Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 2 of 2024

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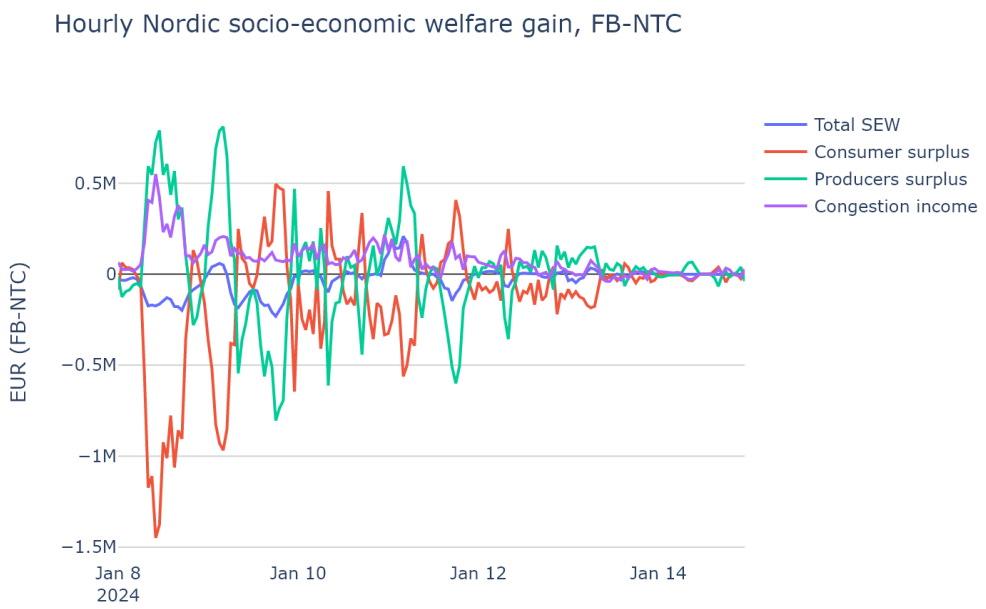
Domain validation

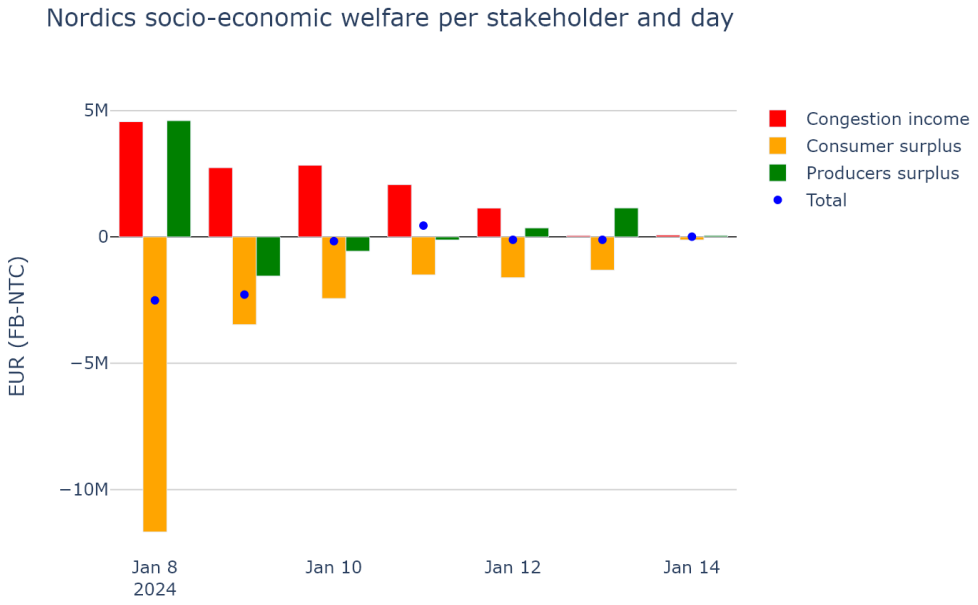
Energy Delivery Day:	Mon. 8.1.	Tue. 9.1.	Wed. 10.1.	Thu. 11.1.	Fri. 12.1.	Sat. 13.1.	Sun. 14.1.
Invalid/missing IGMs	0	0	0	0	0	0	0
Substituted IGMs	0	0	0	0	0	24	0
Invalid CGMs	0	0	0	0	0	0	0
FB domain back-up	0	0	0	0	0	0	0
FAV provision	0	0	1	1	0	0	0
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

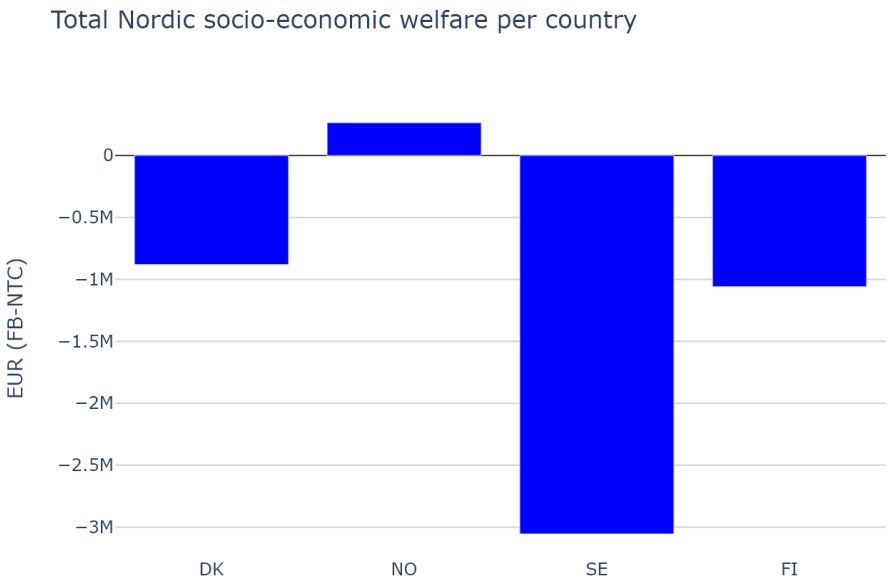
Socio Economic Welfare

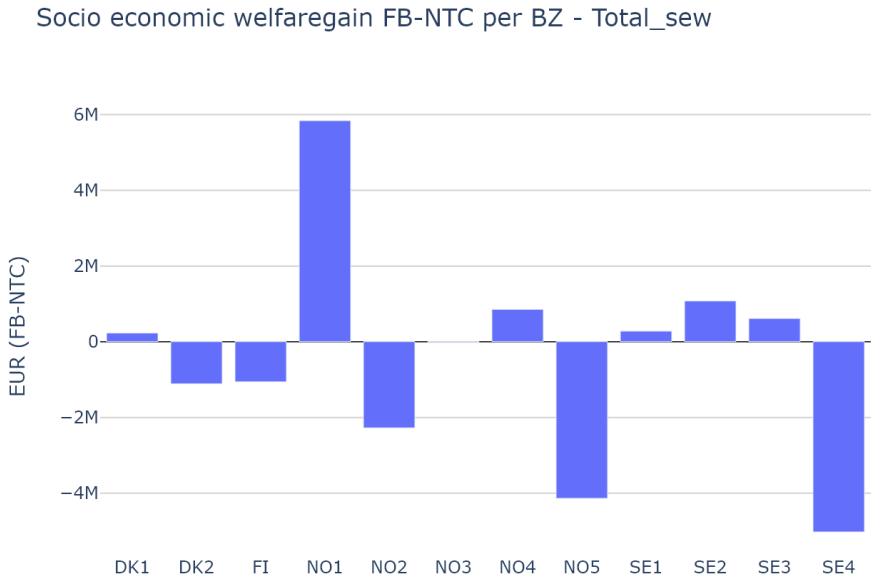
For the socio-economic welfare graphs, the contribution from interconnectors out of the Nordic CCR is not included. Thus, the values for the congestion income are only from the Nordic internal bidding zones, and not from the contributions on the Hansa/Baltic borders. This includes the country specific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

Nordics

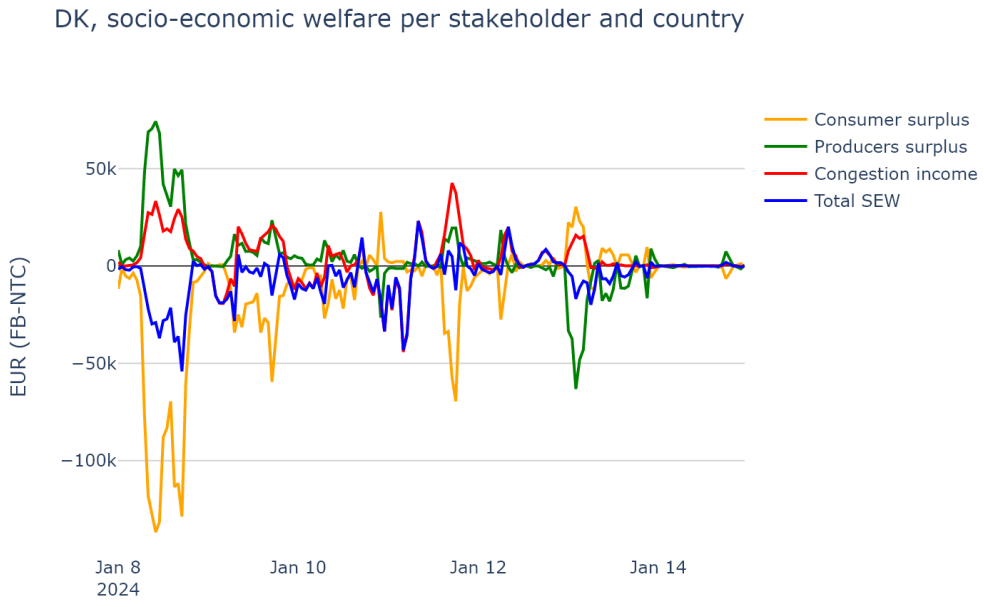



Nordics socio-economic welfare per stakeholder and day
5M
0
−5M
−10M
EUR (FB-NTC)
Jan 8
2024
Jan 10
Jan 12
Jan 14
Congestion income
Consumer surplus
Producers surplus
Total

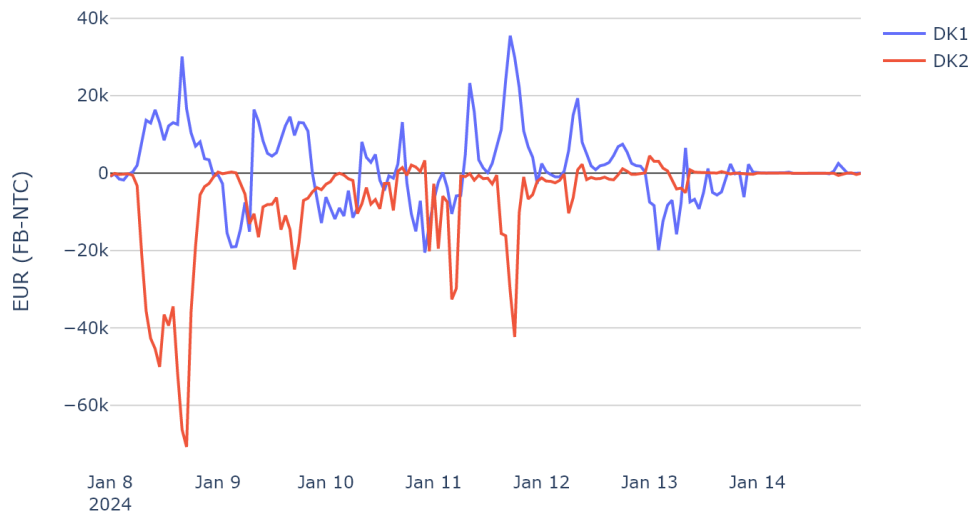

Total Nordic socio-economic welfare per country
0
−0.5M
−1M
−1.5M
−2M
−2.5M
−3M
EUR (FB-NTC)
DK
NO
SE
FI


Socio economic welfaregain FB-NTC per BZ - Total_sew
EUR (FB-NTC)
6M
4M
2M
0
−2M
−4M
DK1
DK2
FI
NO1
NO2
NO3
NO4
NO5
SE1
SE2
SE3
SE4

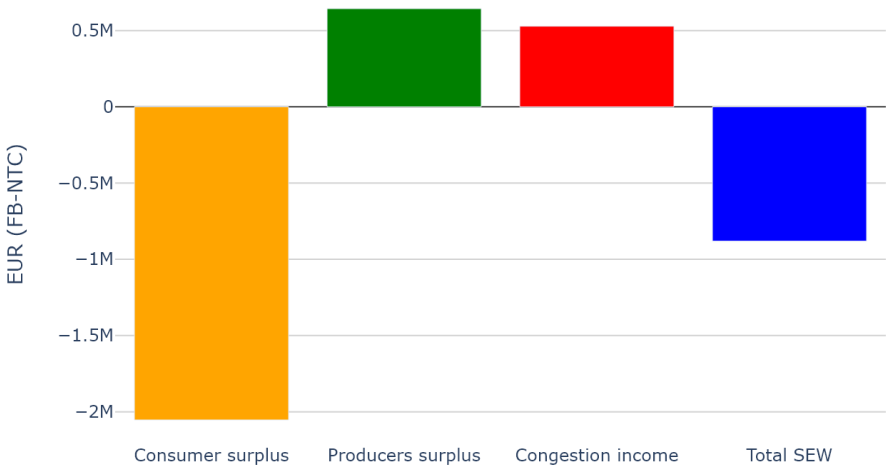
Denmark


DK, socio-economic welfare per stakeholder and country
Consumer surplus
Producers surplus
Congestion income
Total SEW
EUR (FB-NTC)
50k
0
−50k
−100k
Jan 8
2024
Jan 10
Jan 12
Jan 14

Total socio economic welfaregain FB-NTC per BZ in DK

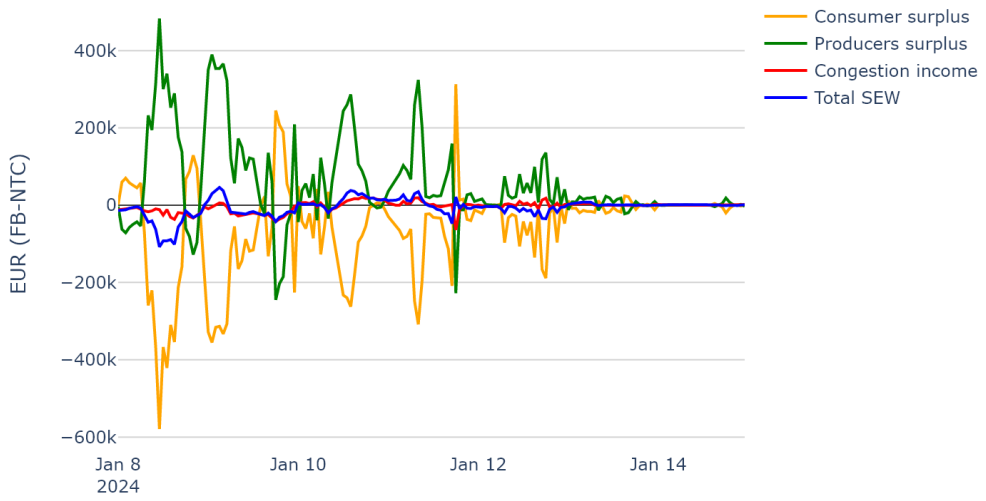


DK, socio-economic welfare per stakeholder and country

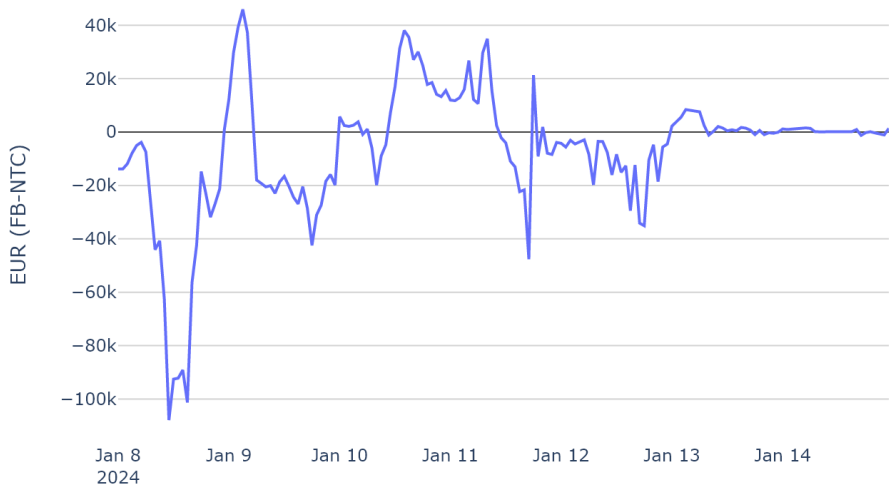


Finland

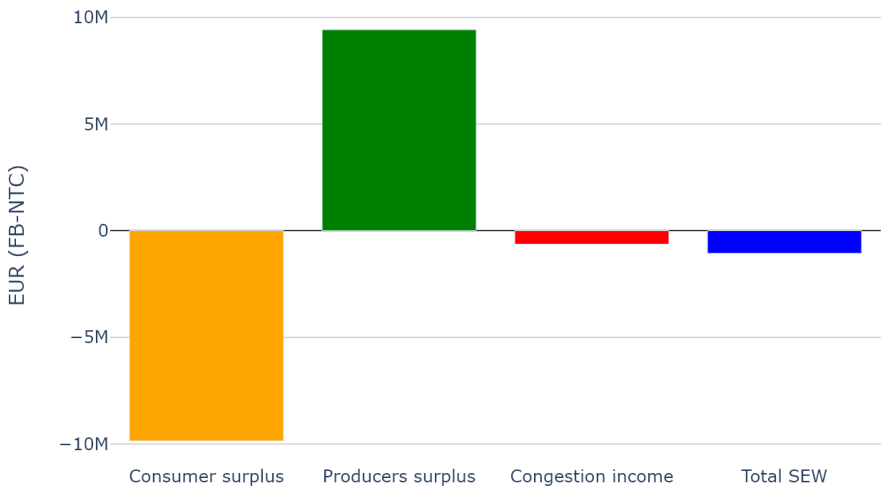
FI, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in FI

