Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 5 of 2024

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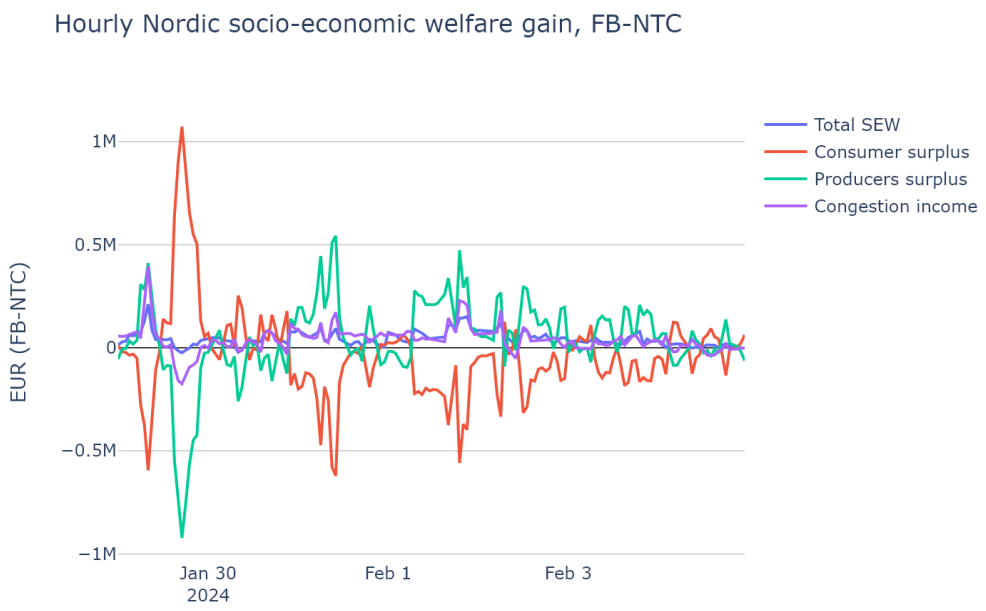
Domain validation

Energy Delivery Day:	Mon. 29.1.	Tue. 30.1.	Wed. 31.1.	Thu. 01.2.	Fri. 02.2.	Sat. 03.2.	Sun. 04.2.
Invalid/missing IGMs	0	6	0	0	0	0	0
Substituted IGMs	0	6	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	1	0	1	1	0	0
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

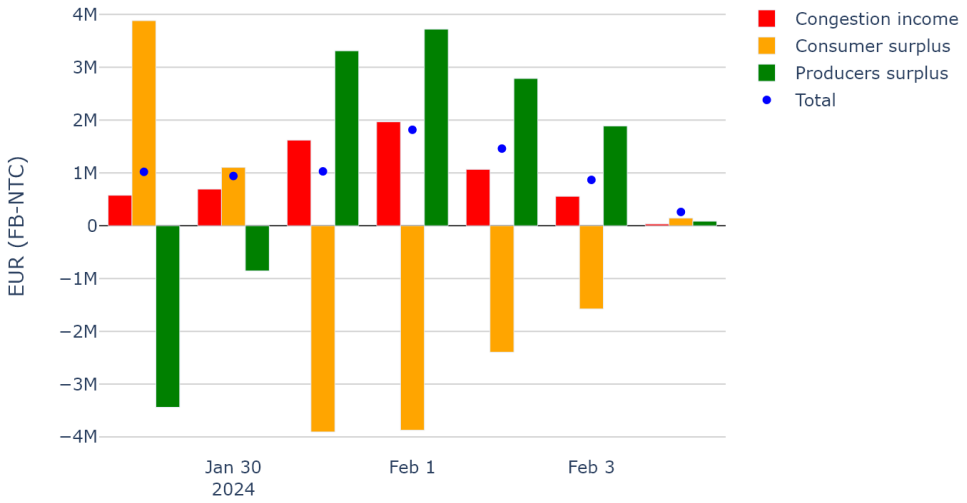
Socio Economic Welfare

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.

