Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 1 of 2024

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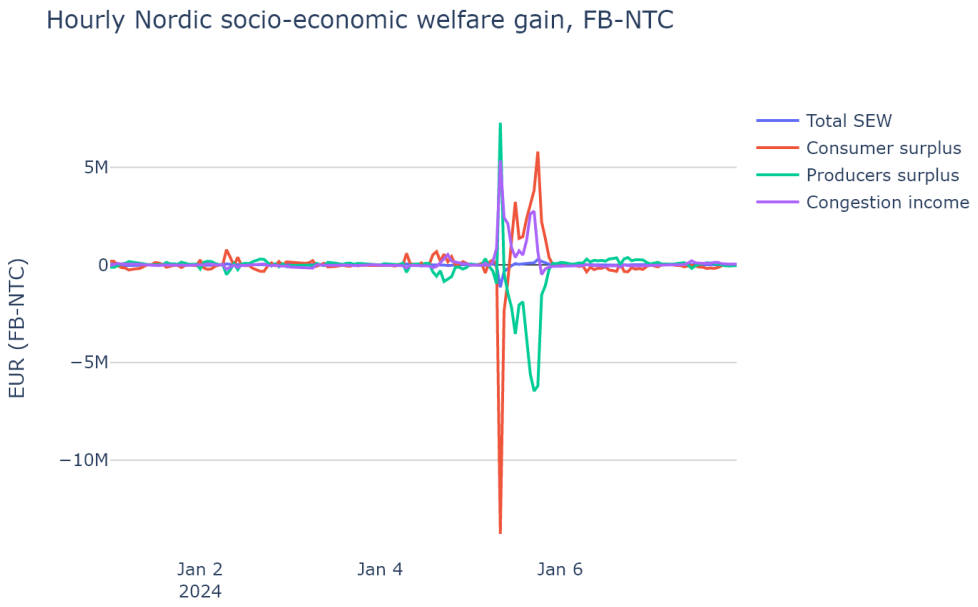
Domain validation

Energy Delivery Day:	Mon. 1.1.	Tue. 2.1.	Wed. 3.1.	Thu. 4.1.	Fri. 5.1.	Sat. 6.1.	Sun. 7.1.
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	0	0	0	2	0	0	0
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

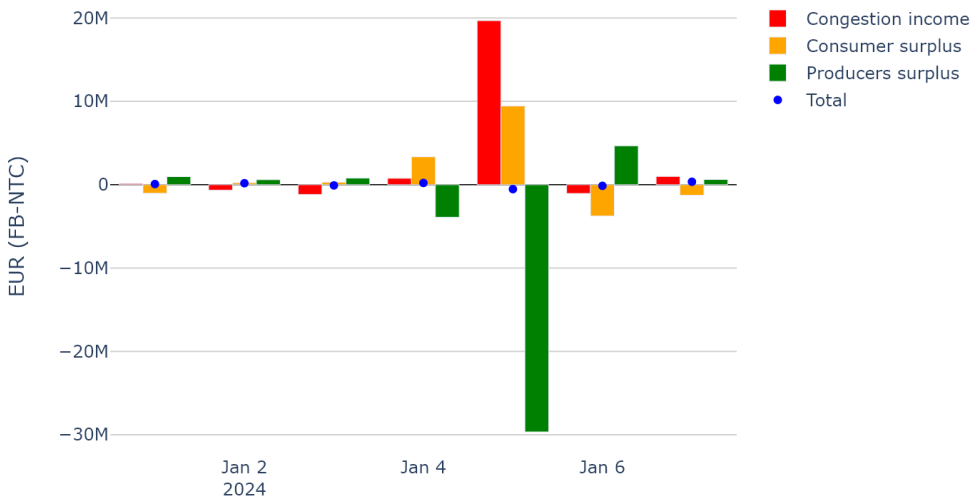
Socio Economic Welfare

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

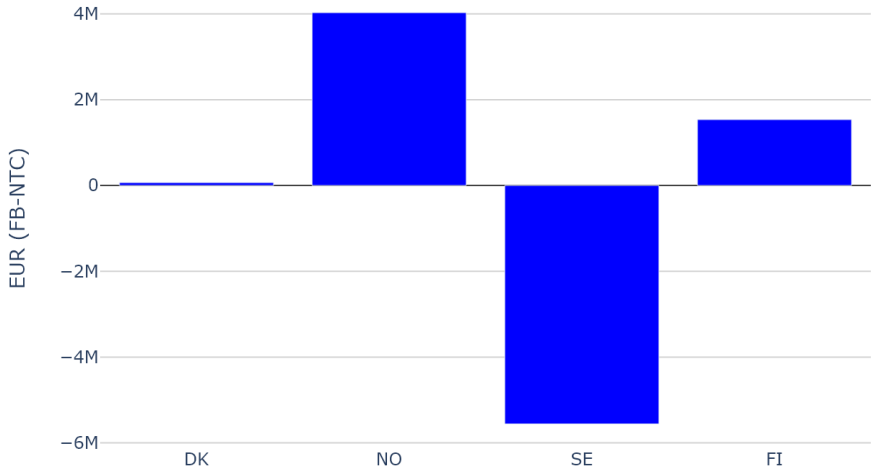
Nordics

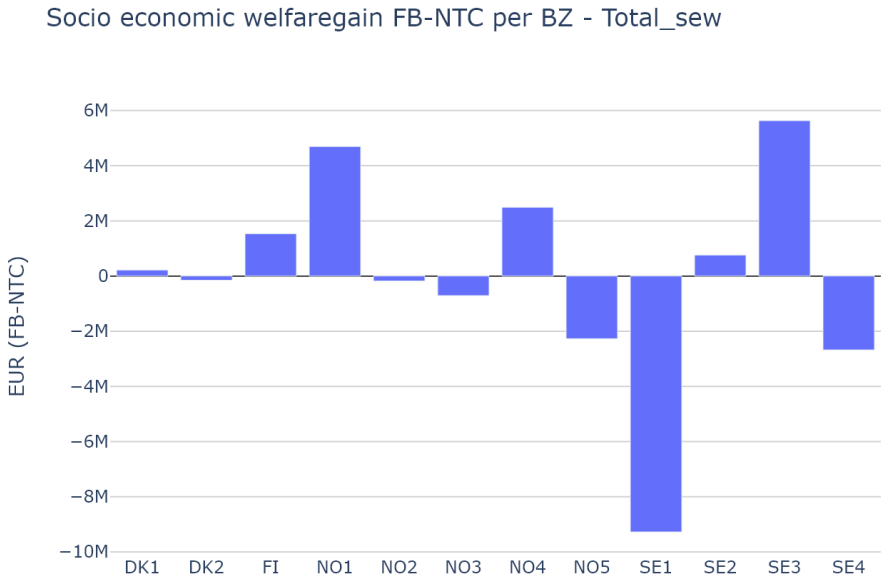


Nordics socio-economic welfare per stakeholder and day

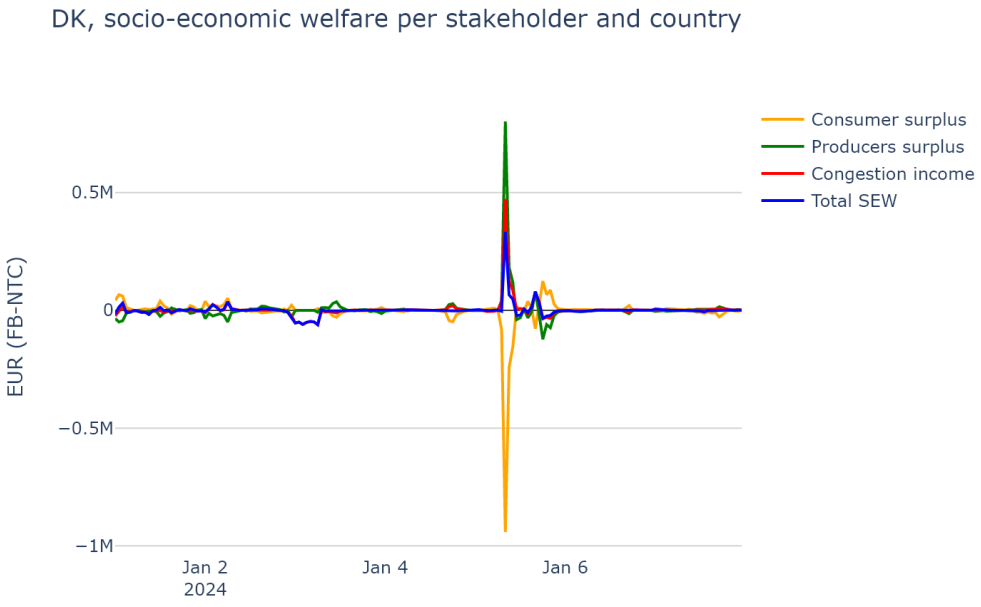


Total Nordic socio-economic welfare per country

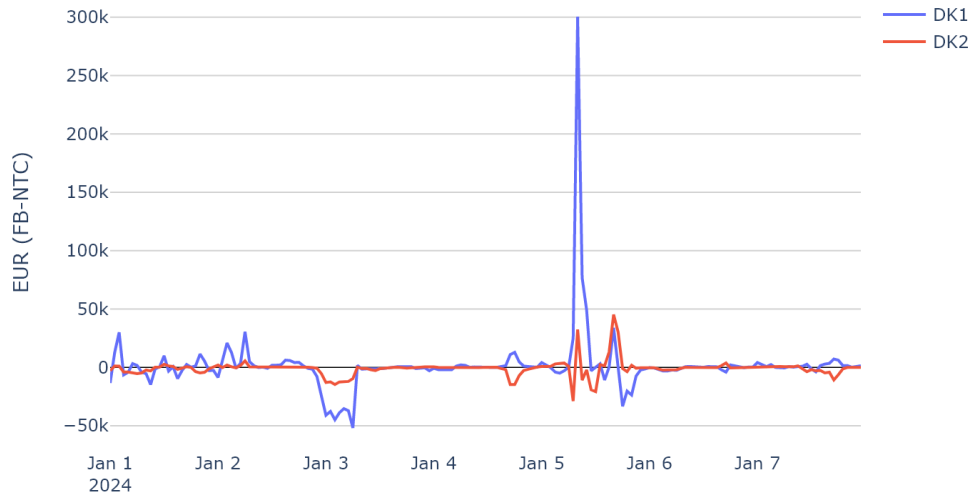



Socio economic welfaregain FB-NTC per BZ - Total_sew
EUR (FB-NTC)
6M
4M
2M
0
−2M
−4M
−6M
−8M
−10M
DK1
DK2
FI
NO1
NO2
NO3
NO4
NO5
SE1
SE2
SE3
SE4

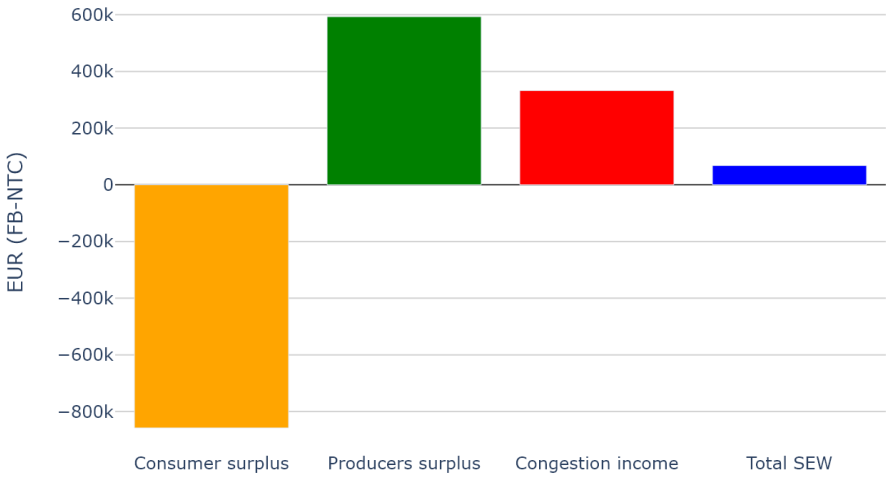
Denmark


DK, socio-economic welfare per stakeholder and country
Consumer surplus
Producers surplus
Congestion income
Total SEW
EUR (FB-NTC)
0.5M
0
−0.5M
−1M
Jan 2
2024
Jan 4
Jan 6

Total socio economic welfaregain FB-NTC per BZ in DK

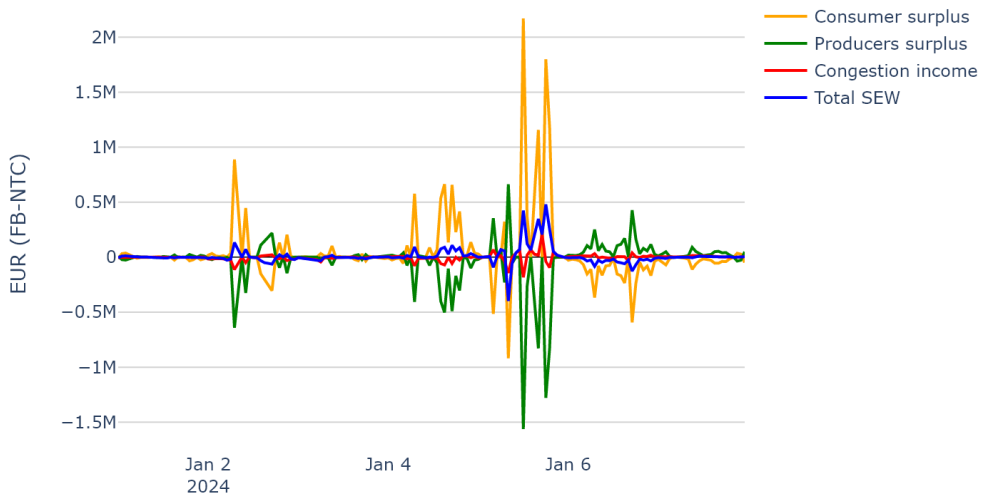


DK, socio-economic welfare per stakeholder and country

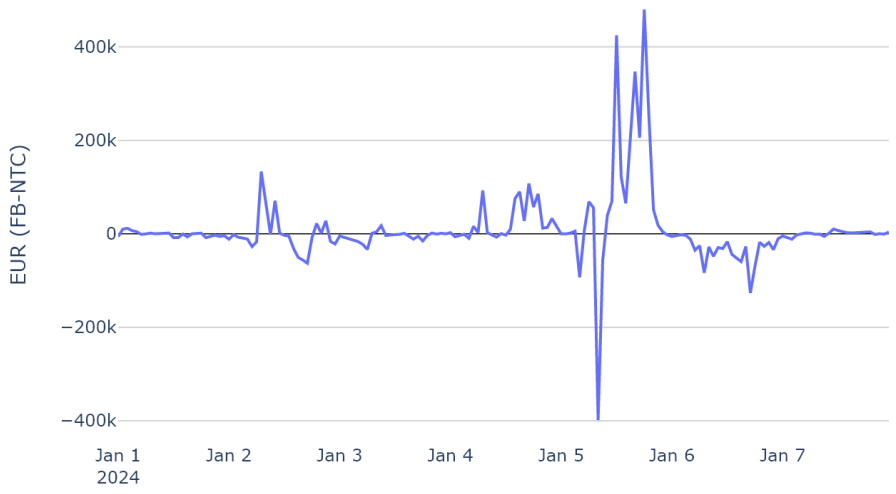


Finland

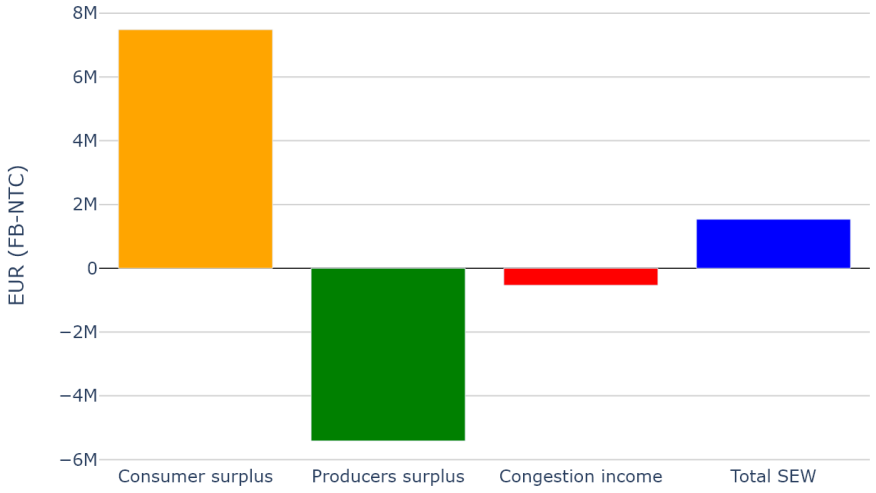
FI, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in FI