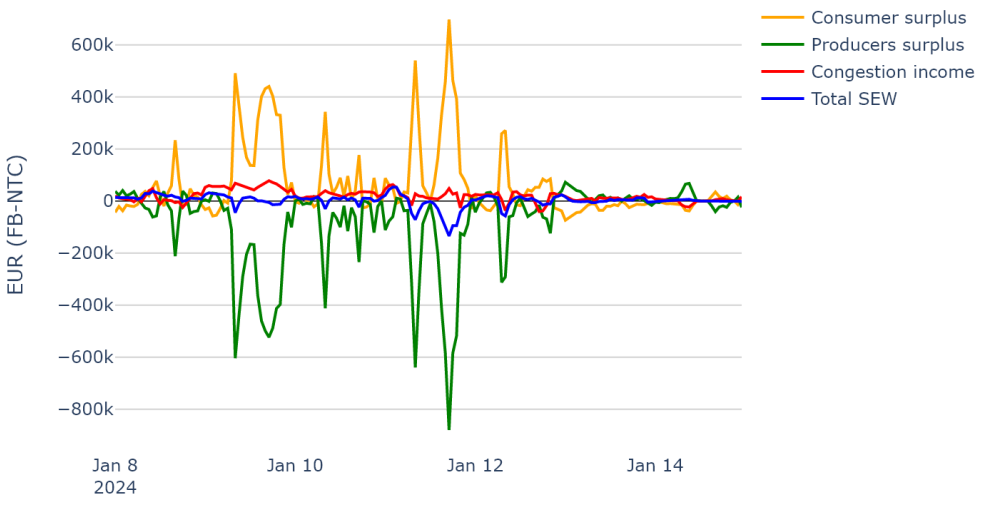


FI, socio-economic welfare per stakeholder and country

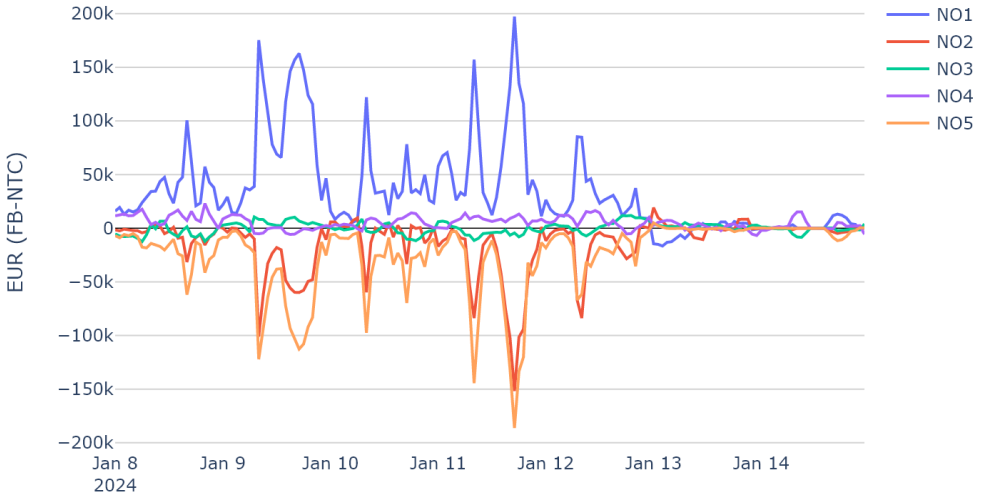


Norway

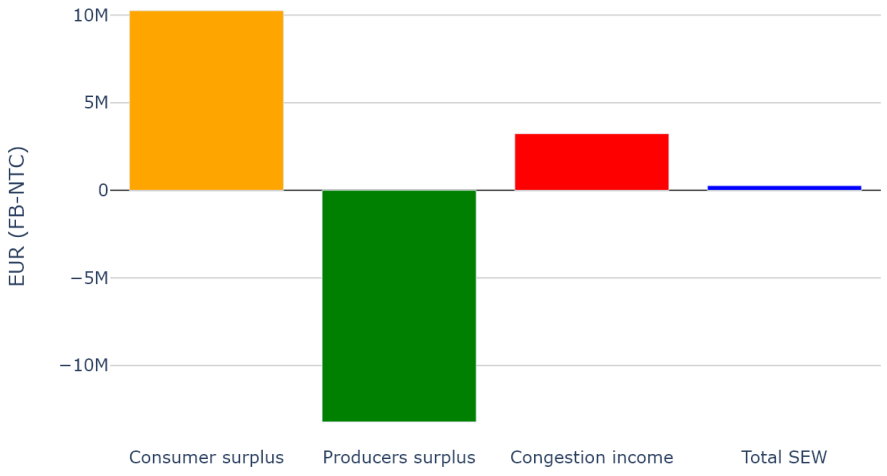
NO, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in NO

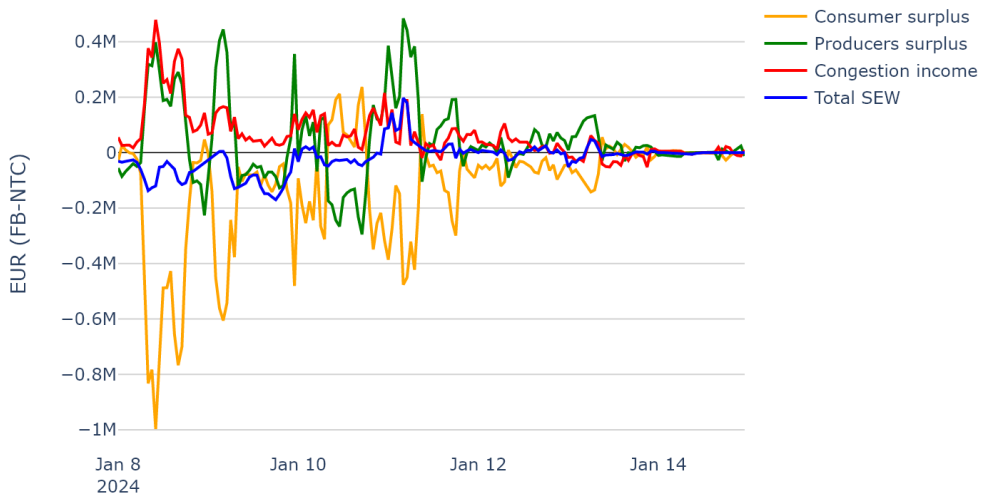


NO, socio-economic welfare per stakeholder and country

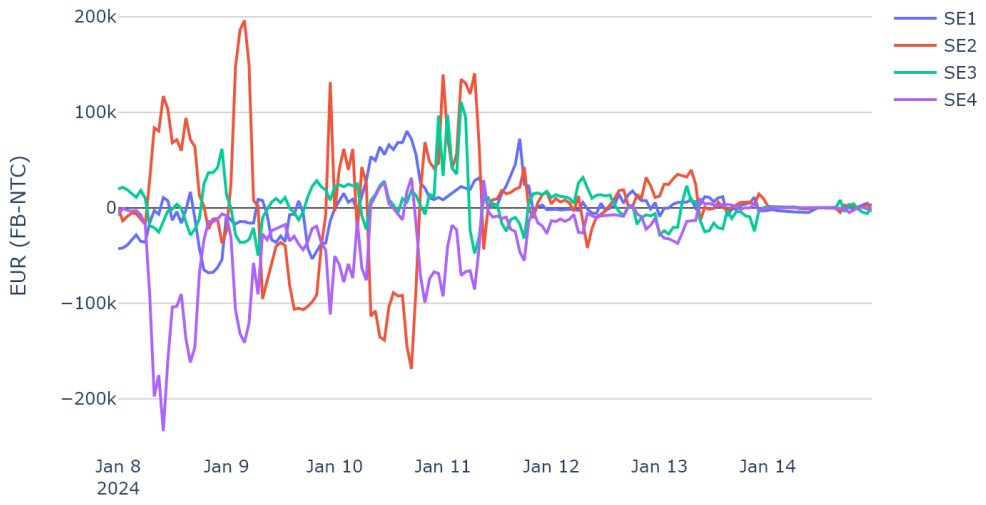


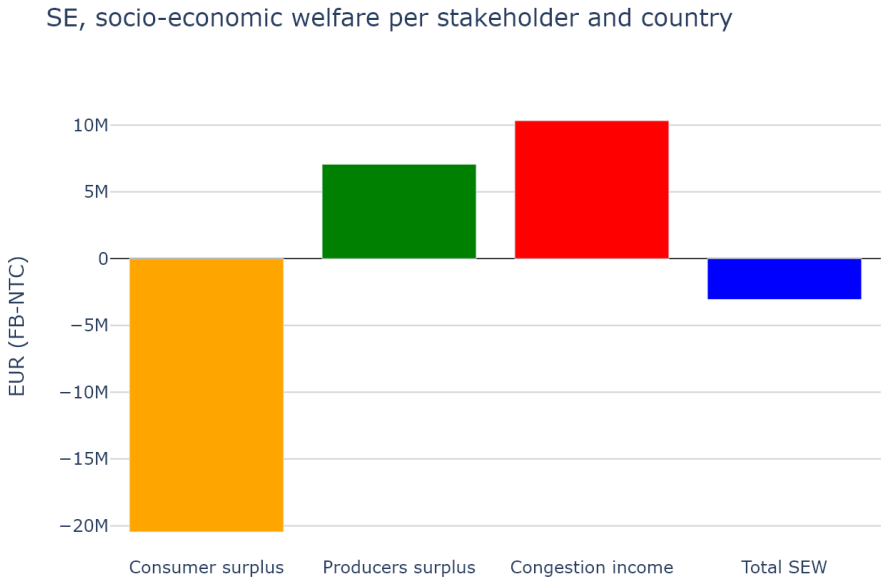
Sweden

SE, socio-economic welfare per stakeholder and country

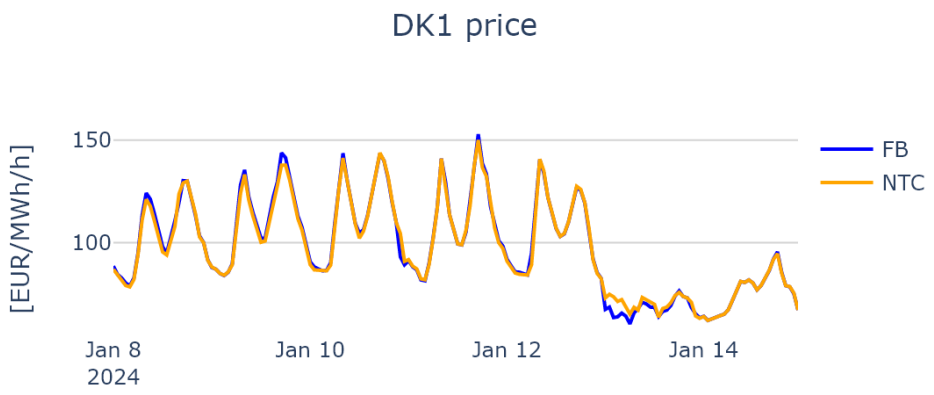


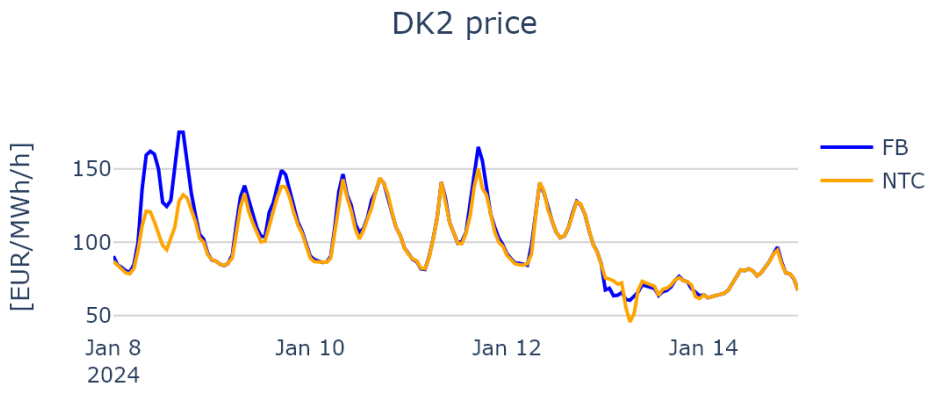
Total socio economic welfaregain FB-NTC per BZ in SE

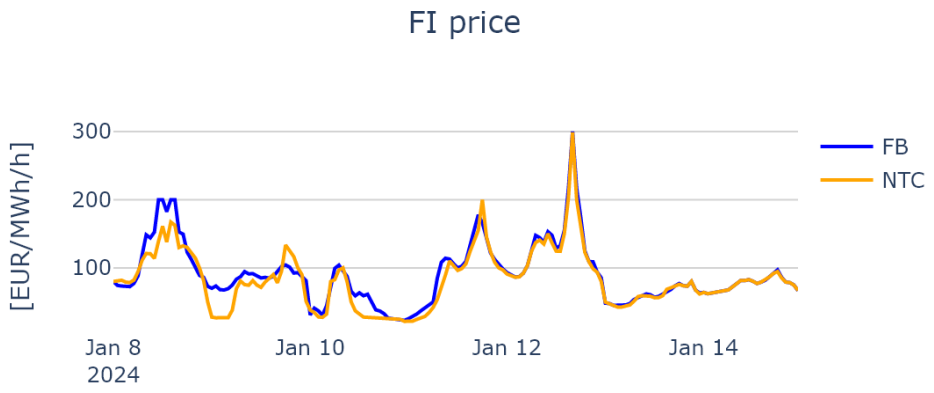


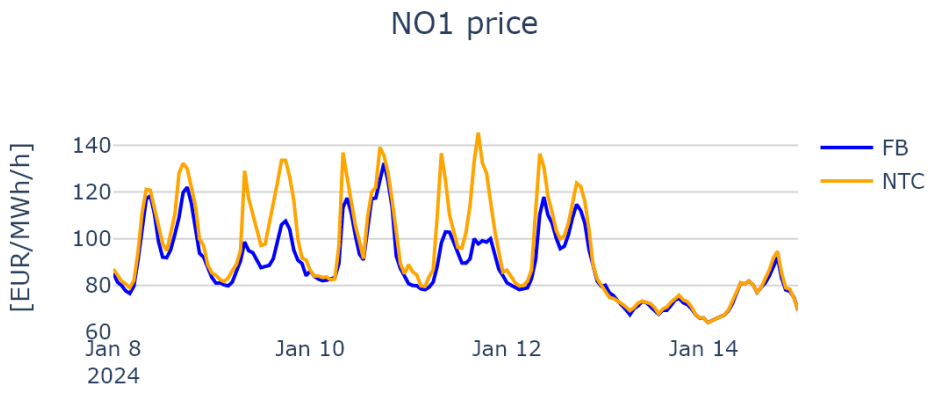

SE, socio-economic welfare per stakeholder and country
10M
5M
0
−5M
−10M
−15M
−20M
EUR (FB-NTC)
Consumer surplus
Producers surplus
Congestion income
Total SEW

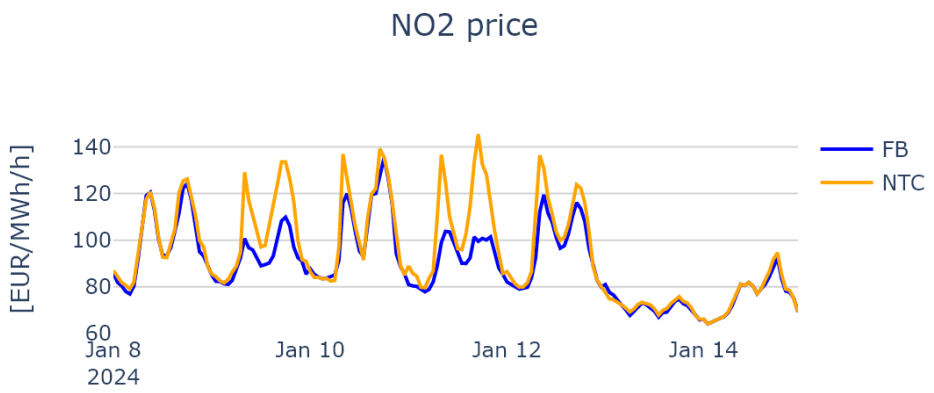
Prices

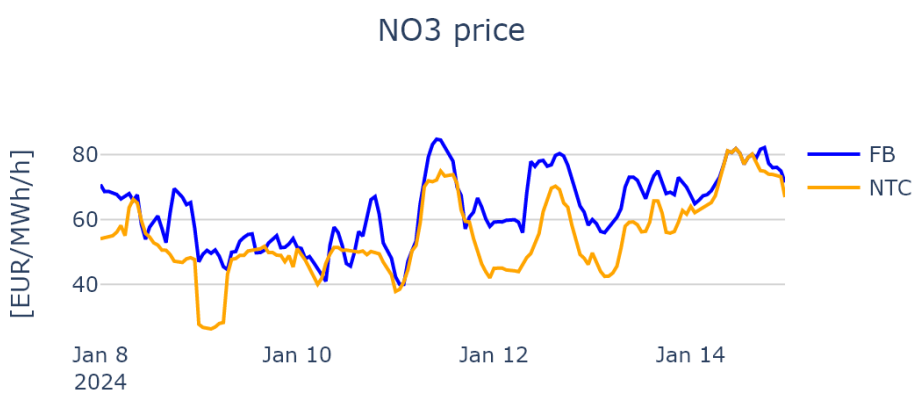

DK1 price
[EUR/MWh/h]
150
100
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

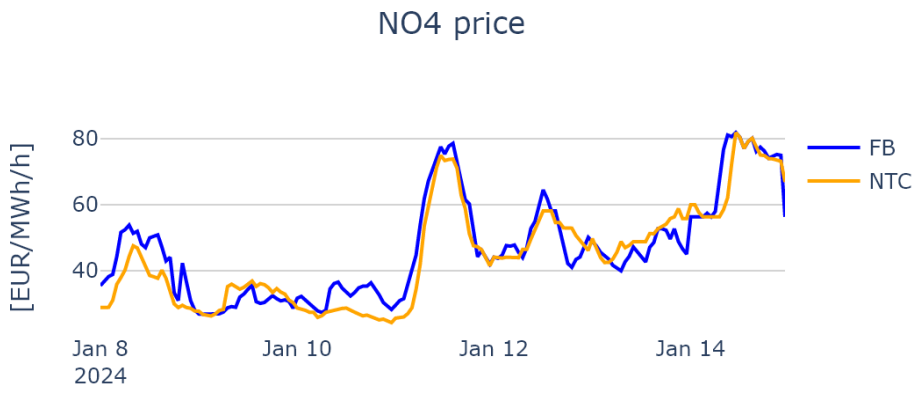

DK2 price
[EUR/MWh/h]
150
100
50
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

