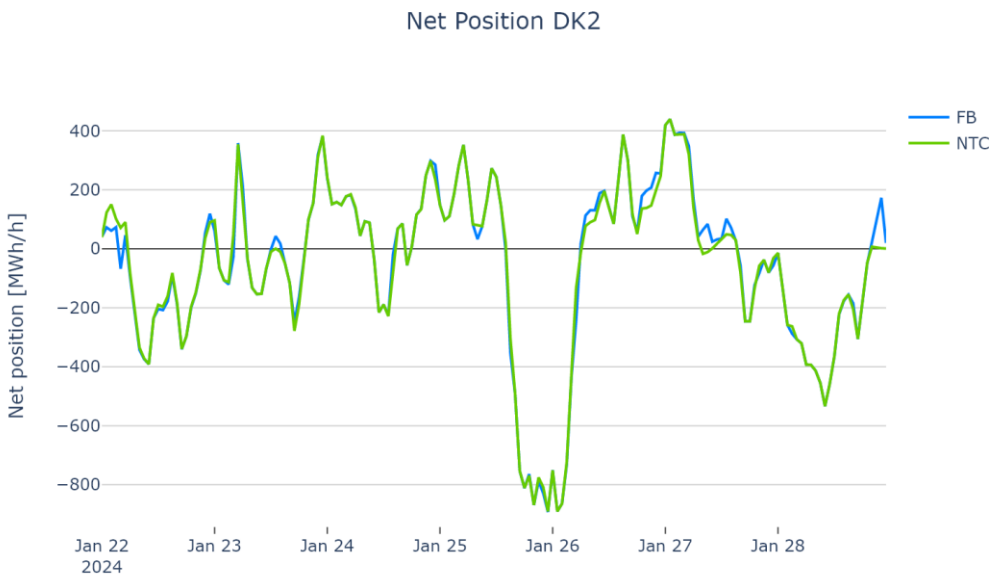
Denmark

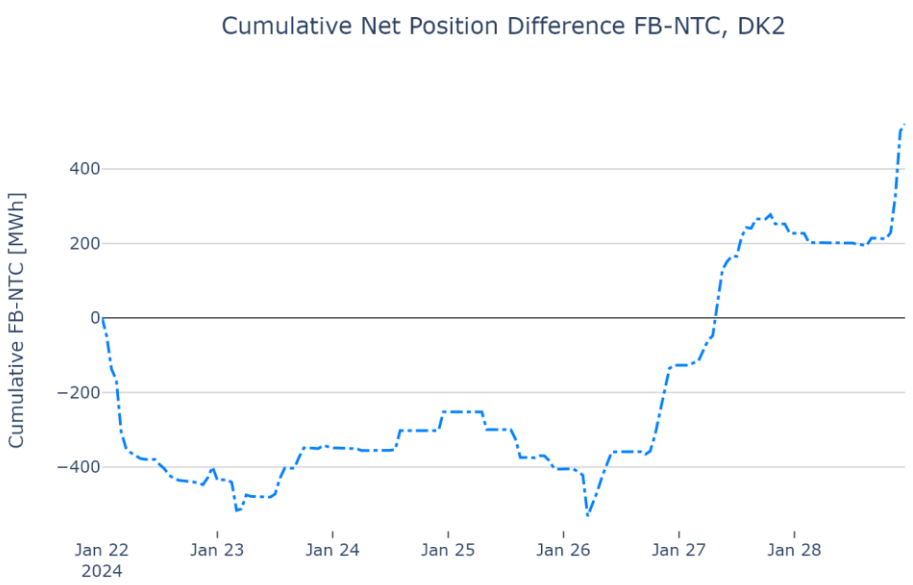

Total Net Position DK
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28


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

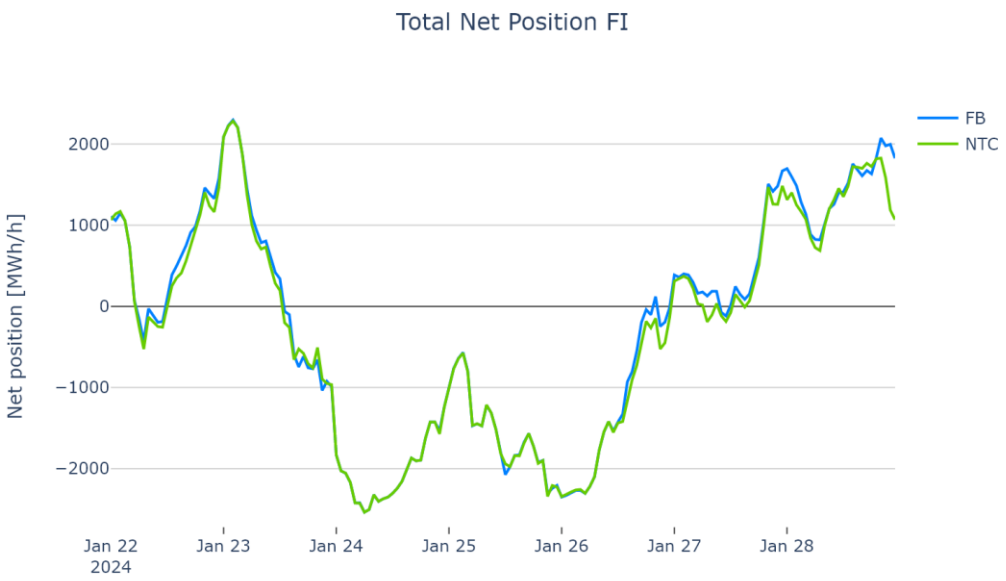

Net Position DK1
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

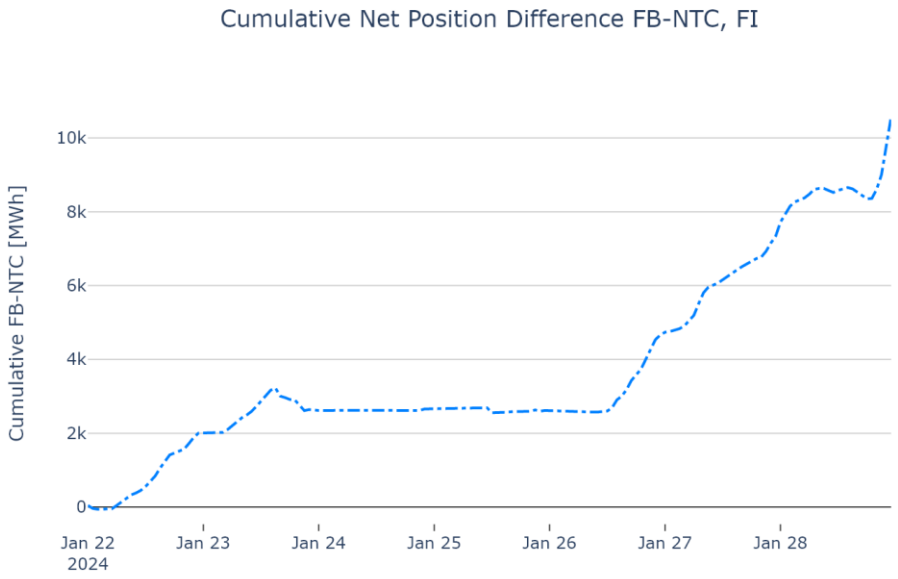

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
−12k
−14k
−16k
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28


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

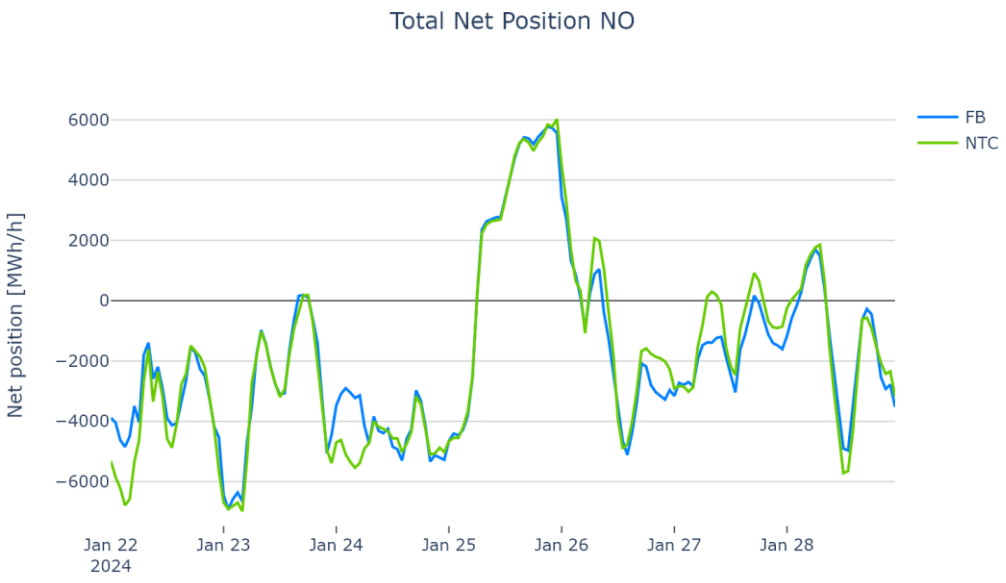

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
400
200
0
−200
−400
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