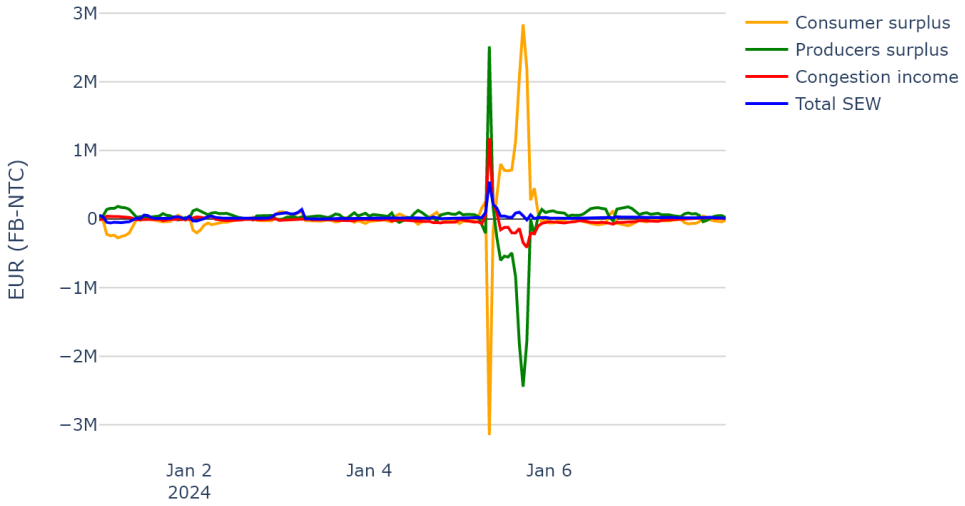


FI, socio-economic welfare per stakeholder and country

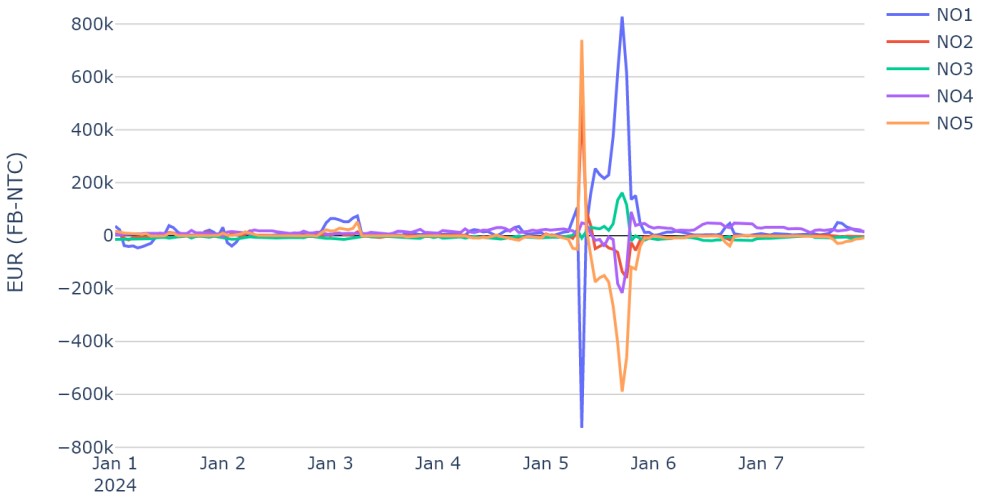


Norway

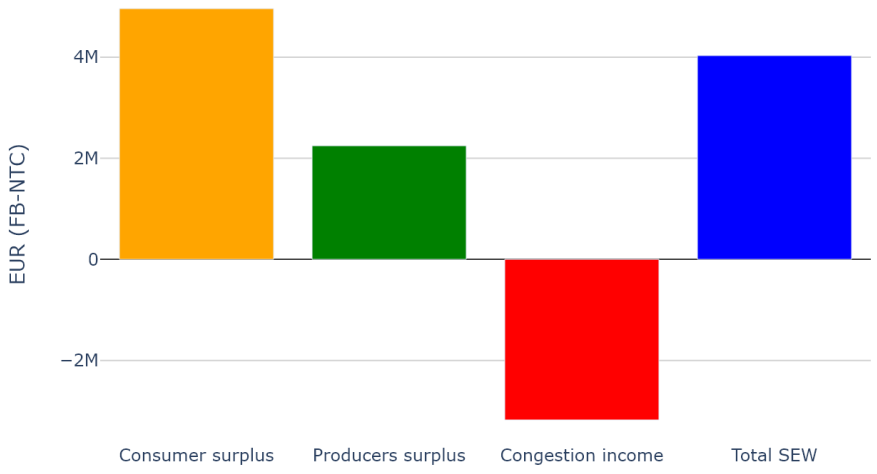
NO, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in NO

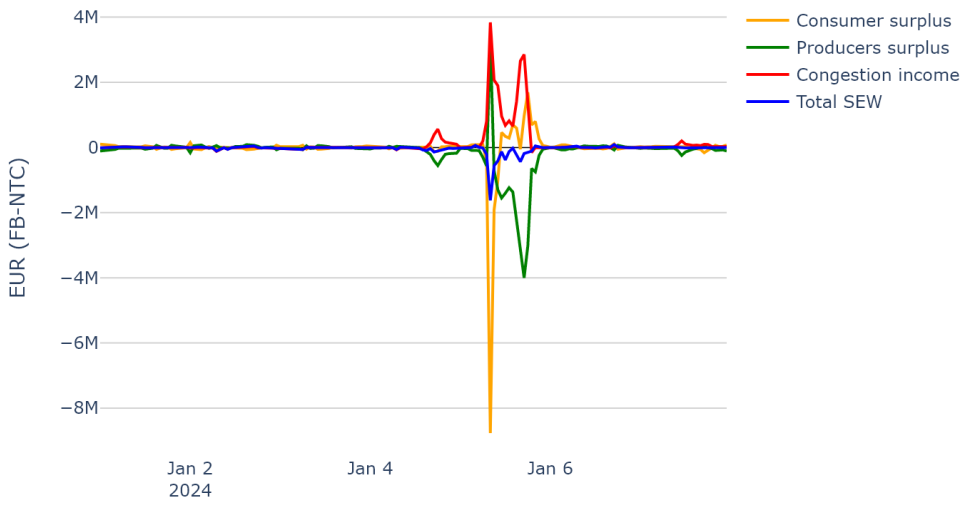


NO, socio-economic welfare per stakeholder and country

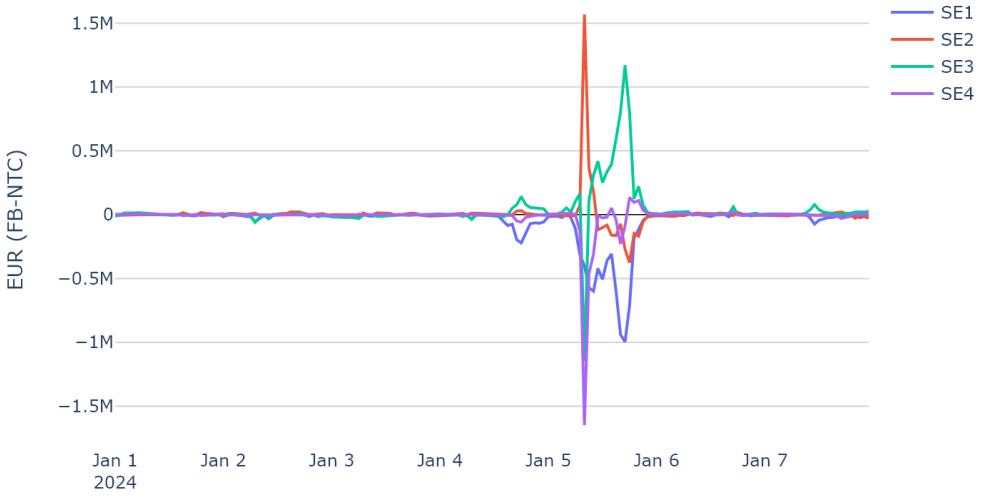


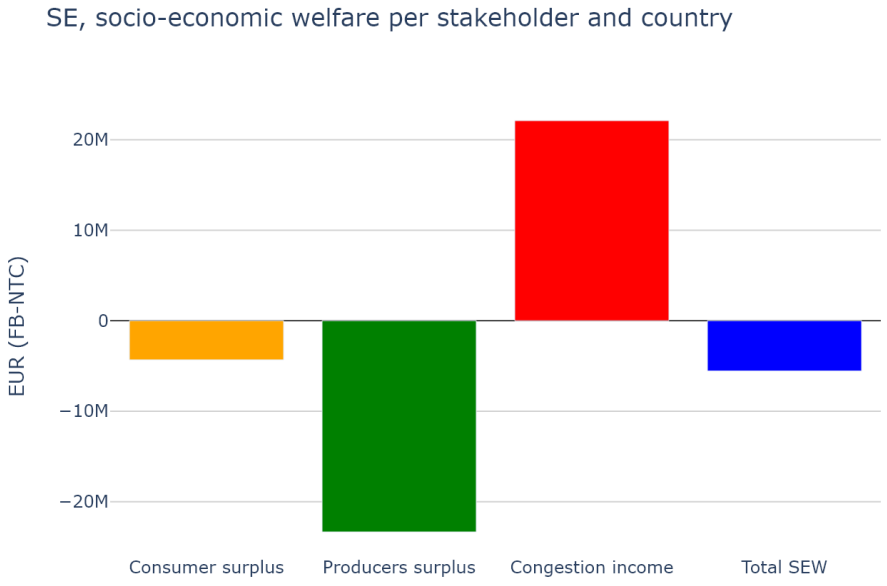
Sweden

SE, socio-economic welfare per stakeholder and country

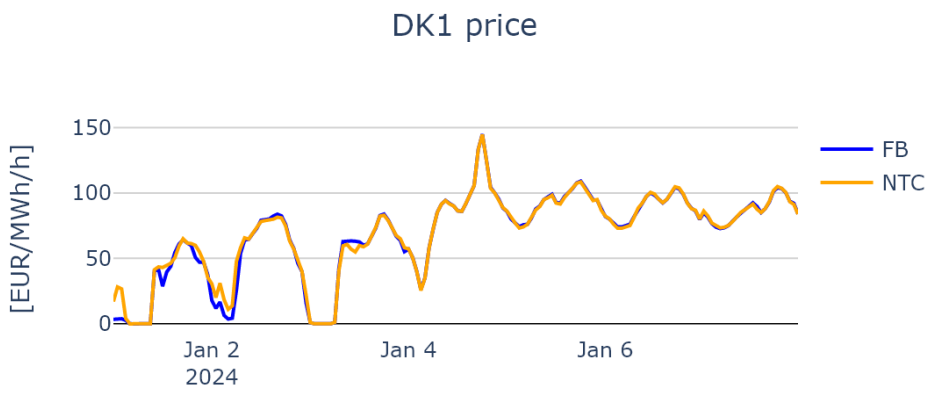


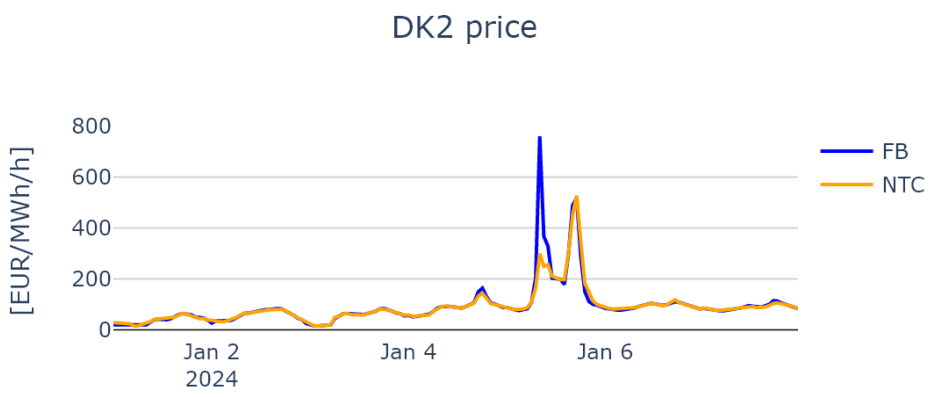
Total socio economic welfaregain FB-NTC per BZ in SE

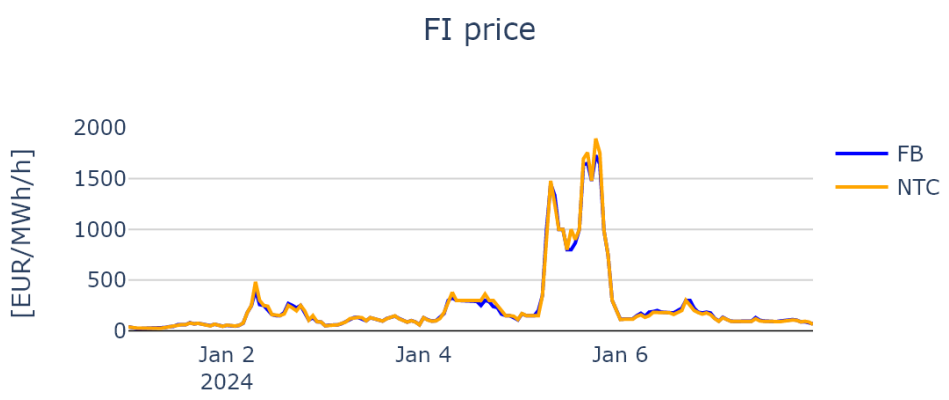


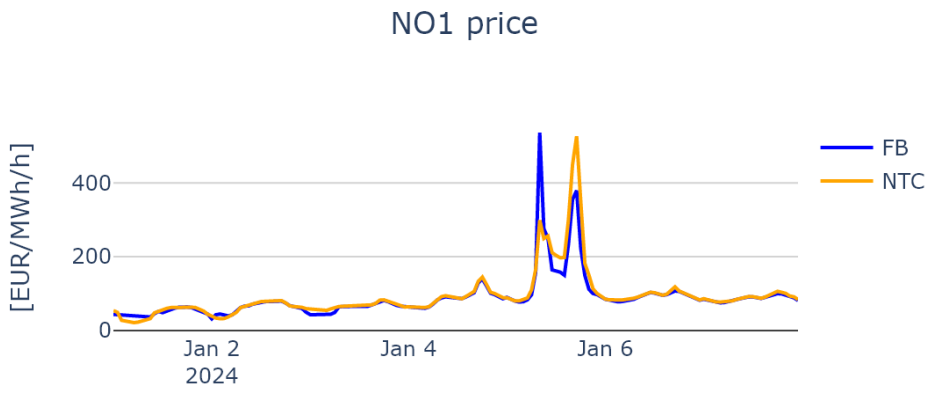

SE, socio-economic welfare per stakeholder and country
20M
10M
0
−10M
−20M
EUR (FB-NTC)
Consumer surplus
Producers surplus
Congestion income
Total SEW

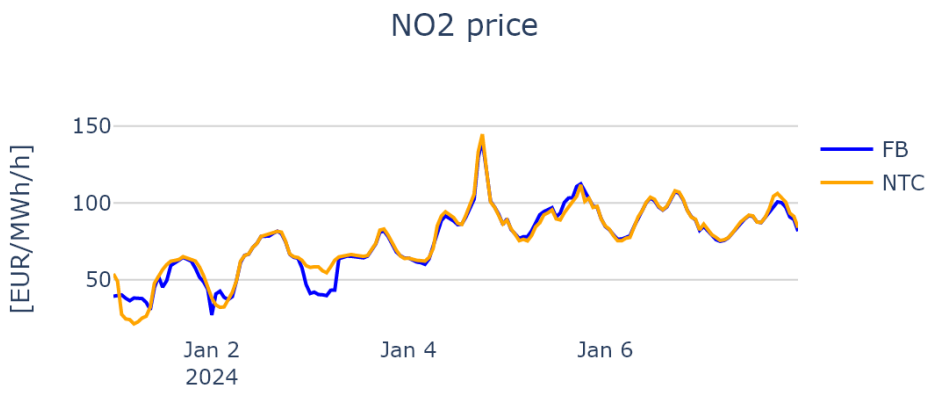
Prices

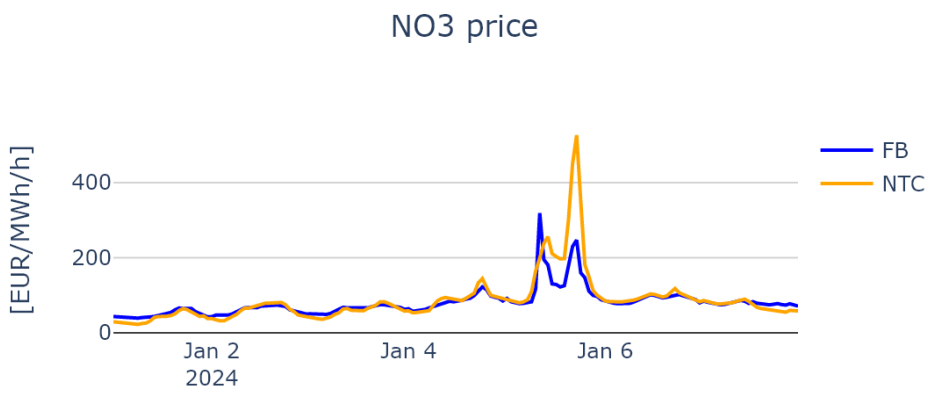

DK1 price
[EUR/MWh/h]
150
100
50
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

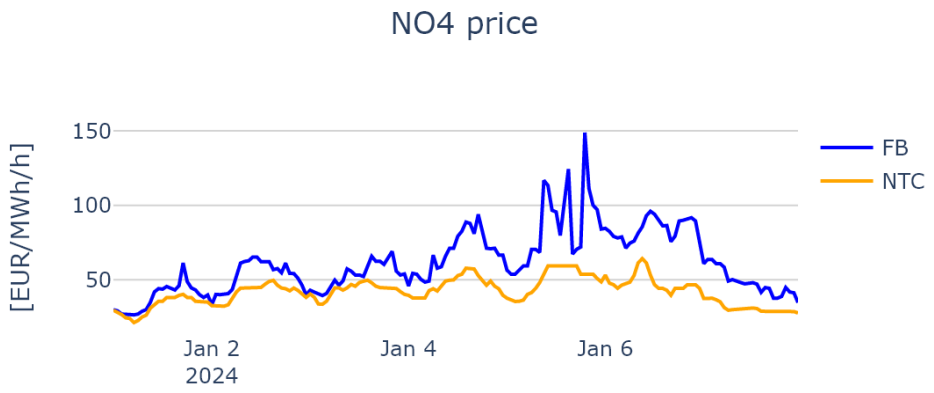

DK2 price
[EUR/MWh/h]
800
600
400
200
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

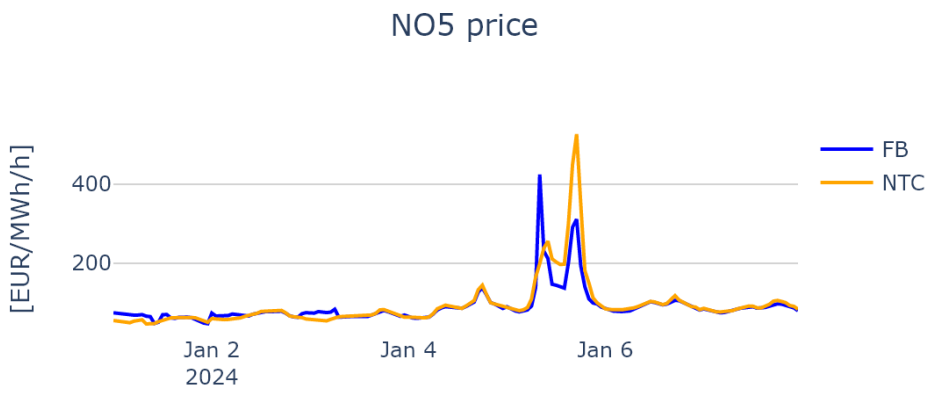

FI price
[EUR/MWh/h]
2000
1500
1000
500
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