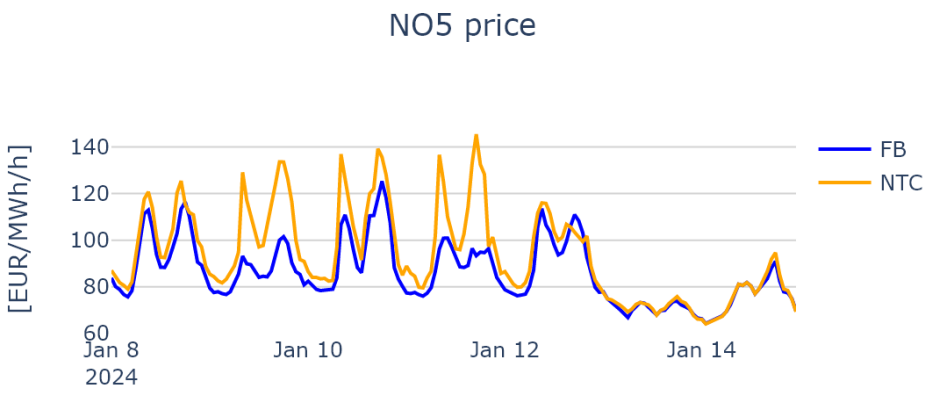

FI price
[EUR/MWh/h]
300
200
100
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

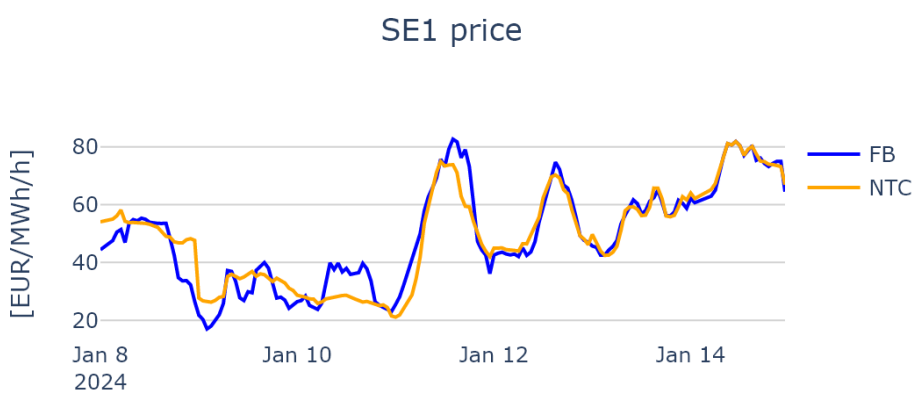

NO1 price
[EUR/MWh/h]
140
120
100
80
60
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

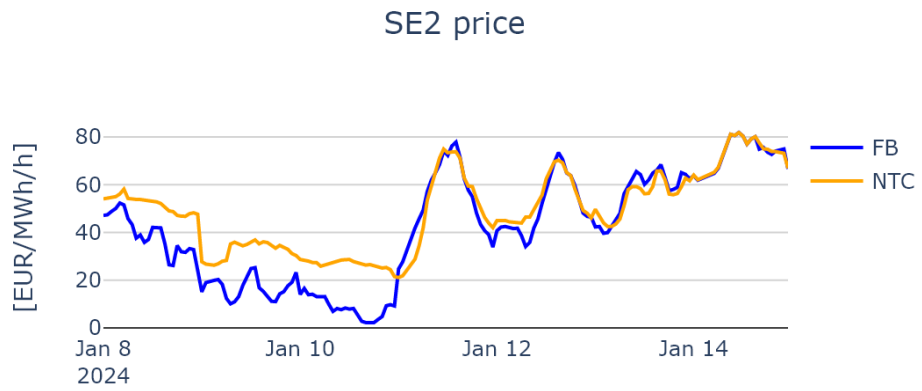

NO2 price
[EUR/MWh/h]
140
120
100
80
60
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

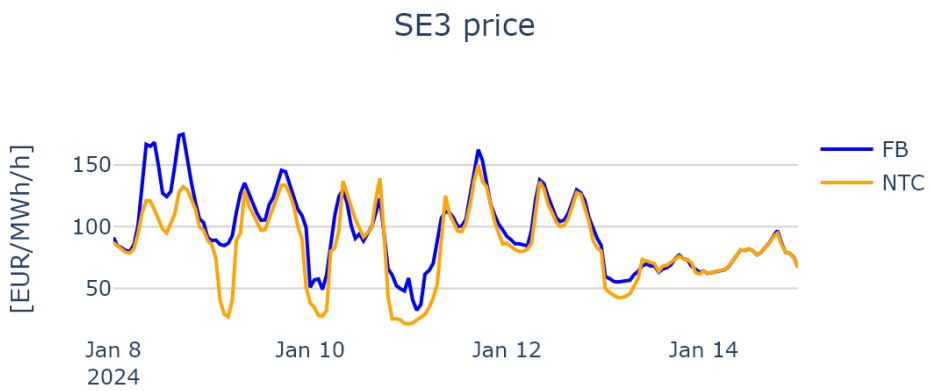

NO3 price
[EUR/MWh/h]
80
60
40
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

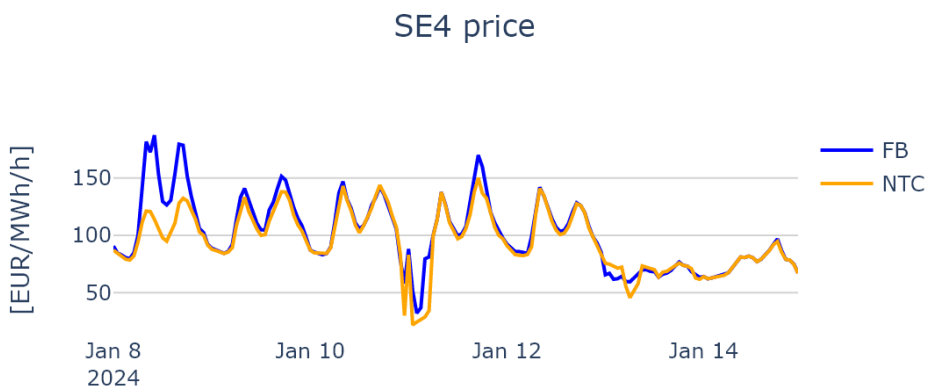

NO4 price
[EUR/MWh/h]
80
60
40
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC


NO5 price
[EUR/MWh/h]
140
120
100
80
60
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC


SE1 price
[EUR/MWh/h]
80
60
40
20
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

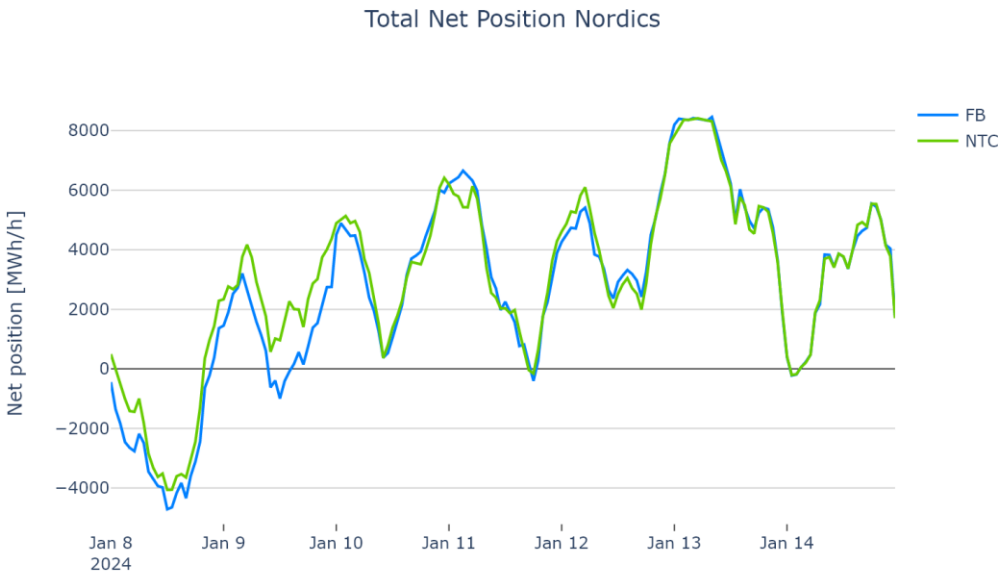

SE2 price
[EUR/MWh/h]
80
60
40
20
0
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

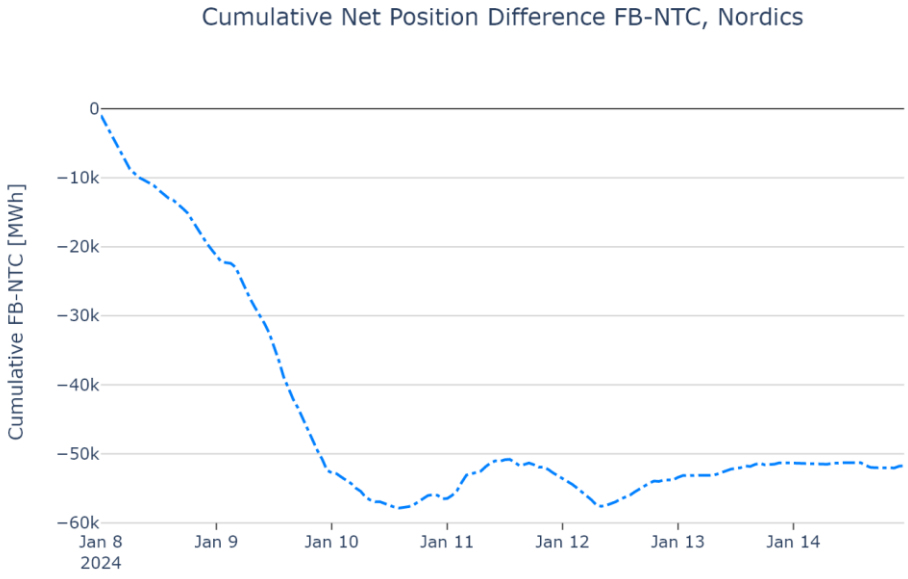

SE3 price
[EUR/MWh/h]
150
100
50
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC


SE4 price
[EUR/MWh/h]
150
100
50
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

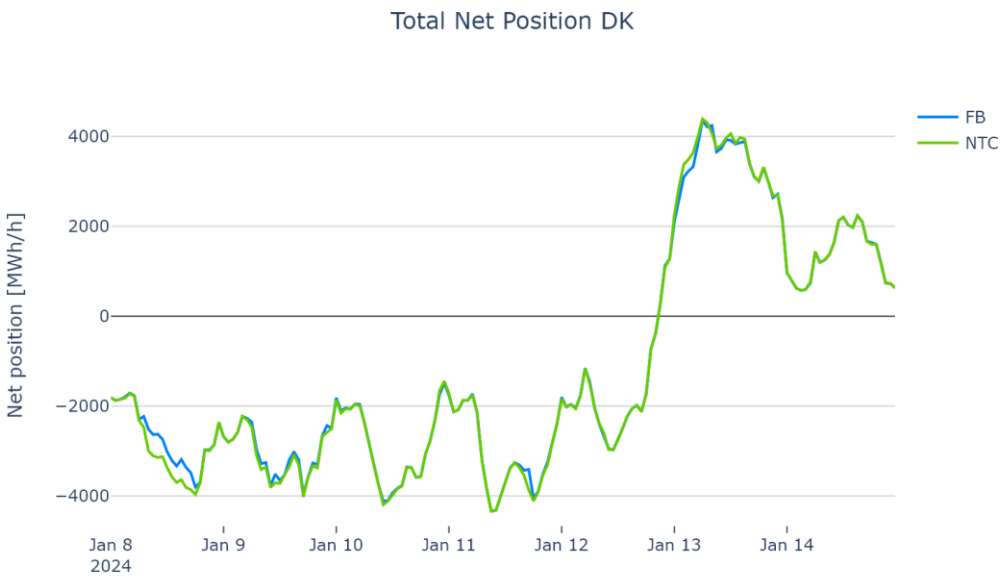
Net positions

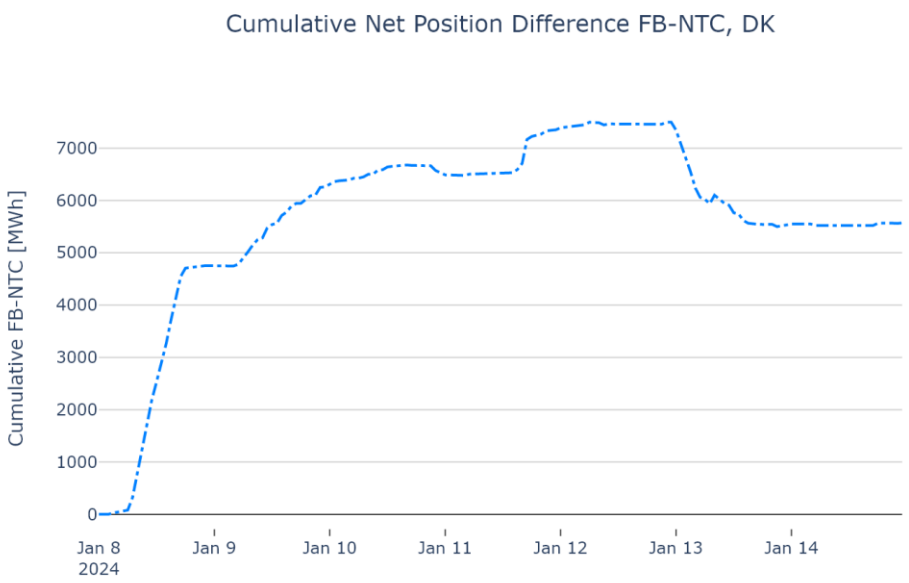
Nordics

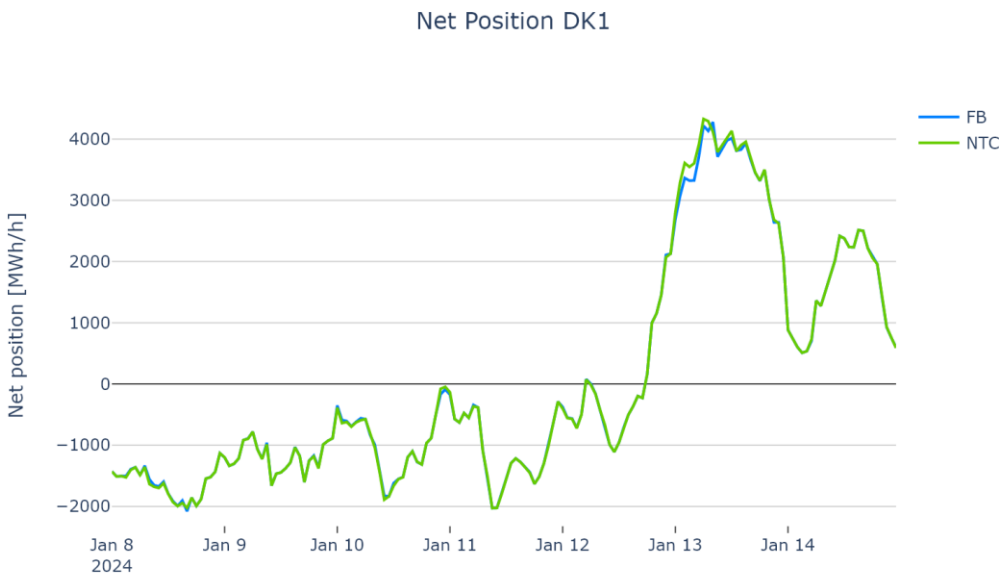


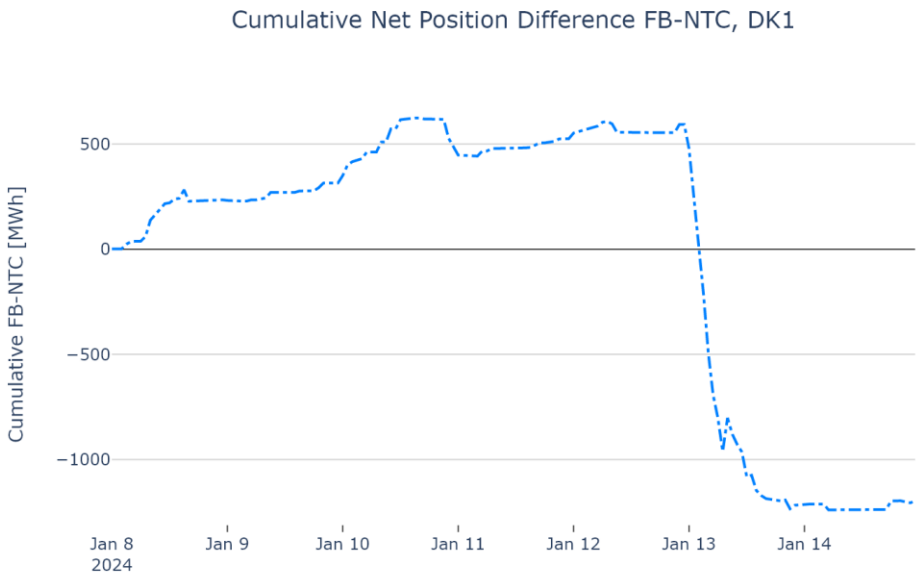


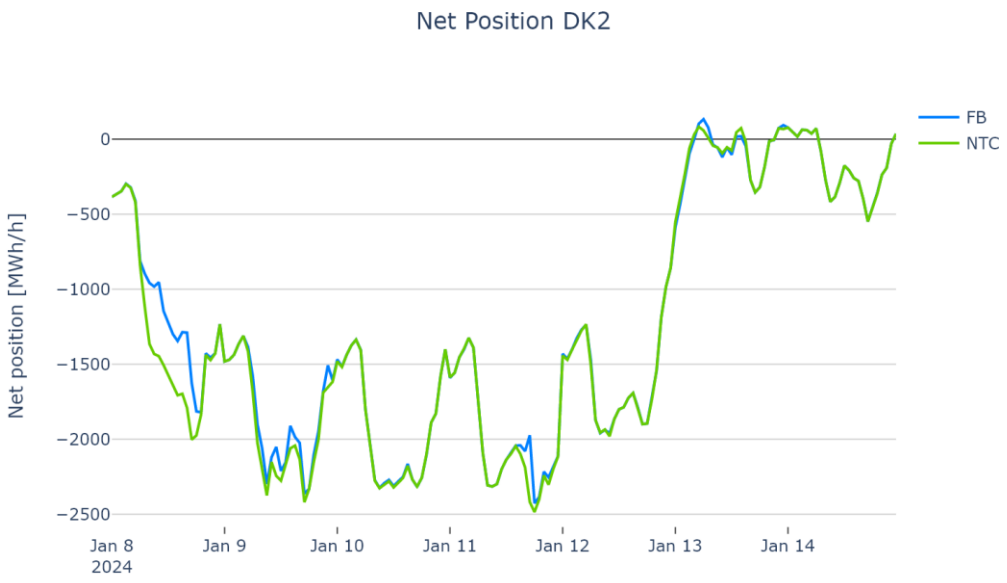
Denmark

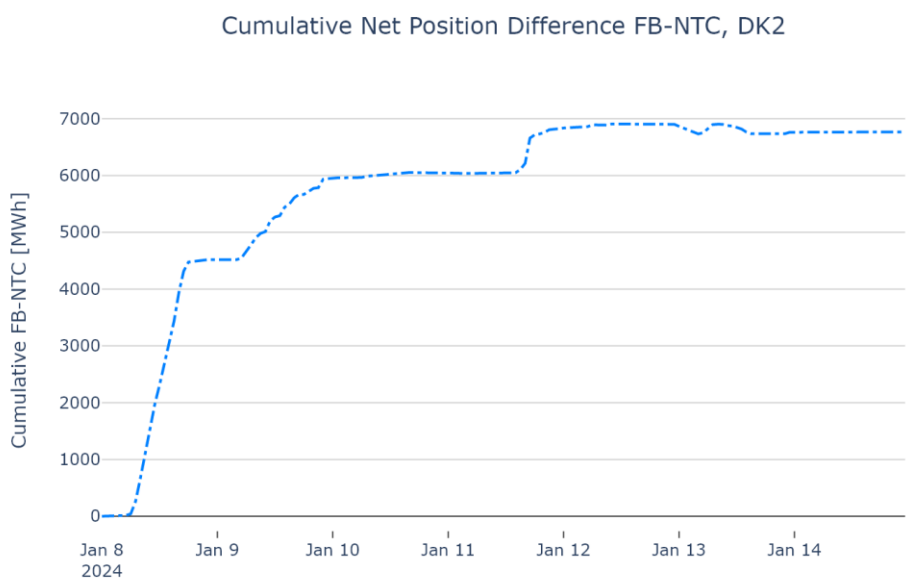

Total Net Position DK
FB
NTC
Net position [MWh/h]
4000
2000
0
−2000
−4000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14