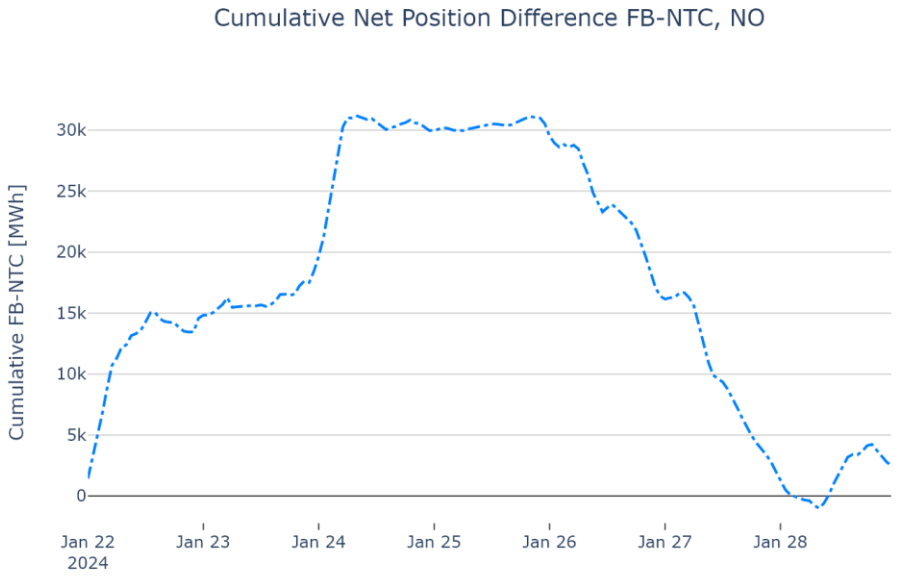
Finland

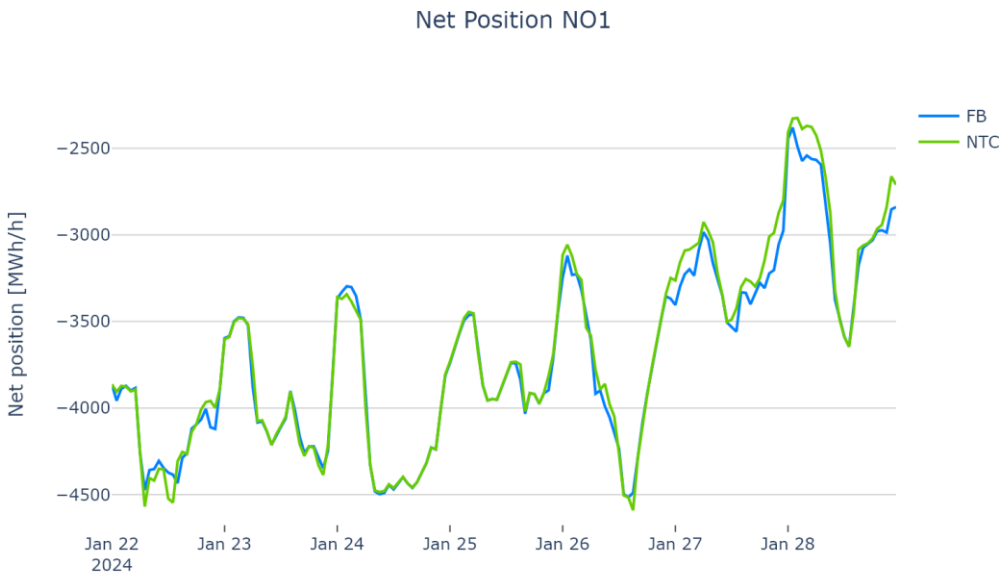

Total Net Position FI
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

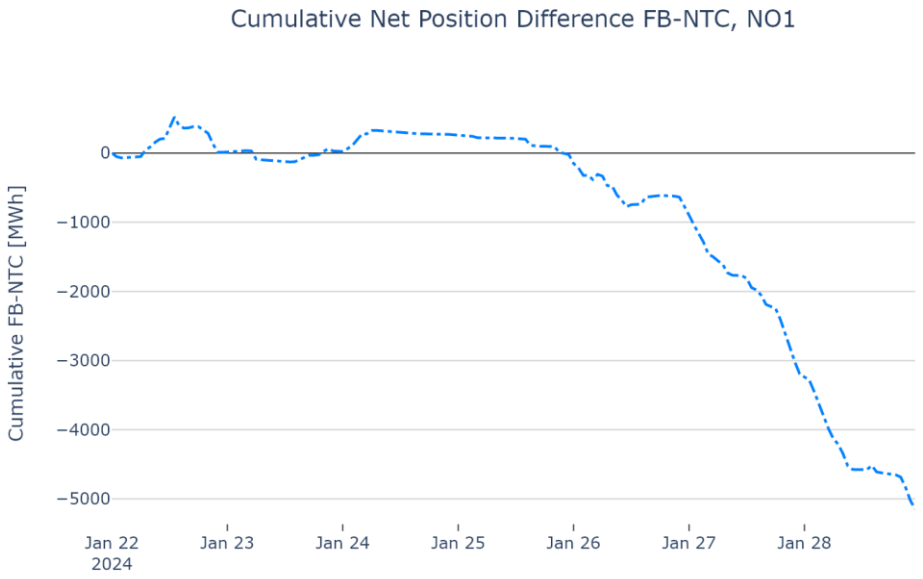

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
10k
8k
6k
4k
2k
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

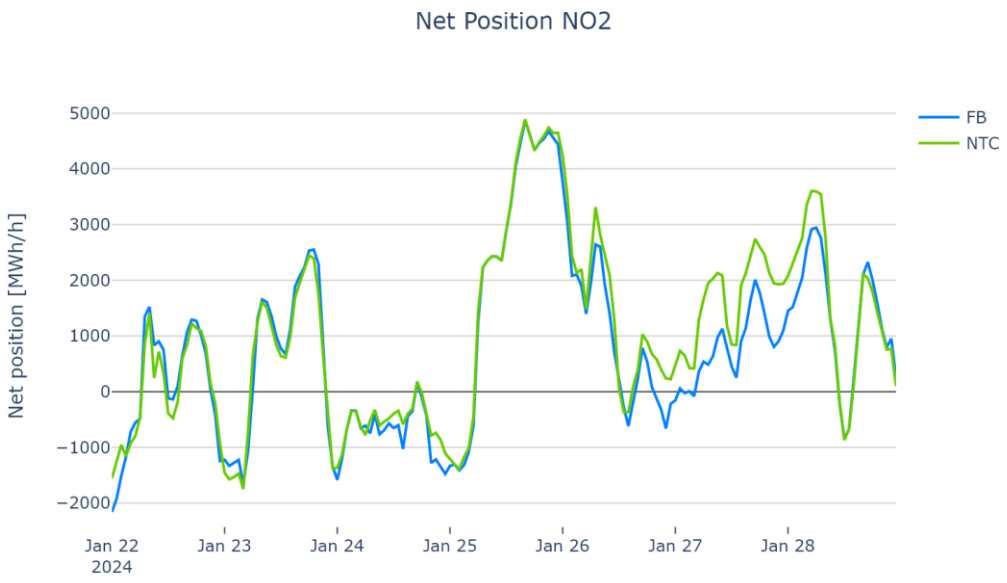
Norway

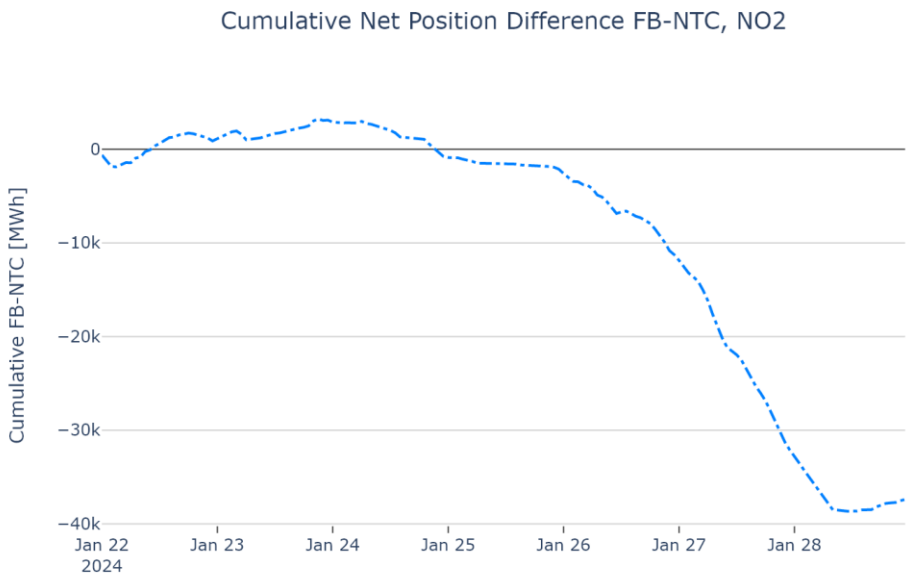

Total Net Position NO
Net position [MWh/h]
6000
4000
2000
0
−2000
−4000
−6000
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28
FB
NTC

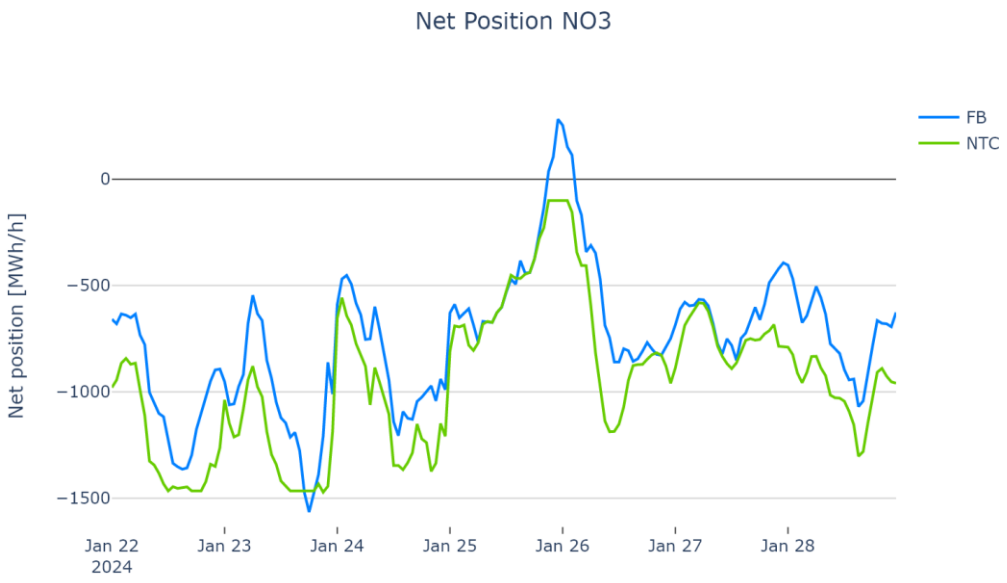

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
30k
25k
20k
15k
10k
5k
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

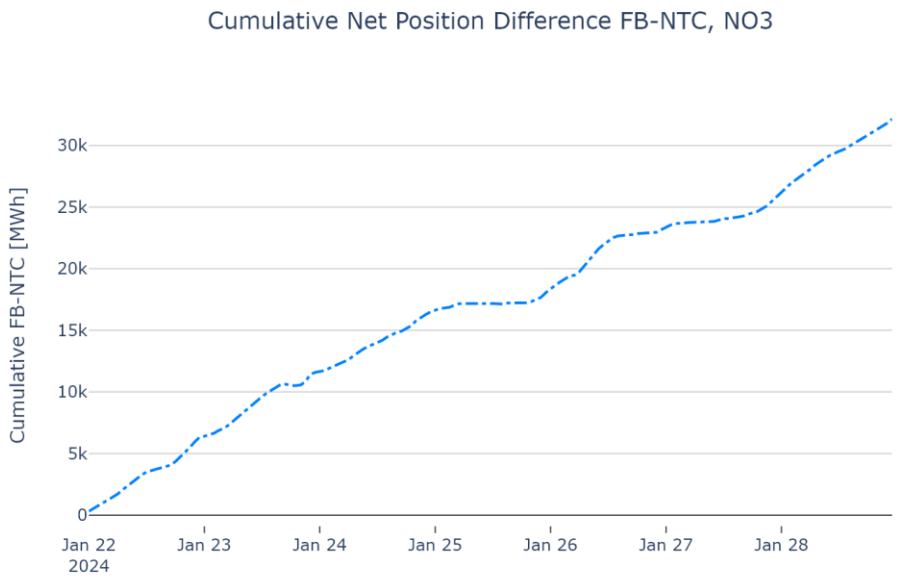

Net Position NO1
FB
NTC
Net position [MWh/h]
−2500
−3000
−3500
−4000
−4500
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