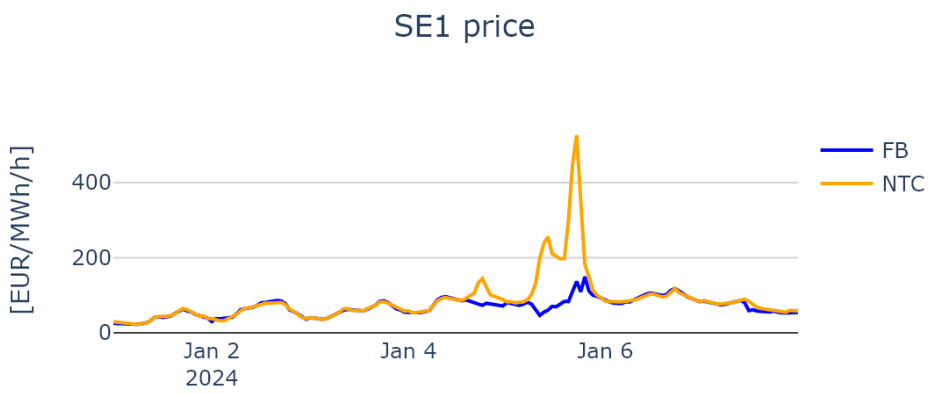

NO1 price
[EUR/MWh/h]
400
200
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

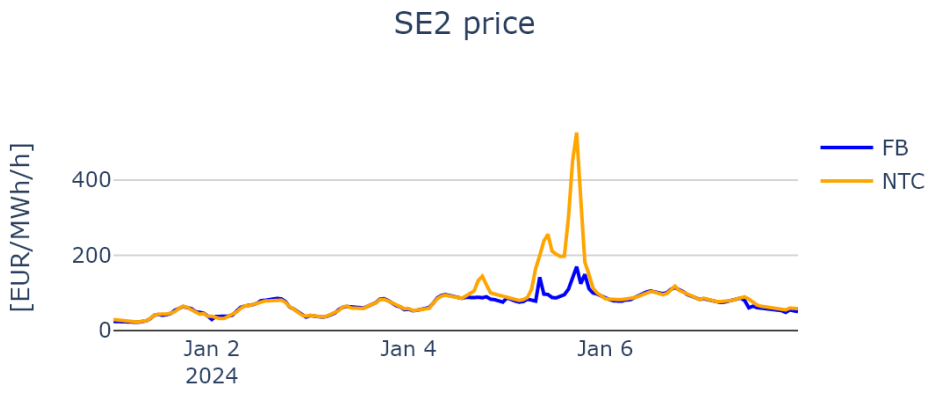

NO2 price
[EUR/MWh/h]
150
100
50
Jan 2
2024
Jan 4
Jan 6
FB
NTC

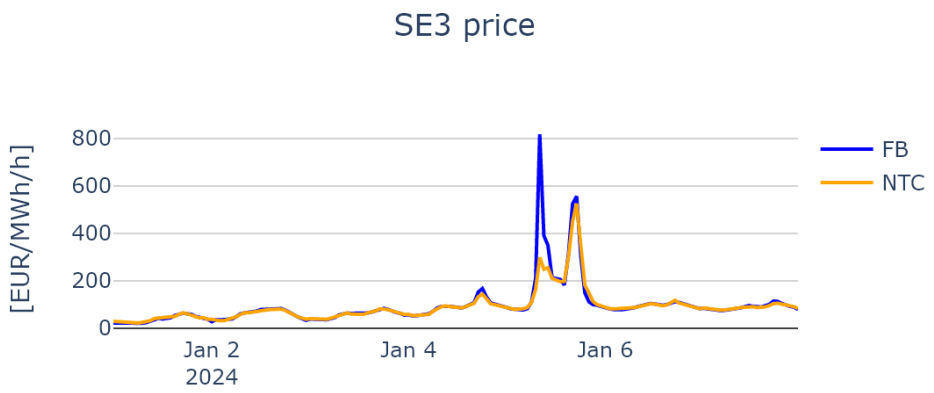

NO3 price
[EUR/MWh/h]
400
200
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

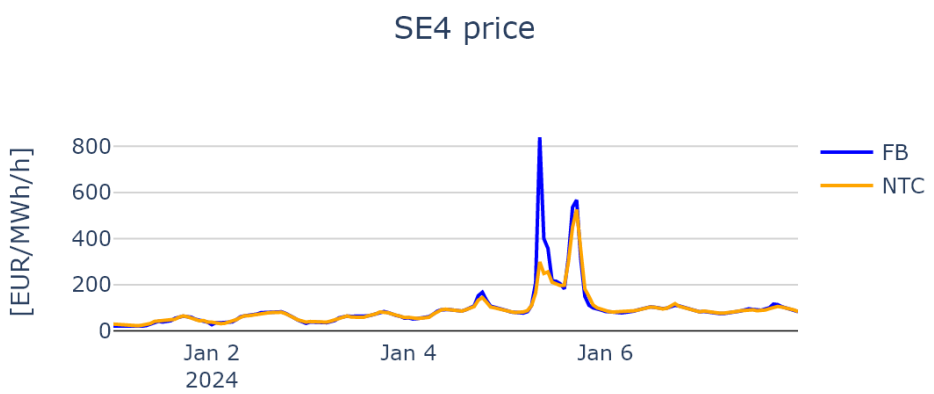

NO4 price
[EUR/MWh/h]
150
100
50
Jan 2
2024
Jan 4
Jan 6
FB
NTC


NO5 price
[EUR/MWh/h]
400
200
Jan 2
2024
Jan 4
Jan 6
FB
NTC


SE1 price
[EUR/MWh/h]
400
200
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

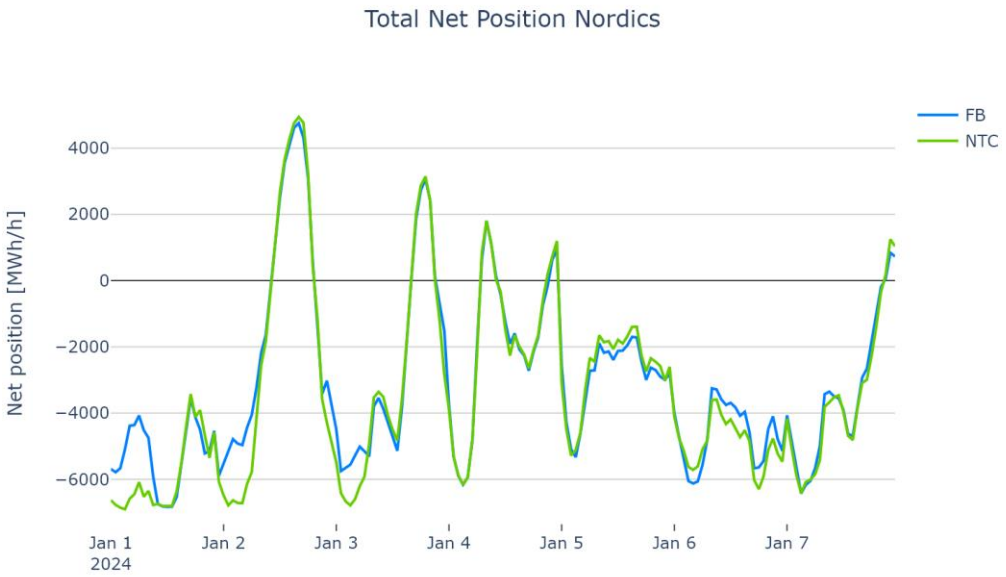

SE2 price
[EUR/MWh/h]
400
200
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

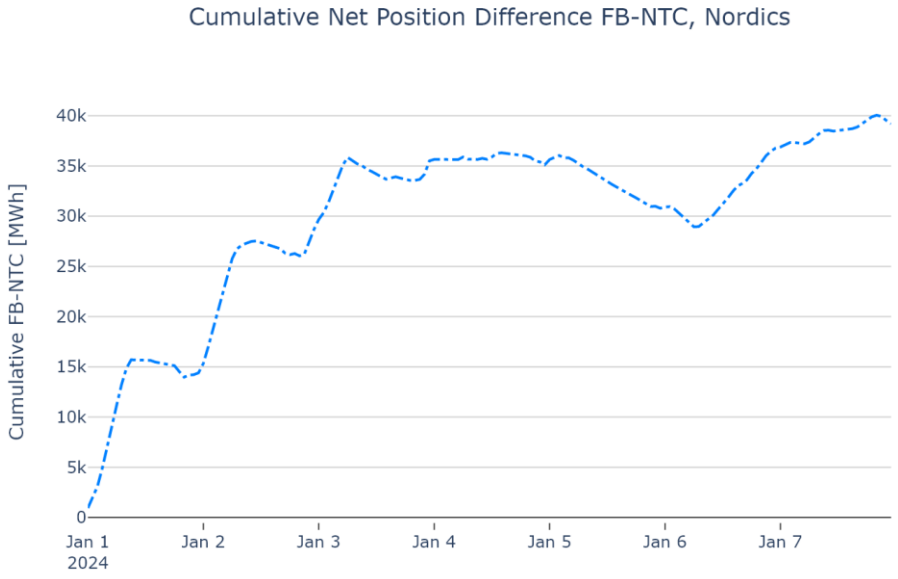

SE3 price
[EUR/MWh/h]
800
600
400
200
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC


SE4 price
[EUR/MWh/h]
800
600
400
200
0
Jan 2
2024
Jan 4
Jan 6
FB
NTC

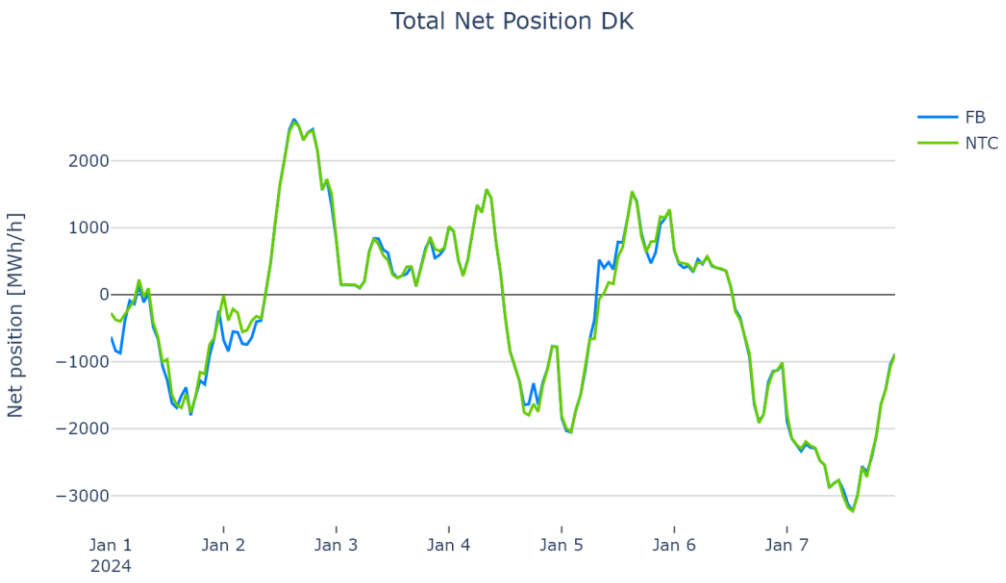
Net positions

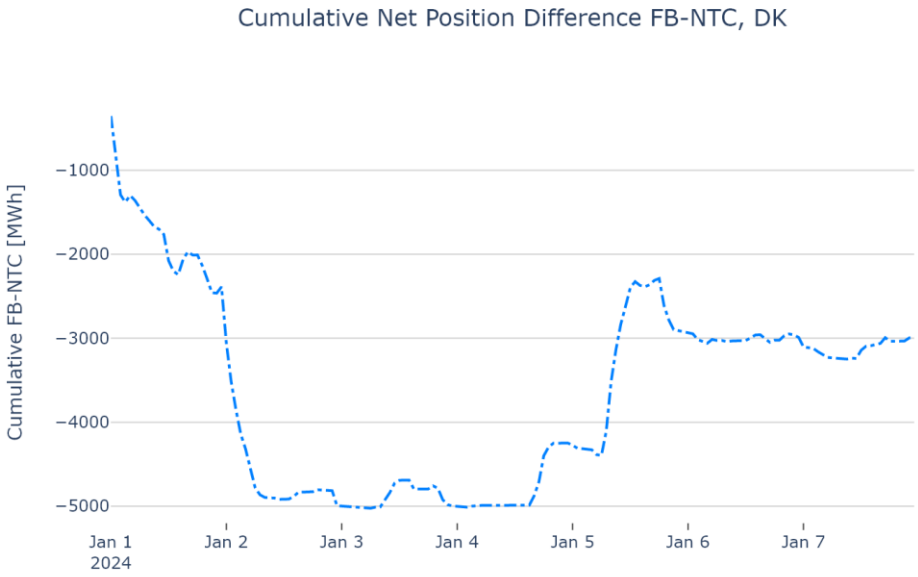
Nordics

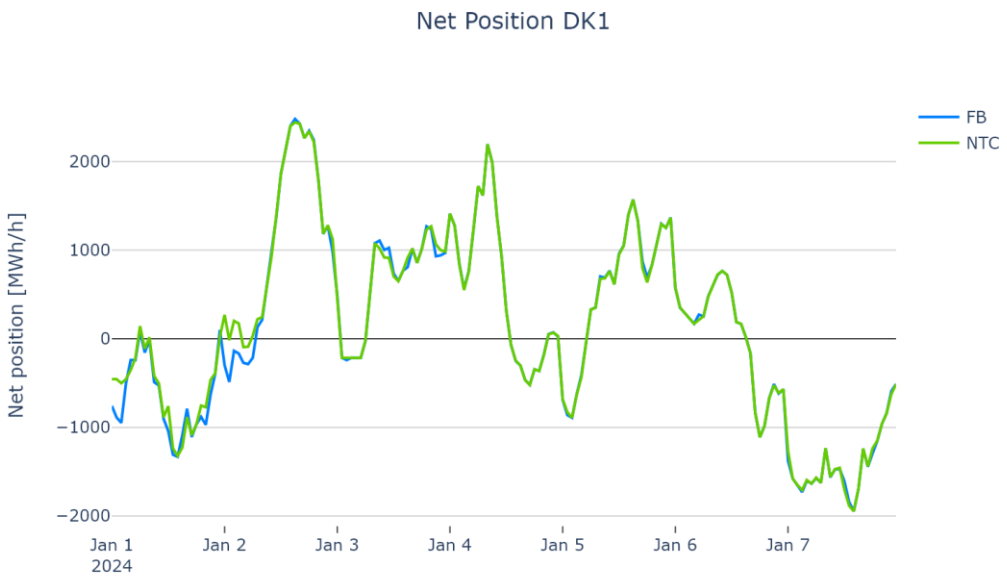


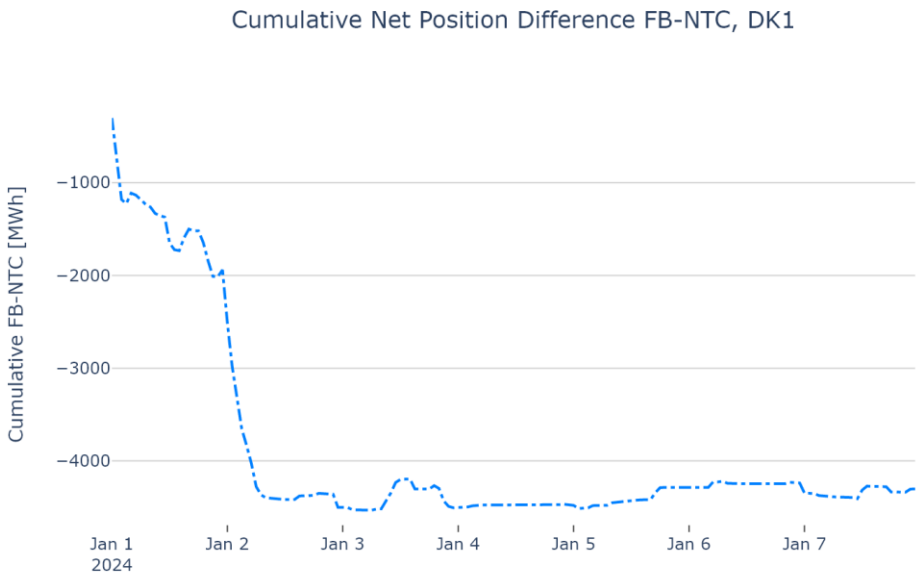


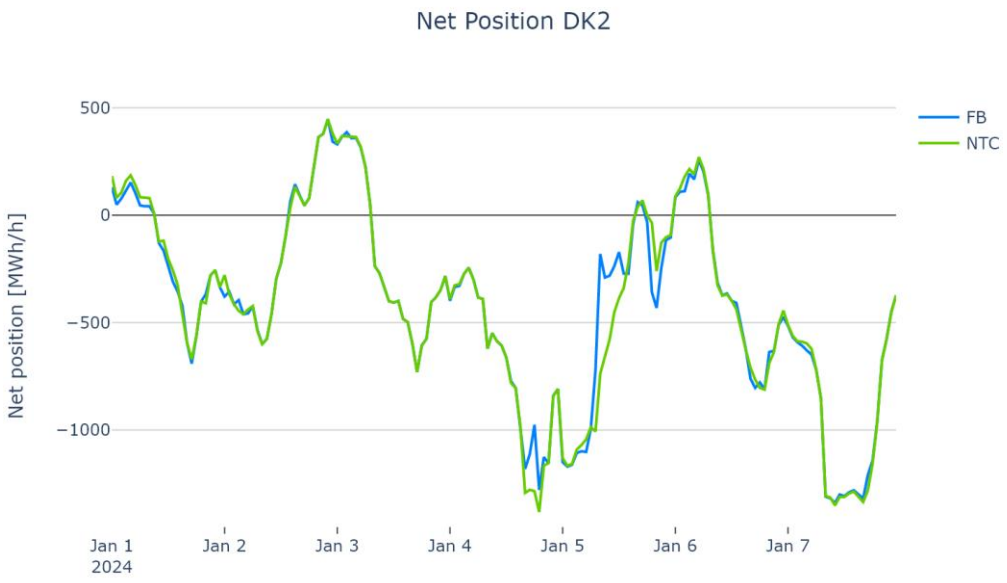
Denmark

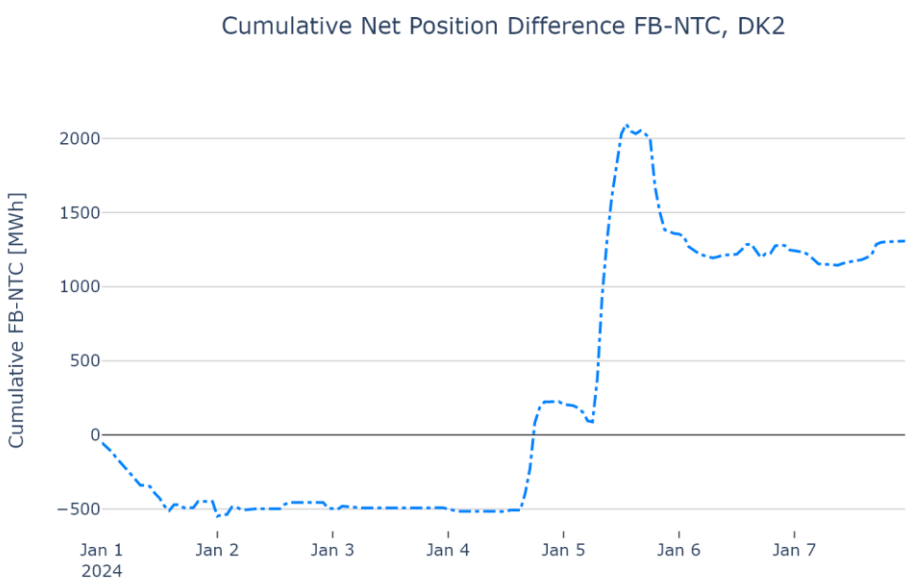

Total Net Position DK
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
−3000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7