Cumulative Net Position Difference FB-NTC, DK
Cumulative FB-NTC [MWh]
7000
6000
5000
4000
3000
2000
1000
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

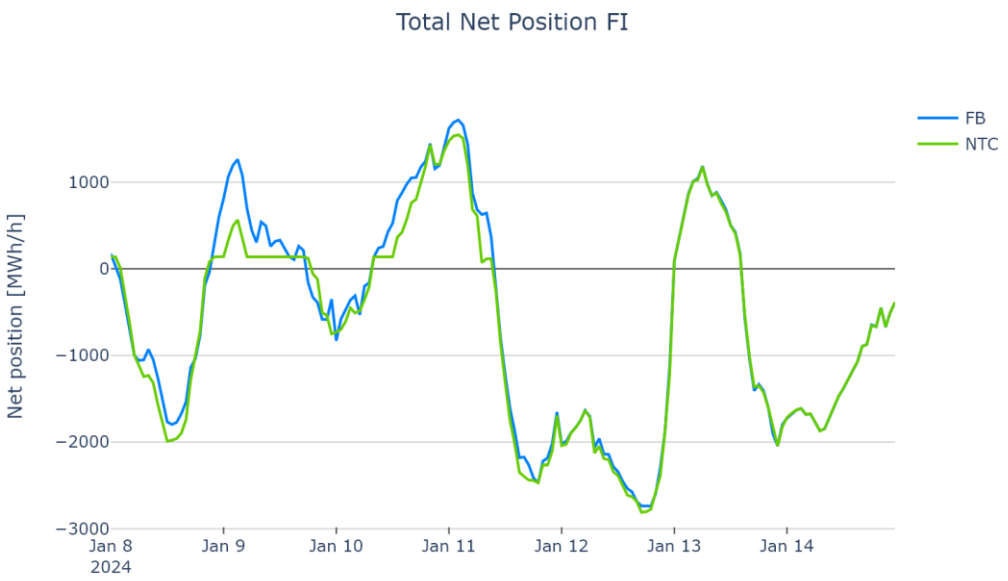

Net Position DK1
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

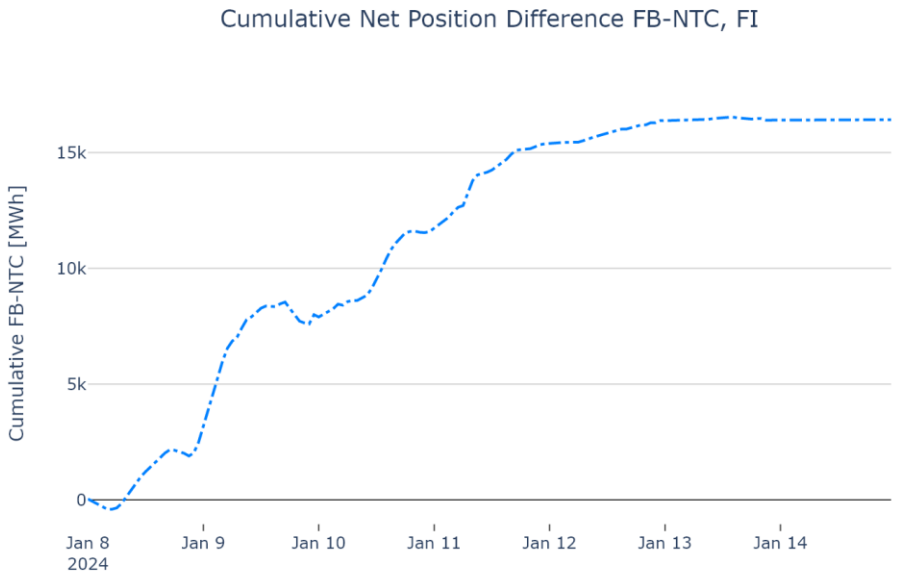

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
500
0
−500
−1000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14


Net Position DK2
FB
NTC
Net position [MWh/h]
0
−500
−1000
−1500
−2000
−2500
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

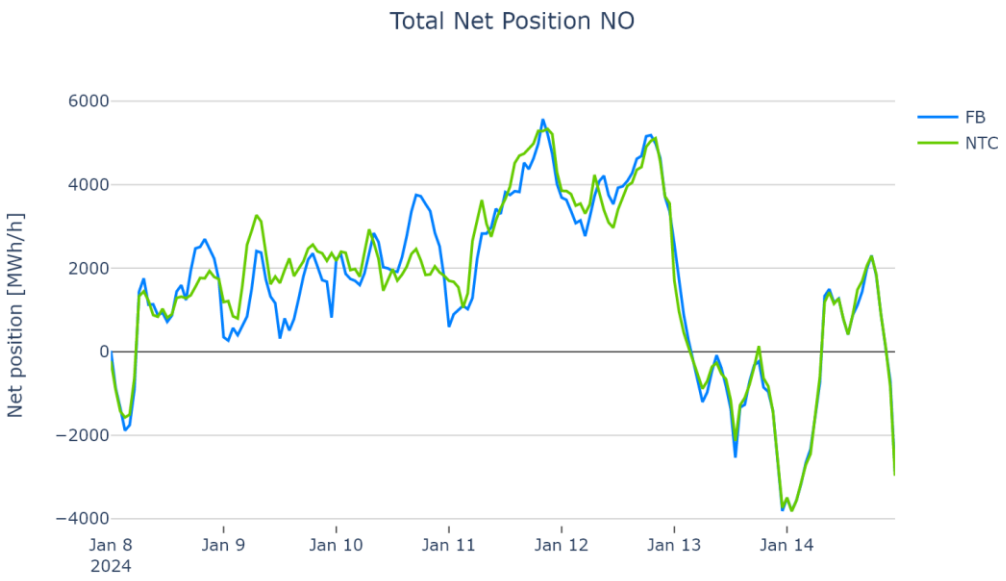

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
7000
6000
5000
4000
3000
2000
1000
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

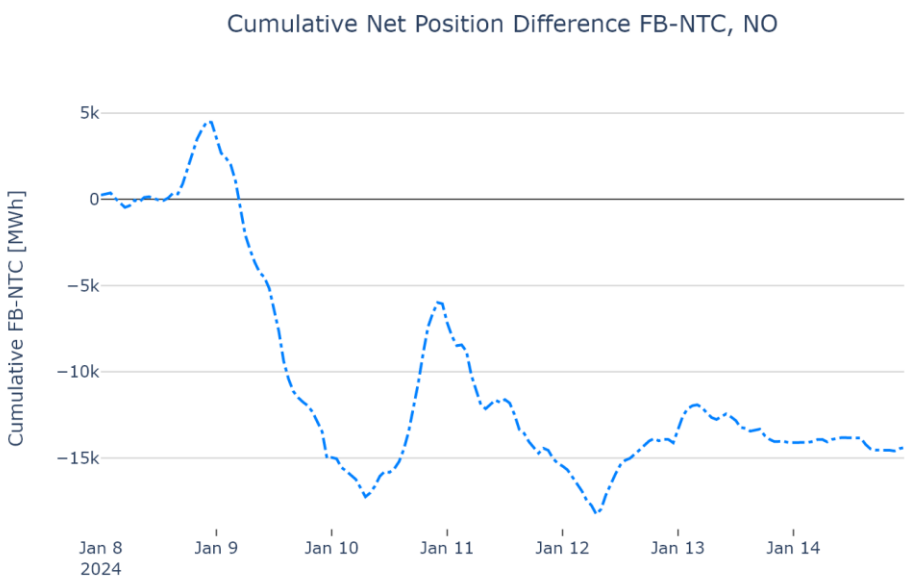
Finland

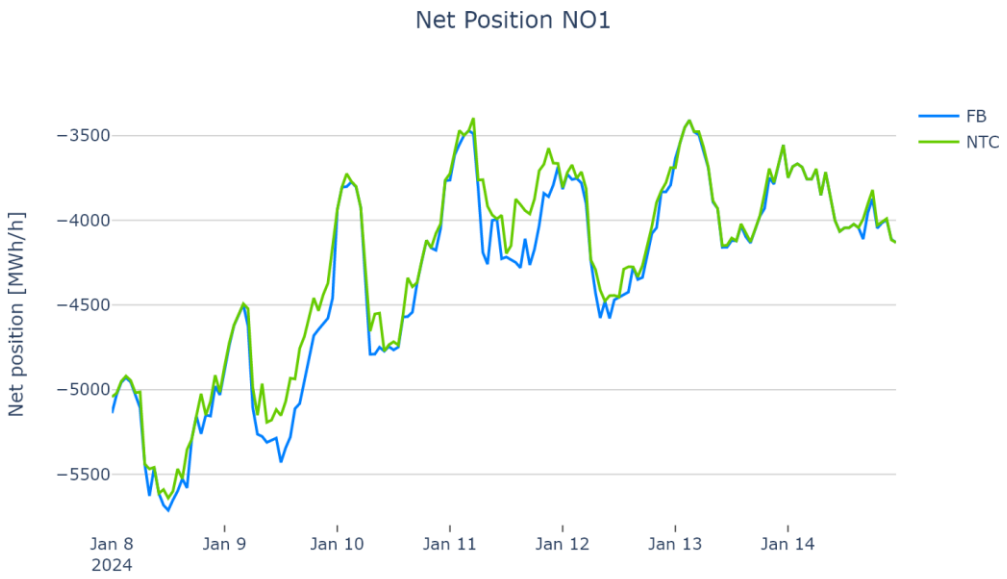

Total Net Position FI
FB
NTC
Net position [MWh/h]
1000
0
−1000
−2000
−3000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

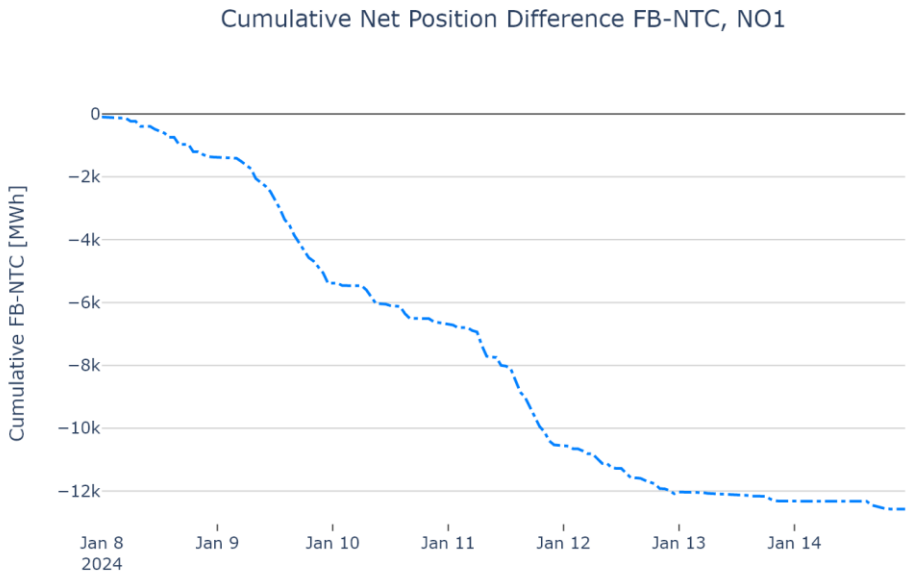

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
15k
10k
5k
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

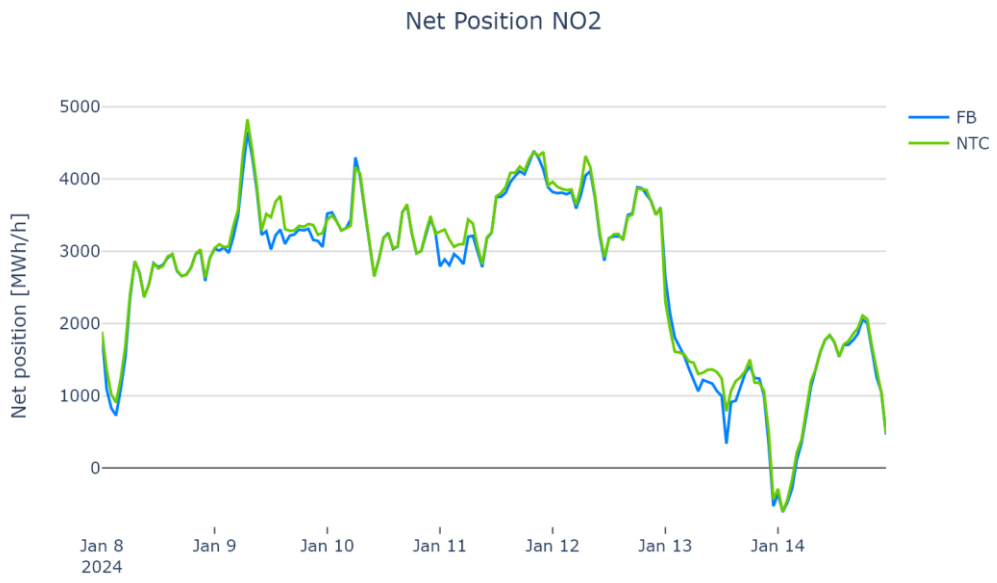
Norway

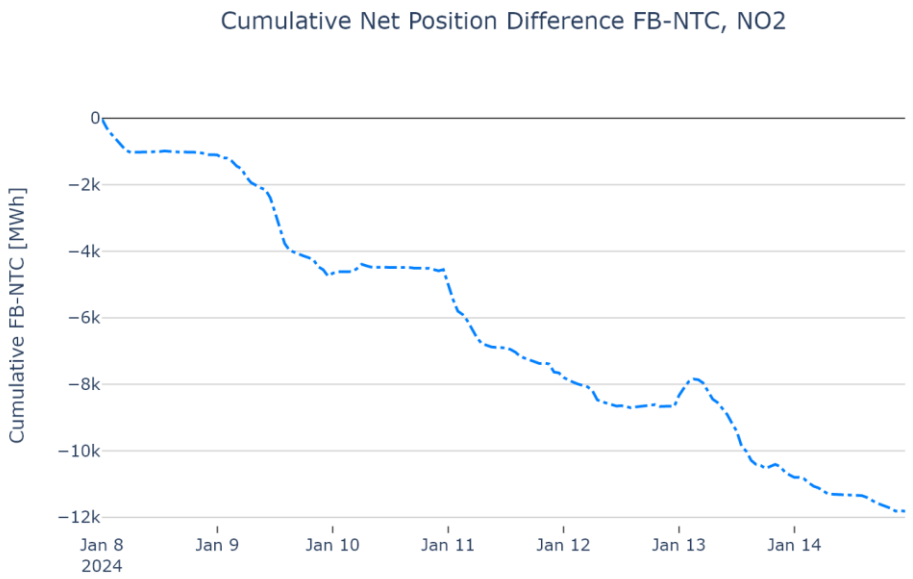

Total Net Position NO
Net position [MWh/h]
6000
4000
2000
0
−2000
−4000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC

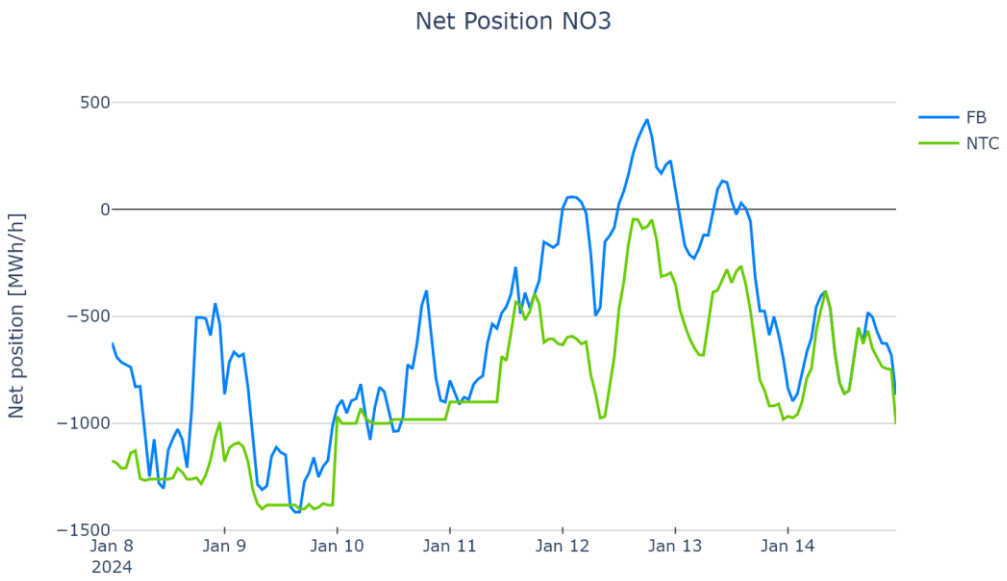

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
5k
0
−5k
−10k
−15k
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