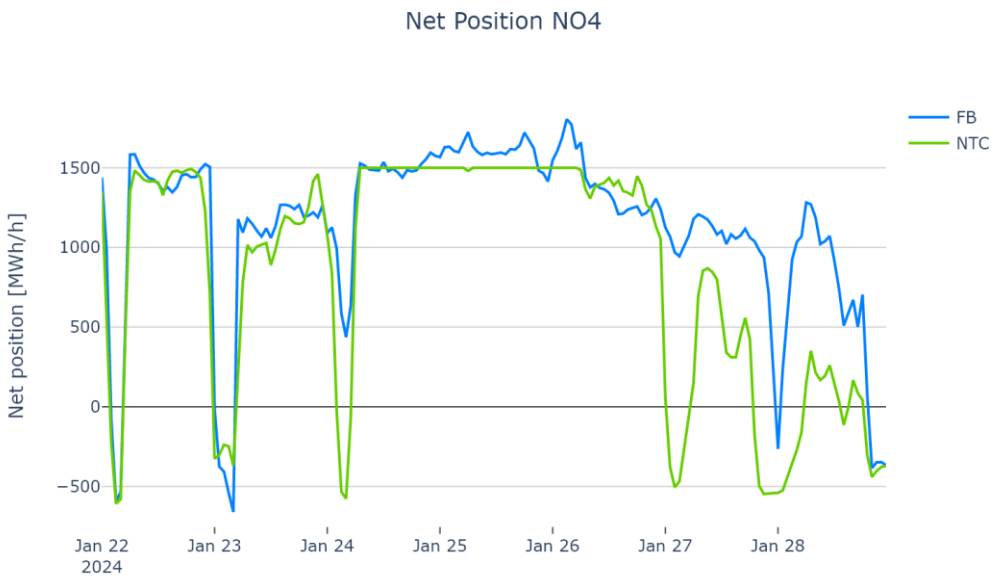

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
−4000
−5000
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

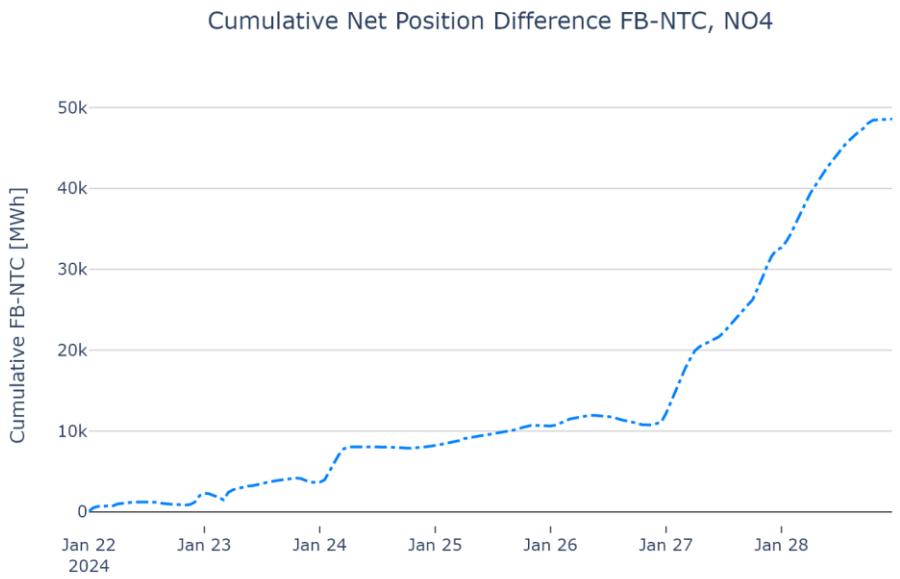

Net Position NO2
Net position [MWh/h]
5000
4000
3000
2000
1000
0
−1000
−2000
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28
FB
NTC

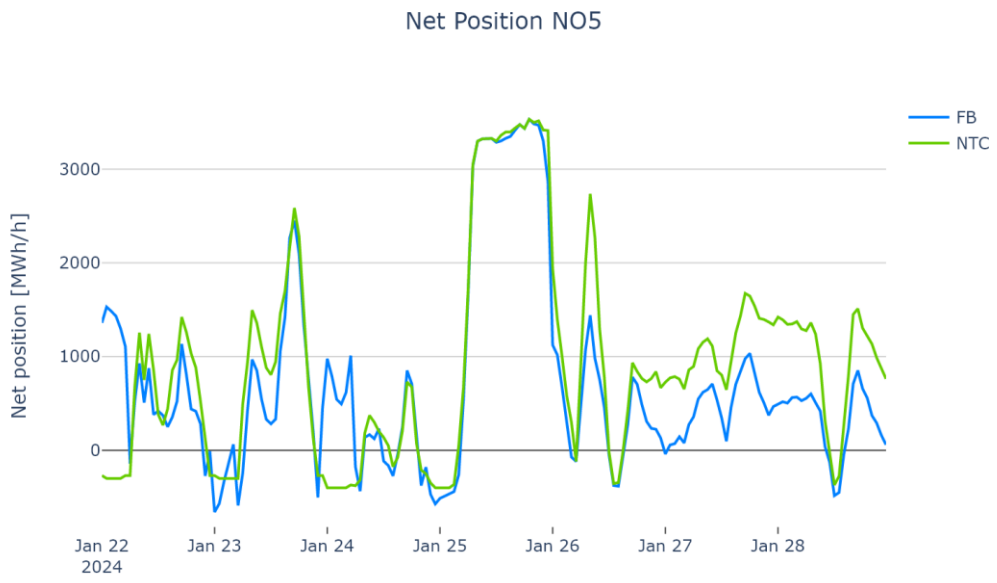

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

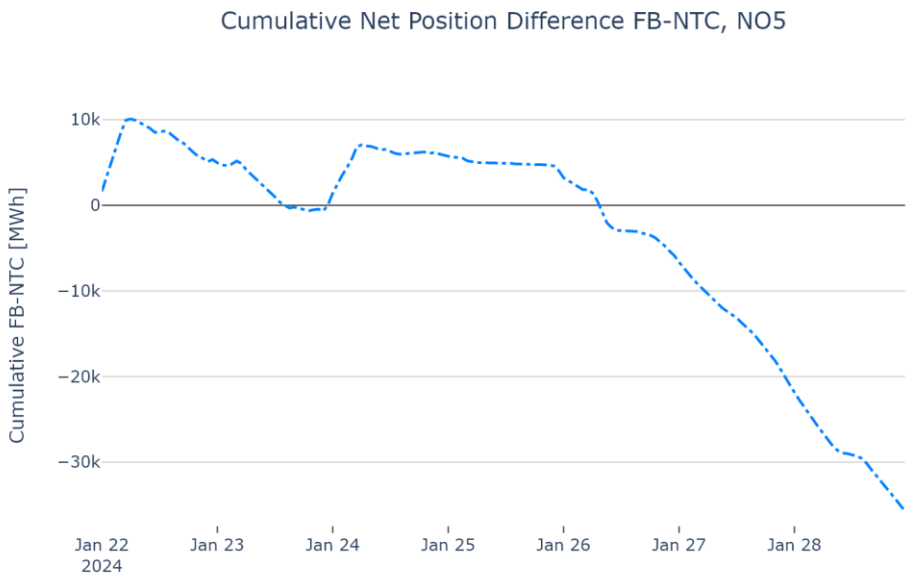

Net Position NO3
FB
NTC
Net position [MWh/h]
0
−500
−1000
−1500
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
30k
25k
20k
15k
10k
5k
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

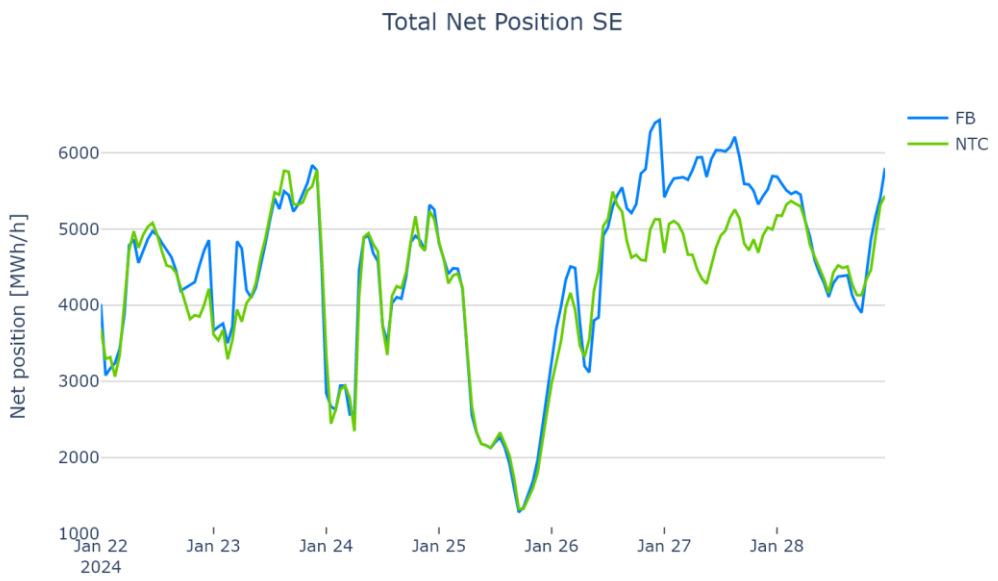

Net Position NO4
FB
NTC
Net position [MWh/h]
1500
1000
500
0
−500
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

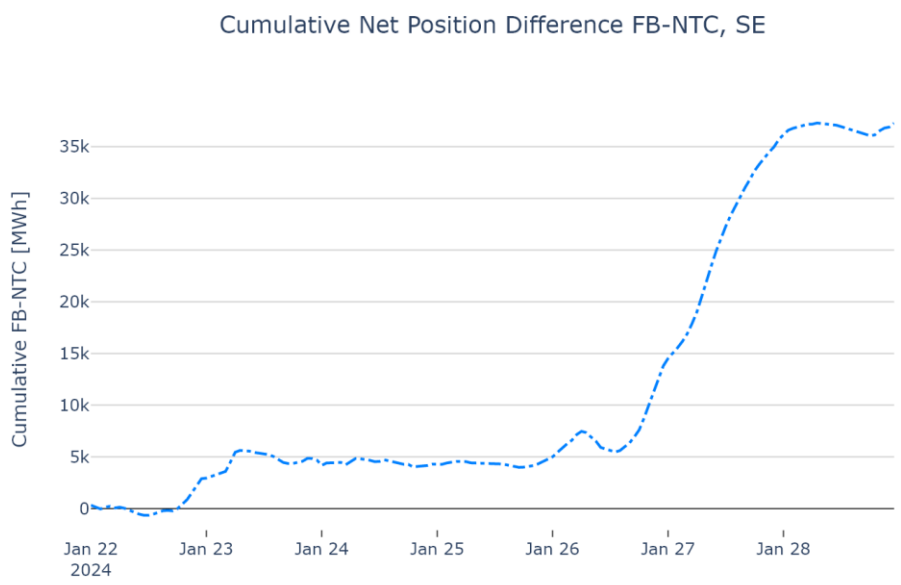

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
50k
40k
30k
20k
10k
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

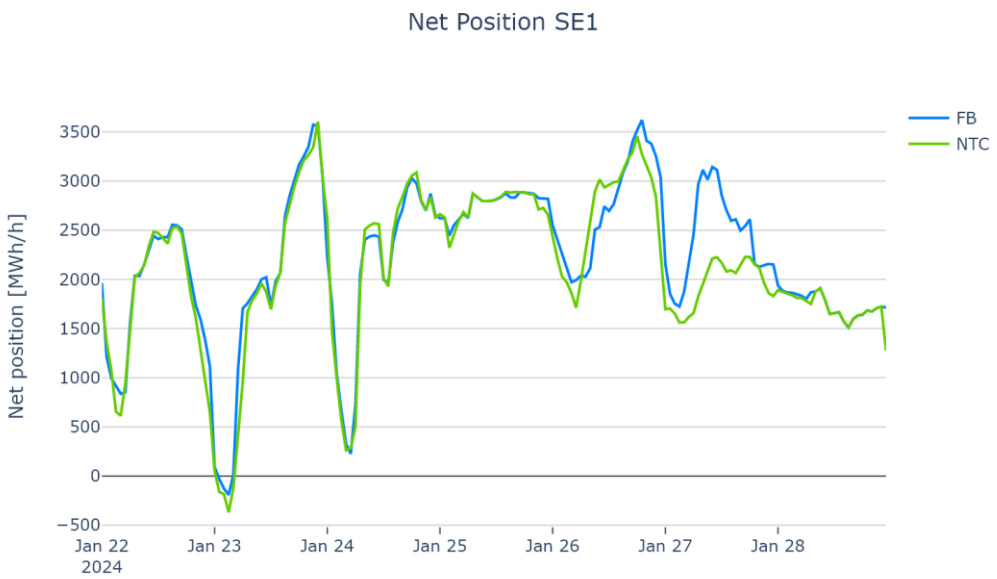

Net Position NO5
FB
NTC
Net position [MWh/h]
3000
2000
1000
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