Cumulative Net Position Difference FB-NTC, DK
Cumulative FB-NTC [MWh]
−1000
−2000
−3000
−4000
−5000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

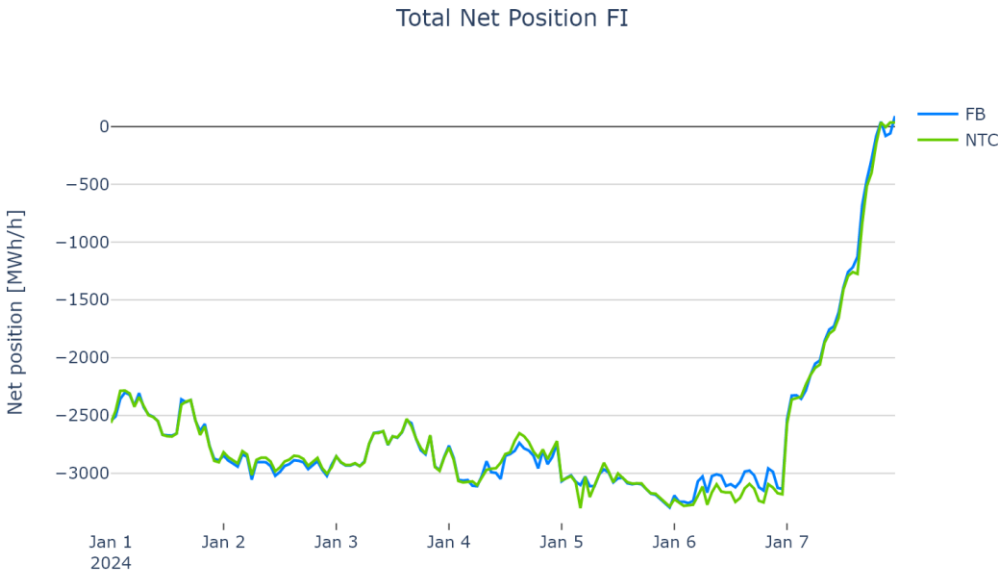

Net Position DK1
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

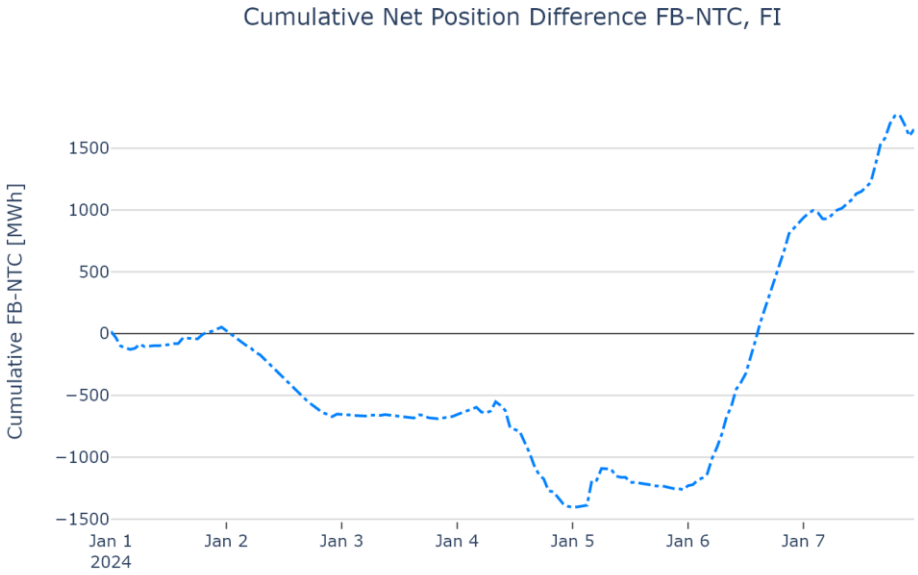

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
−1000
−2000
−3000
−4000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7


Net Position DK2
Net position [MWh/h]
500
0
−500
−1000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7
FB
NTC

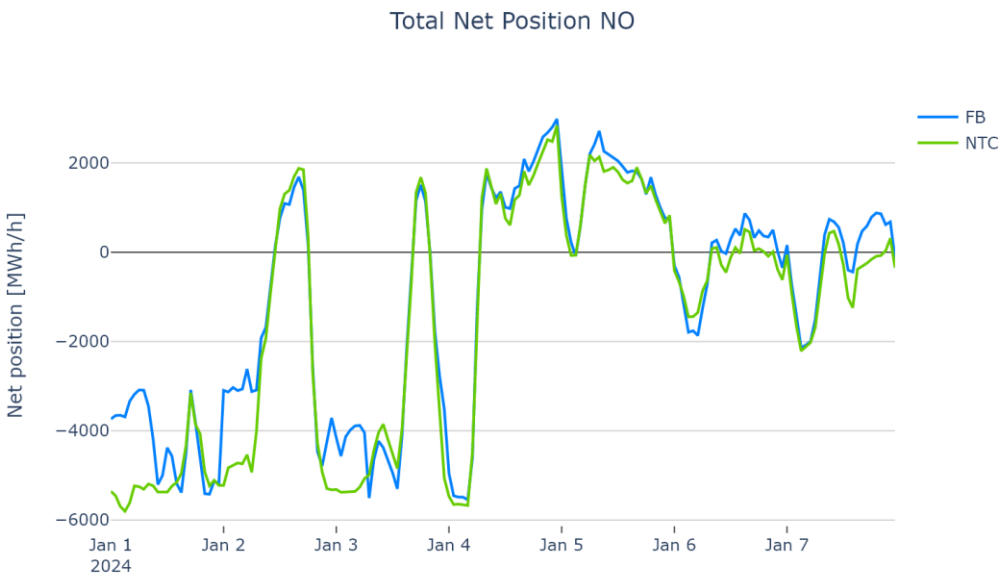

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
2000
1500
1000
500
0
−500
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

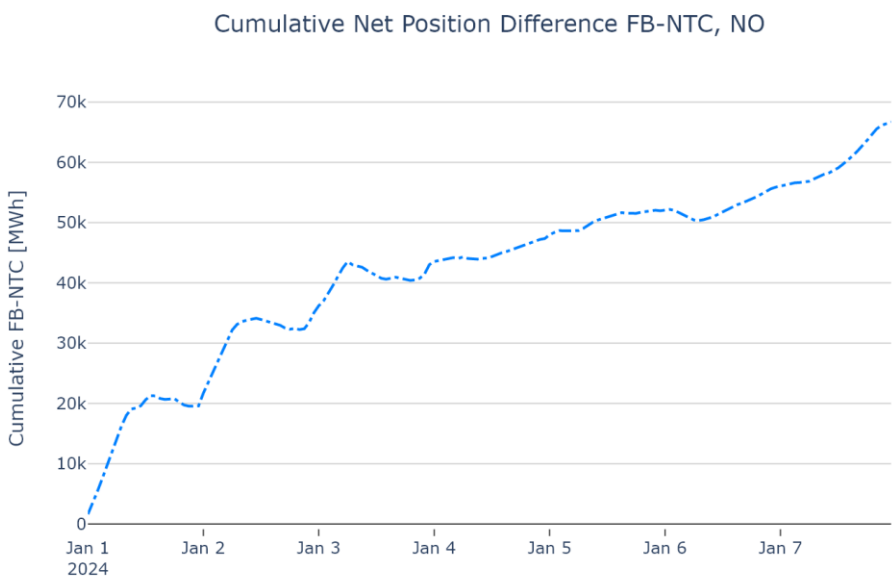
Finland

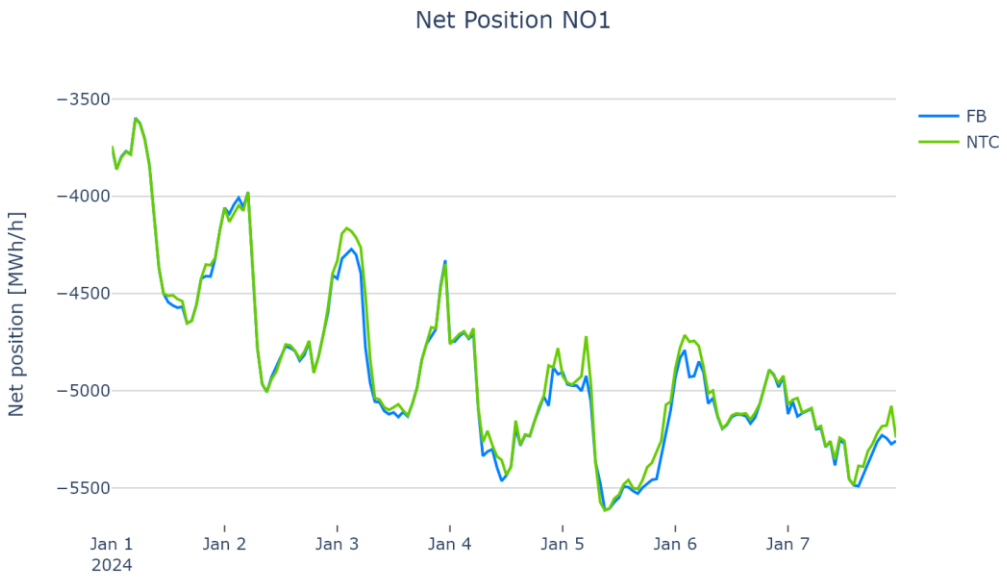

Total Net Position FI
FB
NTC
Net position [MWh/h]
0
−500
−1000
−1500
−2000
−2500
−3000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

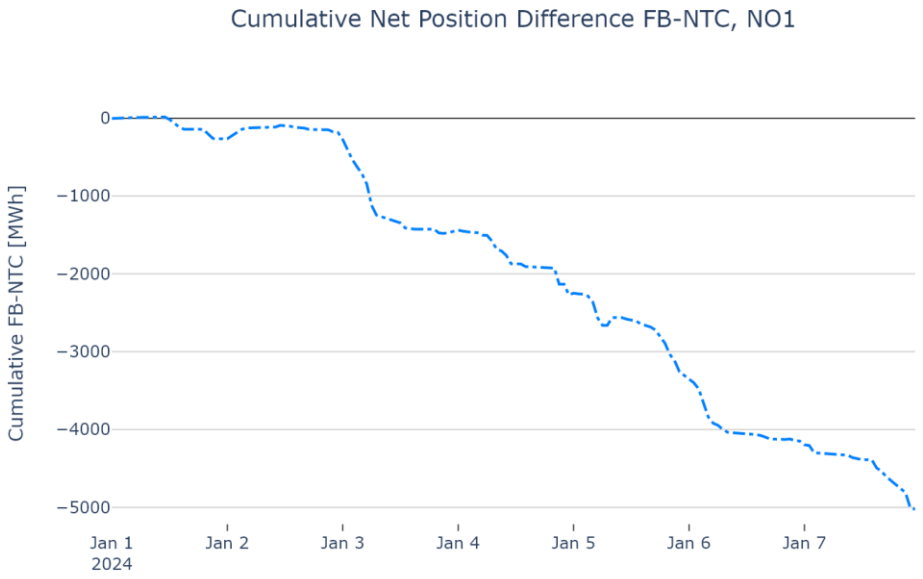

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
1500
1000
500
0
−500
−1000
−1500
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

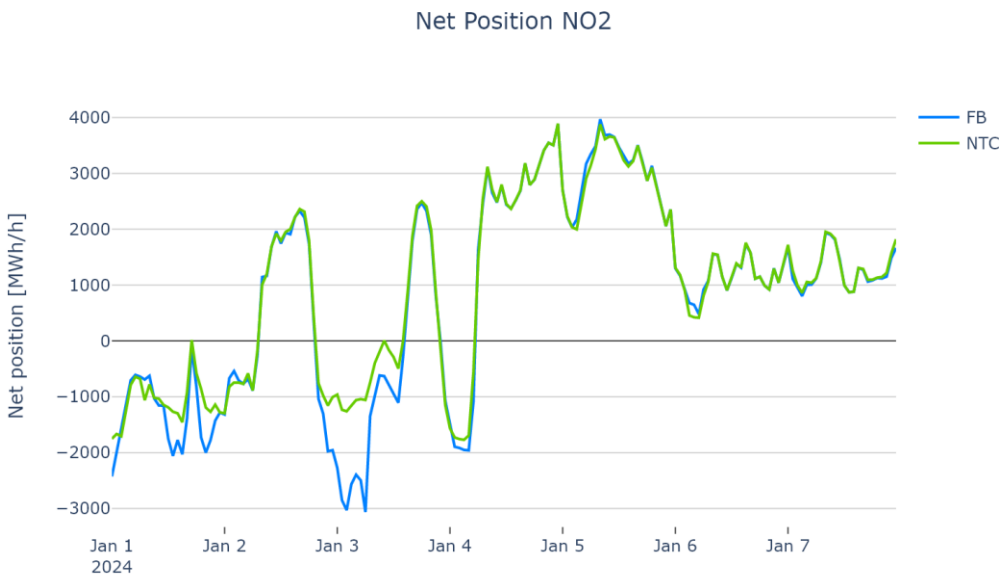
Norway

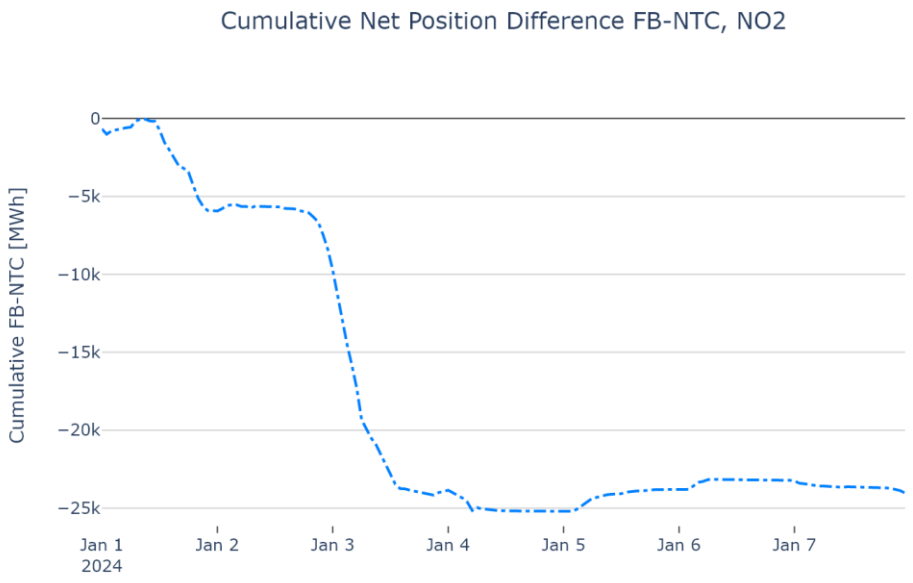

Total Net Position NO
FB
NTC
Net position [MWh/h]
2000
0
−2000
−4000
−6000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

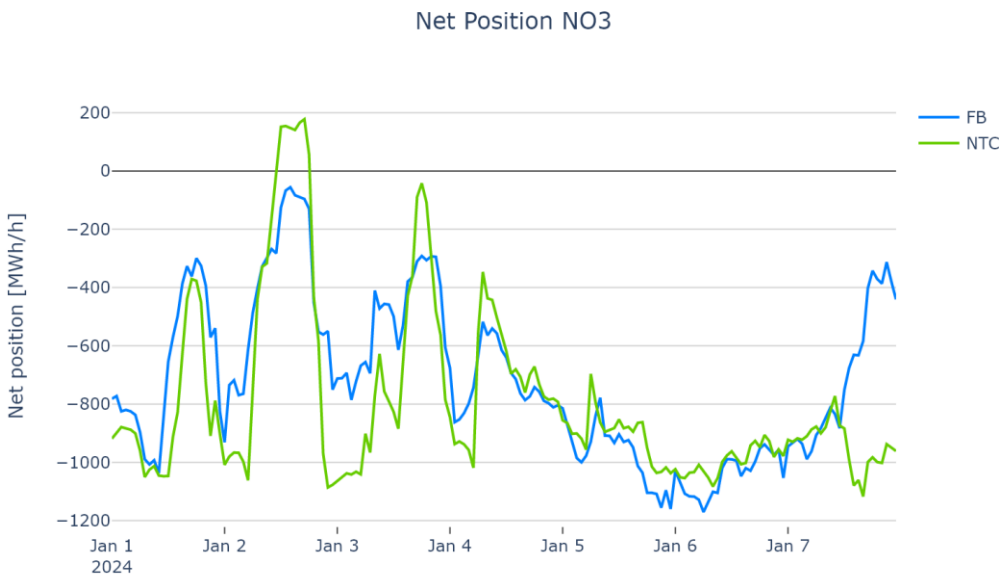

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
70k
60k
50k
40k
30k
20k
10k
0
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