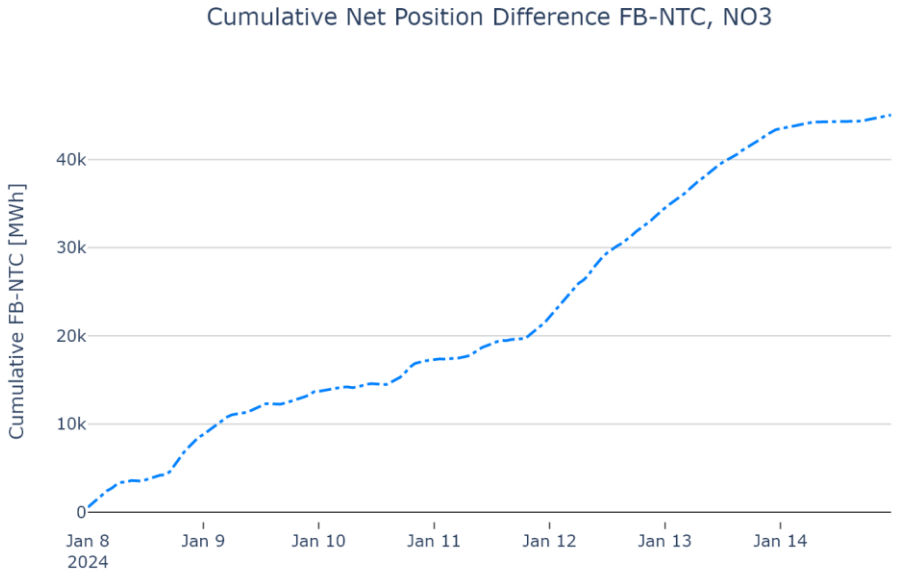

Net Position NO1
FB
NTC
Net position [MWh/h]
−3500
−4000
−4500
−5000
−5500
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

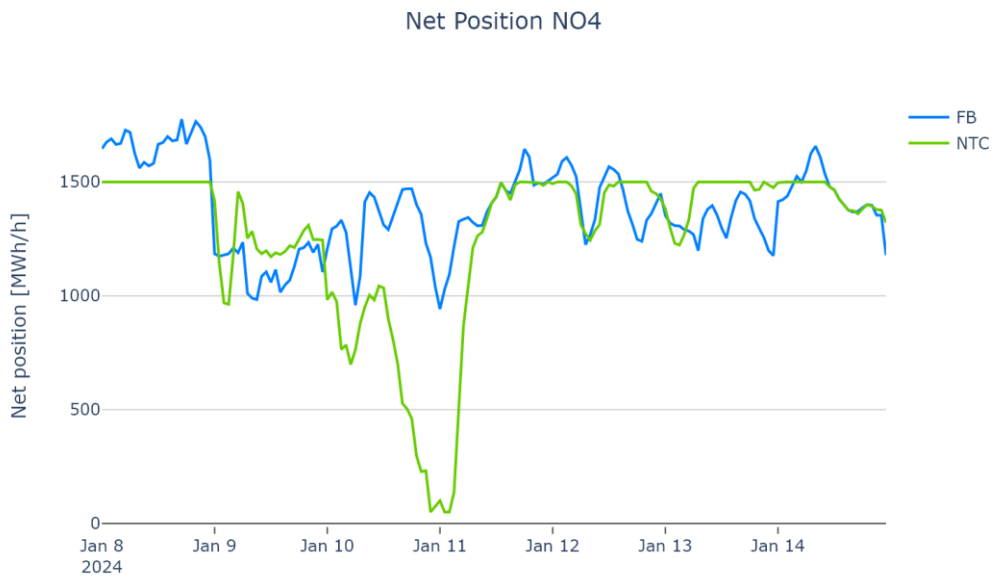

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
−12k
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

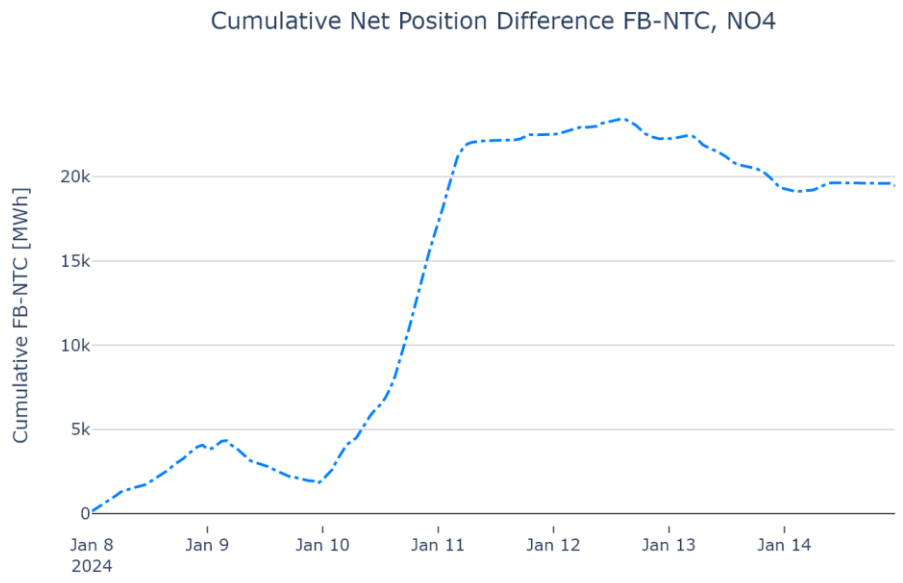

Net Position NO2
Net position [MWh/h]
5000
4000
3000
2000
1000
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC

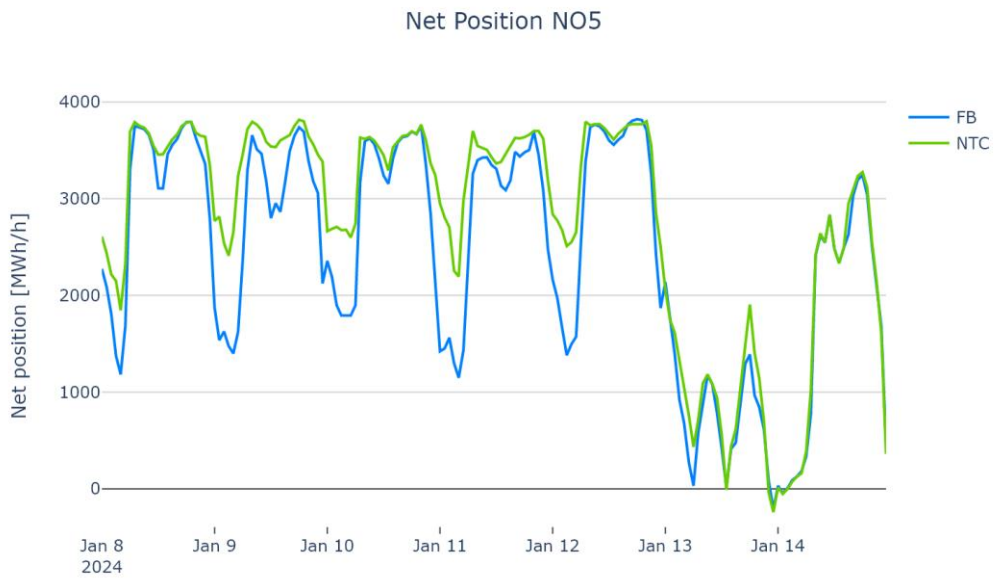

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
−12k
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

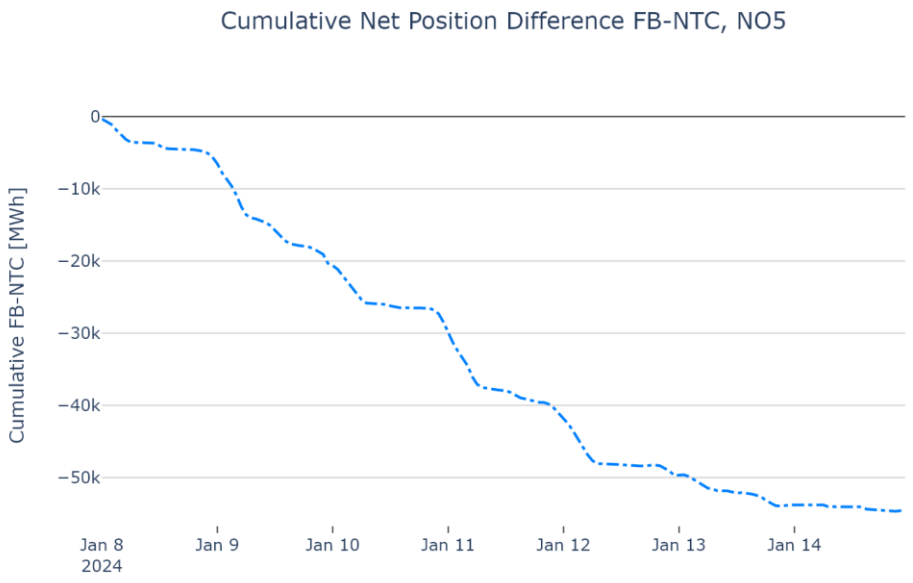

Net Position NO3
Net position [MWh/h]
500
0
−500
−1000
−1500
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
40k
30k
20k
10k
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

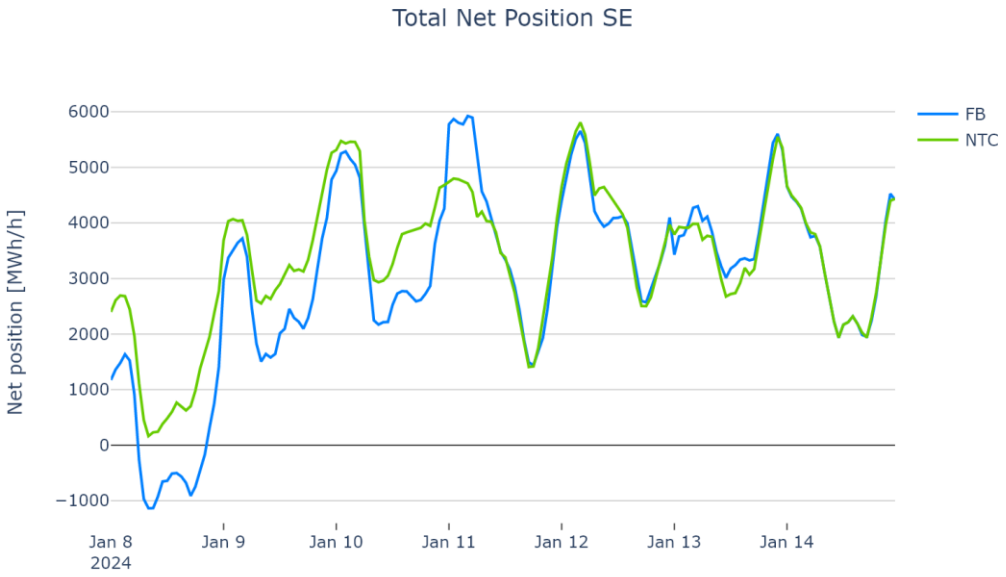

Net Position NO4
FB
NTC
Net position [MWh/h]
1500
1000
500
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

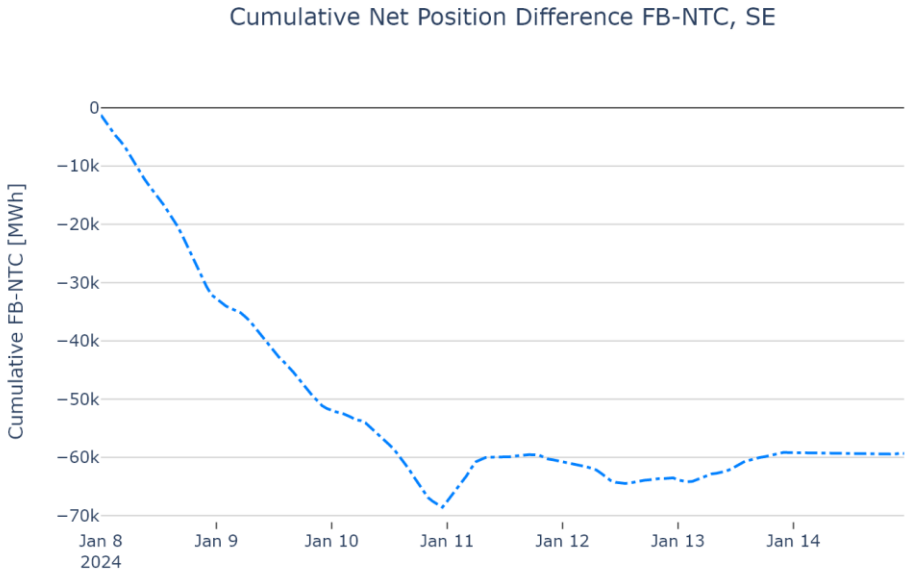

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
20k
15k
10k
5k
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

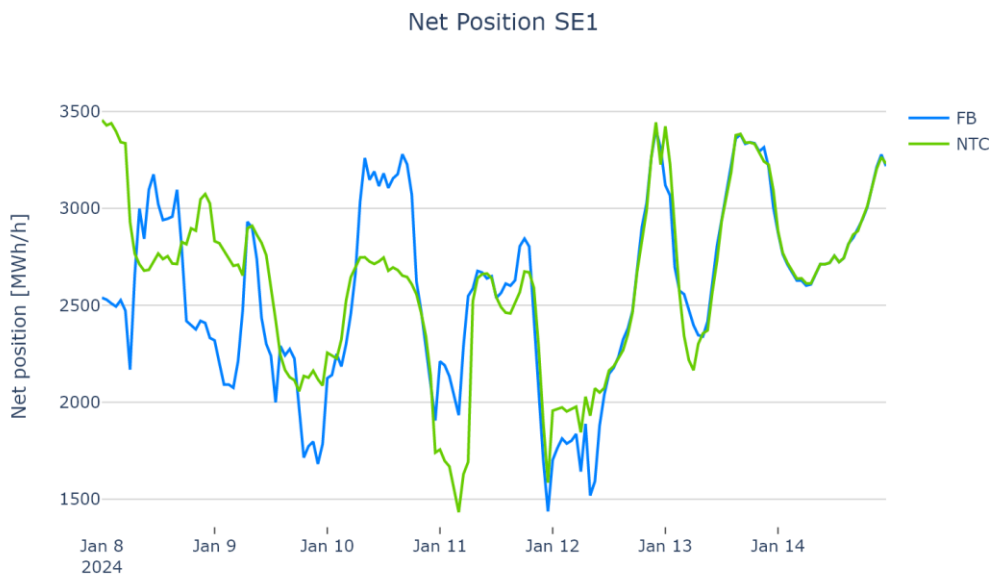

Net Position NO5
Net position [MWh/h]
4000
3000
2000
1000
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC

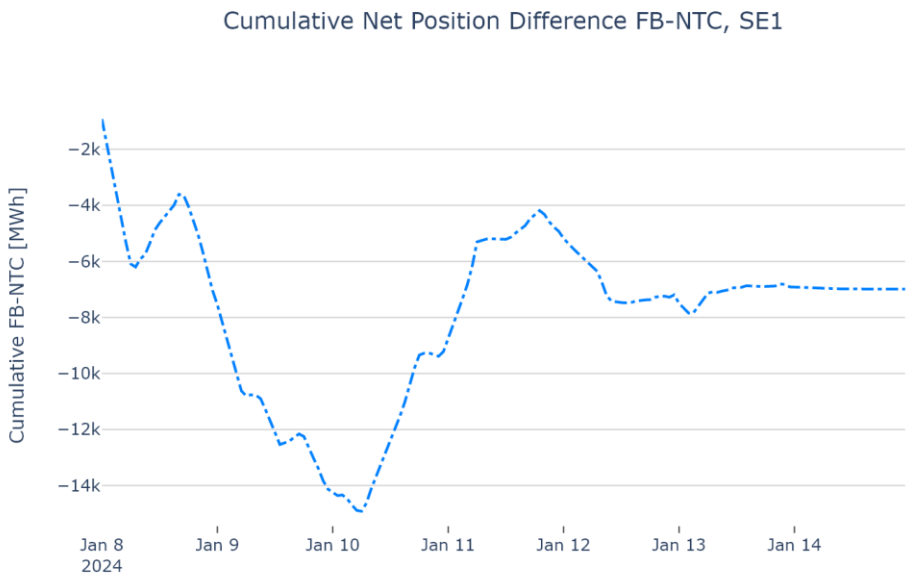

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

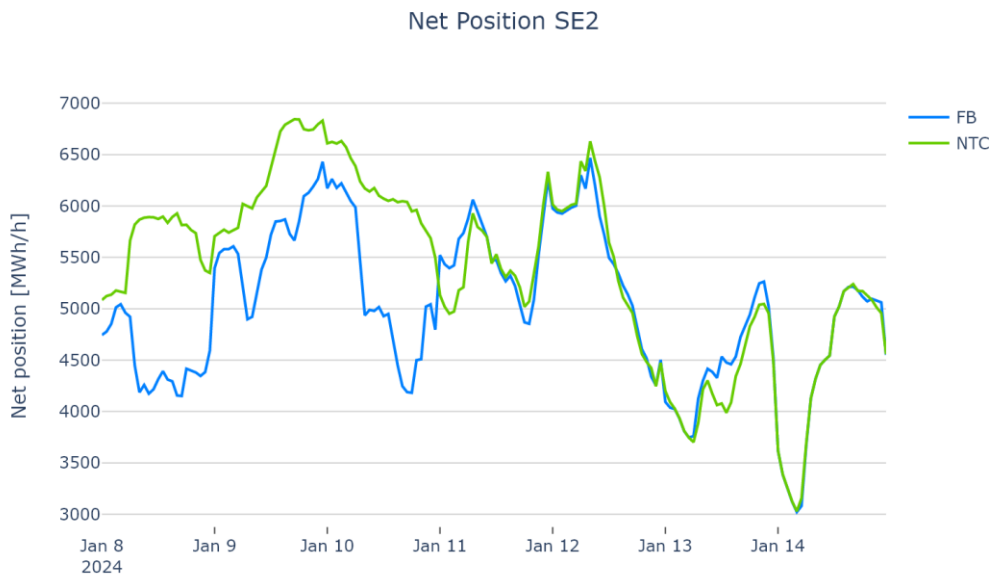
Sweden

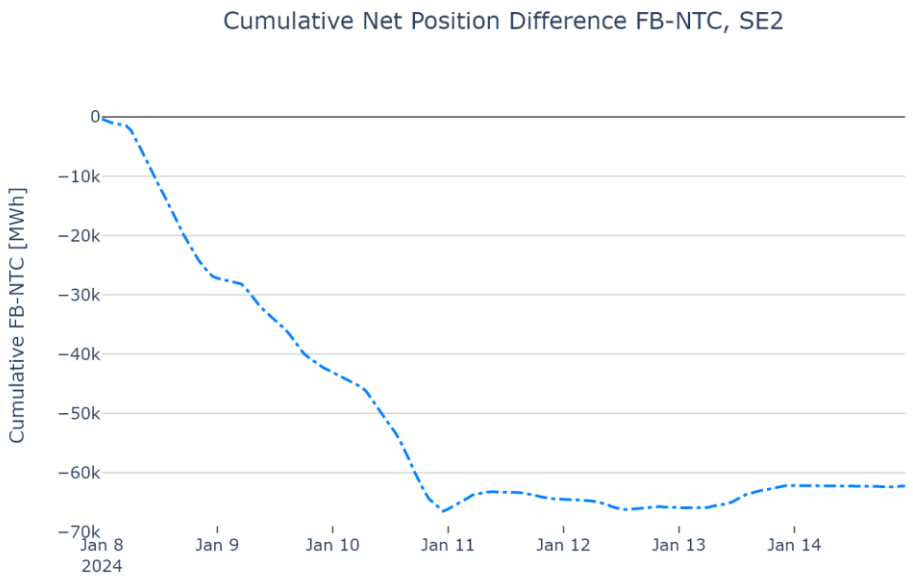

Total Net Position SE
Net position [MWh/h]
6000
5000
4000
3000
2000
1000
0
−1000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC