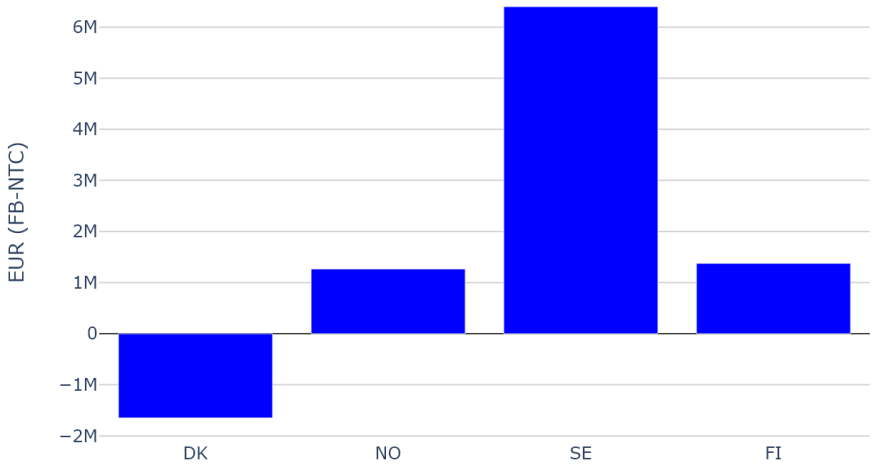
Nordics

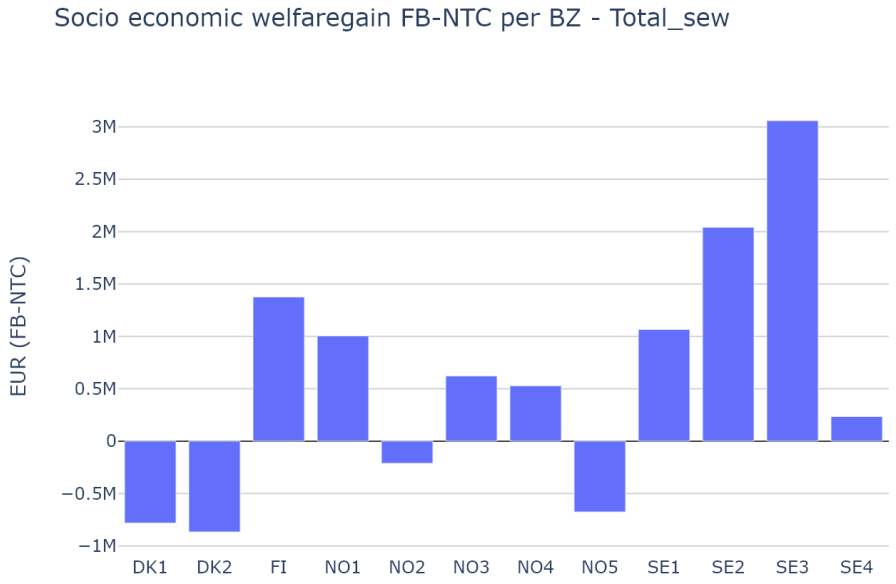


Nordics socio-economic welfare per stakeholder and day

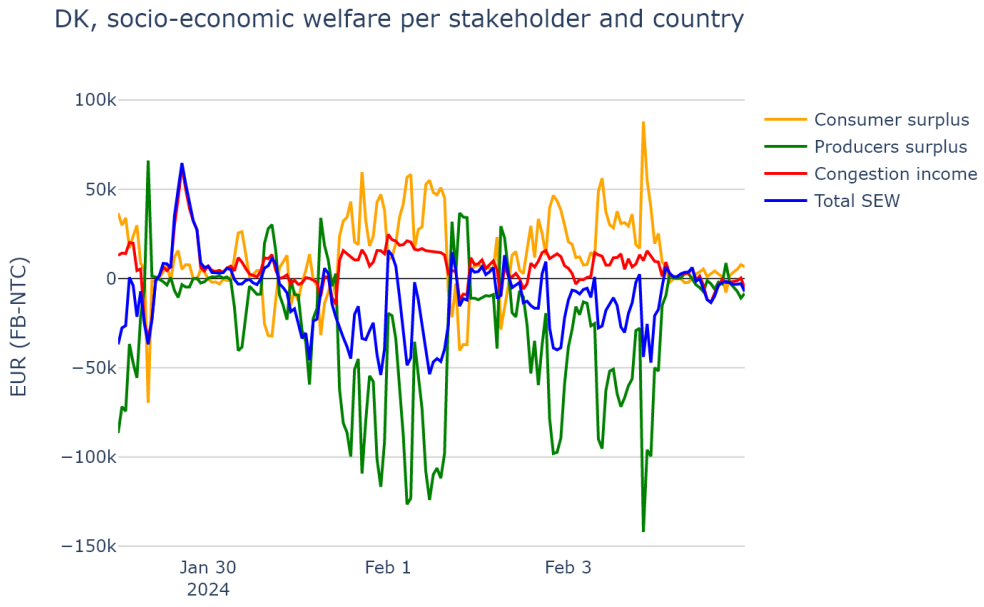


Total Nordic socio-economic welfare per country

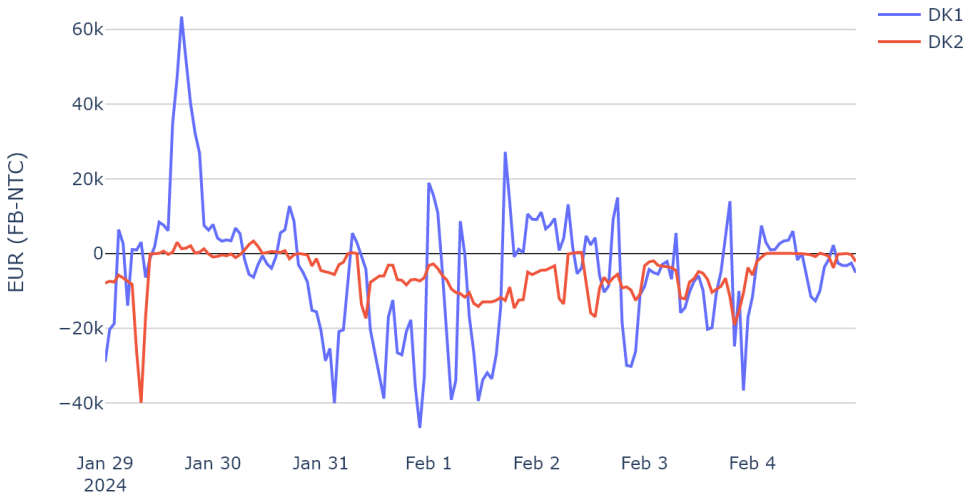



Socio economic welfaregain FB-NTC per BZ - Total_sew
EUR (FB-NTC)
3M
2.5M
2M
1.5M
1M
0.5M
0
−0.5M
−1M
DK1
DK2
FI
NO1
NO2
NO3
NO4
NO5
SE1
SE2
SE3
SE4

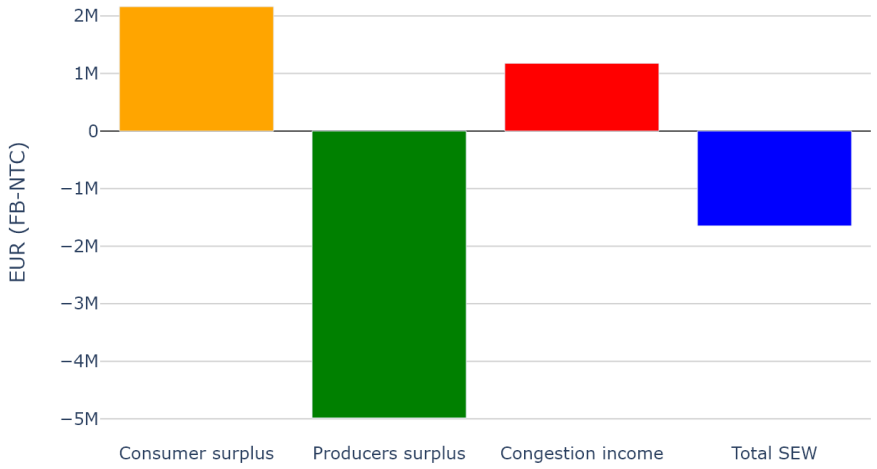
Denmark


DK, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
100k
50k
0
−50k
−100k
−150k
Jan 30
2024
Feb 1
Feb 3
Consumer surplus
Producers surplus
Congestion income
Total SEW

Total socio economic welfaregain FB-NTC per BZ in DK

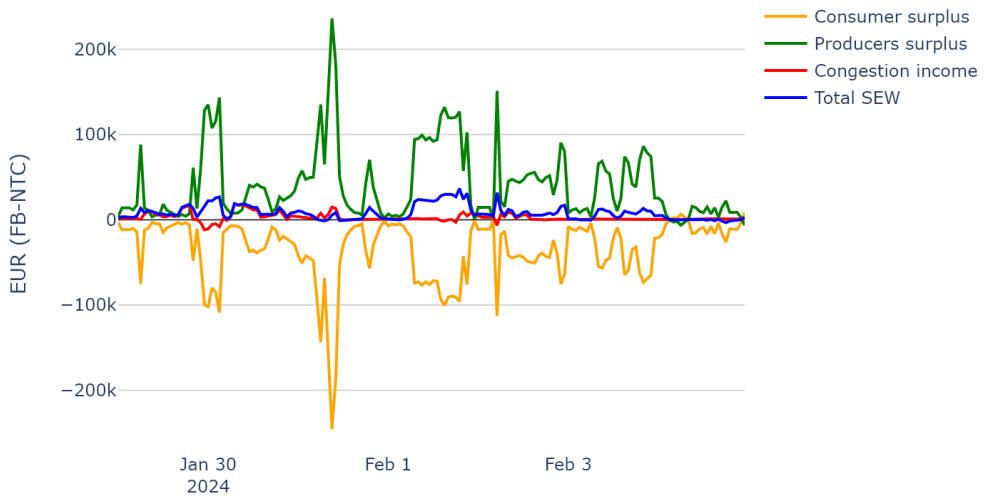


DK, socio-economic welfare per stakeholder and country

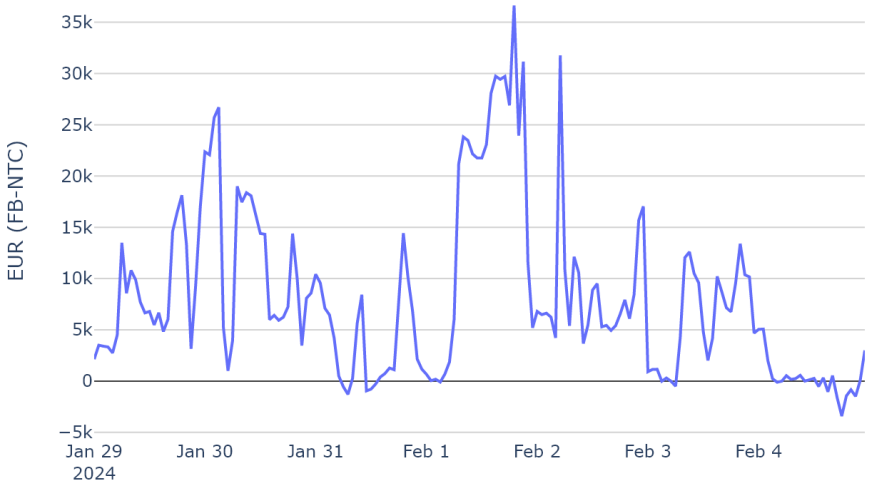


Finland

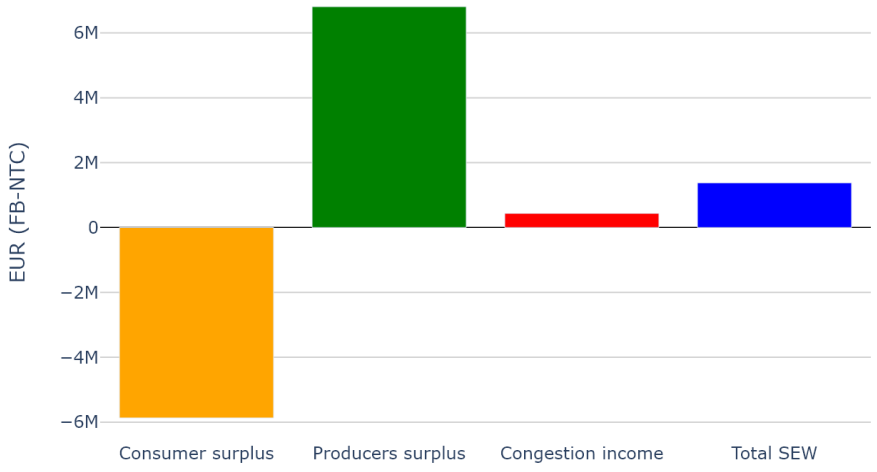
FI, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in FI