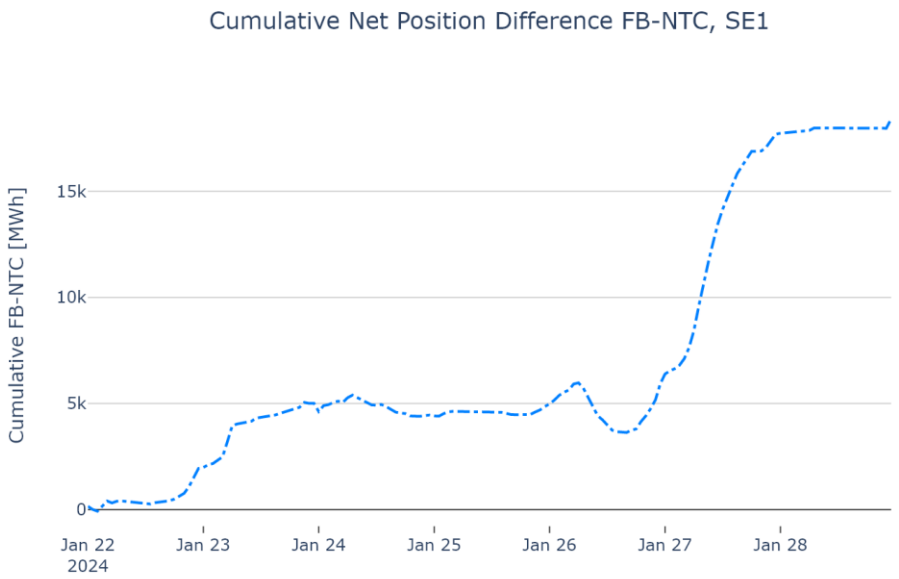

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
10k
0
−10k
−20k
−30k
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

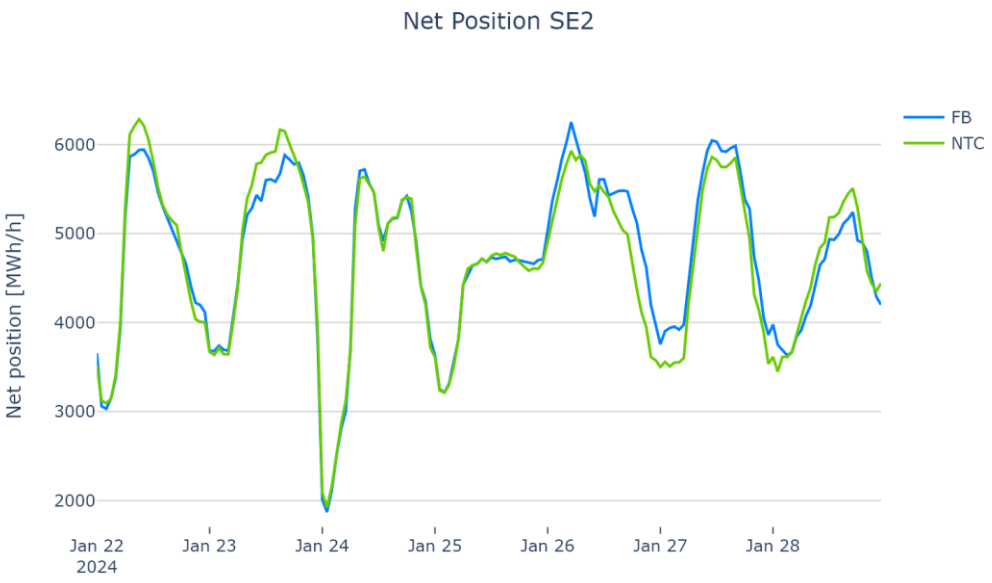
Sweden

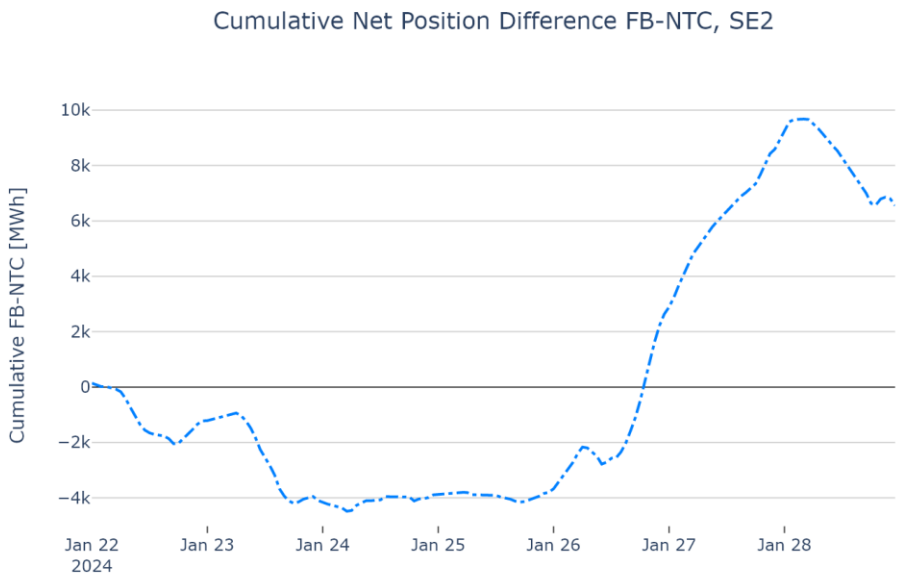

Total Net Position SE
FB
NTC
Net position [MWh/h]
6000
5000
4000
3000
2000
1000
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

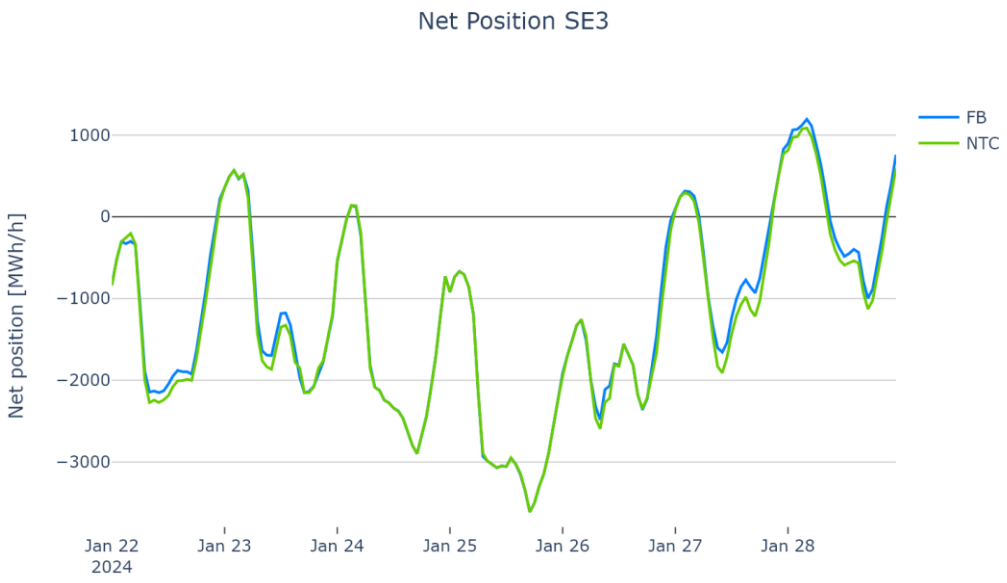

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
35k
30k
25k
20k
15k
10k
5k
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

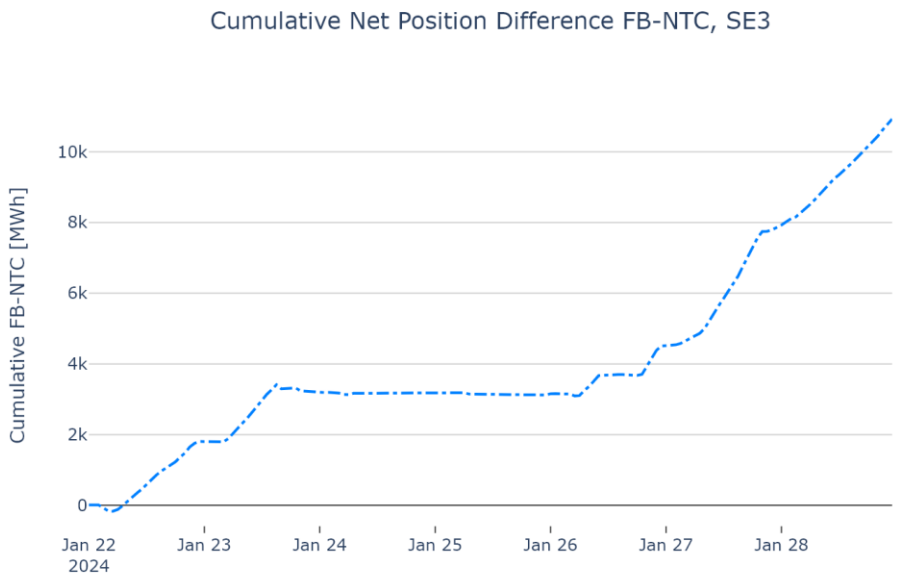

Net Position SE1
FB
NTC
Net position [MWh/h]
3500
3000
2500
2000
1500
1000
500
0
−500
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

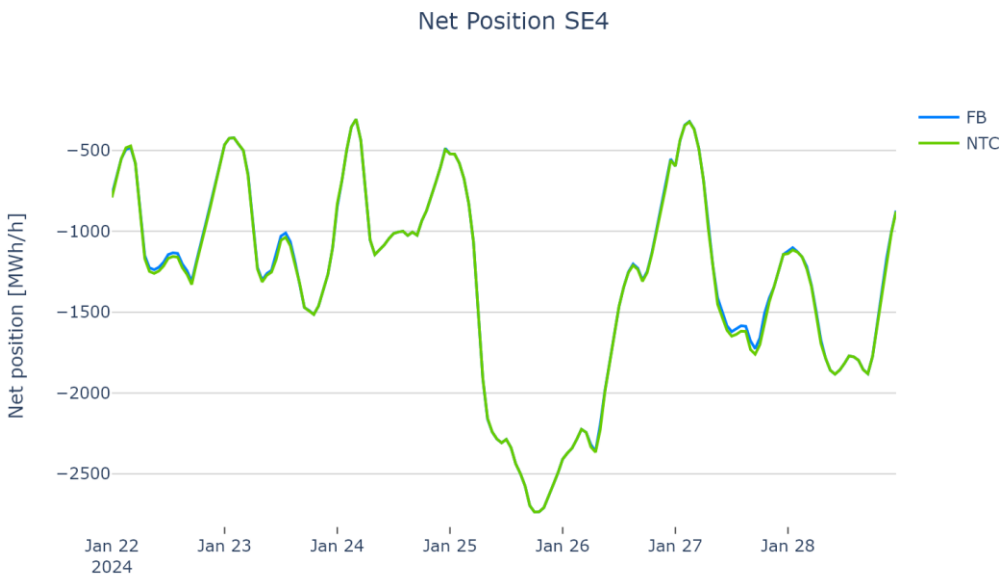

Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
15k
10k
5k
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