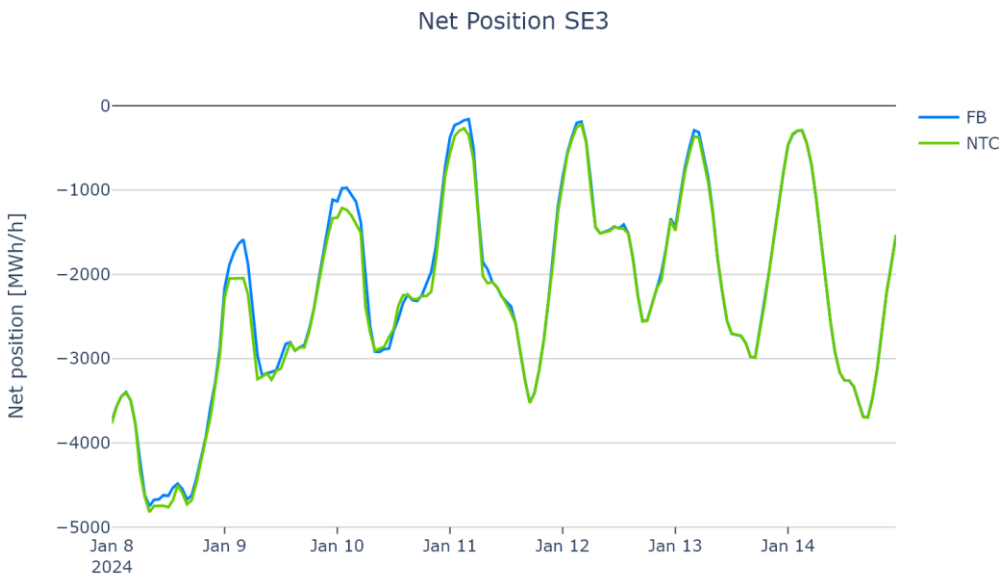

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
−60k
−70k
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

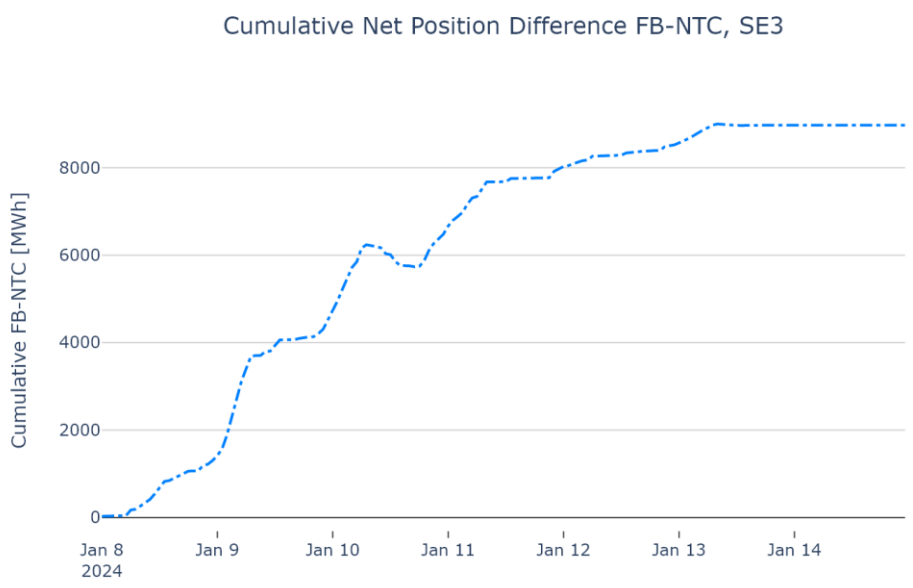

Net Position SE1
Net position [MWh/h]
3500
3000
2500
2000
1500
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC

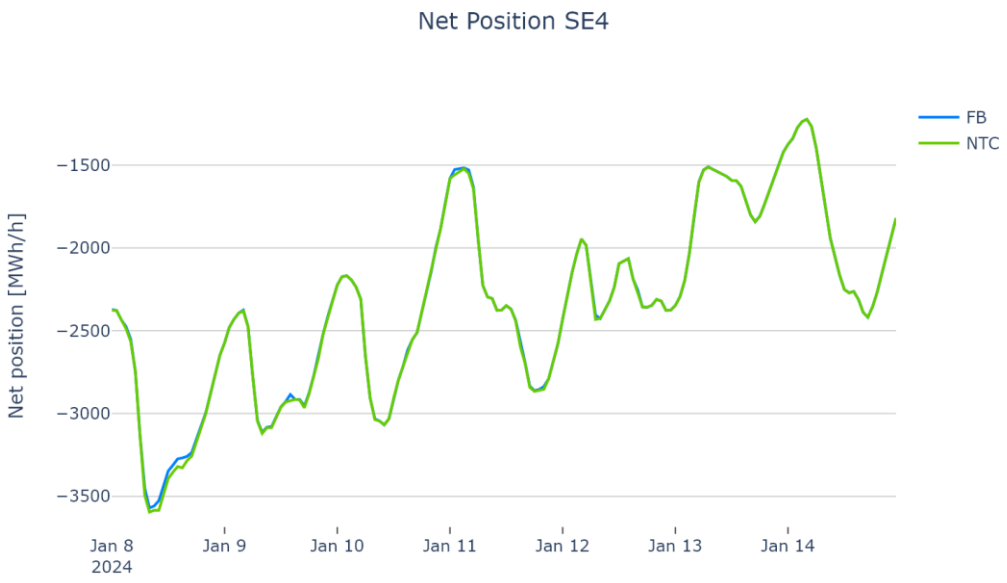

Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
−2k
−4k
−6k
−8k
−10k
−12k
−14k
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

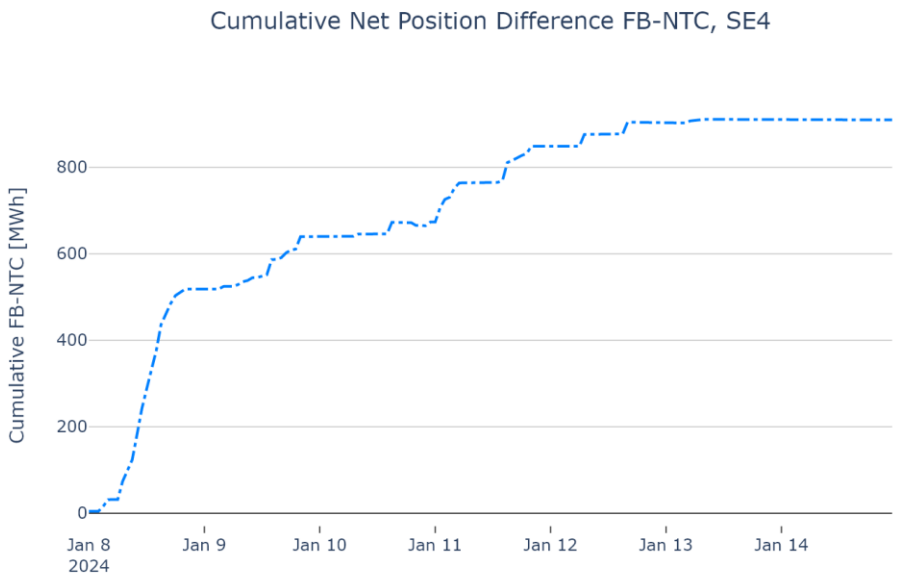

Net Position SE2
Net position [MWh/h]
7000
6500
6000
5500
5000
4500
4000
3500
3000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC


Cumulative Net Position Difference FB-NTC, SE2
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
−60k
−70k
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14


Net Position SE3
Net position [MWh/h]
0
−1000
−2000
−3000
−4000
−5000
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14
FB
NTC

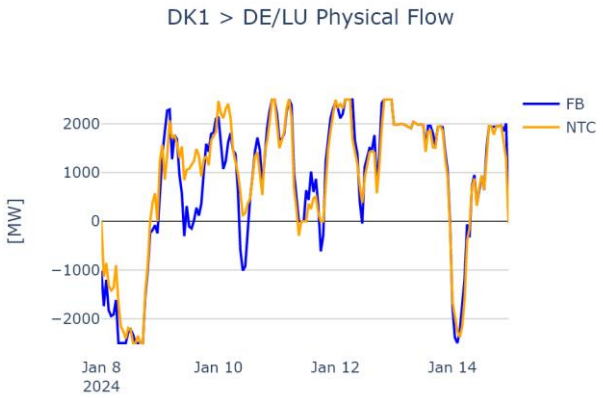

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
8000
6000
4000
2000
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

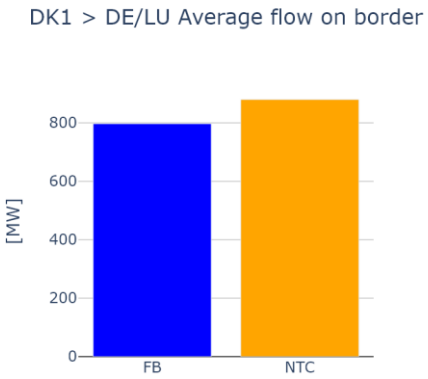

Net Position SE4
FB
NTC
Net position [MWh/h]
−1500
−2000
−2500
−3000
−3500
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

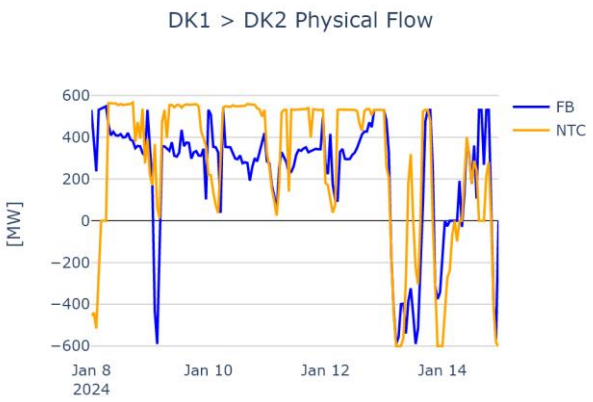

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
800
600
400
200
0
Jan 8
2024
Jan 9
Jan 10
Jan 11
Jan 12
Jan 13
Jan 14

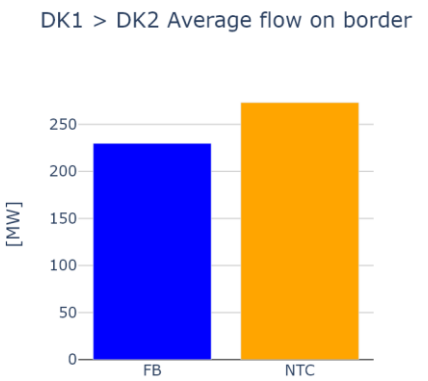
Border flow

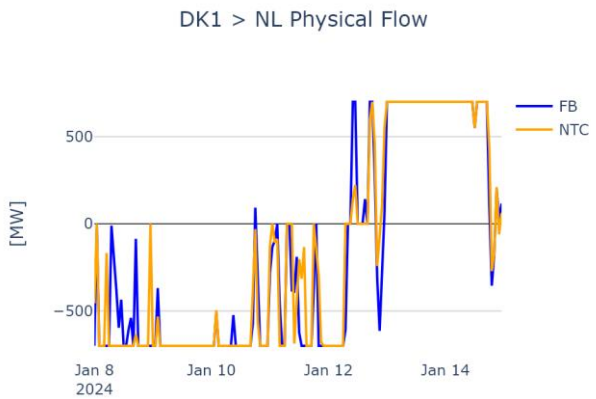
The flows present here, both in FB and NTC, represent the physical flow on the lines and are calculated as the product of the NP and the PTDF matrix. When comparing the NTC-results in this report with those present in the DA market there will be a difference as the DA flows are calculated without the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