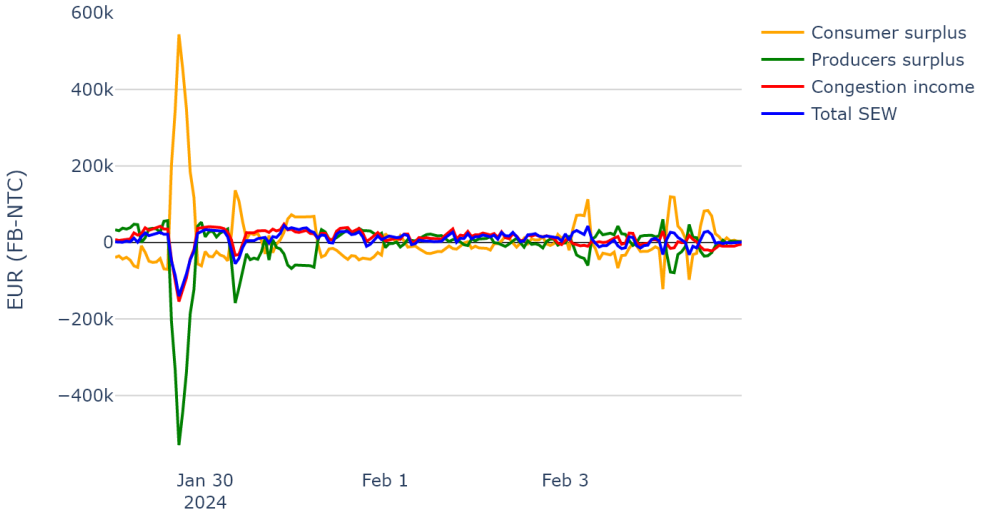


FI, socio-economic welfare per stakeholder and country

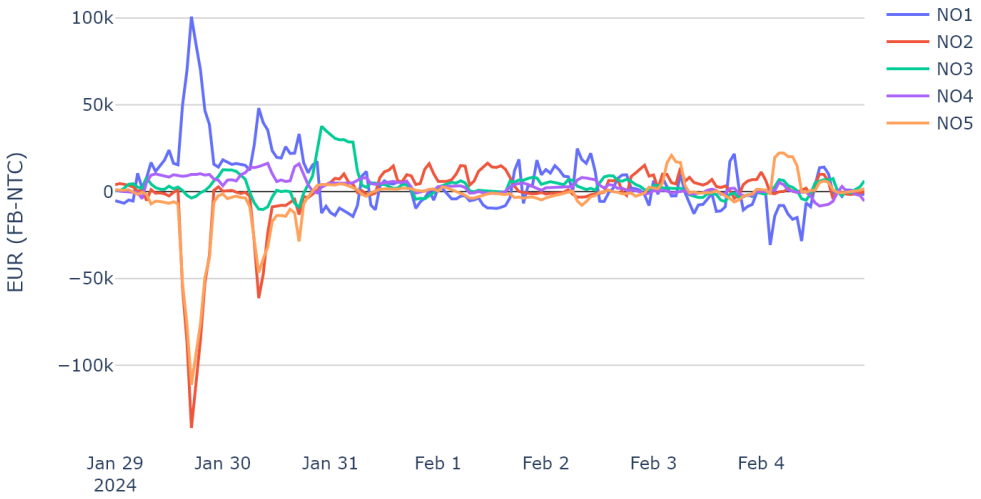


Norway

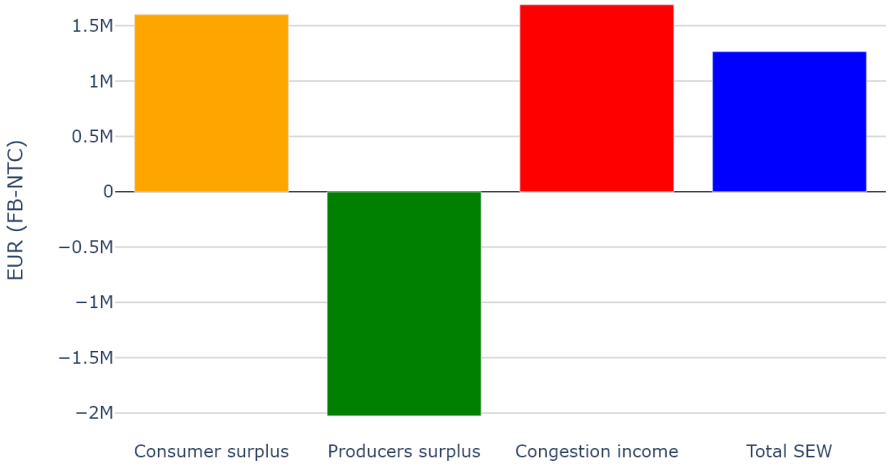
NO, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in NO