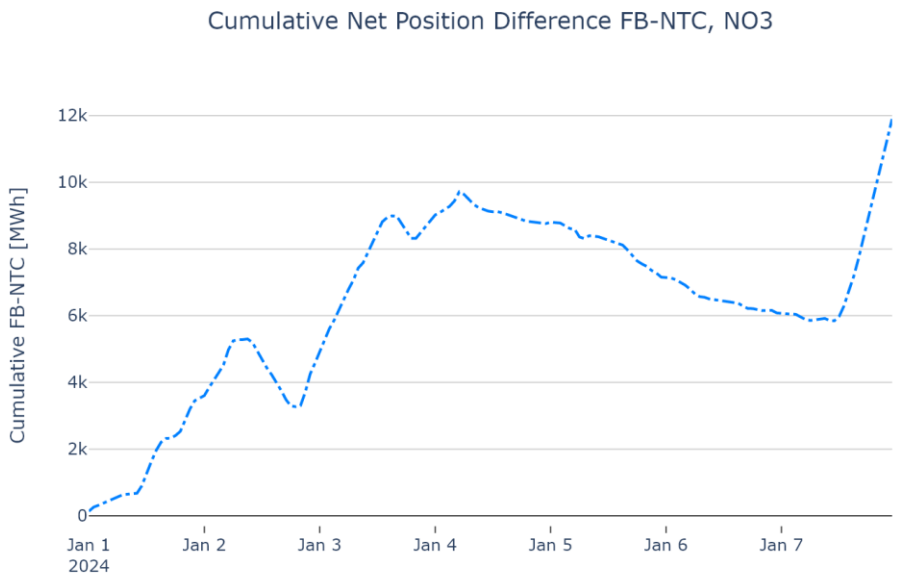

Net Position NO1
Net position [MWh/h]
−3500
−4000
−4500
−5000
−5500
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7
FB
NTC

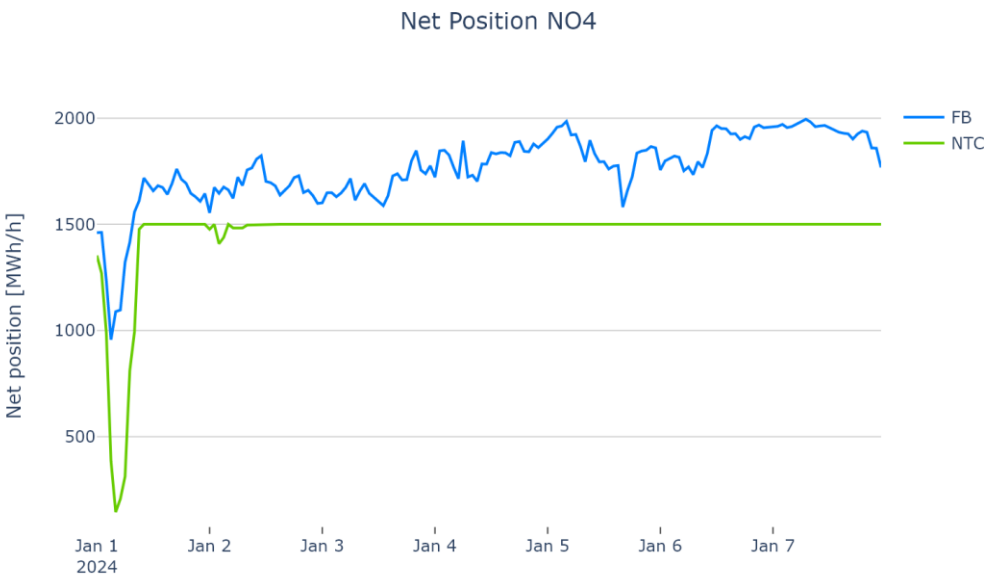

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
−4000
−5000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

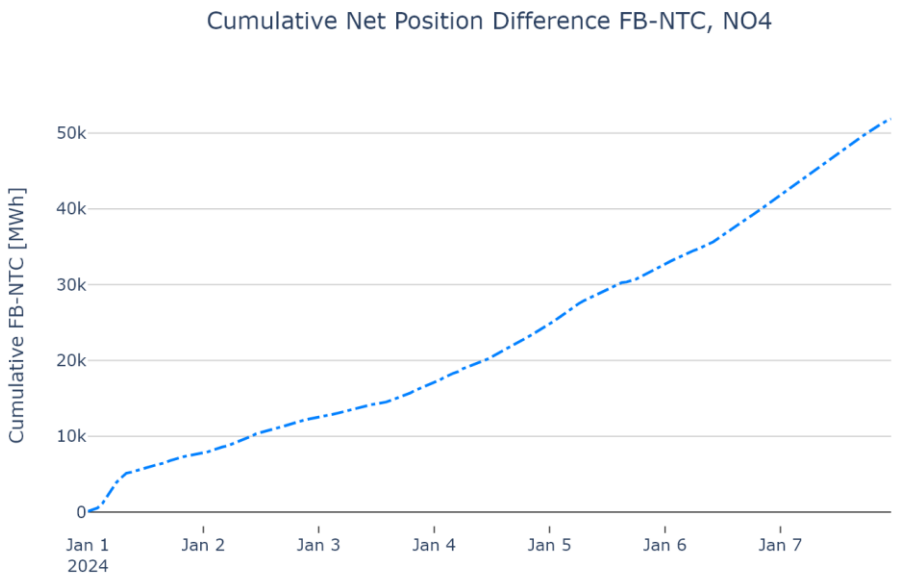

Net Position NO2
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
−3000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7
FB
NTC

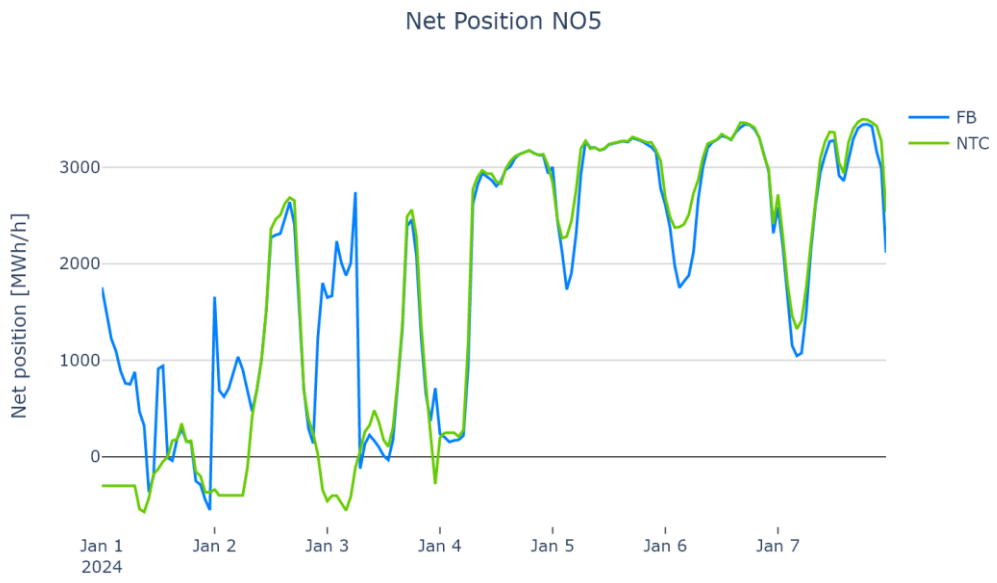

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
0
−5k
−10k
−15k
−20k
−25k
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

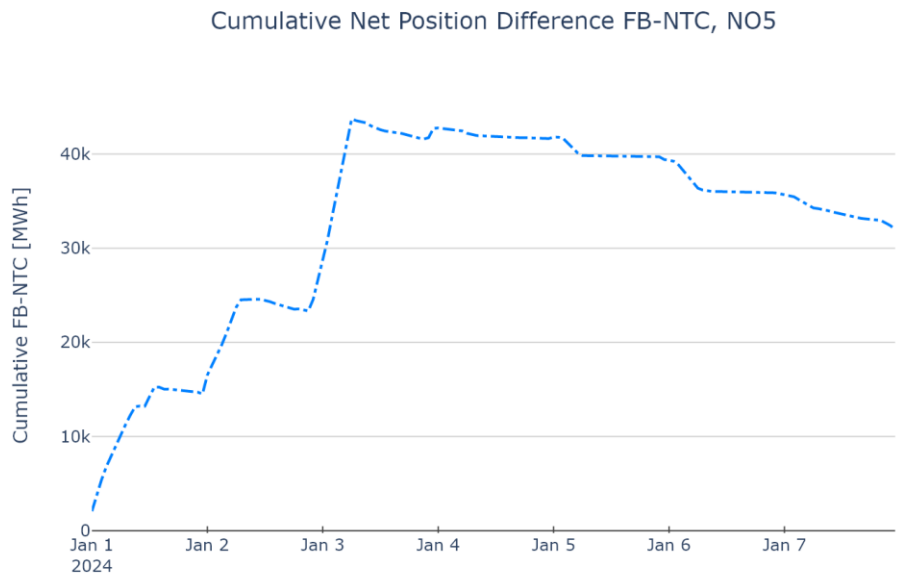

Net Position NO3
Net position [MWh/h]
200
0
−200
−400
−600
−800
−1000
−1200
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7
FB
NTC


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
12k
10k
8k
6k
4k
2k
0
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7


Net Position NO4
Net position [MWh/h]
2000
1500
1000
500
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7
FB
NTC

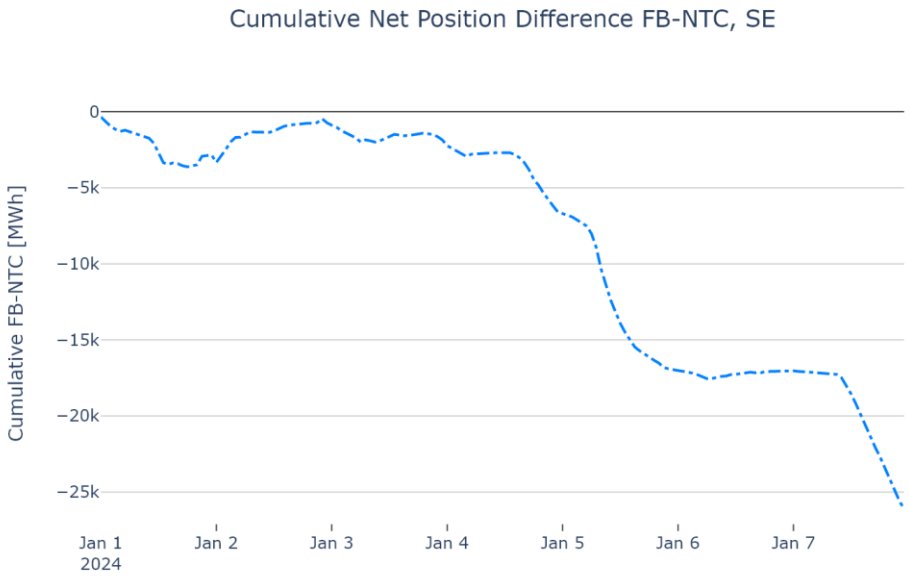

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
50k
40k
30k
20k
10k
0
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

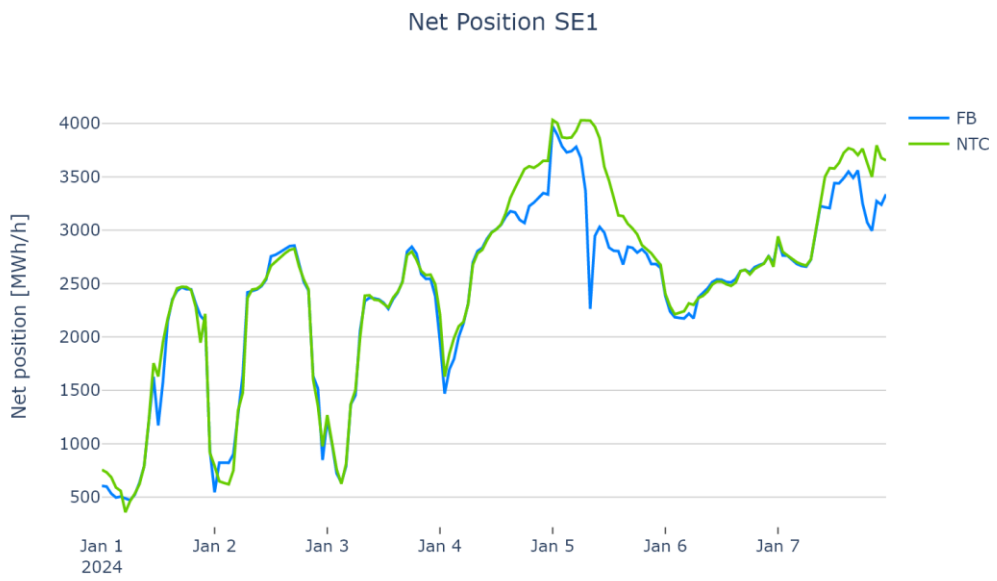

Net Position NO5
FB
NTC
Net position [MWh/h]
3000
2000
1000
0
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

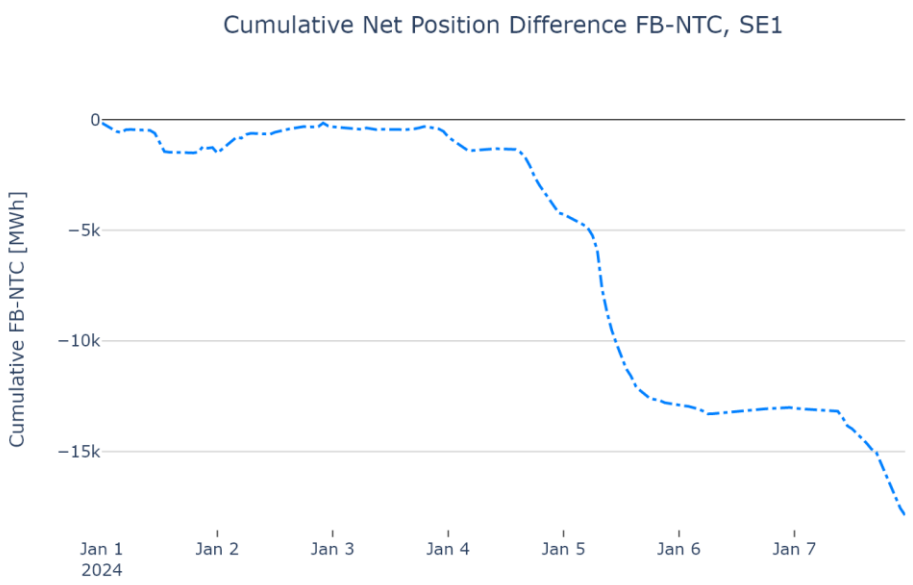

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
40k
30k
20k
10k
0
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

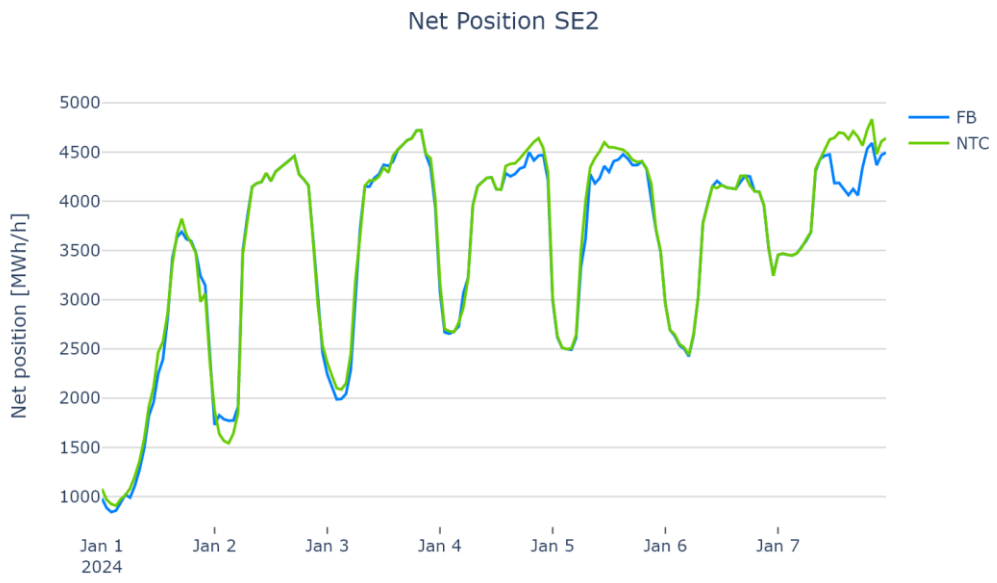
Sweden

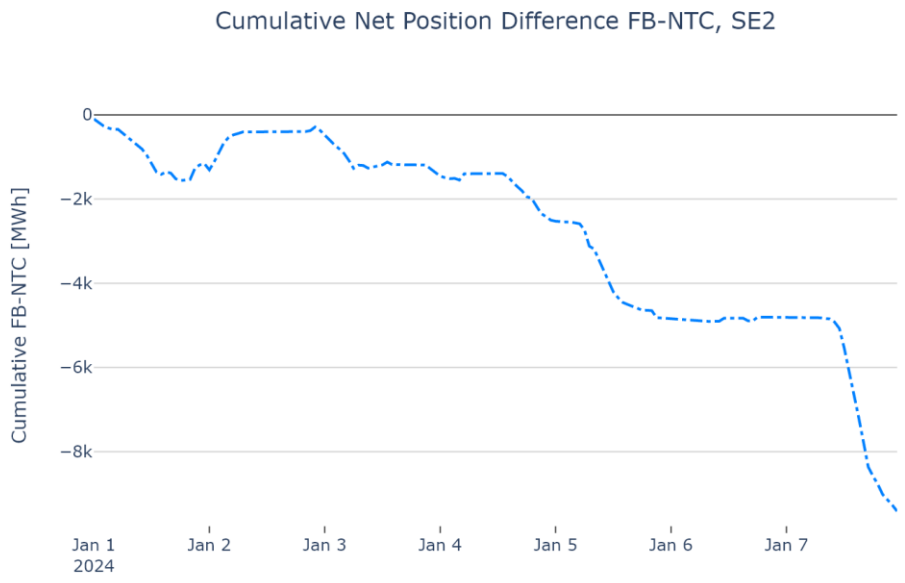
Total Net Position SE
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