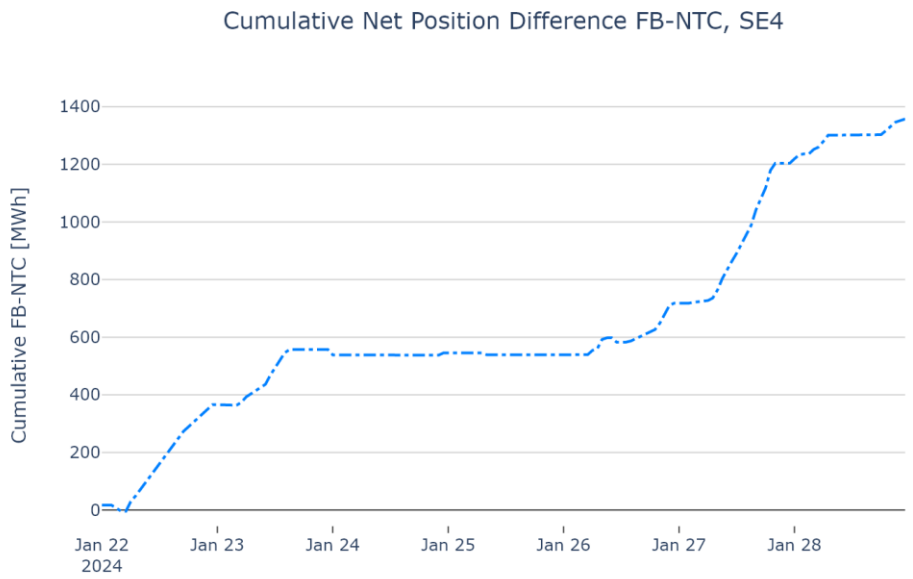

Net Position SE2
FB
NTC
Net position [MWh/h]
6000
5000
4000
3000
2000
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28


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


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

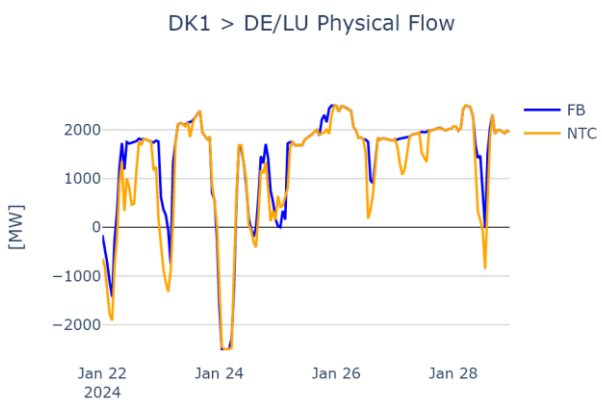

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
10k
8k
6k
4k
2k
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

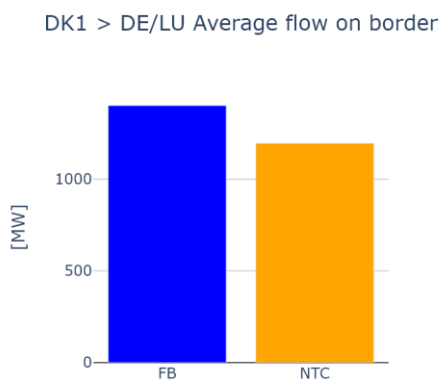

Net Position SE4
FB
NTC
Net position [MWh/h]
−500
−1000
−1500
−2000
−2500
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

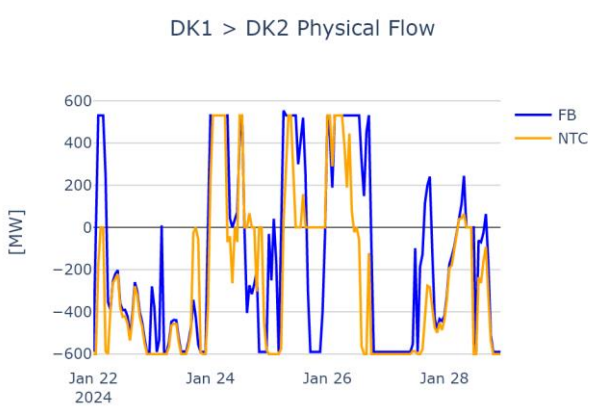

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
1400
1200
1000
800
600
400
200
0
Jan 22
2024
Jan 23
Jan 24
Jan 25
Jan 26
Jan 27
Jan 28

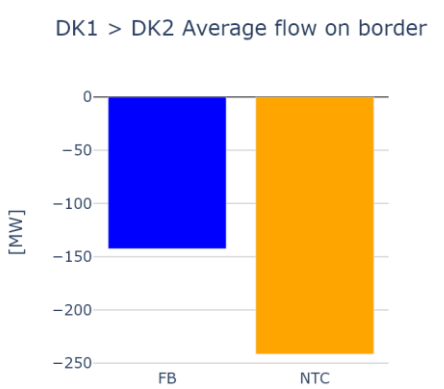
Border flow

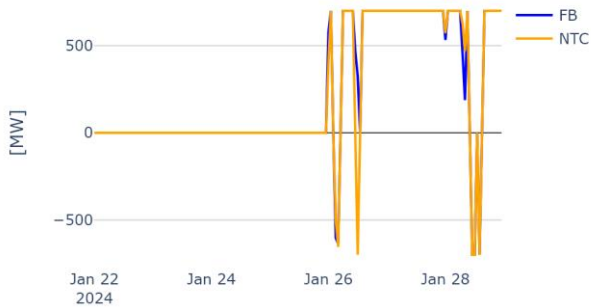
The flows present here, both in FB and NTC, represent the physical flow on the lines and are calculated as the product of the NP and the PTDF matrix. When comparing the NTC-results in this report with those present in the DA market there will be a difference as the DA flows are calculated without the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

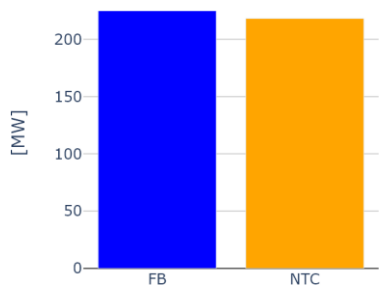


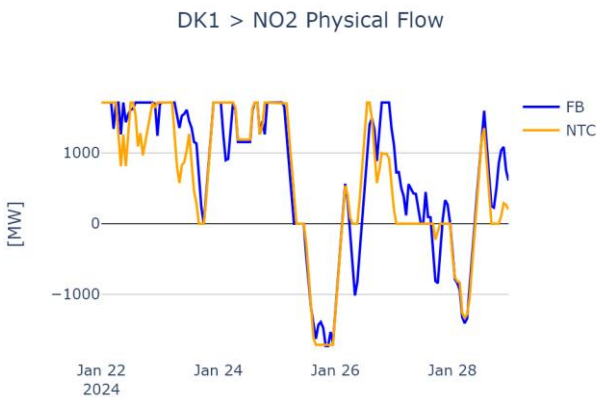


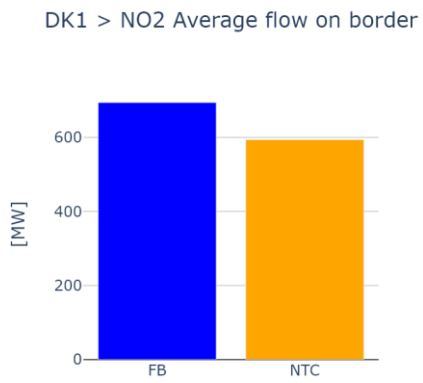


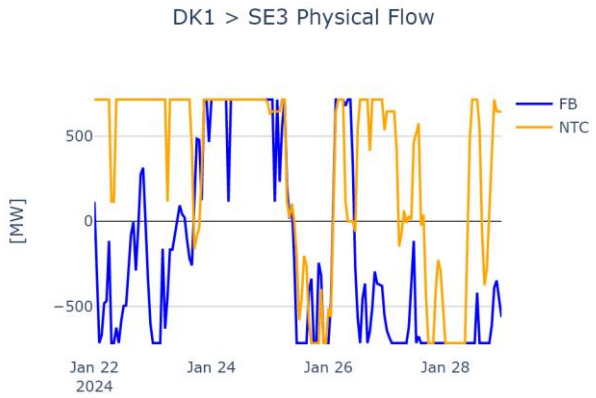


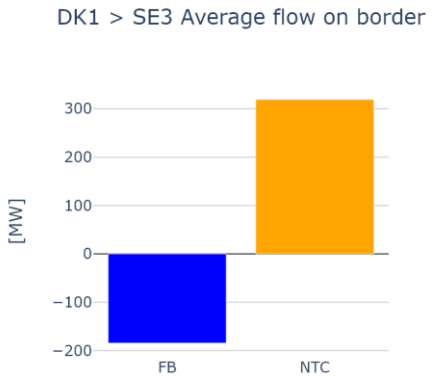

DK1 > NL Physical Flow
FB
NTC
500
0
−500
[MW]
Jan 22
2024
Jan 24
Jan 26
Jan 28


DK1 > NL Average flow on border
200
150
100
50
0
[MW]
FB
NTC

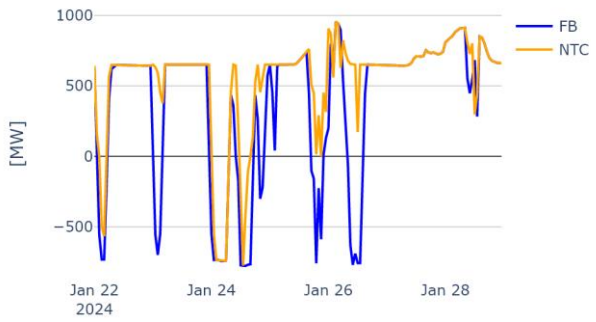

DK1 > NO2 Physical Flow
FB
NTC
1000
0
−1000
[MW]
Jan 22
2024
Jan 24
Jan 26
Jan 28