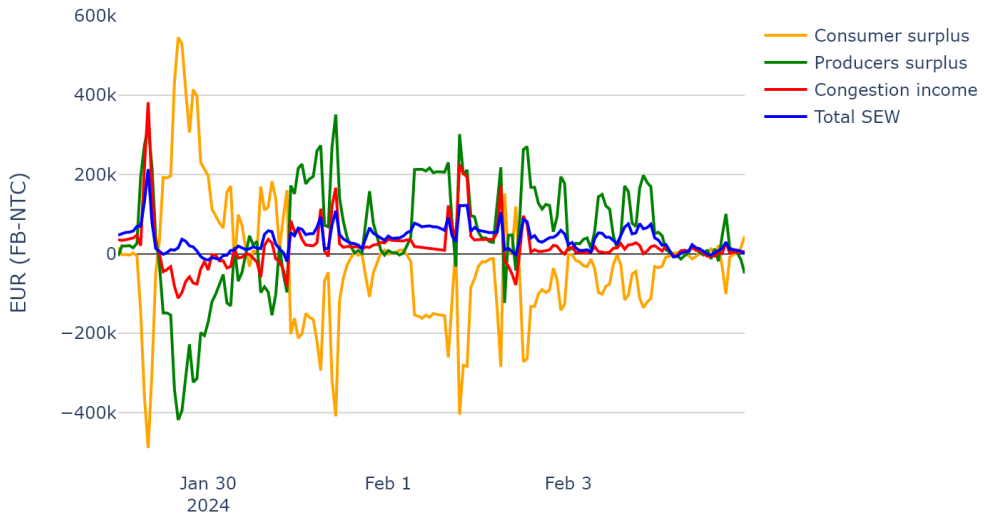


NO, socio-economic welfare per stakeholder and country

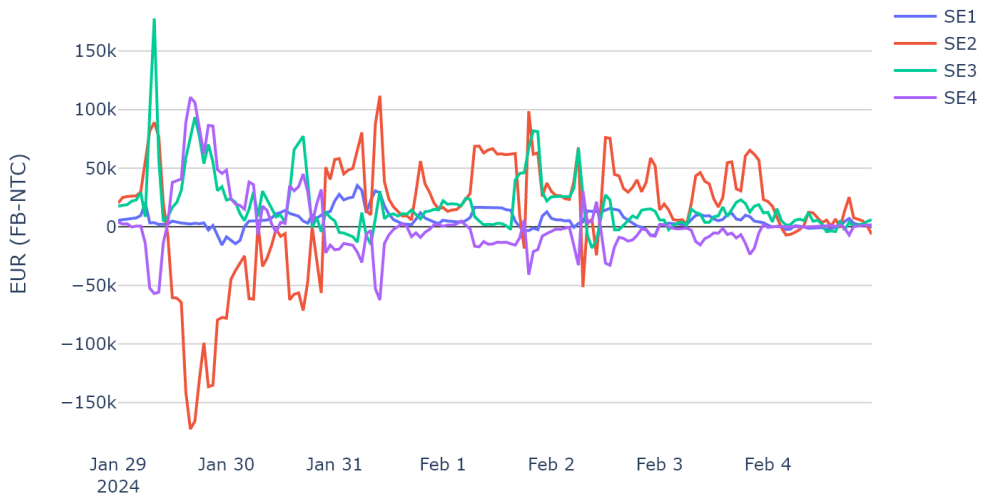


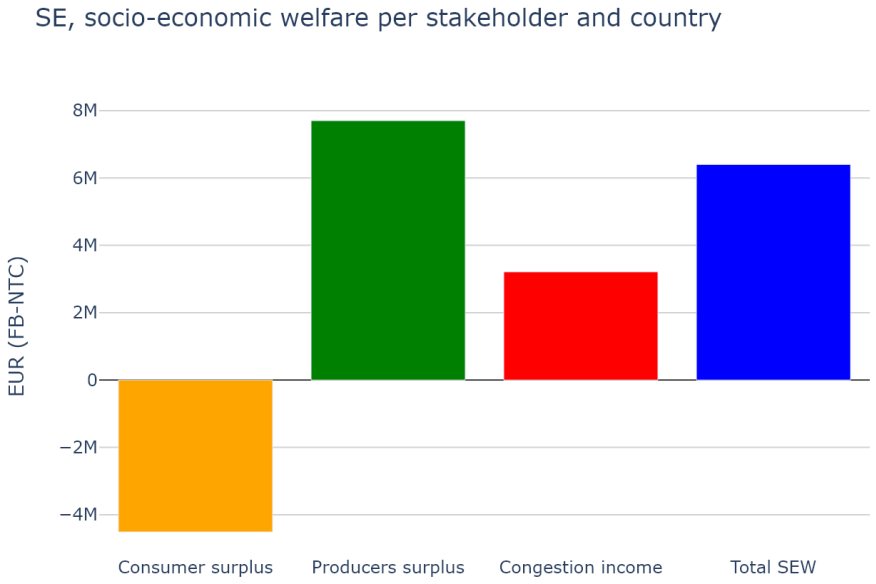
Sweden

SE, socio-economic welfare per stakeholder and country

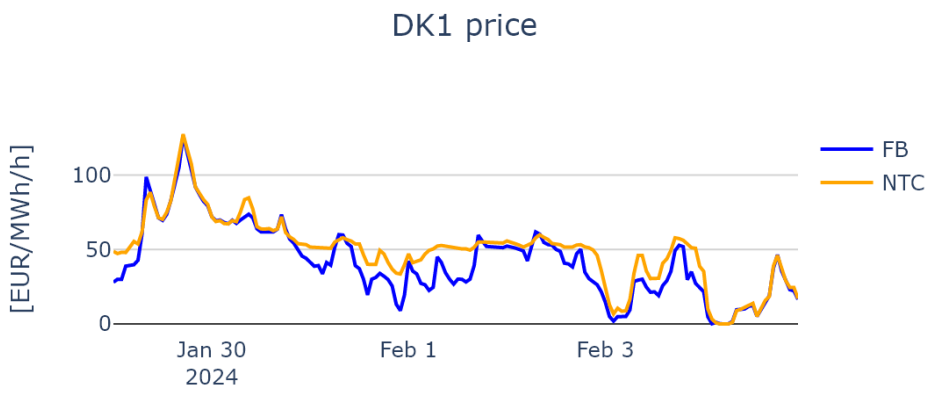


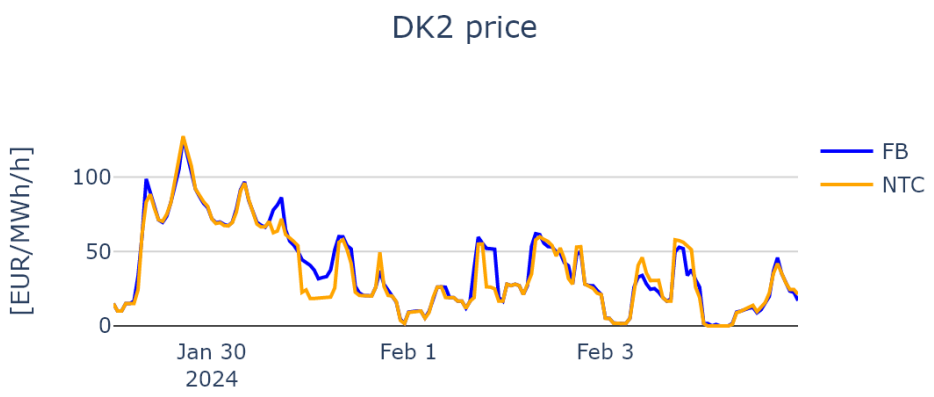
Total socio economic welfaregain FB-NTC per BZ in SE

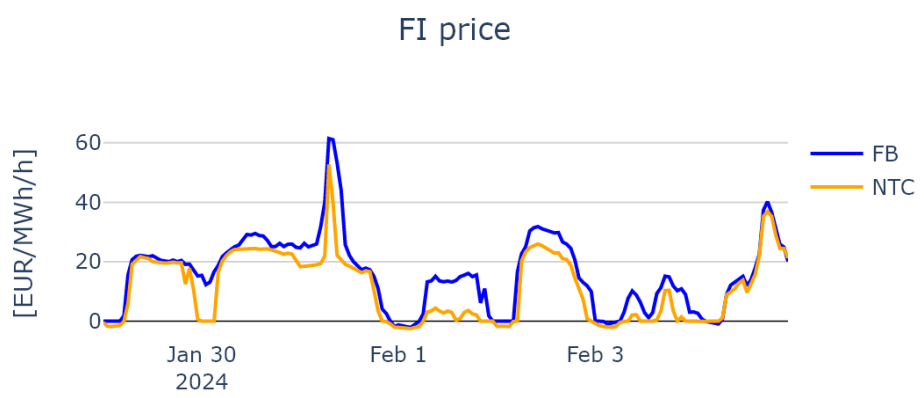


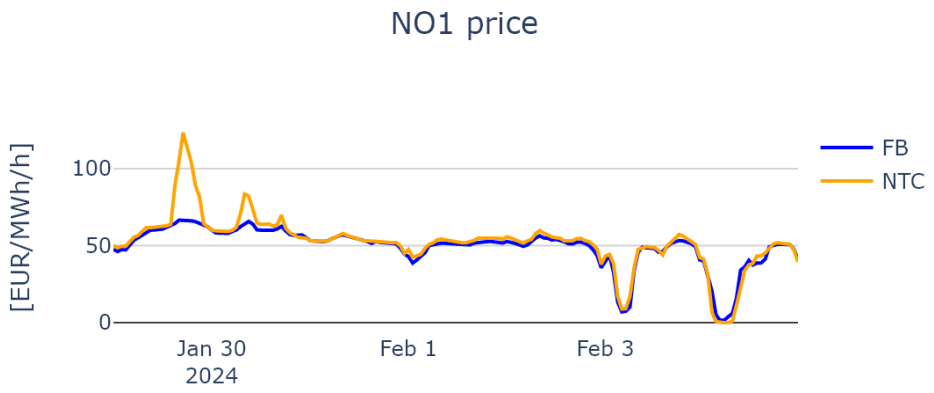

SE, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
8M
6M
4M
2M
0
−2M
−4M
Consumer surplus
Producers surplus
Congestion income
Total SEW

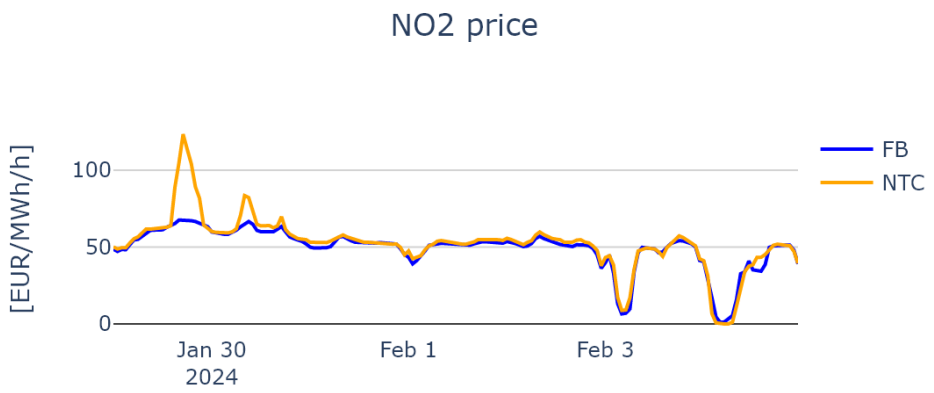
Prices

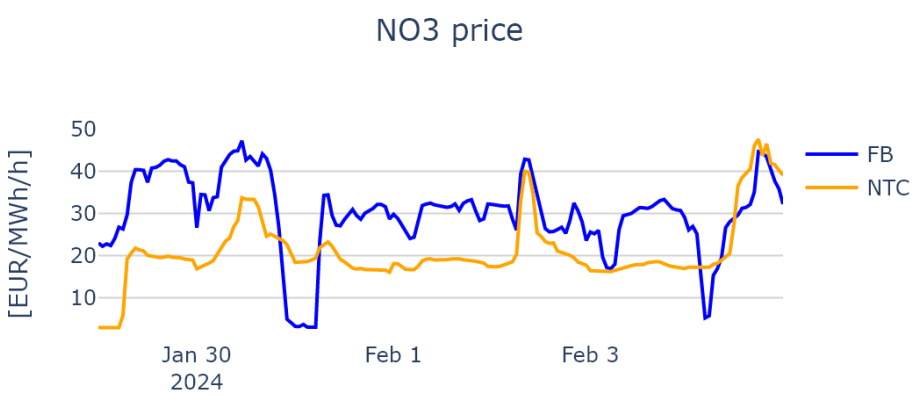

DK1 price
[EUR/MWh/h]
100
50
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

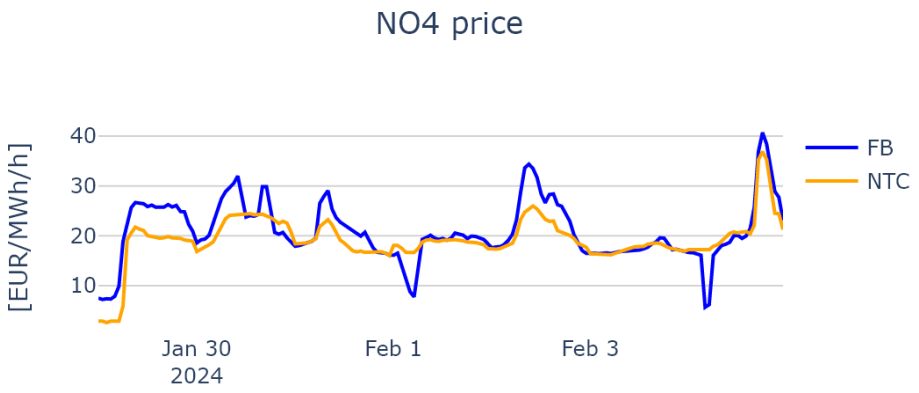

DK2 price
[EUR/MWh/h]
100
50
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