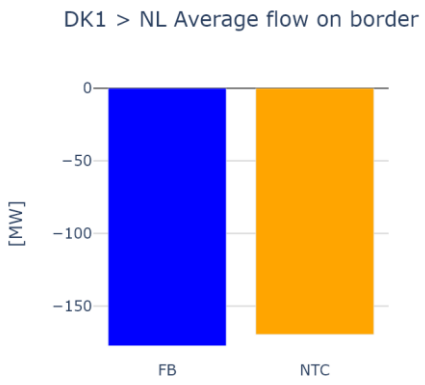


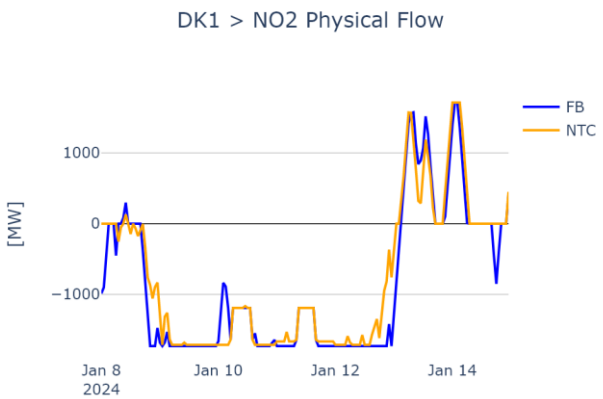


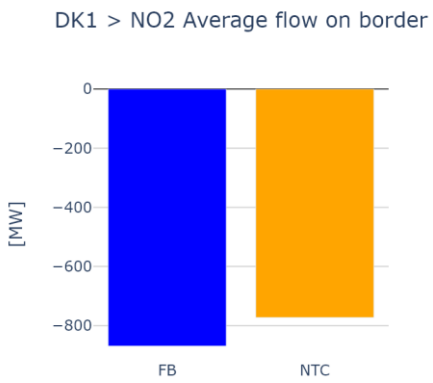


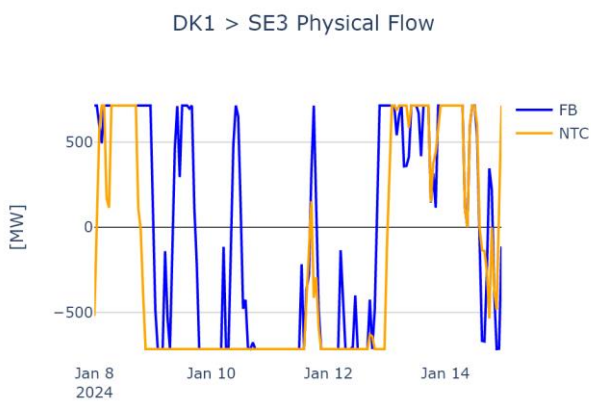


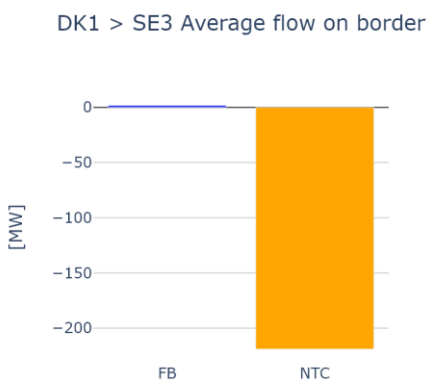

DK1 > NL Physical Flow
FB
NTC
500
0
−500
[MW]
Jan 8
2024
Jan 10
Jan 12
Jan 14

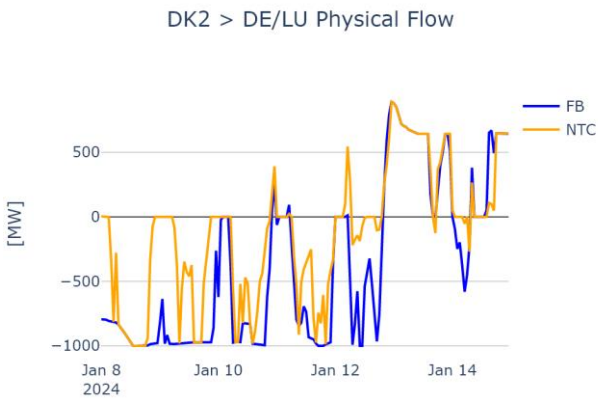

DK1 > NL Average flow on border
0
−50
−100
−150
[MW]
FB
NTC

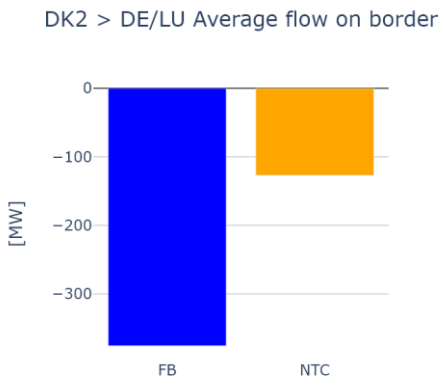

DK1 > NO2 Physical Flow
FB
NTC
1000
0
−1000
[MW]
Jan 8
2024
Jan 10
Jan 12
Jan 14

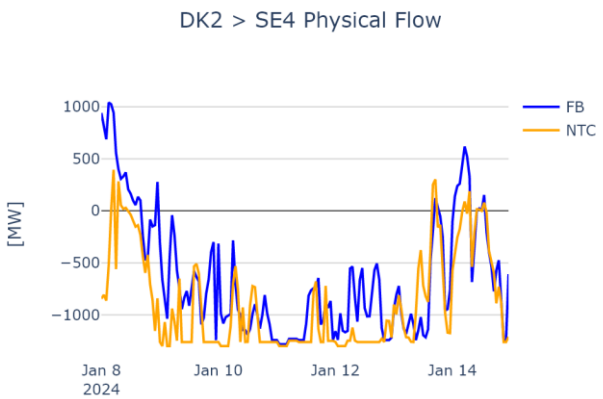

DK1 > NO2 Average flow on border
0
−200
−400
−600
−800
[MW]
FB
NTC

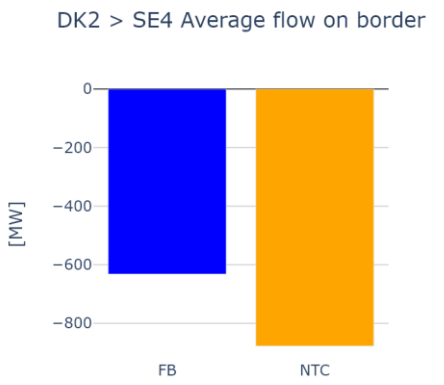

DK1 > SE3 Physical Flow
FB
NTC
500
0
−500
[MW]
Jan 8
2024
Jan 10
Jan 12
Jan 14

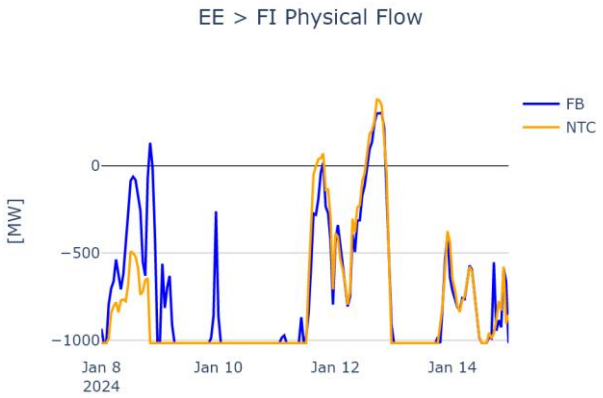

DK1 > SE3 Average flow on border
0
−50
−100
−150
−200
[MW]
FB
NTC

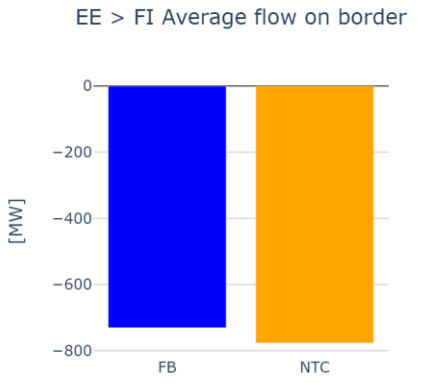

DK2 > DE/LU Physical Flow
FB
NTC
[MW]
500
0
−500
−1000
Jan 8
2024
Jan 10
Jan 12
Jan 14

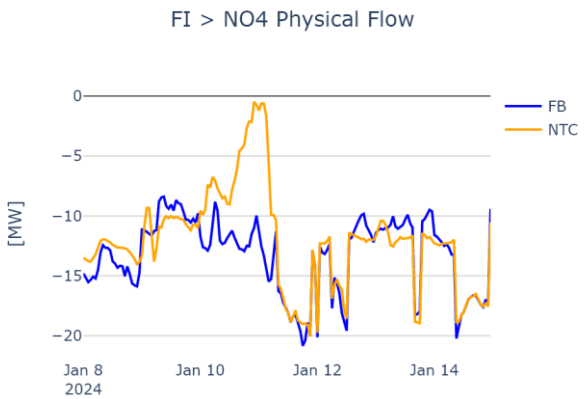

DK2 > DE/LU Average flow on border
[MW]
0
−100
−200
−300
FB
NTC

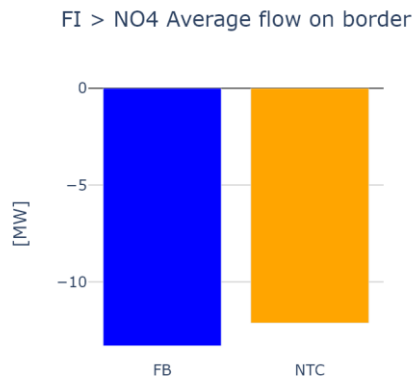

DK2 > SE4 Physical Flow
FB
NTC
[MW]
1000
500
0
−500
−1000
Jan 8
2024
Jan 10
Jan 12
Jan 14

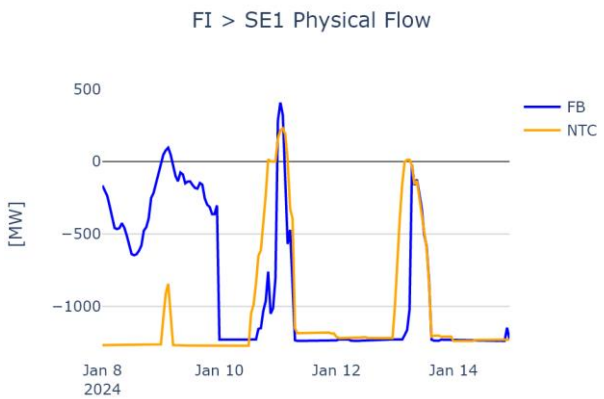

DK2 > SE4 Average flow on border
[MW]
0
−200
−400
−600
−800
FB
NTC

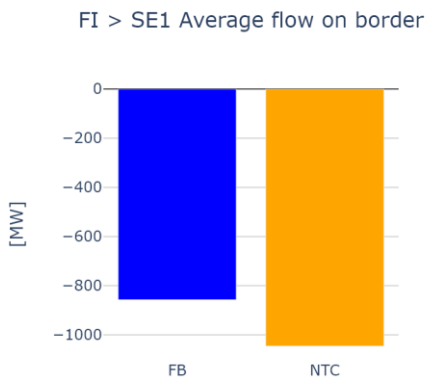

EE > FI Physical Flow
FB
NTC
[MW]
0
−500
−1000
Jan 8
2024
Jan 10
Jan 12
Jan 14

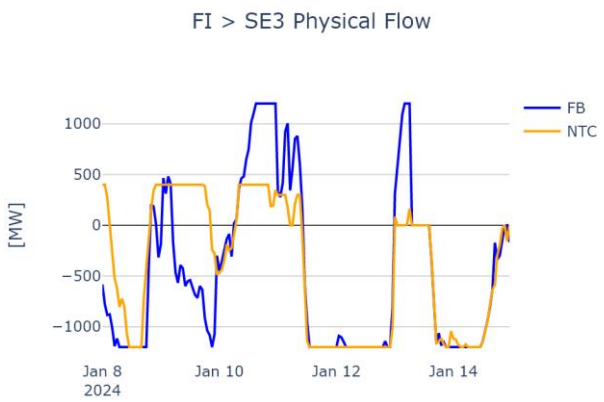

EE > FI Average flow on border
[MW]
0
−200
−400
−600
−800
FB
NTC

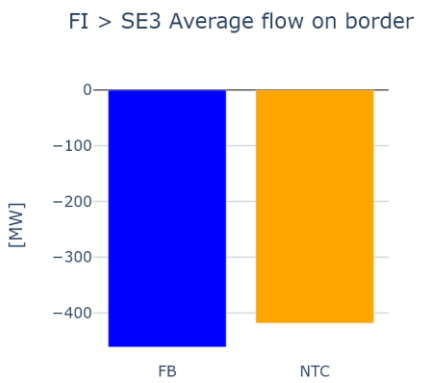

FI > NO4 Physical Flow
[MW]
0
−5
−10
−15
−20
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

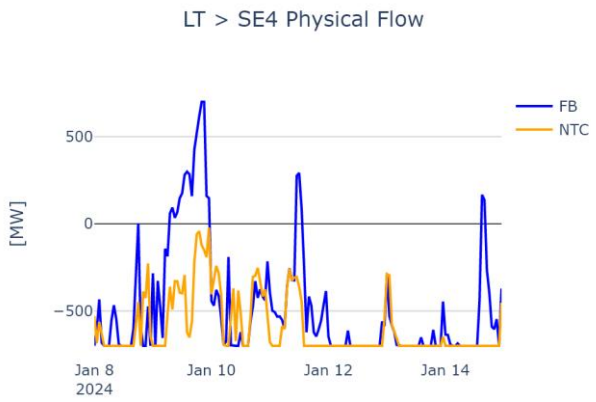

FI > NO4 Average flow on border
[MW]
0
−5
−10
FB
NTC

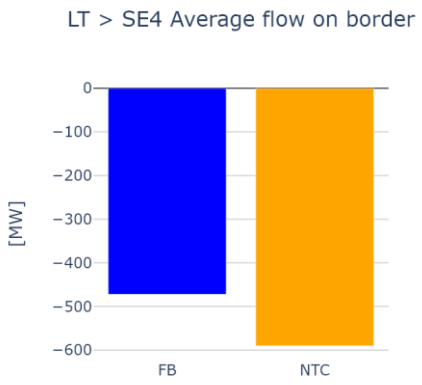

FI > SE1 Physical Flow
[MW]
500
0
−500
−1000
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC


FI > SE1 Average flow on border
[MW]
0
−200
−400
−600
−800
−1000
FB
NTC


FI > SE3 Physical Flow
[MW]
1000
500
0
−500
−1000
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC


FI > SE3 Average flow on border
[MW]
0
−100
−200
−300
−400
FB
NTC


LT > SE4 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 8
2024
Jan 10
Jan 12
Jan 14


LT > SE4 Average flow on border
[MW]
0
−100
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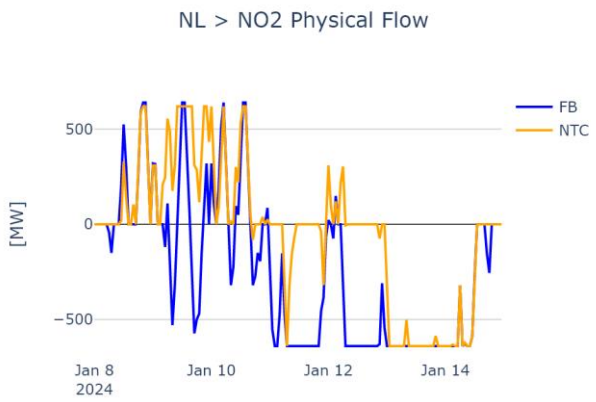
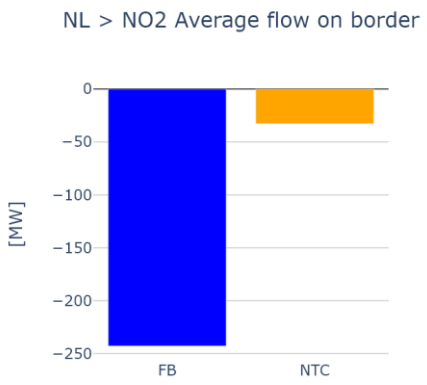
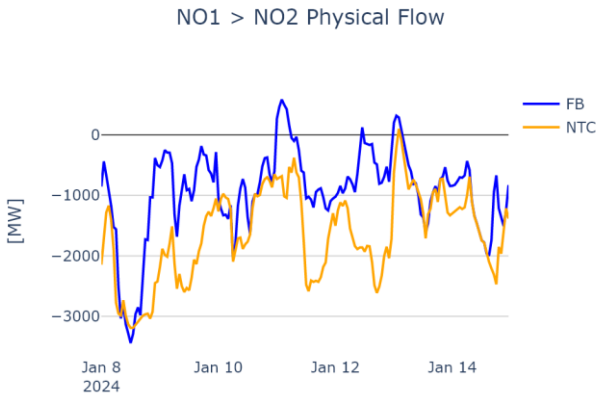
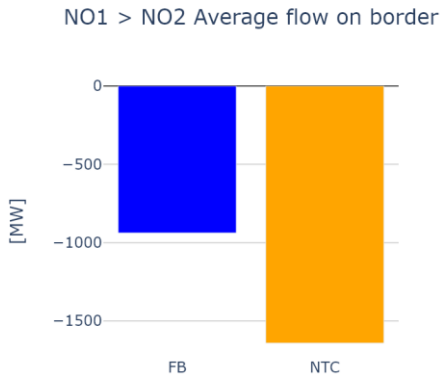
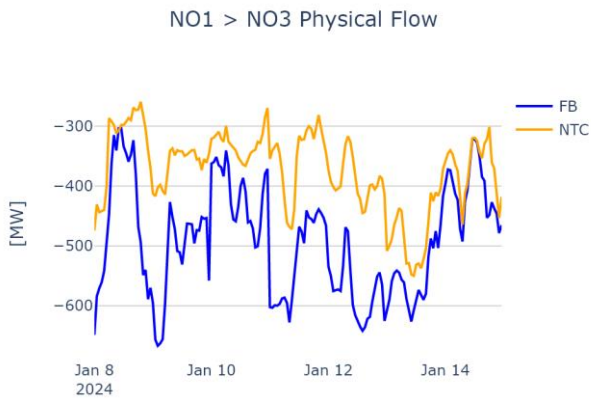
−300
−400
−500
−600
FB
NTC

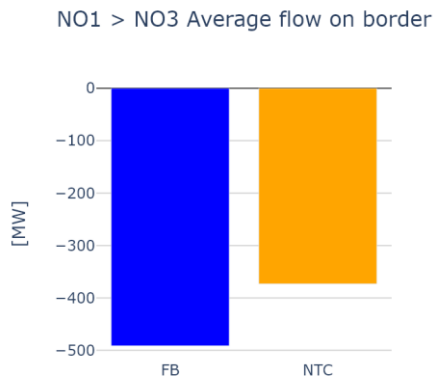

NL > NO2 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 8
2024
Jan 10
Jan 12
Jan 14

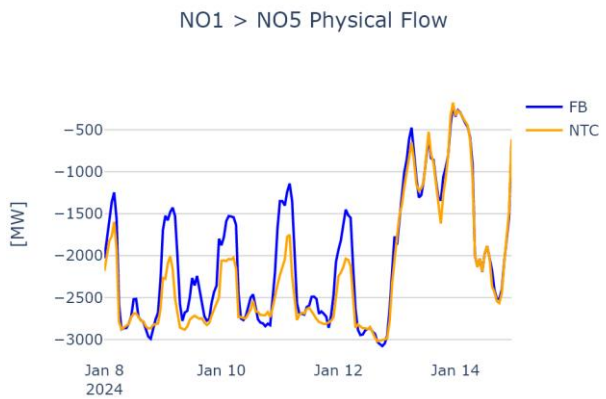

NL > NO2 Average flow on border
[MW]
0
−50
−100
−150
−200
−250
FB
NTC

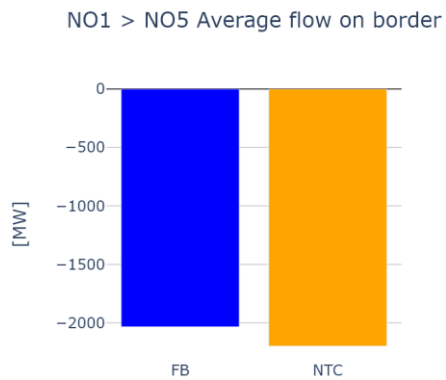

NO1 > NO2 Physical Flow
FB
NTC
[MW]
0
−1000
−2000
−3000
Jan 8
2024
Jan 10
Jan 12
Jan 14

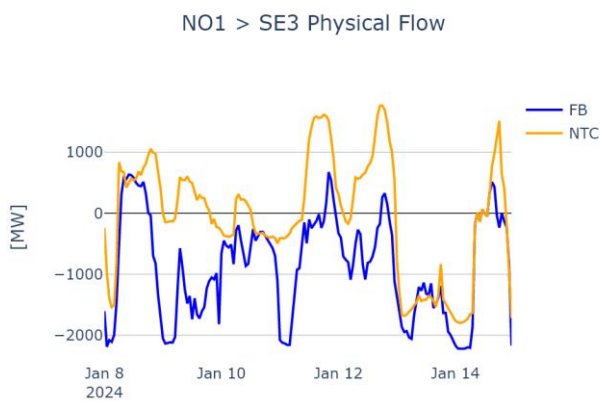

NO1 > NO2 Average flow on border
[MW]
0
−500
−1000
−1500
FB
NTC

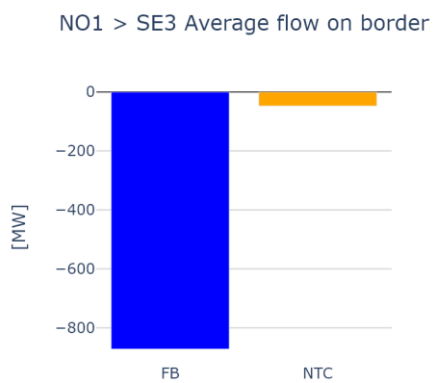

NO1 > NO3 Physical Flow
FB
NTC
[MW]
−300
−400
−500
−600
Jan 8
2024
Jan 10
Jan 12
Jan 14

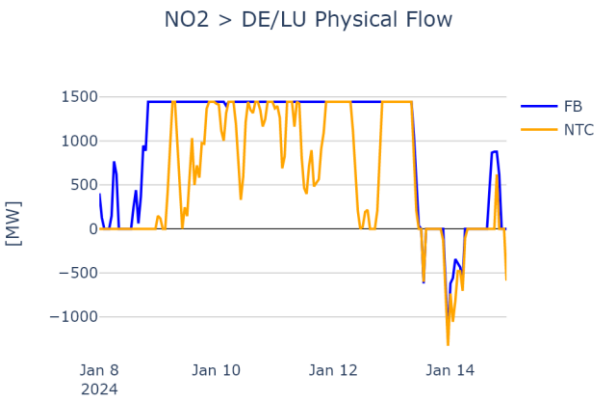

NO1 > NO3 Average flow on border
[MW]
0
−100
−200
−300
−400
−500
FB
NTC

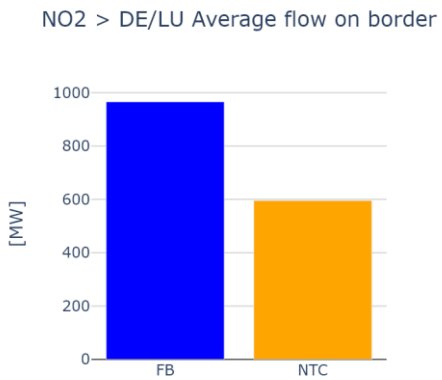

NO1 > NO5 Physical Flow
FB
NTC
[MW]
−500
−1000
−1500
−2000
−2500
−3000
Jan 8
2024
Jan 10
Jan 12
Jan 14