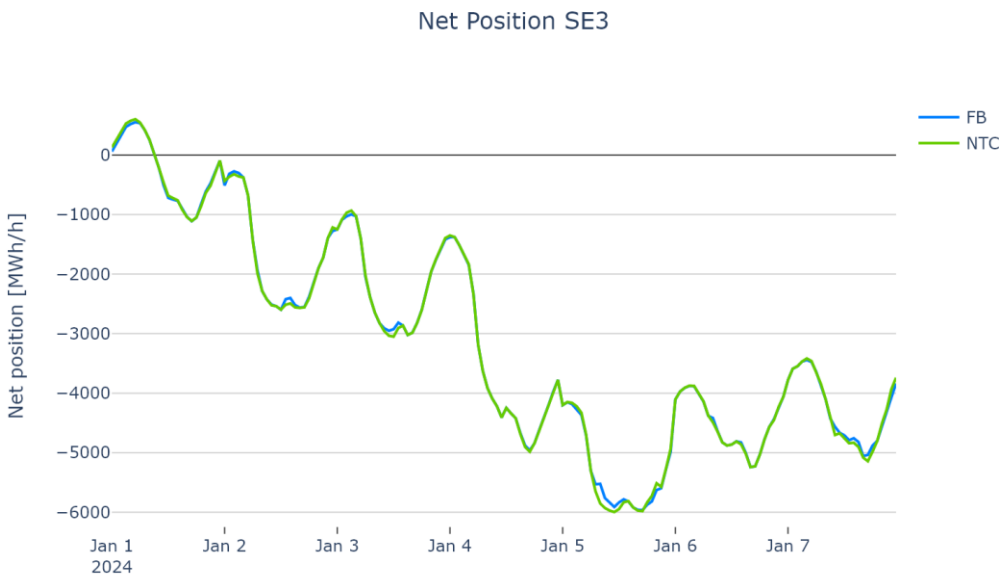

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
0
−5k
−10k
−15k
−20k
−25k
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

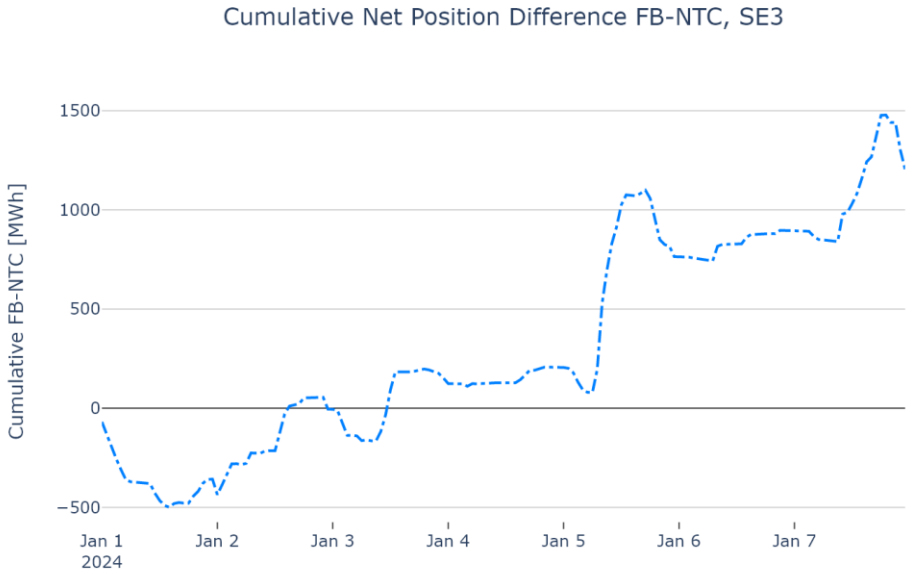

Net Position SE1
FB
NTC
Net position [MWh/h]
4000
3500
3000
2500
2000
1500
1000
500
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

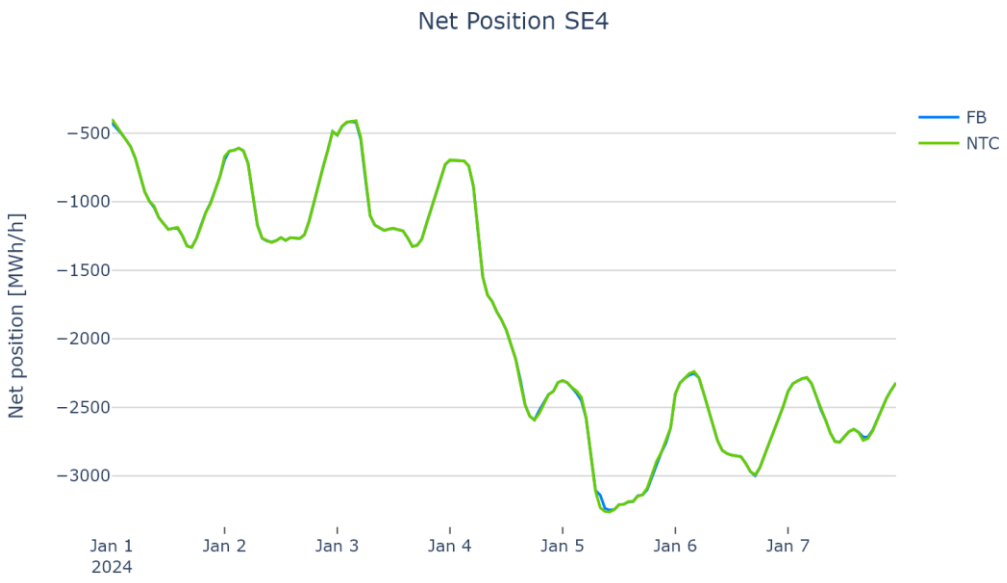

Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
0
−5k
−10k
−15k
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

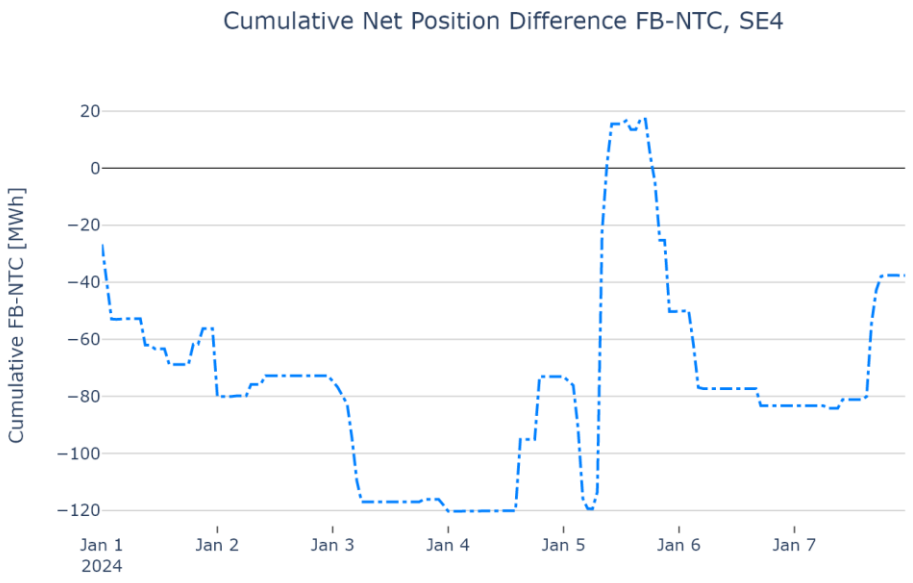

Net Position SE2
Net position [MWh/h]
5000
4500
4000
3500
3000
2500
2000
1500
1000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7
FB
NTC


Cumulative Net Position Difference FB-NTC, SE2
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7


Net Position SE3
FB
NTC
Net position [MWh/h]
0
−1000
−2000
−3000
−4000
−5000
−6000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

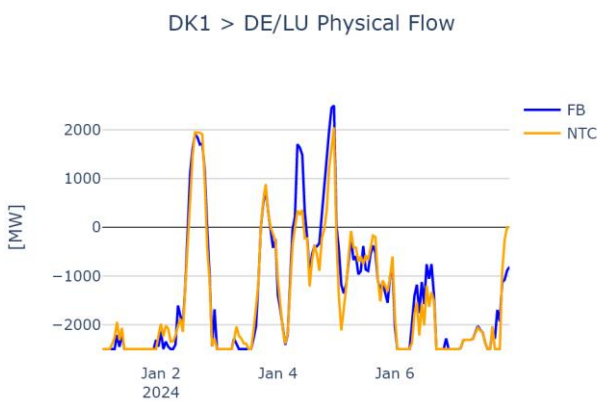

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
1500
1000
500
0
−500
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

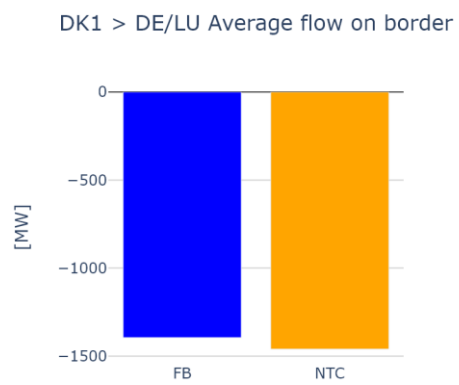

Net Position SE4
FB
NTC
Net position [MWh/h]
−500
−1000
−1500
−2000
−2500
−3000
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

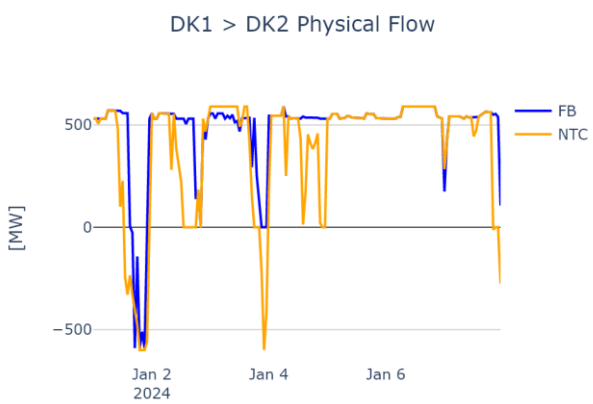

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
20
0
−20
−40
−60
−80
−100
−120
Jan 1
2024
Jan 2
Jan 3
Jan 4
Jan 5
Jan 6
Jan 7

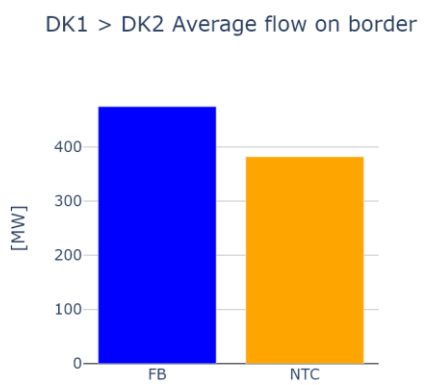
Border flow

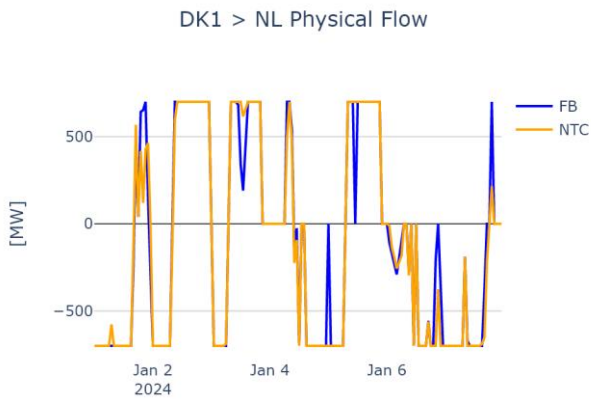
The flows present here, both in FB and NTC, represent the physical flow on the lines and are calculated as the product of the NP and the PTDF matrix. When comparing the NTC-results in this report with those present in the DA market there will be a difference as the DA flows are calculated without the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

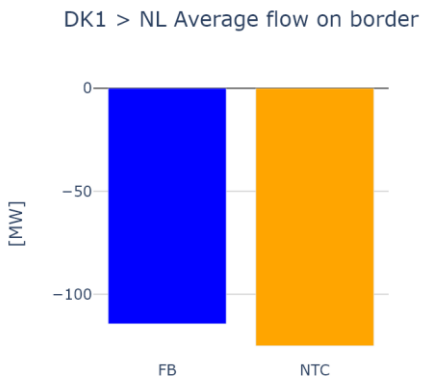


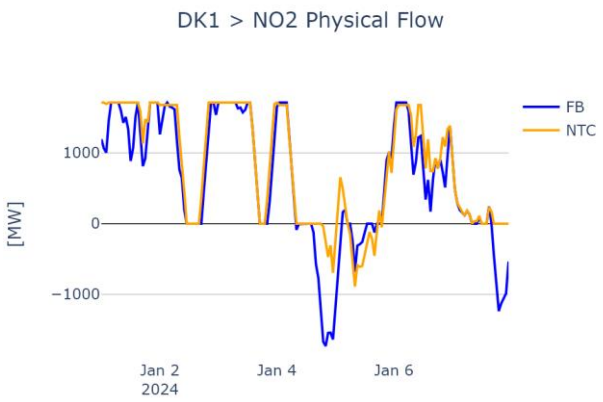


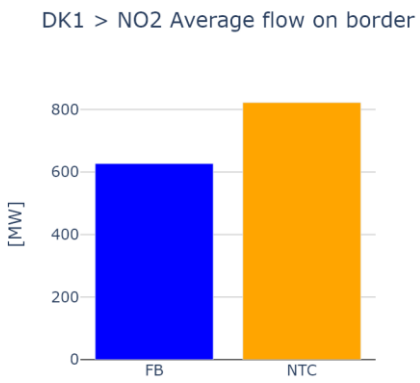


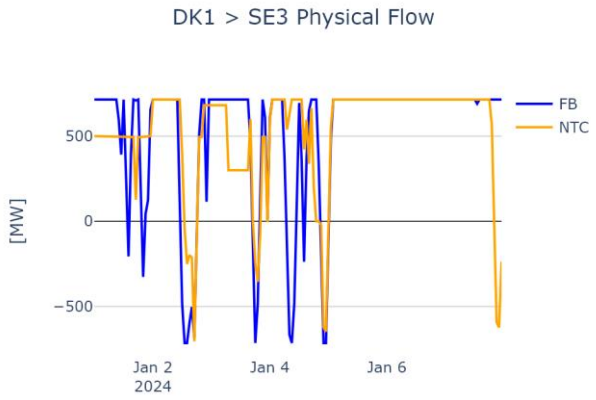


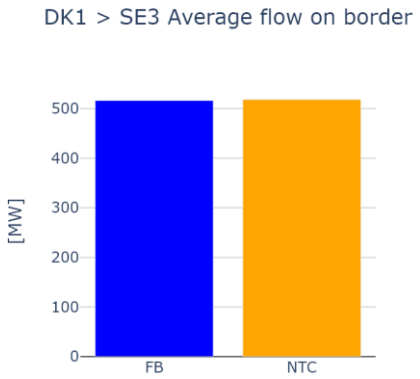

DK1 > NL Physical Flow
FB
NTC
500
0
−500
[MW]
Jan 2
2024
Jan 4
Jan 6

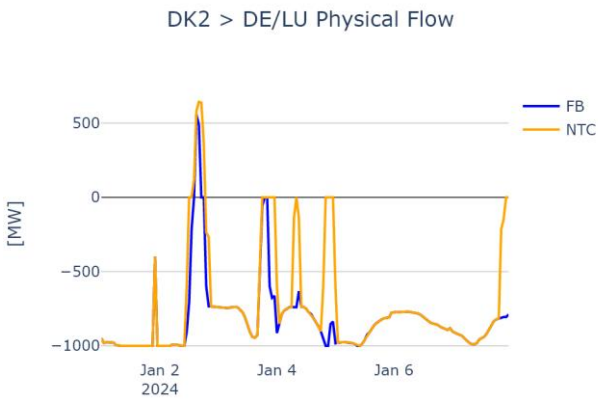

DK1 > NL Average flow on border
0
−50
−100
[MW]
FB
NTC

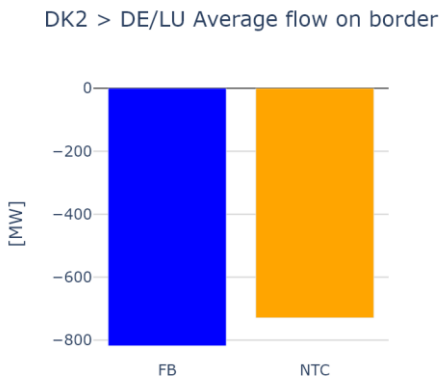

DK1 > NO2 Physical Flow
FB
NTC
1000
0
−1000
[MW]
Jan 2
2024
Jan 4
Jan 6

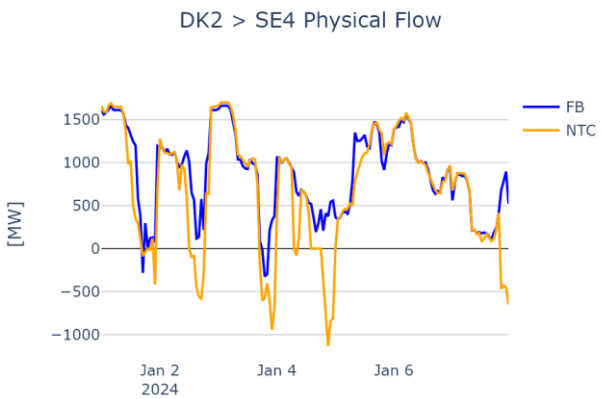

DK1 > NO2 Average flow on border
800
600
400
200
0
[MW]
FB
NTC

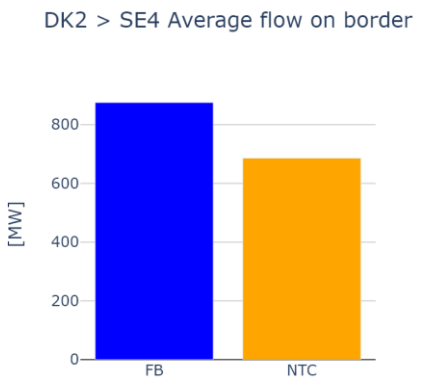

DK1 > SE3 Physical Flow
FB
NTC
500
0
−500
[MW]
Jan 2
2024
Jan 4
Jan 6

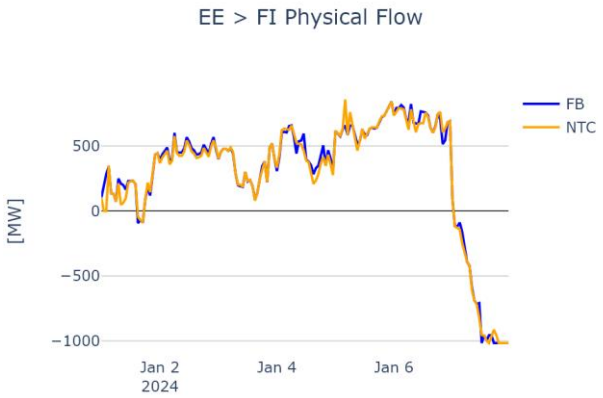

DK1 > SE3 Average flow on border
500
400
300
200
100
0
[MW]
FB
NTC

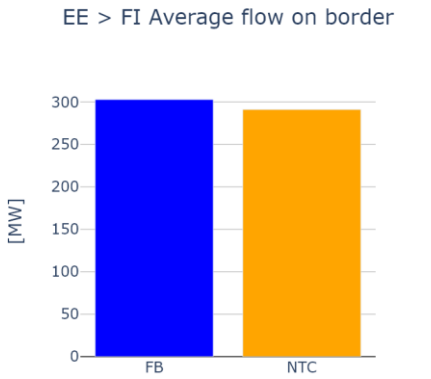

DK2 > DE/LU Physical Flow
FB
NTC
[MW]
500
0
−500
−1000
Jan 2
2024
Jan 4
Jan 6

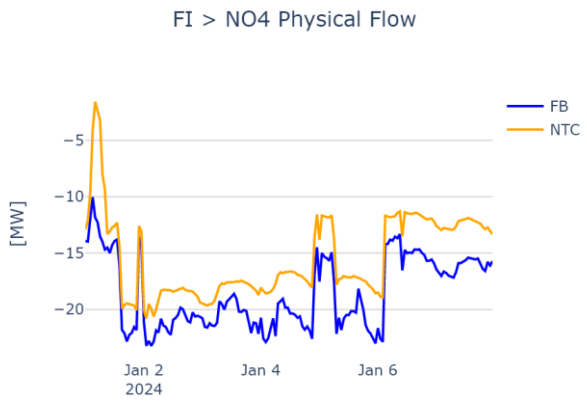

DK2 > DE/LU Average flow on border
[MW]
0
−200
−400
−600
−800
FB
NTC

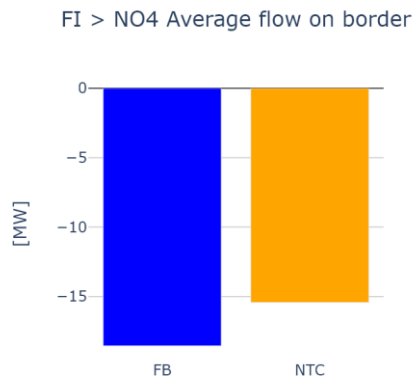

DK2 > SE4 Physical Flow
FB
NTC
[MW]
1500
1000
500
0
−500
−1000
Jan 2
2024
Jan 4
Jan 6