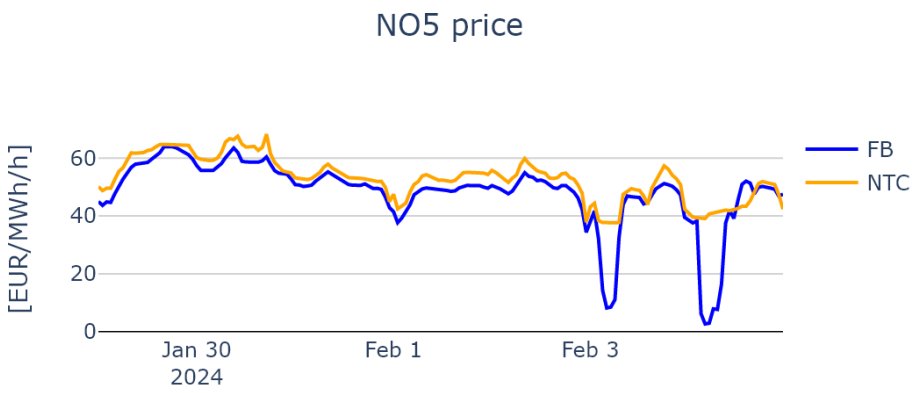

FI price
[EUR/MWh/h]
60
40
20
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

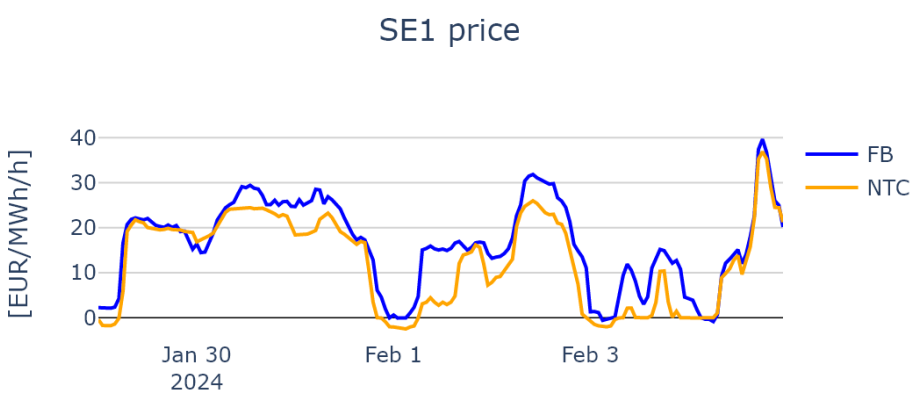

NO1 price
[EUR/MWh/h]
100
50
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

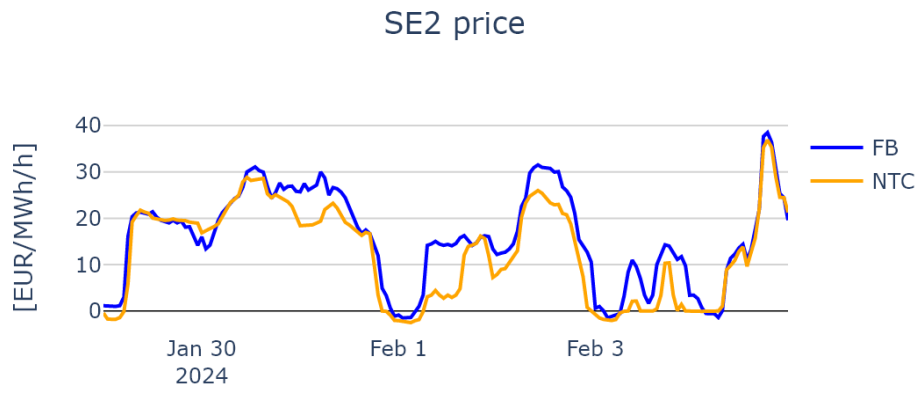

NO2 price
[EUR/MWh/h]
100
50
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

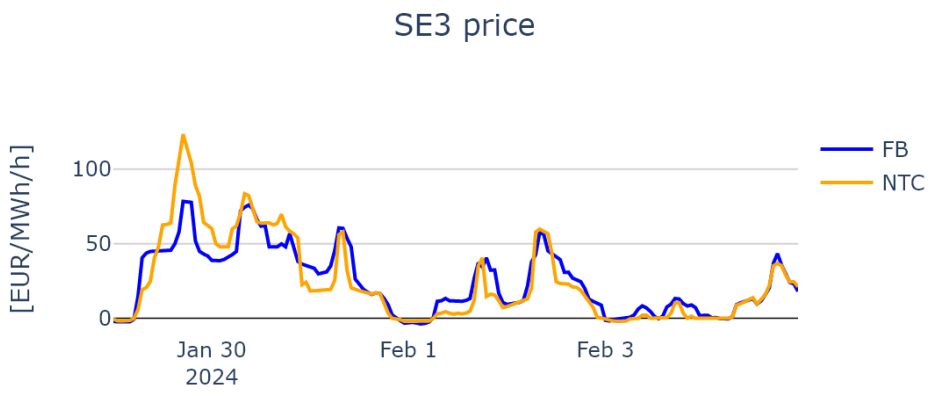

NO3 price
[EUR/MWh/h]
50
40
30
20
10
Jan 30
2024
Feb 1
Feb 3
FB
NTC

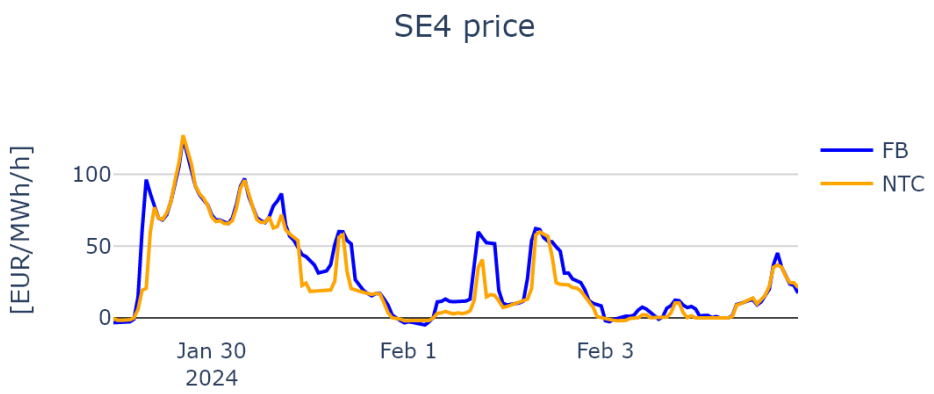

NO4 price
[EUR/MWh/h]
40
30
20
10
Jan 30
2024
Feb 1
Feb 3
FB
NTC


NO5 price
[EUR/MWh/h]
60
40
20
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC


SE1 price
[EUR/MWh/h]
40
30
20
10
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

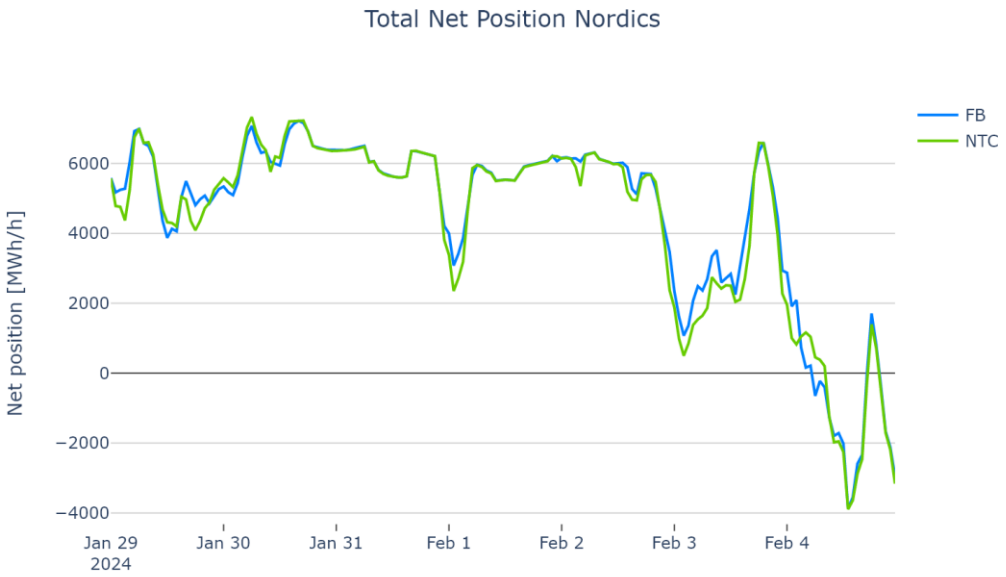

SE2 price
[EUR/MWh/h]
40
30
20
10
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