DK1 > NO2 Average flow on border
600
400
200
0
[MW]
FB
NTC

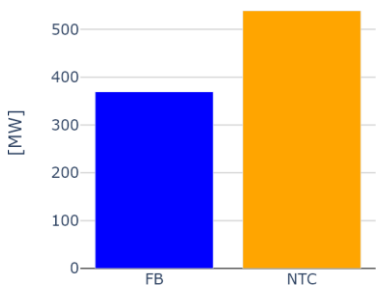

DK1 > SE3 Physical Flow
FB
NTC
500
0
−500
[MW]
Jan 22
2024
Jan 24
Jan 26
Jan 28


DK1 > SE3 Average flow on border
300
200
100
0
−100
−200
[MW]
FB
NTC

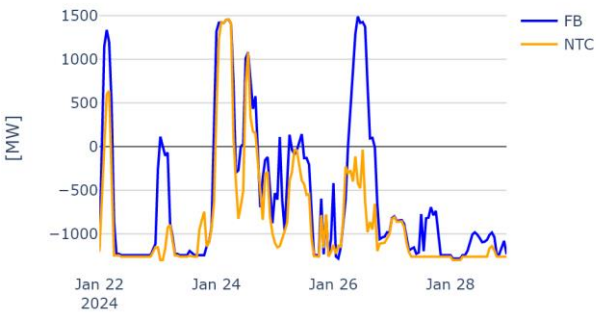
DK2 > DE/LU Physical Flow



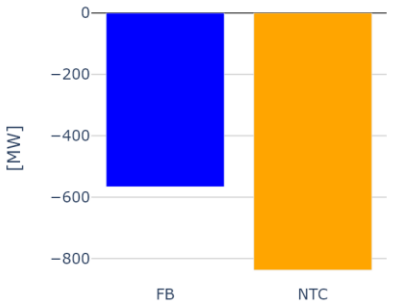
DK2 > DE/LU Average flow on border



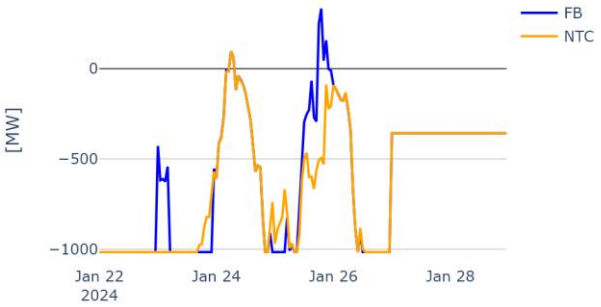
DK2 > SE4 Physical Flow



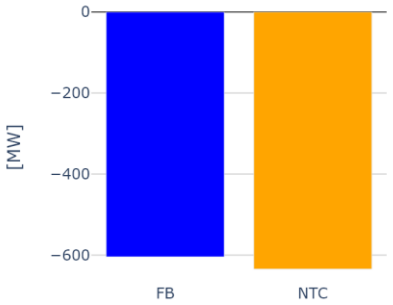
DK2 > SE4 Average flow on border

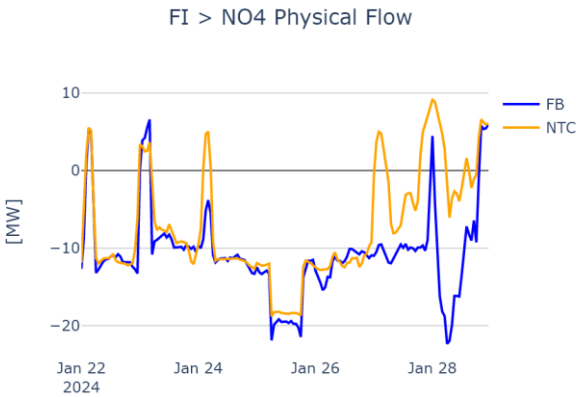


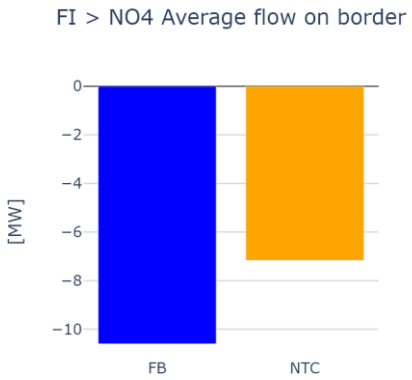
EE > FI Physical Flow

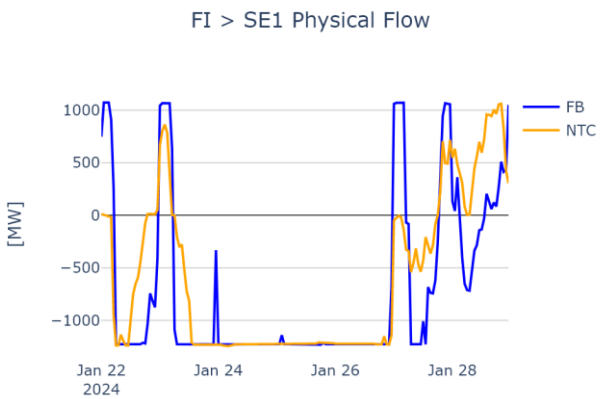


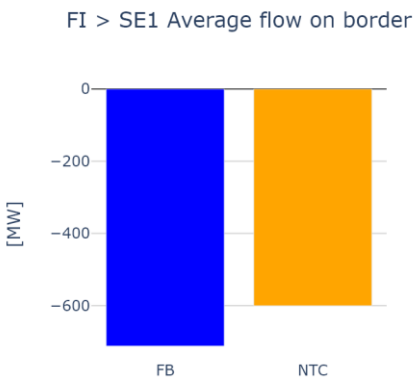
EE > FI Average flow on border

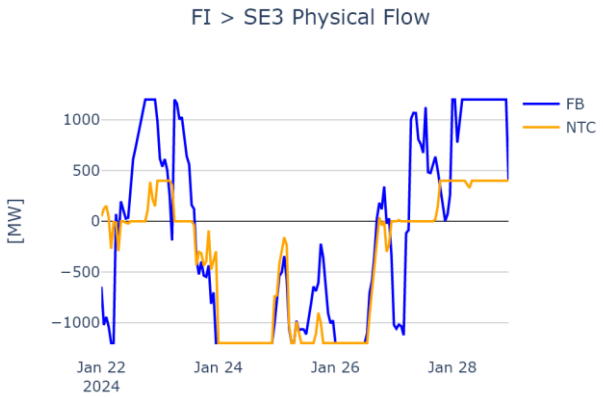


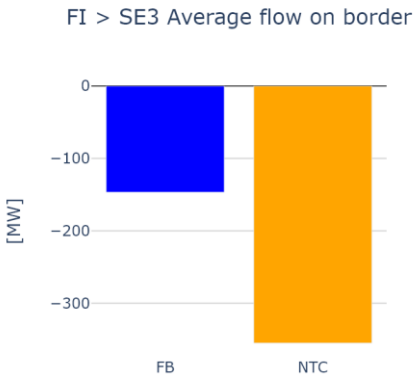

FI > NO4 Physical Flow
10
0
−10
−20
[MW]
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

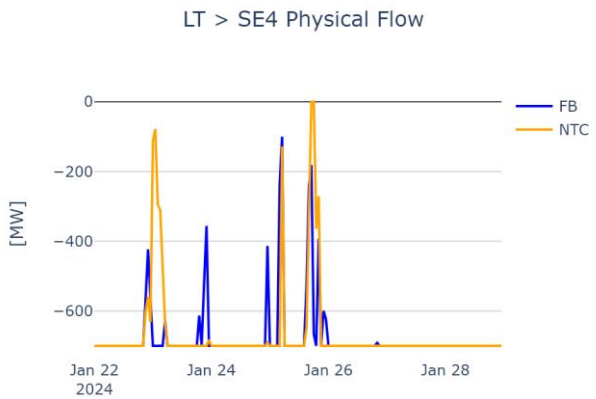

FI > NO4 Average flow on border
0
−2
−4
−6
−8
−10
[MW]
FB
NTC

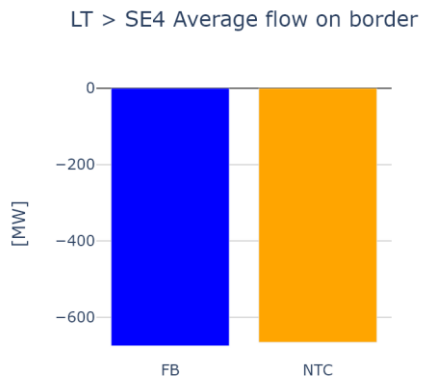

FI > SE1 Physical Flow
1000
500
0
−500
−1000
[MW]
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

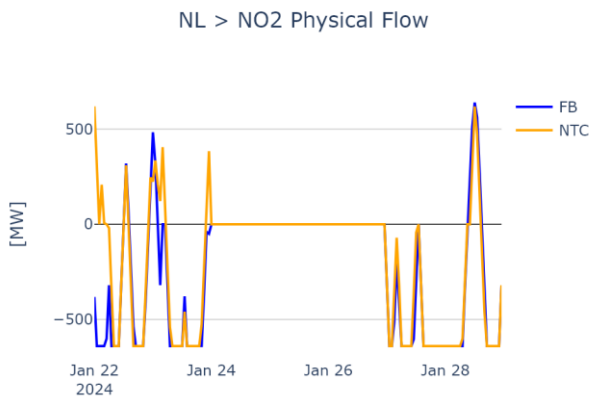

FI > SE1 Average flow on border
0
−200
−400
−600
[MW]
FB
NTC

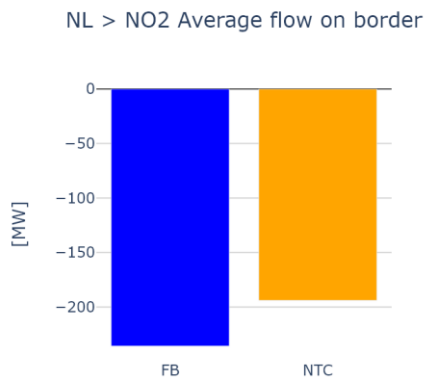

FI > SE3 Physical Flow
1000
500
0
−500
−1000
[MW]
Jan 22
2024
Jan 24
Jan 26
Jan 28
FB
NTC

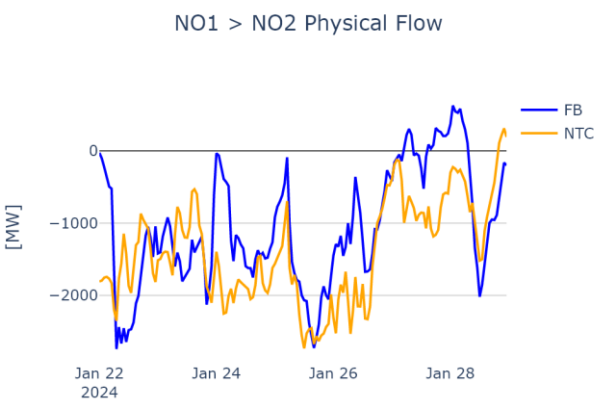

FI > SE3 Average flow on border
0
−100
−200
−300
[MW]
FB
NTC

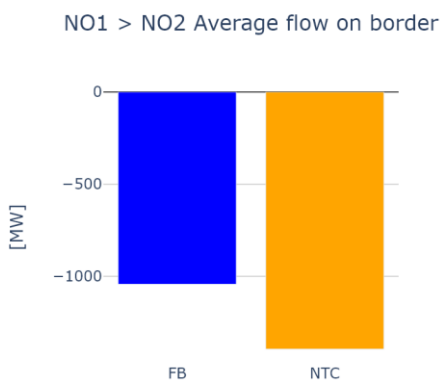

LT > SE4 Physical Flow
FB
NTC
[MW]
0
−200
−400
−600
Jan 22
2024
Jan 24
Jan 26
Jan 28