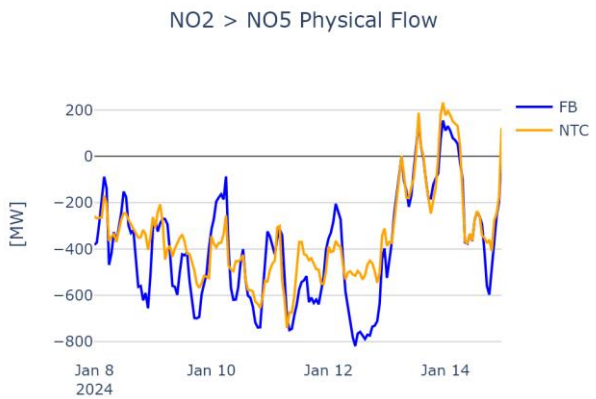

NO1 > NO5 Average flow on border
[MW]
0
−500
−1000
−1500
−2000
FB
NTC

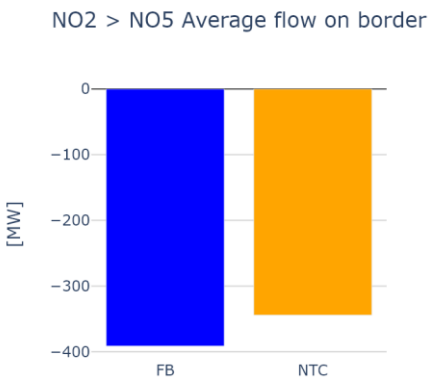

NO1 > SE3 Physical Flow
FB
NTC
[MW]
1000
0
−1000
−2000
Jan 8
2024
Jan 10
Jan 12
Jan 14

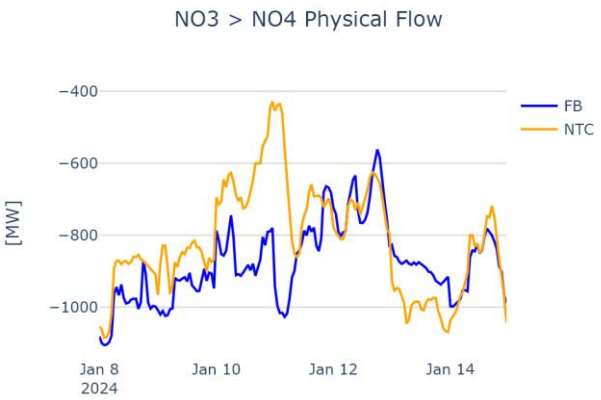

NO1 > SE3 Average flow on border
[MW]
0
−200
−400
−600
−800
FB
NTC

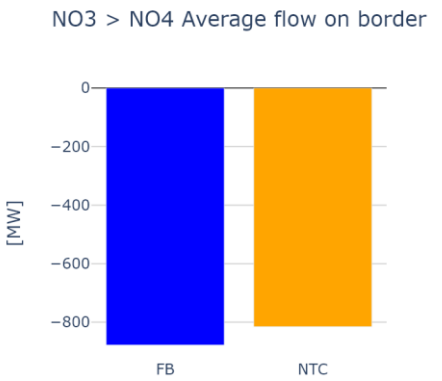

NO2 > DE/LU Physical Flow
1500
1000
500
0
−500
−1000
[MW]
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

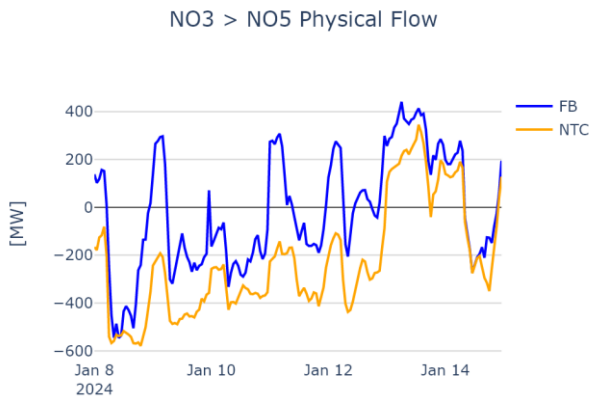

NO2 > DE/LU Average flow on border
1000
800
600
400
200
0
[MW]
FB
NTC

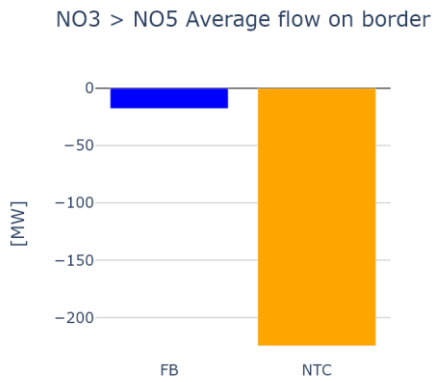

NO2 > NO5 Physical Flow
200
0
−200
−400
−600
−800
[MW]
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

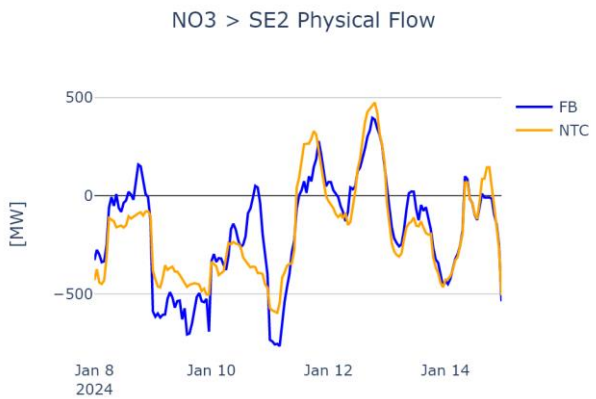

NO2 > NO5 Average flow on border
0
−100
−200
−300
−400
[MW]
FB
NTC

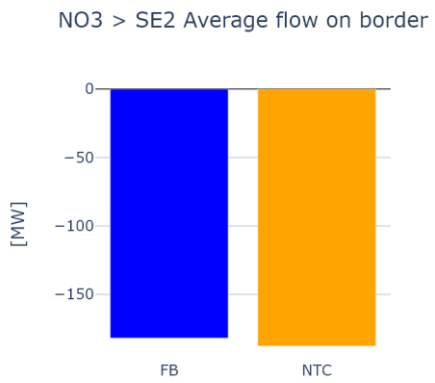

NO3 > NO4 Physical Flow
−400
−600
−800
−1000
[MW]
Jan 8
2024
Jan 10
Jan 12
Jan 14
FB
NTC

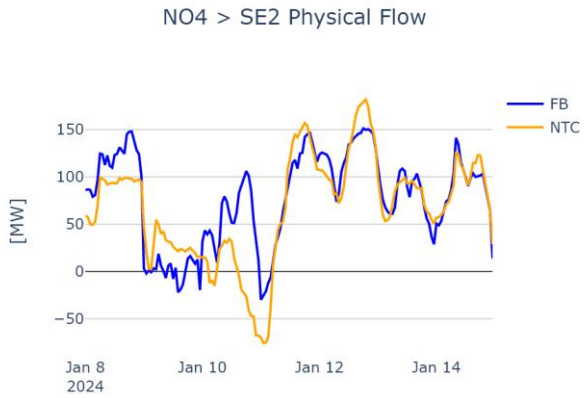

NO3 > NO4 Average flow on border
0
−200
−400
−600
−800
[MW]
FB
NTC

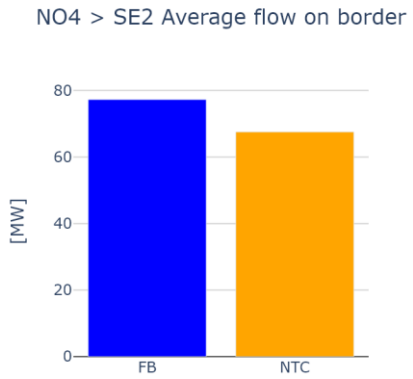

NO3 > NO5 Physical Flow
FB
NTC
[MW]
400
200
0
−200
−400
−600
Jan 8
2024
Jan 10
Jan 12
Jan 14

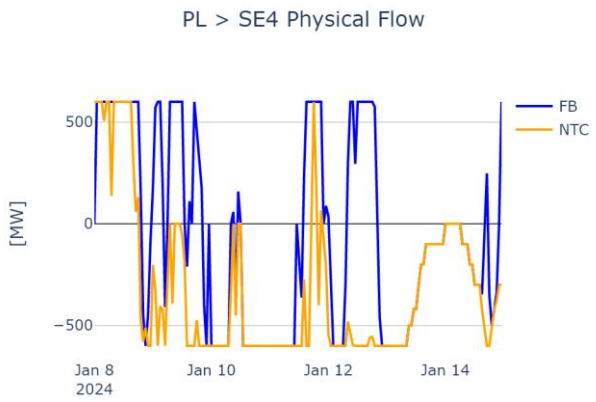

NO3 > NO5 Average flow on border
[MW]
0
−50
−100
−150
−200
FB
NTC

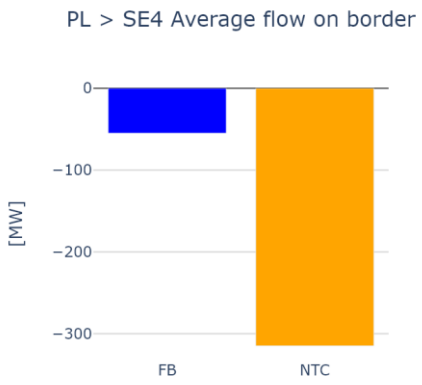

NO3 > SE2 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 8
2024
Jan 10
Jan 12
Jan 14

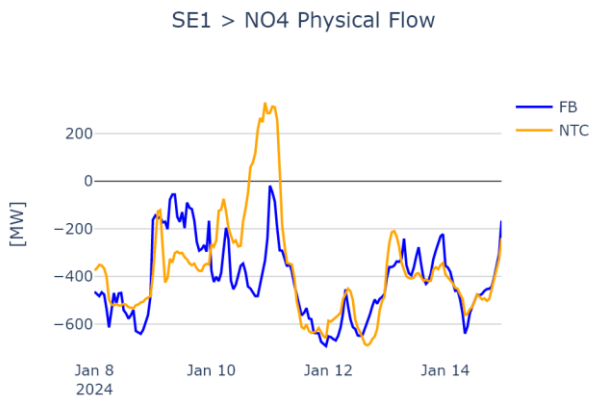

NO3 > SE2 Average flow on border
[MW]
0
−50
−100
−150
FB
NTC

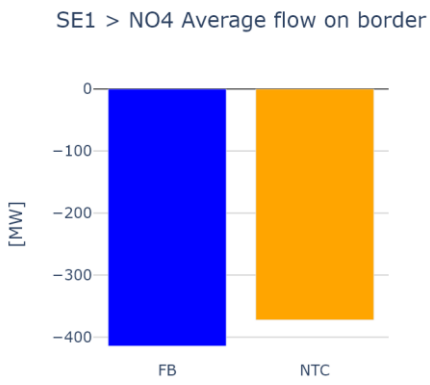

NO4 > SE2 Physical Flow
FB
NTC
[MW]
150
100
50
0
−50
Jan 8
2024
Jan 10
Jan 12
Jan 14

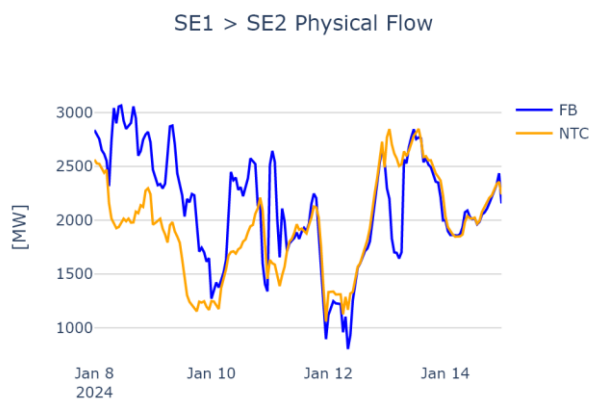

NO4 > SE2 Average flow on border
[MW]
80
60
40
20
0
FB
NTC

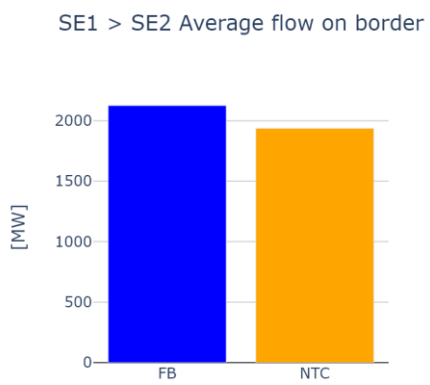

PL > SE4 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 8
2024
Jan 10
Jan 12
Jan 14


PL > SE4 Average flow on border
[MW]
0
−100
−200
−300
FB
NTC


SE1 > NO4 Physical Flow
FB
NTC
[MW]
200
0
−200
−400
−600
Jan 8
2024
Jan 10
Jan 12
Jan 14

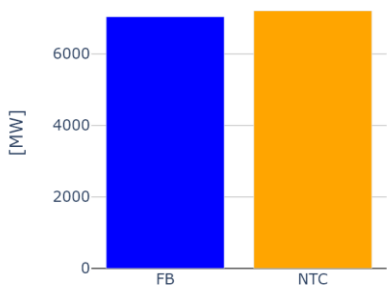

SE1 > NO4 Average flow on border
[MW]
0
−100
−200
−300
−400
FB
NTC


SE1 > SE2 Physical Flow
FB
NTC
[MW]
3000
2500
2000
1500
1000
Jan 8
2024
Jan 10
Jan 12
Jan 14

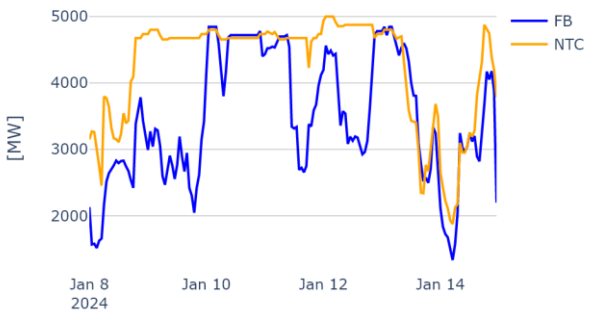

SE1 > SE2 Average flow on border
[MW]
2000
1500
1000
500
0
FB
NTC

SE2 > SE3 Physical Flow

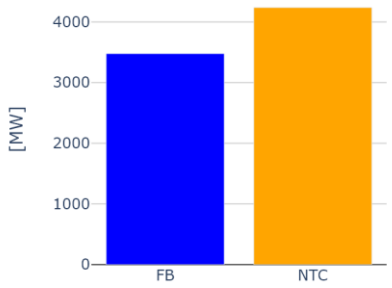
SE2 > SE3 Average flow on border



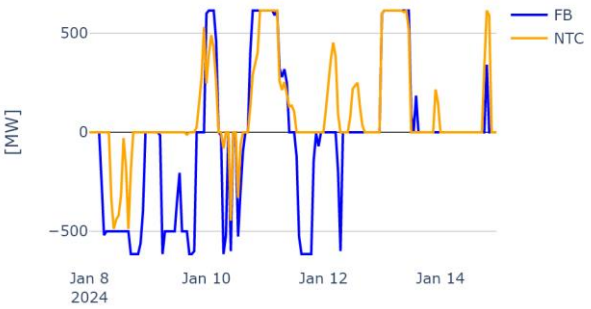
SE3 > SE4 Physical Flow



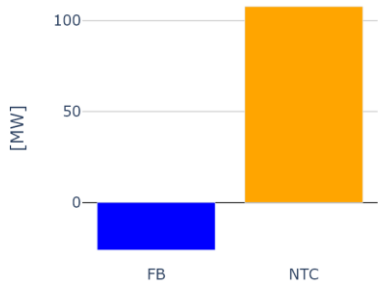
SE3 > SE4 Average flow on border



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	524294	1
DK1 > DK2	262714	4
DK1 > NL	1017792	9
DK1 > NO2	1746634	9
DK1 > SE3	939286	8
DK2 > DE/LU	761847	5
DK2 > SE4	325060	2
EE > FI	2868363	19
FI > NO4	96285	43
FI > SE1	5552976	38
FI > SE3	1454268	7
LT > SE4	987718	8
NL > NO2	518145	7
NO1 > NO2	-179584	-1
NO1 > NO3	2073921	26
NO1 > NO5	1116647	3
NO1 > SE3	253799	2
NO2 > DE/LU	1645731	9
NO2 > NO5	313193	4
NO3 > NO4	2425145	16
NO3 > NO5	-470455	-11
NO3 > SE2	778047	11
NO4 > SE2	-27762	-3
PL > SE4	431021	5
SE1 > NO4	170635	2
SE1 > SE2	-2505553	-7
SE2 > SE3	64064868	53
SE3 > SE4	4281645	6
SE4 > DE/LU	551271	7

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	17	-6296	0
DK1 > DK2	3	-125	0
DK1 > NL	1	-94	0
DK1 > NO2	3	-36214	-8
DK1 > SE3	44	-110107	-3
DK2 > DE/LU	2	-186	0
DK2 > SE4	43	-49726	-1
EE > FI	1	-2981	-23
FI > NO4	7	-579	-4
FI > SE1	8	-17885	-16
FI > SE3	33	-670393	-17
LT > SE4	33	-62536	-3
NL > NO2	4	-7039	-4
NO1 > NO2	75	-185502	-1
NO1 > NO3	10	-15721	-2
NO1 > NO5	12	-4146	0
NO1 > SE3	50	-1033102	-15
NO2 > DE/LU	0	0	0
NO2 > NO5	7	-399	-1
NO3 > NO4	2	-6102	-3
NO3 > NO5	60	-657478	-28
NO3 > SE2	26	-87448	-20
NO4 > SE2	61	-76379	-11
PL > SE4	20	-211287	-11
SE1 > NO4	42	-108251	-4
SE1 > SE2	71	-2712156	-10
SE2 > SE3	1	-6846	0
SE3 > SE4	24	-76339	-1
SE4 > DE/LU	0	0	0