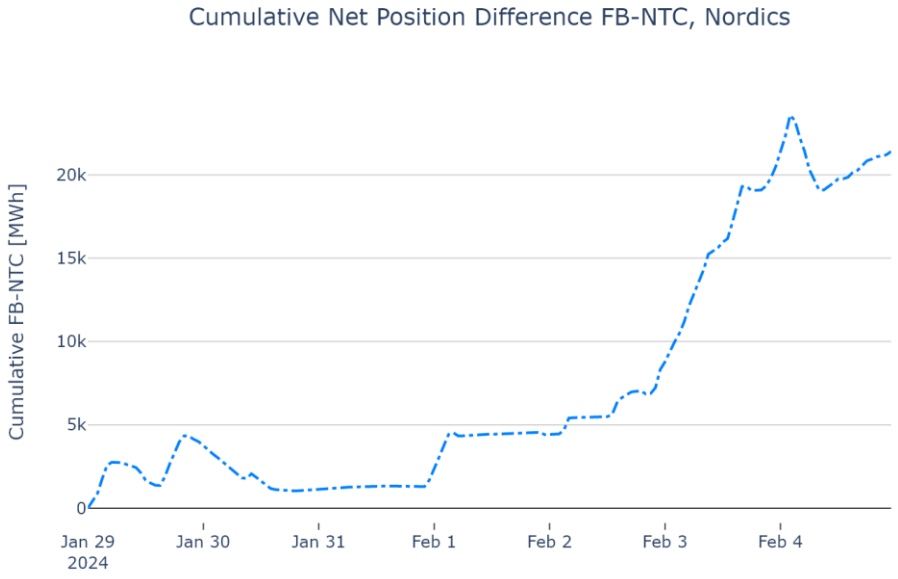

SE3 price
[EUR/MWh/h]
100
50
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC