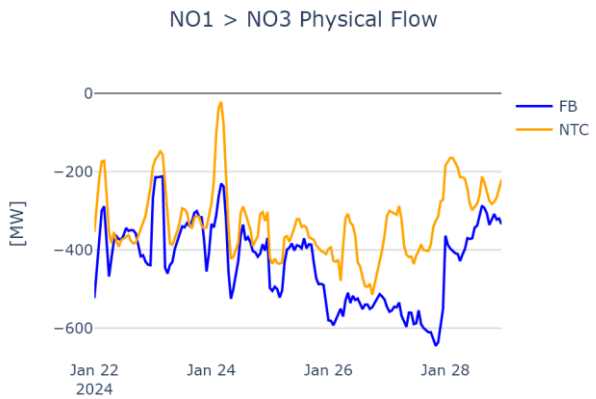

LT > SE4 Average flow on border
[MW]
0
−200
−400
−600
FB
NTC

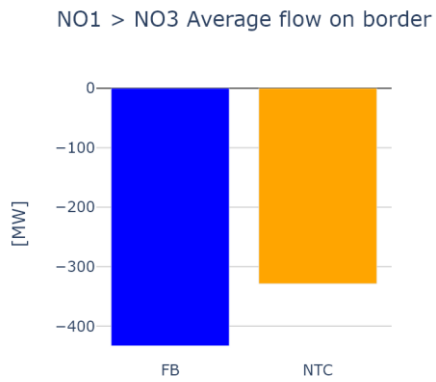

NL > NO2 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 22
2024
Jan 24
Jan 26
Jan 28

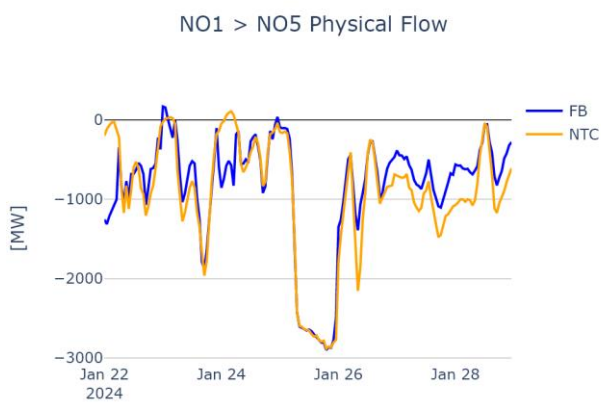

NL > NO2 Average flow on border
[MW]
0
−50
−100
−150
−200
FB
NTC

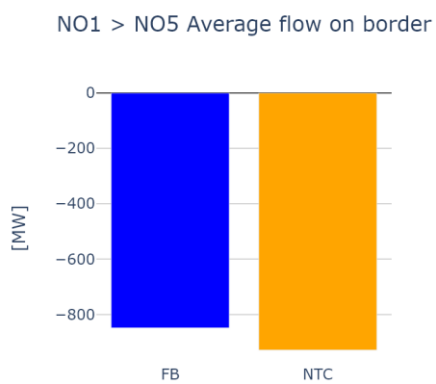

NO1 > NO2 Physical Flow
FB
NTC
[MW]
0
−1000
−2000
Jan 22
2024
Jan 24
Jan 26
Jan 28

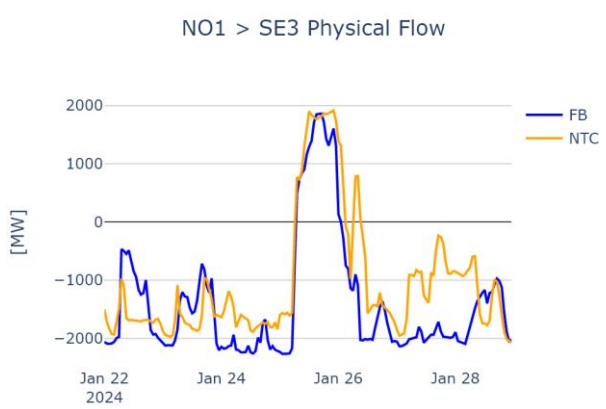

NO1 > NO2 Average flow on border
[MW]
0
−500
−1000
FB
NTC

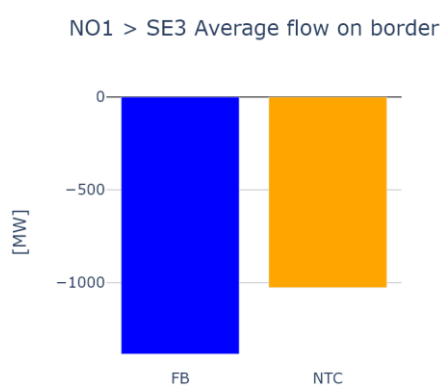

NO1 > NO3 Physical Flow
FB
NTC
[MW]
0
−200
−400
−600
Jan 22
2024
Jan 24
Jan 26
Jan 28


NO1 > NO3 Average flow on border
[MW]
0
−100
−200
−300
−400
FB
NTC

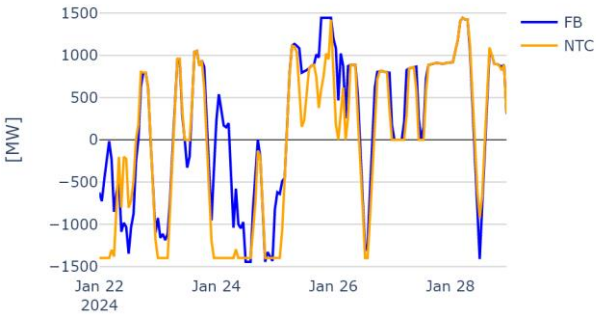

NO1 > NO5 Physical Flow
FB
NTC
[MW]
0
−1000
−2000
−3000
Jan 22
2024
Jan 24
Jan 26
Jan 28


NO1 > NO5 Average flow on border
[MW]
0
−200
−400
−600
−800
FB
NTC

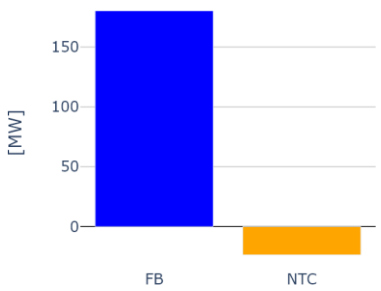

NO1 > SE3 Physical Flow
FB
NTC
[MW]
2000
1000
0
−1000
−2000
Jan 22
2024
Jan 24
Jan 26
Jan 28


NO1 > SE3 Average flow on border
[MW]
0
−500
−1000
FB
NTC

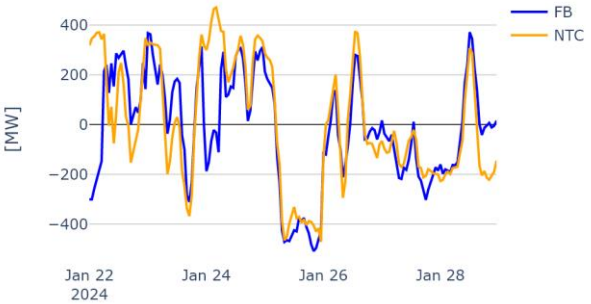
NO2 > DE/LU Physical Flow



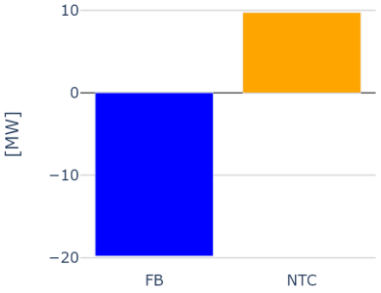
NO2 > DE/LU Average flow on border



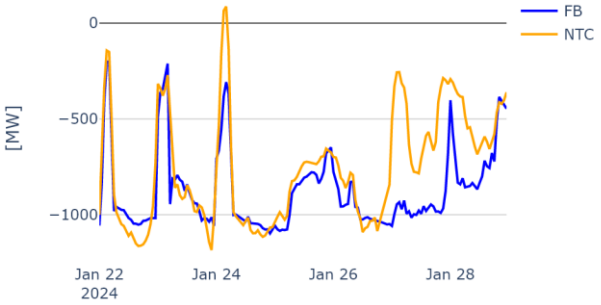
NO2 > NO5 Physical Flow



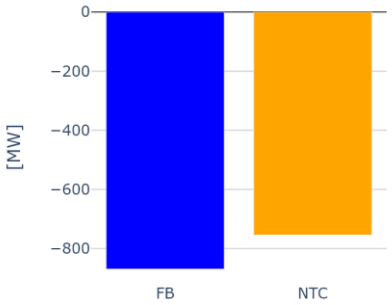
NO2 > NO5 Average flow on border

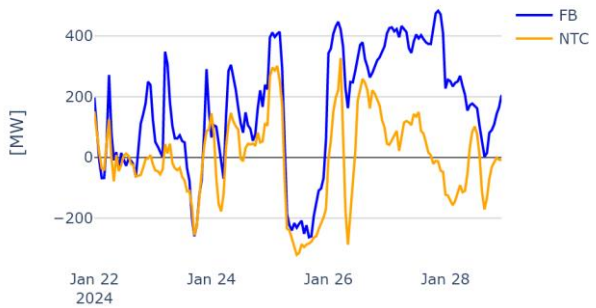


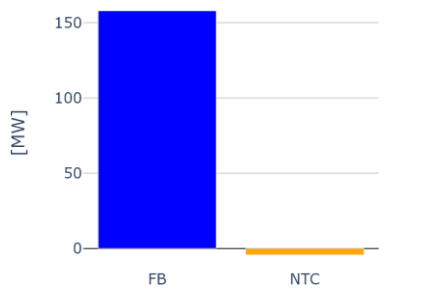
NO3 > NO4 Physical Flow

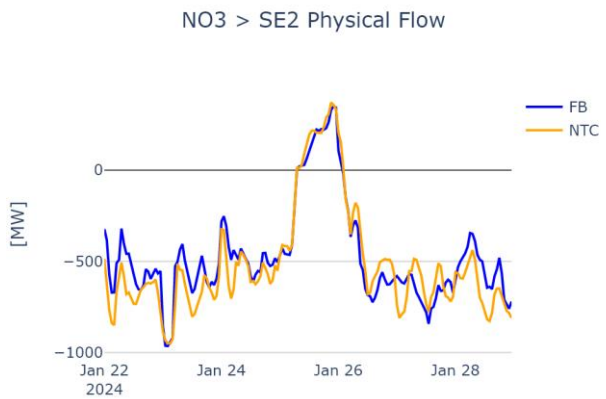


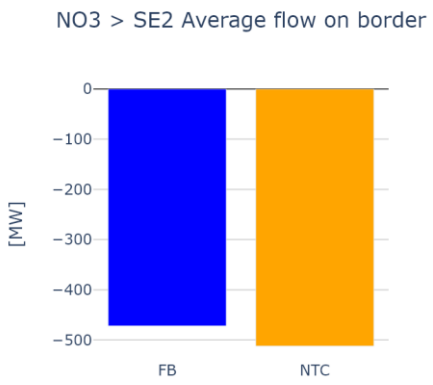
NO3 > NO4 Average flow on border

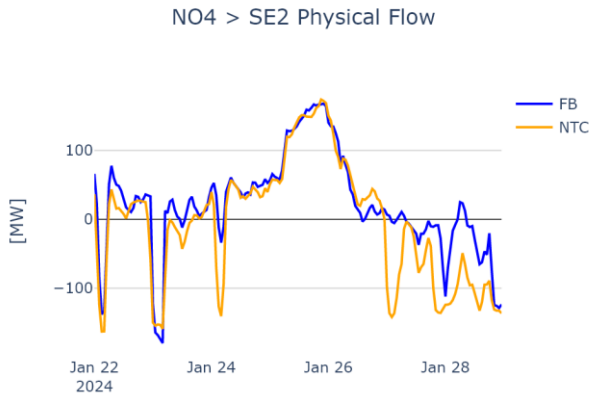


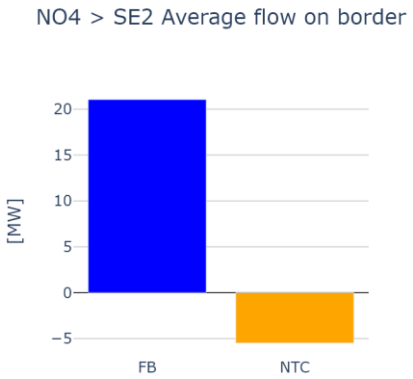

NO3 > NO5 Physical Flow
FB
NTC
[MW]
400
200
0
−200
Jan 22
2024
Jan 24
Jan 26
Jan 28