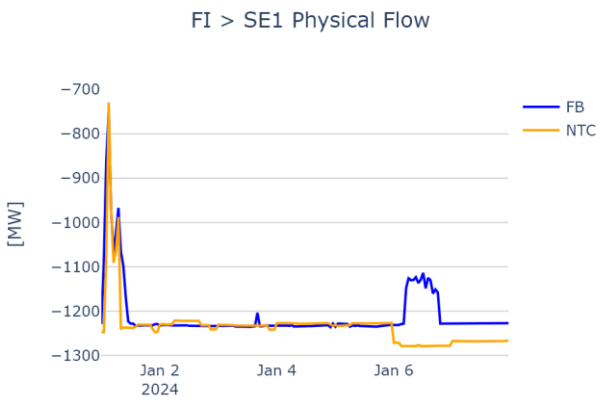

DK2 > SE4 Average flow on border
[MW]
800
600
400
200
0
FB
NTC

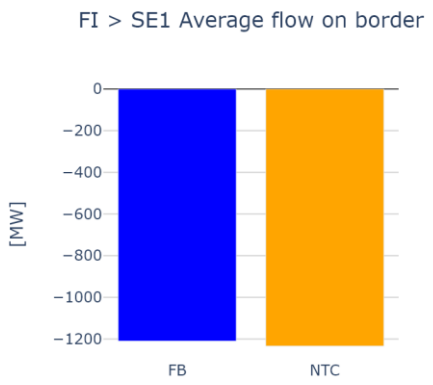

EE > FI Physical Flow
FB
NTC
[MW]
500
0
−500
−1000
Jan 2
2024
Jan 4
Jan 6

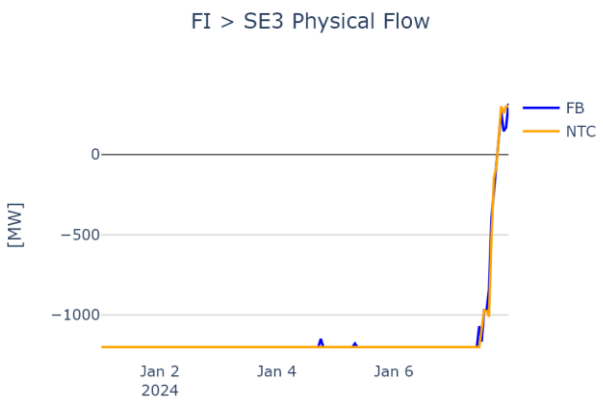

EE > FI Average flow on border
[MW]
300
250
200
150
100
50
0
FB
NTC

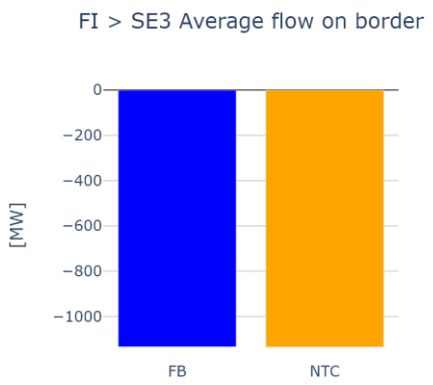

FI > NO4 Physical Flow
FB
NTC
[MW]
−5
−10
−15
−20
Jan 2
2024
Jan 4
Jan 6

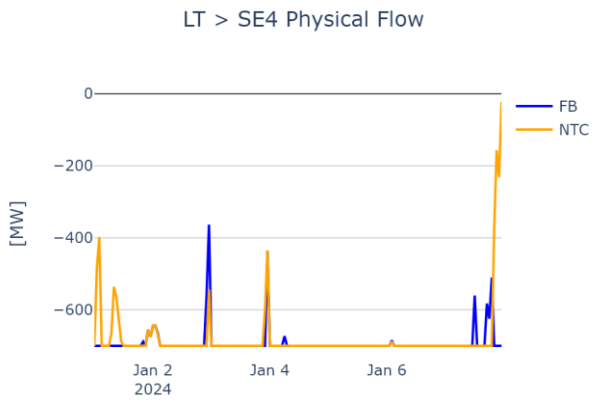

FI > NO4 Average flow on border
[MW]
0
−5
−10
−15
FB
NTC

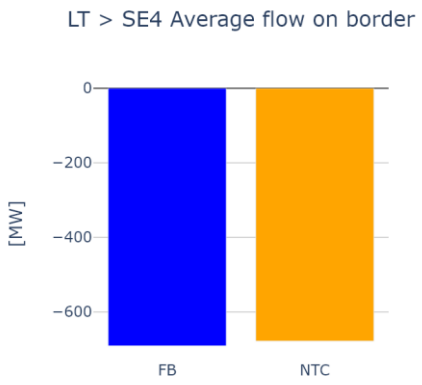

FI > SE1 Physical Flow
FB
NTC
[MW]
−700
−800
−900
−1000
−1100
−1200
−1300
Jan 2
2024
Jan 4
Jan 6

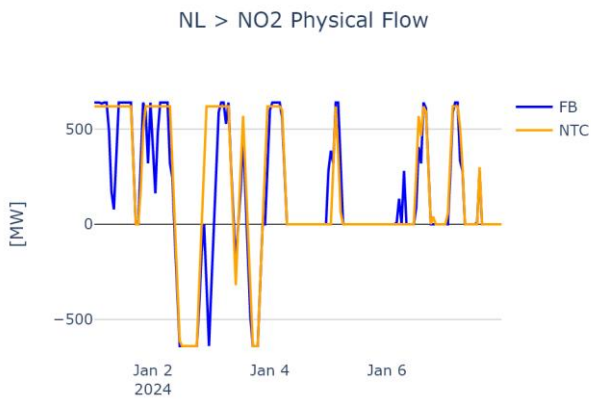

FI > SE1 Average flow on border
[MW]
0
−200
−400
−600
−800
−1000
−1200
FB
NTC

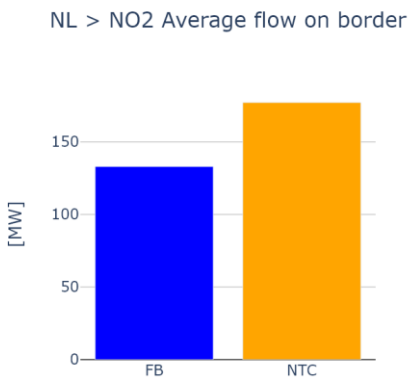

FI > SE3 Physical Flow
FB
NTC
[MW]
0
−500
−1000
Jan 2
2024
Jan 4
Jan 6

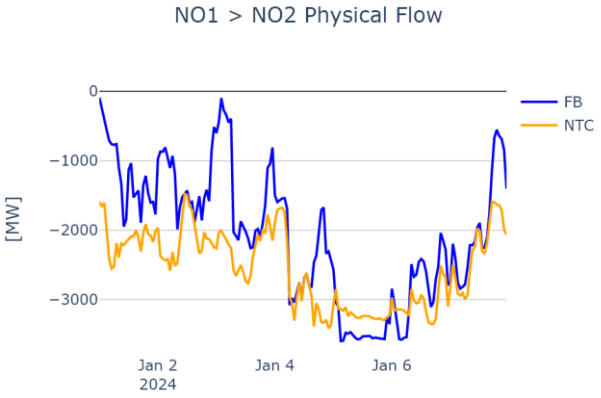

FI > SE3 Average flow on border
[MW]
0
−200
−400
−600
−800
−1000
FB
NTC

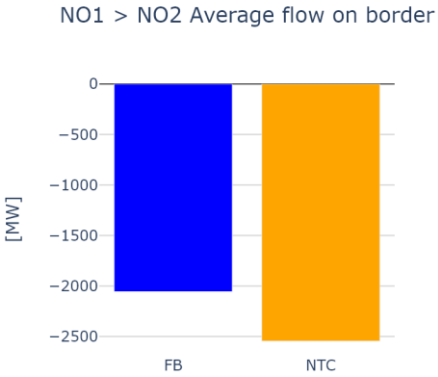

LT > SE4 Physical Flow
0
−200
−400
−600
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

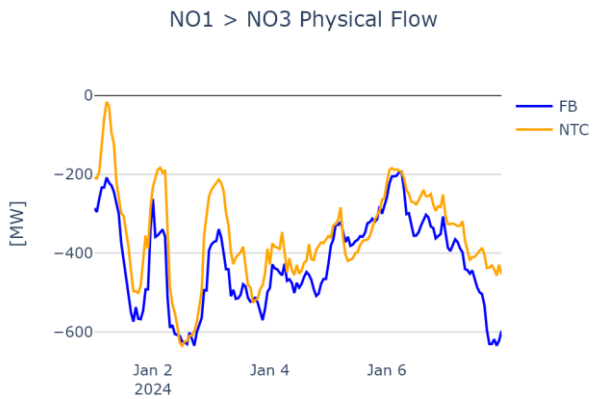

LT > SE4 Average flow on border
0
−200
−400
−600
[MW]
FB
NTC

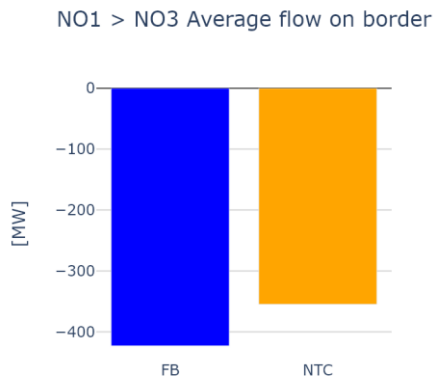

NL > NO2 Physical Flow
500
0
−500
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

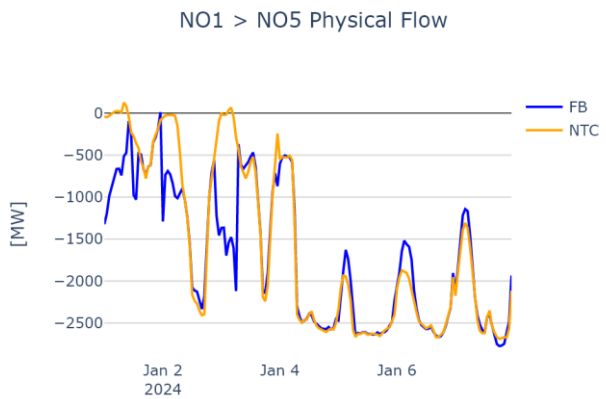

NL > NO2 Average flow on border
150
100
50
0
[MW]
FB
NTC

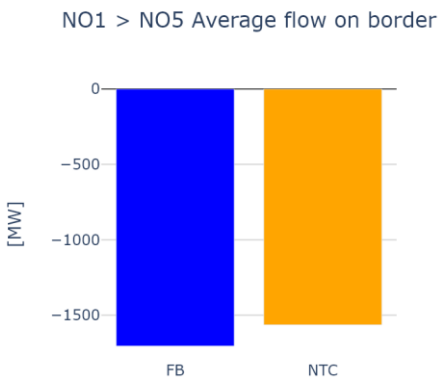

NO1 > NO2 Physical Flow
0
−1000
−2000
−3000
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

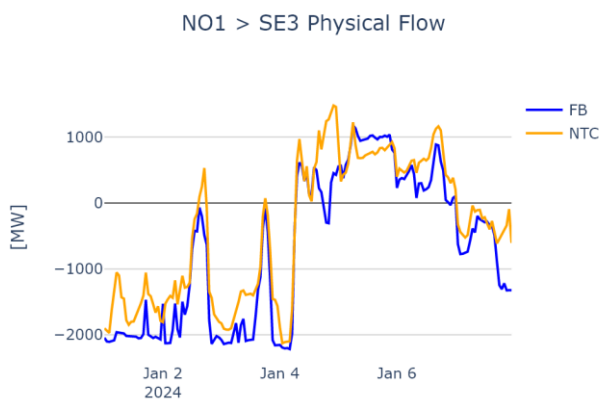

NO1 > NO2 Average flow on border
0
−500
−1000
−1500
−2000
−2500
[MW]
FB
NTC

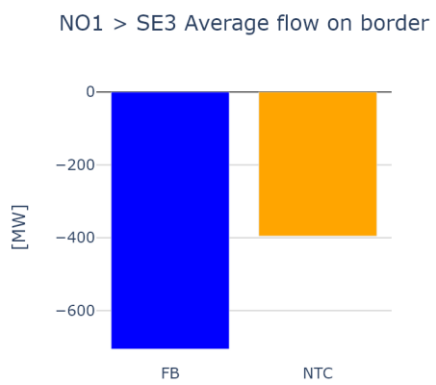

NO1 > NO3 Physical Flow
FB
NTC
[MW]
0
−200
−400
−600
Jan 2
2024
Jan 4
Jan 6

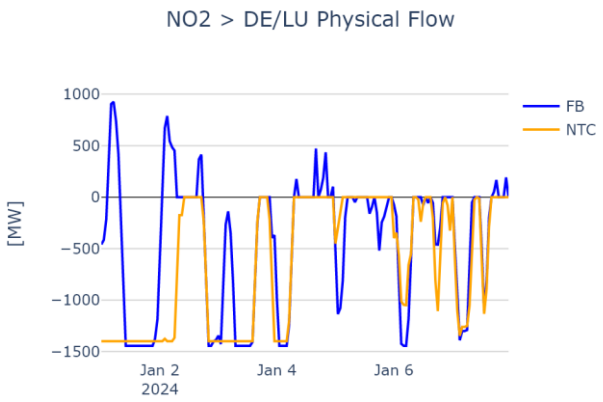

NO1 > NO3 Average flow on border
[MW]
0
−100
−200
−300
−400
FB
NTC

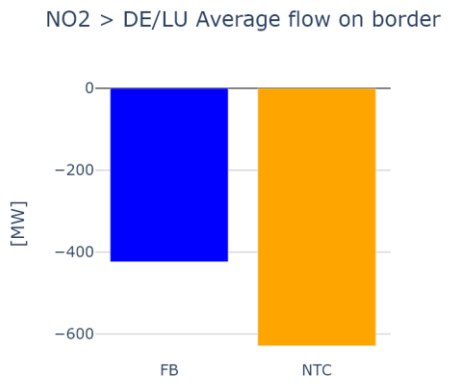

NO1 > NO5 Physical Flow
FB
NTC
[MW]
0
−500
−1000
−1500
−2000
−2500
Jan 2
2024
Jan 4
Jan 6

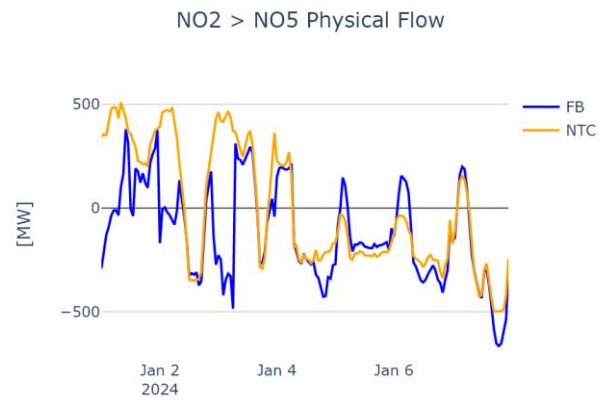

NO1 > NO5 Average flow on border
[MW]
0
−500
−1000
−1500
FB
NTC

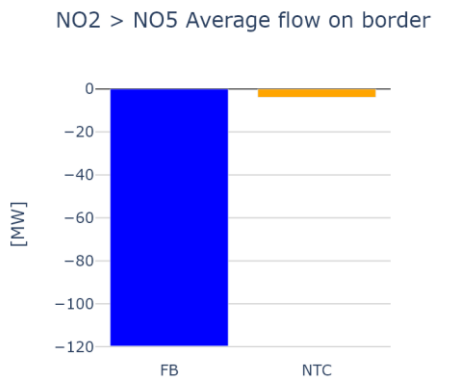

NO1 > SE3 Physical Flow
FB
NTC
[MW]
1000
0
−1000
−2000
Jan 2
2024
Jan 4
Jan 6

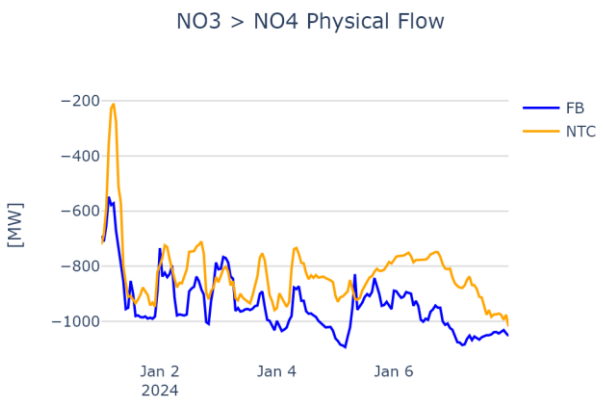

NO1 > SE3 Average flow on border
[MW]
0
−200
−400
−600
FB
NTC

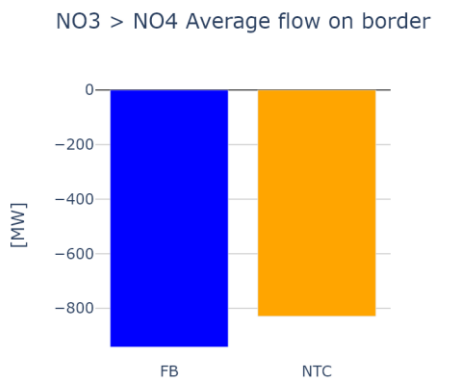

NO2 > DE/LU Physical Flow
1000
500
0
−500
−1000
−1500
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