SE4 price
[EUR/MWh/h]
100
50
0
Jan 30
2024
Feb 1
Feb 3
FB
NTC

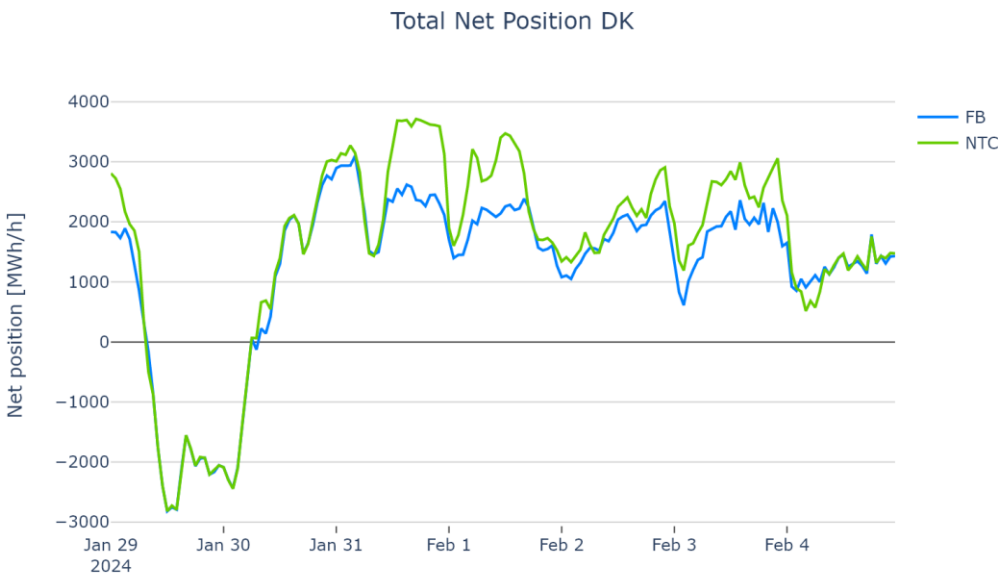
Net positions

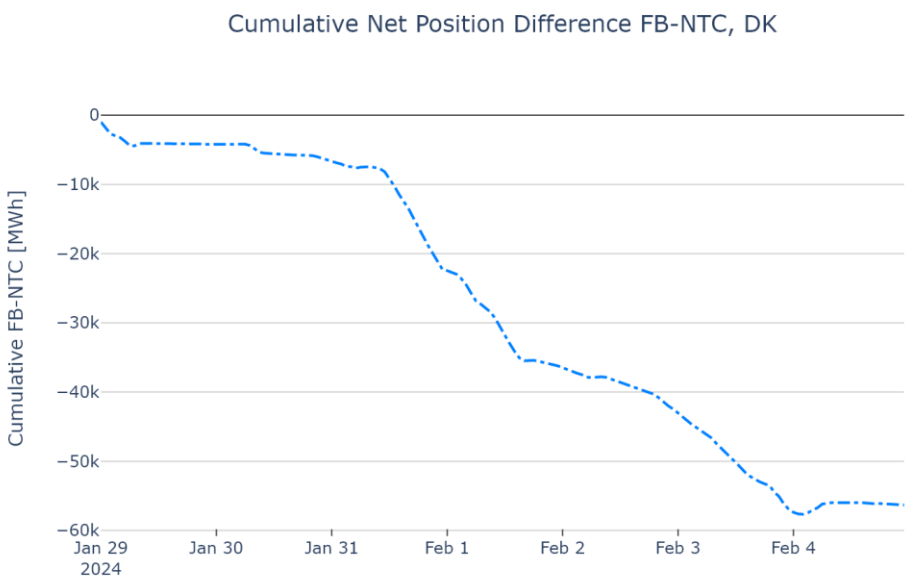
Nordics

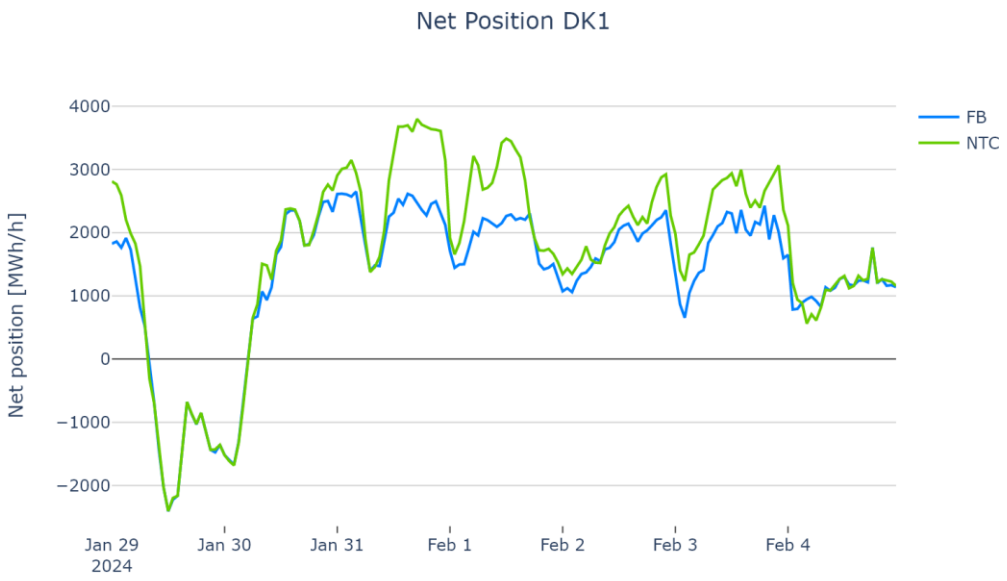


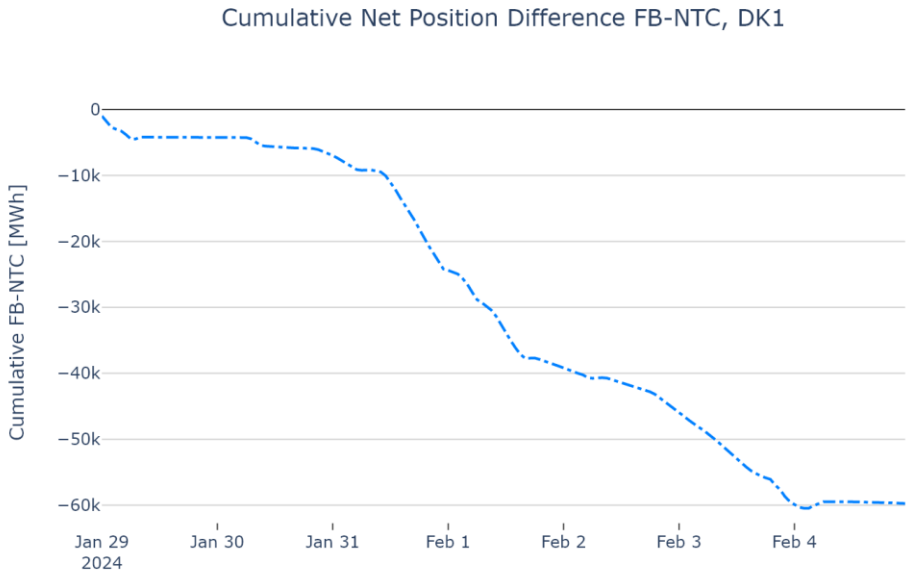


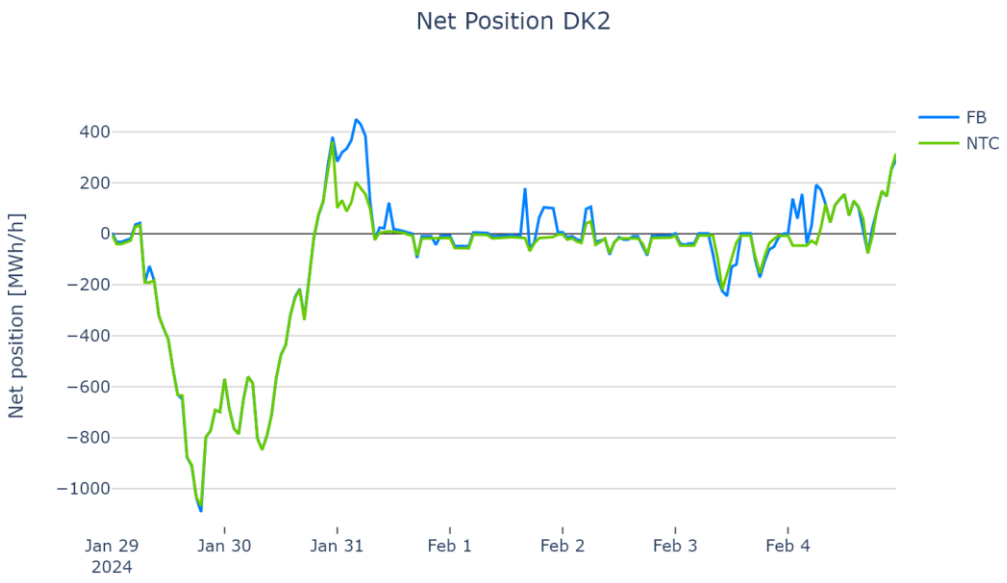
Denmark

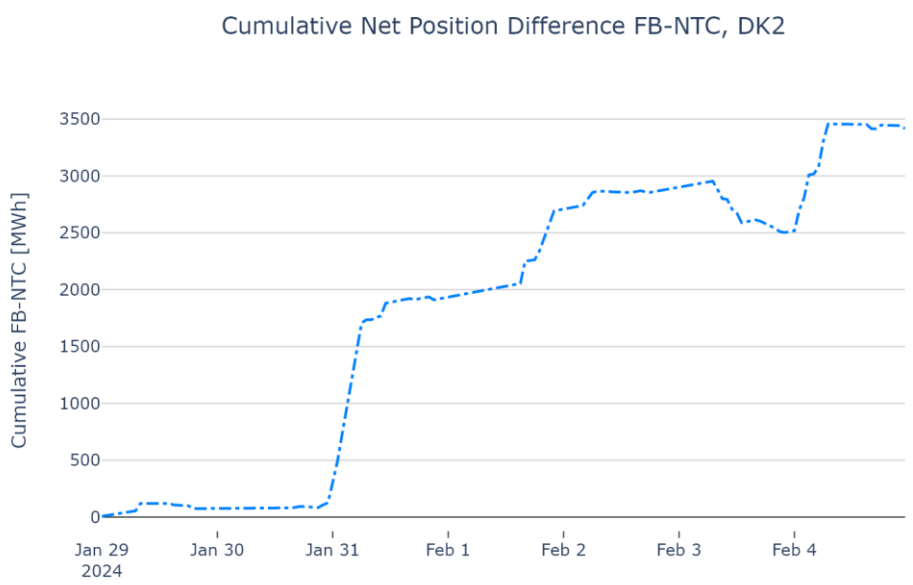

Total Net Position DK
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
−3000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4
FB
NTC


Cumulative Net Position Difference FB-NTC, DK
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
−60k
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

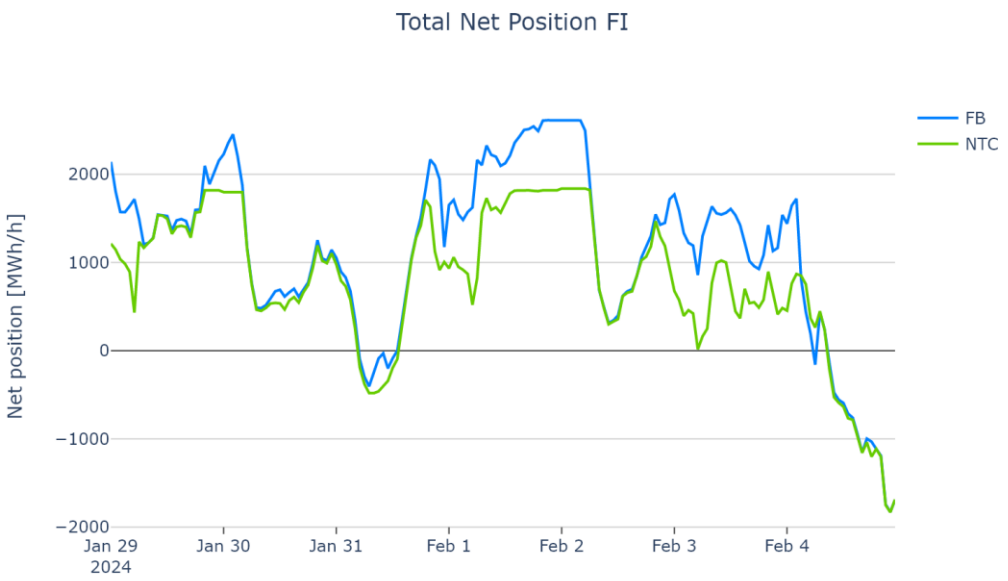

Net Position DK1
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4
FB
NTC

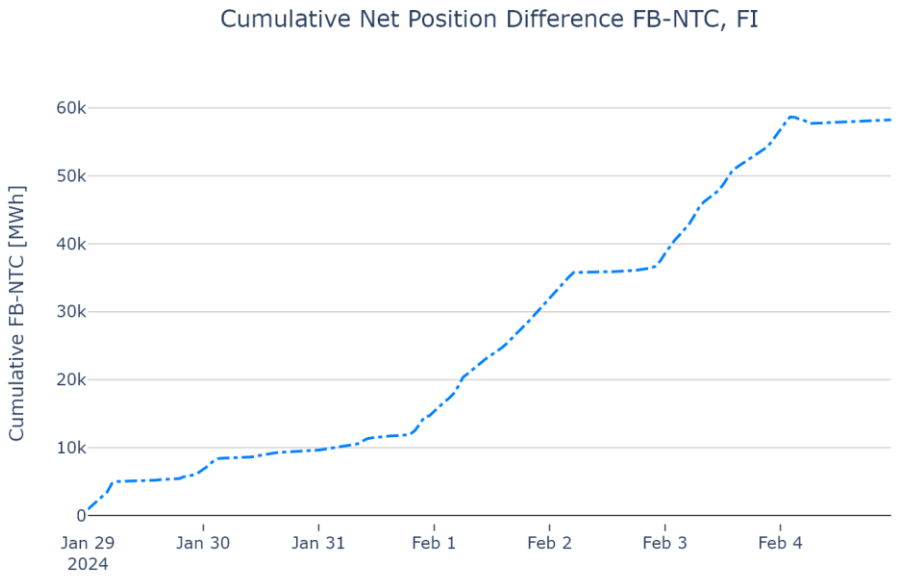

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
−60k
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4


Net Position DK2
FB
NTC
Net position [MWh/h]
400
200
0
−200
−400
−600
−800
−1000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