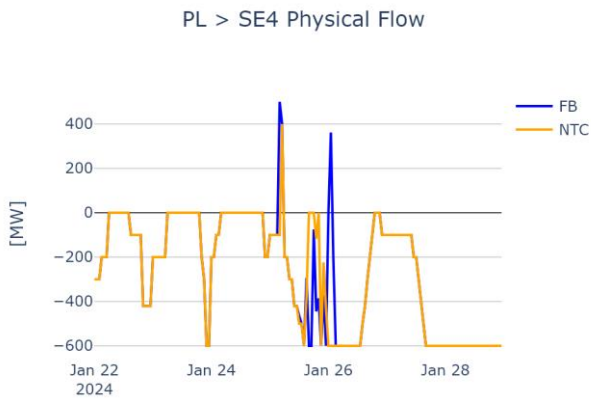

NO3 > NO5 Average flow on border
[MW]
150
100
50
0
FB
NTC

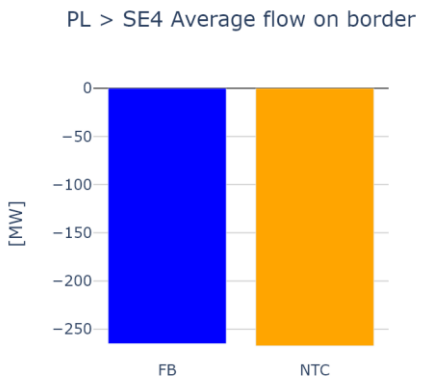

NO3 > SE2 Physical Flow
FB
NTC
[MW]
0
−500
−1000
Jan 22
2024
Jan 24
Jan 26
Jan 28

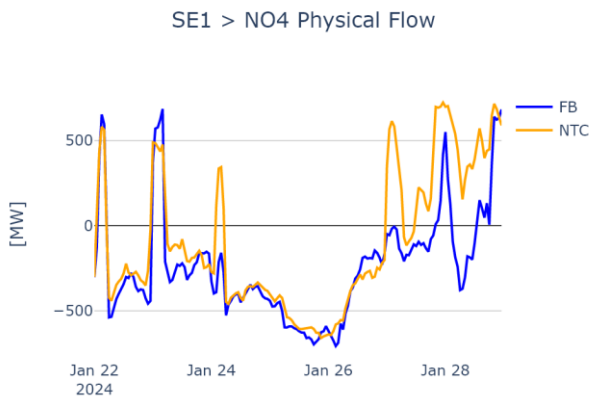

NO3 > SE2 Average flow on border
[MW]
0
−100
−200
−300
−400
−500
FB
NTC

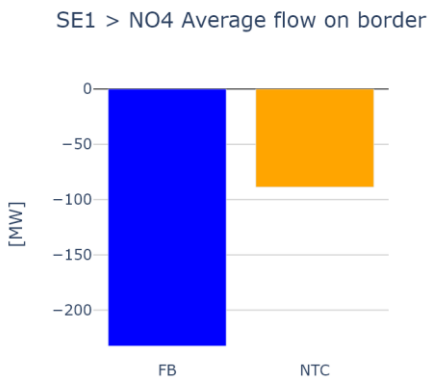

NO4 > SE2 Physical Flow
FB
NTC
[MW]
100
0
−100
Jan 22
2024
Jan 24
Jan 26
Jan 28

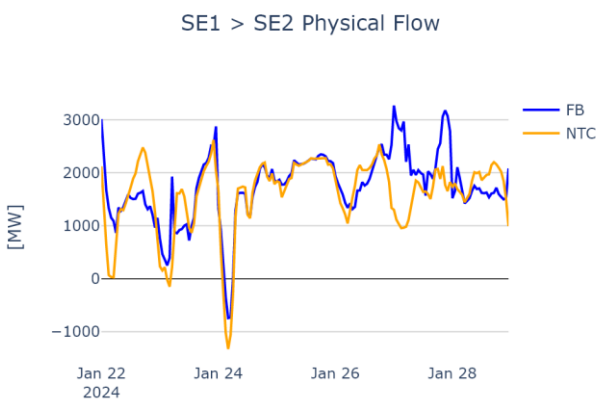

NO4 > SE2 Average flow on border
[MW]
20
15
10
5
0
−5
FB
NTC

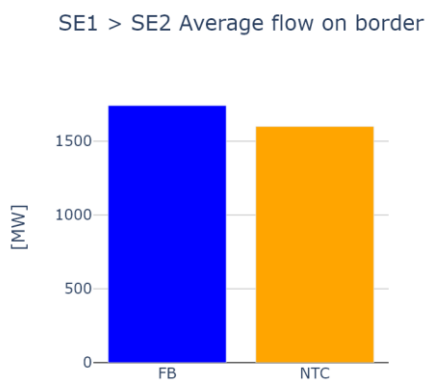

PL > SE4 Physical Flow
FB
NTC
[MW]
400
200
0
−200
−400
−600
Jan 22
2024
Jan 24
Jan 26
Jan 28


PL > SE4 Average flow on border
[MW]
0
−50
−100
−150
−200
−250
FB
NTC

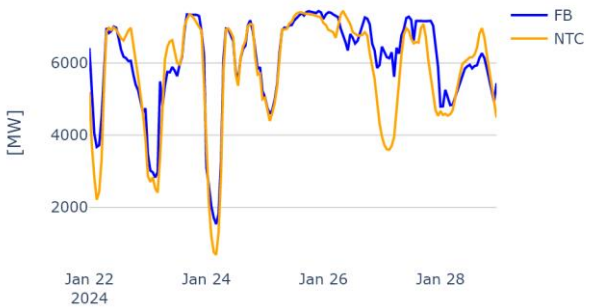

SE1 > NO4 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 22
2024
Jan 24
Jan 26
Jan 28


SE1 > NO4 Average flow on border
[MW]
0
−50
−100
−150
−200
FB
NTC

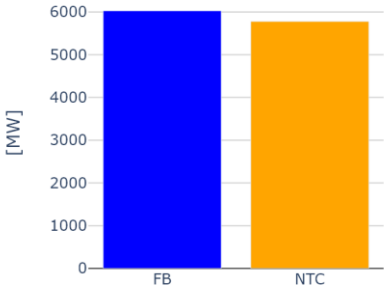

SE1 > SE2 Physical Flow
FB
NTC
[MW]
3000
2000
1000
0
−1000
Jan 22
2024
Jan 24
Jan 26
Jan 28


SE1 > SE2 Average flow on border
[MW]
1500
1000
500
0
FB
NTC

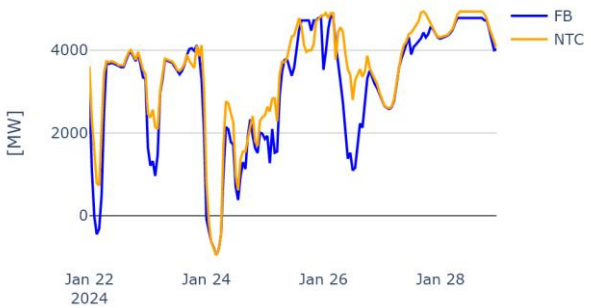
SE2 > SE3 Physical Flow



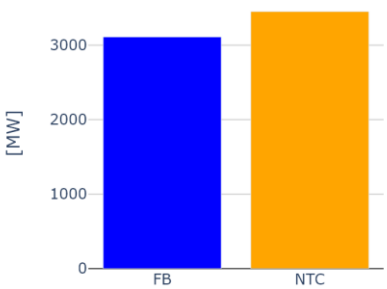
SE2 > SE3 Average flow on border



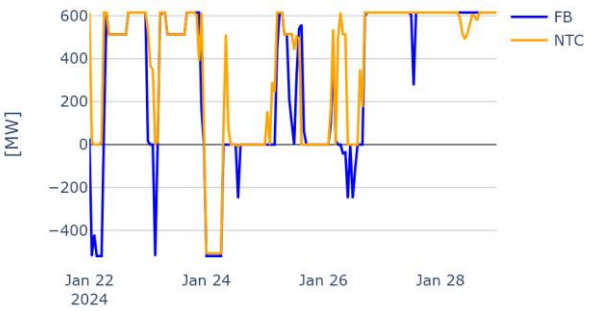
SE3 > SE4 Physical Flow



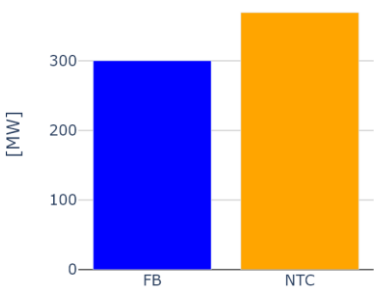
SE3 > SE4 Average flow on border



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	1858580	6
DK1 > DK2	332109	3
DK1 > NL	727525	6
DK1 > NO2	1159688	6
DK1 > SE3	1028952	10
DK2 > DE/LU	971772	9
DK2 > SE4	681428	3
EE > FI	3304444	34
FI > NO4	32648	16
FI > SE1	3091629	15
FI > SE3	2529094	14
LT > SE4	4103799	35
NL > NO2	464835	5
NO1 > NO2	34699	1
NO1 > NO3	1032281	13
NO1 > NO5	-117122	-1
NO1 > SE3	4180494	14
NO2 > DE/LU	804476	7
NO2 > NO5	-14456	-1
NO3 > NO4	1522084	11
NO3 > NO5	463111	9
NO3 > SE2	1010472	10
NO4 > SE2	53105	3
PL > SE4	1760763	25
SE1 > NO4	188019	2
SE1 > SE2	-65947	0
SE2 > SE3	11253649	10
SE3 > SE4	3053665	4
SE4 > DE/LU	1066560	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	2	-13060	-2
DK1 > DK2	10	-4637	-1
DK1 > NL	0	0	0
DK1 > NO2	5	-11740	-2
DK1 > SE3	31	-31820	-2
DK2 > DE/LU	4	-184	0
DK2 > SE4	18	-3548	0
EE > FI	0	0	0
FI > NO4	24	-1284	-3
FI > SE1	4	-239	0
FI > SE3	15	-27279	-3
LT > SE4	6	-4787	-1
NL > NO2	7	-61490	-12
NO1 > NO2	46	-62763	-1
NO1 > NO3	15	-33144	-3
NO1 > NO5	21	-280927	-11
NO1 > SE3	5	-102818	-8
NO2 > DE/LU	9	-49117	-11
NO2 > NO5	38	-72566	-8
NO3 > NO4	2	-4798	-2
NO3 > NO5	31	-48248	-10
NO3 > SE2	12	-39482	-5
NO4 > SE2	33	-6771	-4
PL > SE4	1	-10245	-13
SE1 > NO4	41	-64862	-3
SE1 > SE2	58	-279258	-2
SE2 > SE3	17	-205208	-2
SE3 > SE4	16	-26113	0
SE4 > DE/LU	1	-11	0