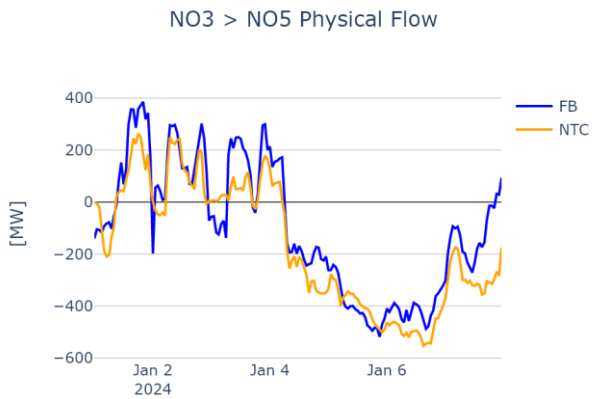

NO2 > DE/LU Average flow on border
0
−200
−400
−600
[MW]
FB
NTC

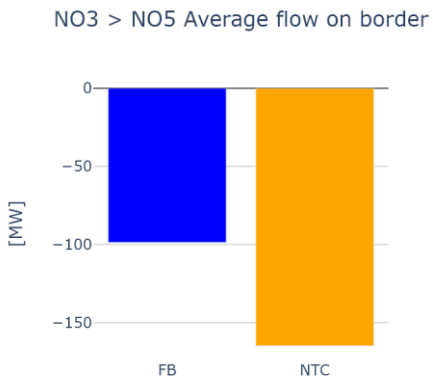

NO2 > NO5 Physical Flow
500
0
−500
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

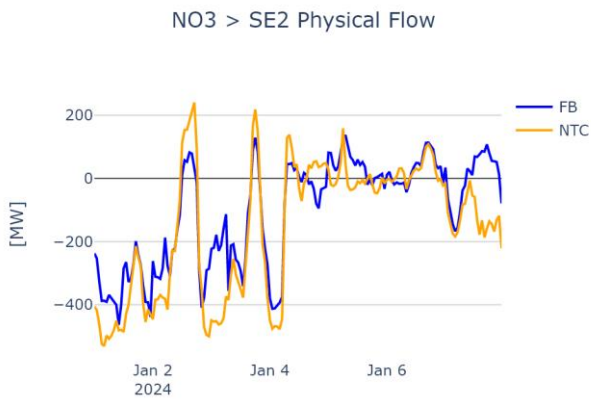

NO2 > NO5 Average flow on border
0
−20
−40
−60
−80
−100
−120
[MW]
FB
NTC

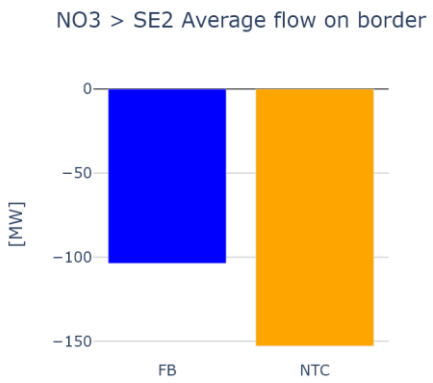

NO3 > NO4 Physical Flow
−200
−400
−600
−800
−1000
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

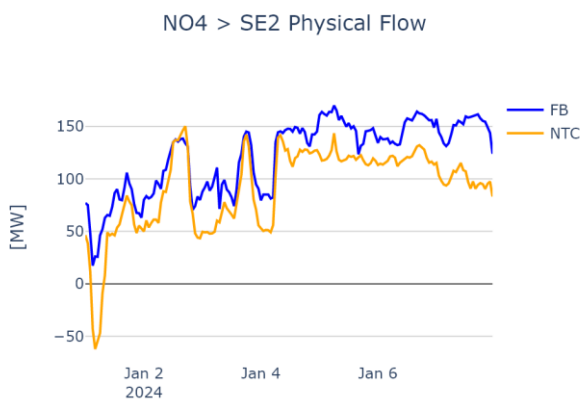

NO3 > NO4 Average flow on border
0
−200
−400
−600
−800
[MW]
FB
NTC

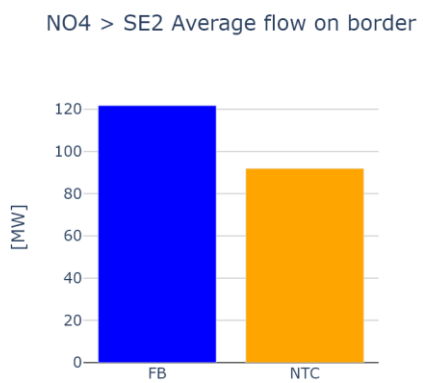

NO3 > NO5 Physical Flow
400
200
0
−200
−400
−600
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

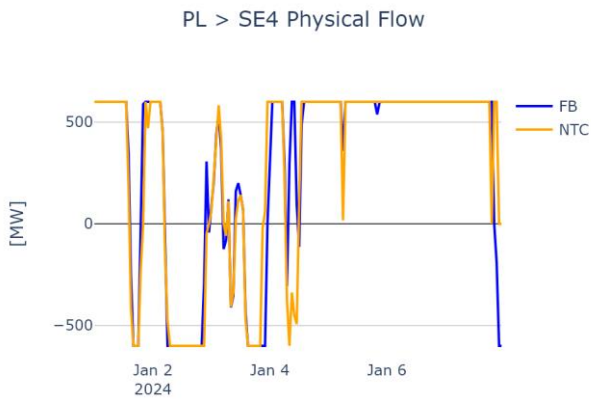

NO3 > NO5 Average flow on border
0
−50
−100
−150
[MW]
FB
NTC

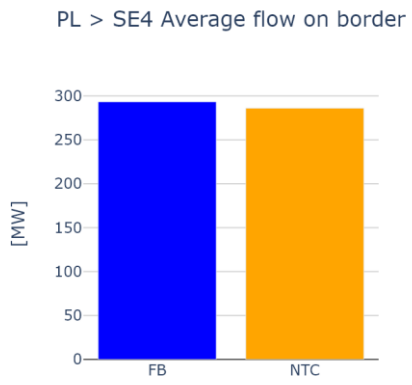

NO3 > SE2 Physical Flow
200
0
−200
−400
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

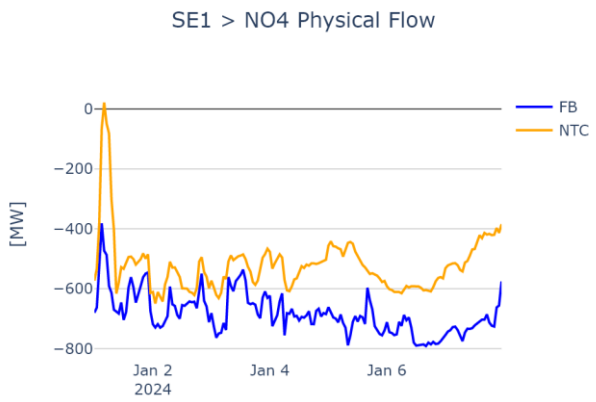

NO3 > SE2 Average flow on border
0
−50
−100
−150
[MW]
FB
NTC

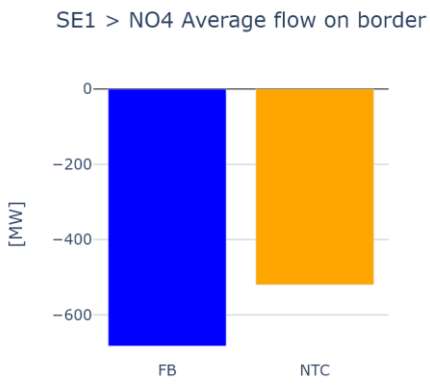

NO4 > SE2 Physical Flow
150
100
50
0
−50
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC

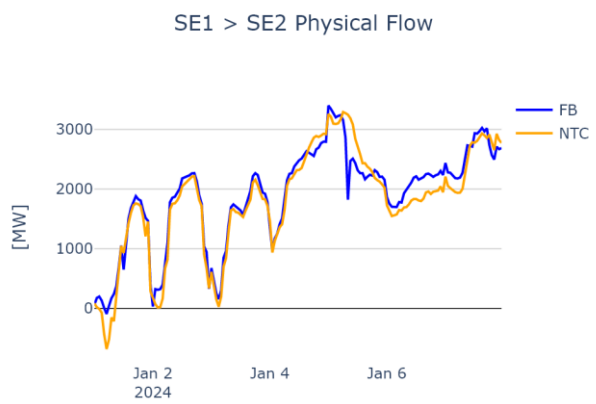

NO4 > SE2 Average flow on border
120
100
80
60
40
20
0
[MW]
FB
NTC

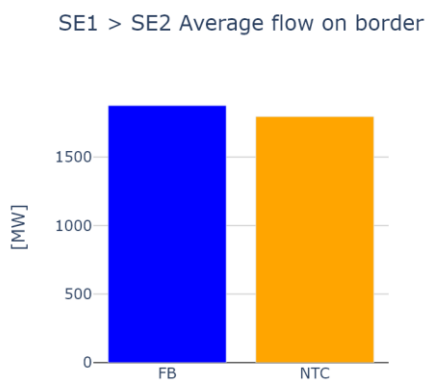

PL > SE4 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 2
2024
Jan 4
Jan 6

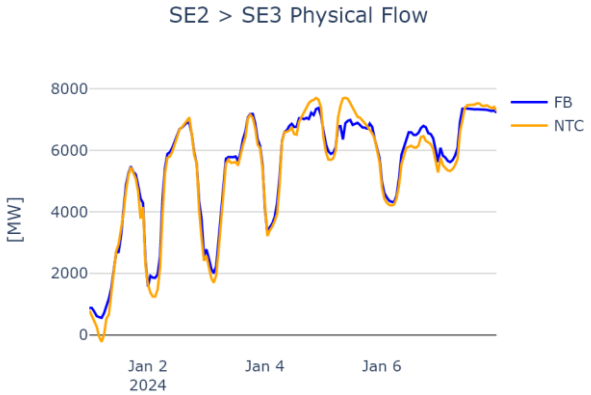

PL > SE4 Average flow on border
[MW]
300
250
200
150
100
50
0
FB
NTC

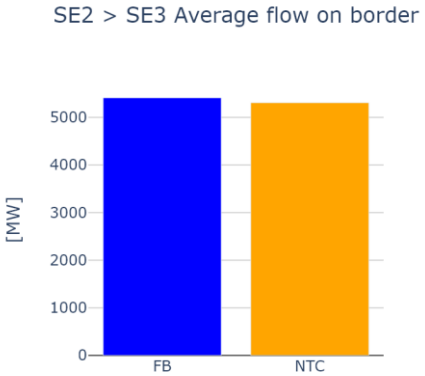

SE1 > NO4 Physical Flow
FB
NTC
[MW]
0
−200
−400
−600
−800
Jan 2
2024
Jan 4
Jan 6

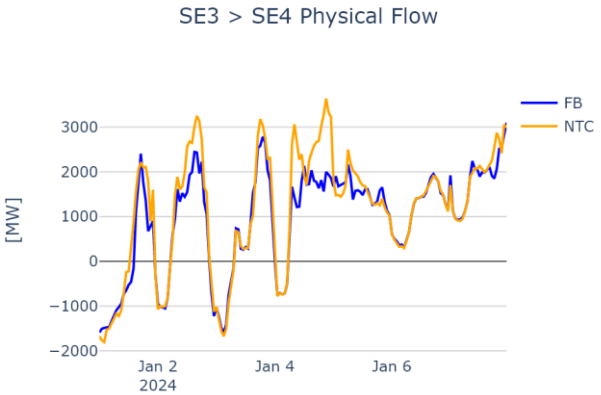

SE1 > NO4 Average flow on border
[MW]
0
−200
−400
−600
FB
NTC

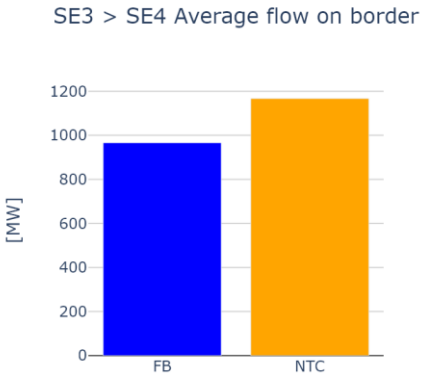

SE1 > SE2 Physical Flow
FB
NTC
[MW]
3000
2000
1000
0
Jan 2
2024
Jan 4
Jan 6

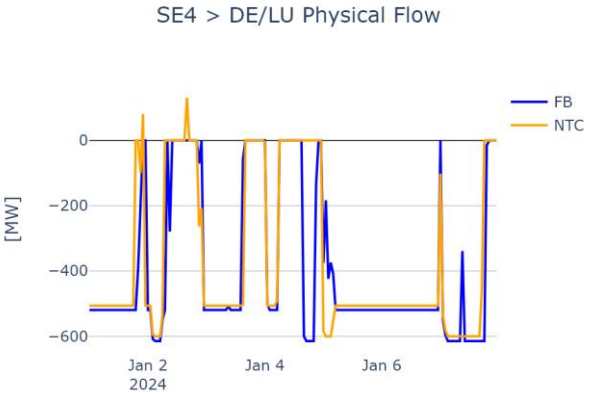

SE1 > SE2 Average flow on border
[MW]
1500
1000
500
0
FB
NTC

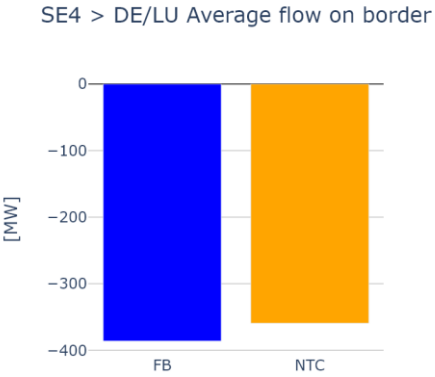

SE2 > SE3 Physical Flow
8000
6000
4000
2000
0
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC


SE2 > SE3 Average flow on border
5000
4000
3000
2000
1000
0
[MW]
FB
NTC


SE3 > SE4 Physical Flow
3000
2000
1000
0
−1000
−2000
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC


SE3 > SE4 Average flow on border
1200
1000
800
600
400
200
0
[MW]
FB
NTC


SE4 > DE/LU Physical Flow
0
−200
−400
−600
[MW]
Jan 2
2024
Jan 4
Jan 6
FB
NTC


SE4 > DE/LU Average flow on border
0
−100
−200
−300
−400
[MW]
FB
NTC

Flows per border (FB)

Values are rounded to the nearest integer.

Border	Congestion Income (total)	Avg. Price Spread
DK1 > DE/LU	898809	2
DK1 > DK2	2081203	23
DK1 > NL	459764	4
DK1 > NO2	1671179	8
DK1 > SE3	3018456	25
DK2 > DE/LU	3854667	25
DK2 > SE4	678139	3
EE > FI	229198	2
FI > NO4	588290	177
FI > SE1	35101420	170
FI > SE3	29280115	145
LT > SE4	12195076	104
NL > NO2	786961	9
NO1 > NO2	6912429	12
NO1 > NO3	503502	7
NO1 > NO5	477789	-2
NO1 > SE3	2202355	10
NO2 > DE/LU	875363	5
NO2 > NO5	-368737	-12
NO3 > NO4	3003889	19
NO3 > NO5	-262605	-6
NO3 > SE2	123624	1
NO4 > SE2	236644	10
PL > SE4	1253761	12
SE1 > NO4	830690	7
SE1 > SE2	1050154	3
SE2 > SE3	25926364	22
SE3 > SE4	143387	1
SE4 > DE/LU	2280590	28

Non-Intuitive flows (FB)

Values are rounded to the nearest integer.

Border	Pct. of non-intuitive flows	Negative congestion income	Avg. price spread for non-intuitive flows
DK1 > DE/LU	0	0	0
DK1 > DK2	0	0	0
DK1 > NL	0	0	0
DK1 > NO2	4	-21131	-2
DK1 > SE3	24	-16215	-1
DK2 > DE/LU	1	-47	0
DK2 > SE4	14	-1224	0
EE > FI	1	-6750	-74
FI > NO4	7	-486	-3
FI > SE1	0	0	0
FI > SE3	2	-1763	-3
LT > SE4	2	-195	0
NL > NO2	4	-31236	-13
NO1 > NO2	35	-29858	0
NO1 > NO3	29	-62333	-3
NO1 > NO5	38	-901416	-13
NO1 > SE3	21	-75312	-4
NO2 > DE/LU	8	-223875	-29
NO2 > NO5	35	-404907	-39
NO3 > NO4	4	-4615	-1
NO3 > NO5	61	-301655	-13
NO3 > SE2	29	-60950	-19
NO4 > SE2	27	-20434	-4
PL > SE4	46	-1005727	-25
SE1 > NO4	30	-272170	-8
SE1 > SE2	45	-113189	-1
SE2 > SE3	43	-252090	-1
SE3 > SE4	33	-40357	0
SE4 > DE/LU	0	0	0