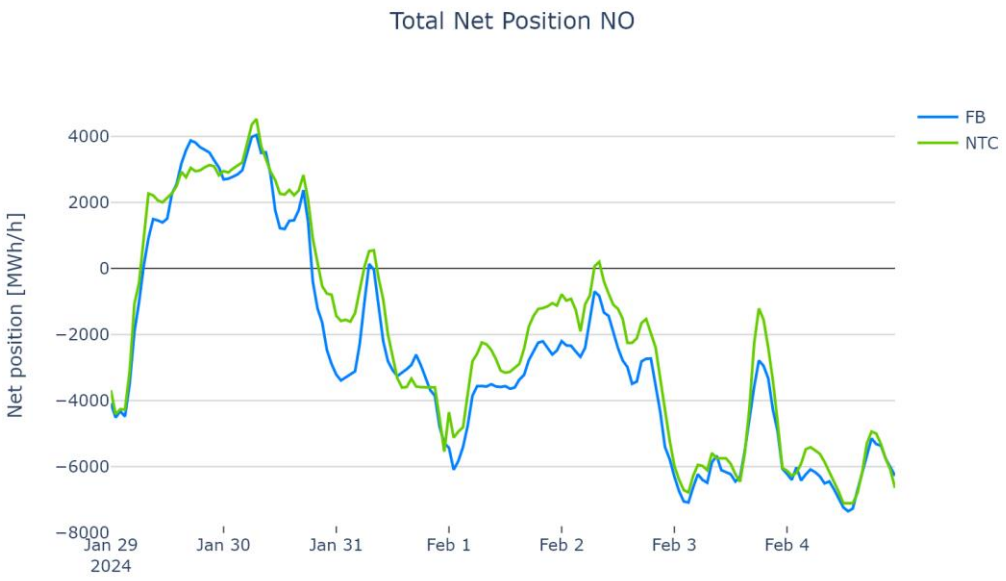

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
3500
3000
2500
2000
1500
1000
500
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

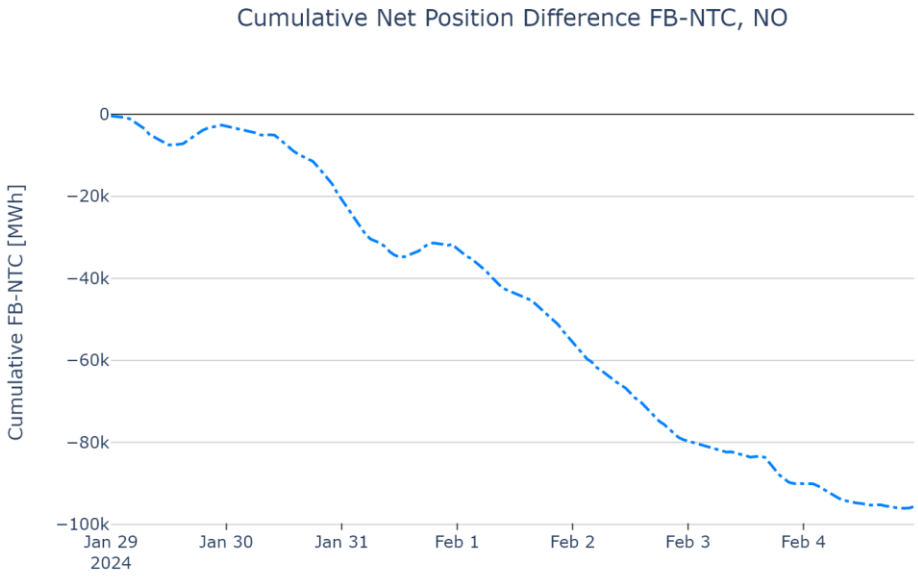
Finland

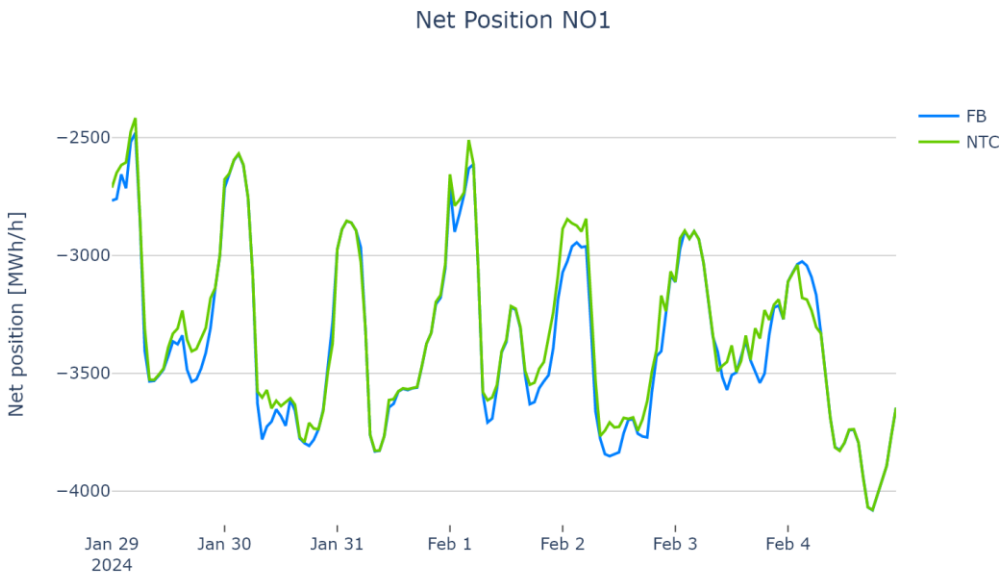

Total Net Position FI
FB
NTC
Net position [MWh/h]
2000
1000
0
−1000
−2000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

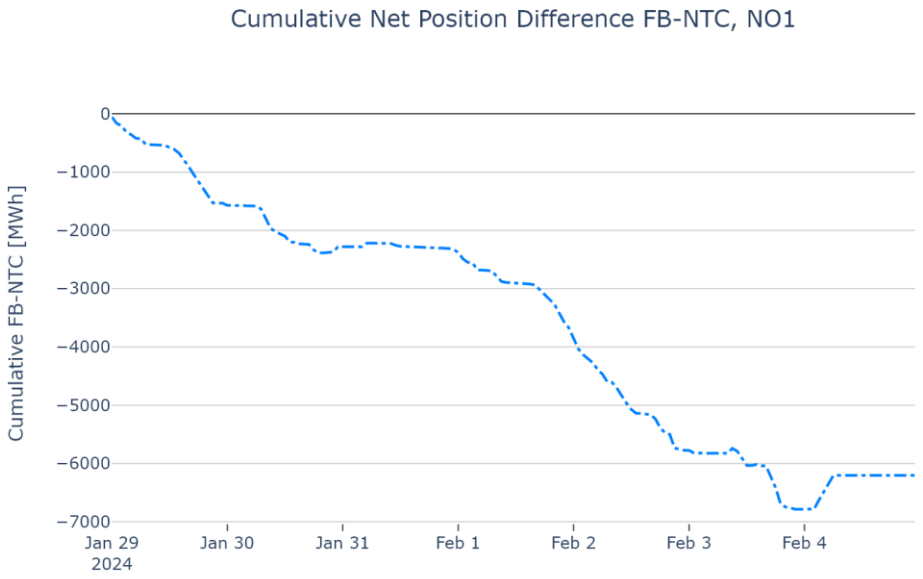

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
60k
50k
40k
30k
20k
10k
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

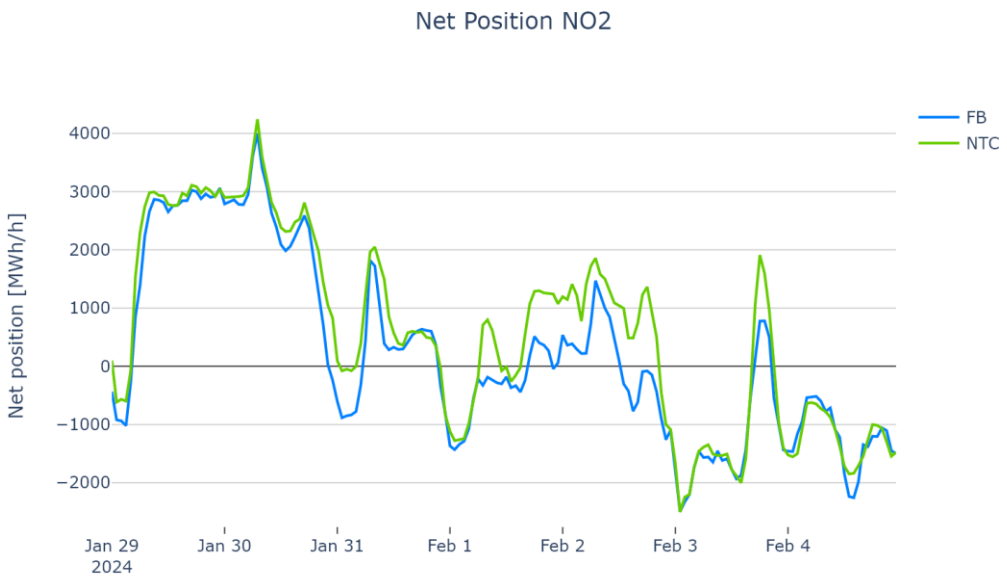
Norway

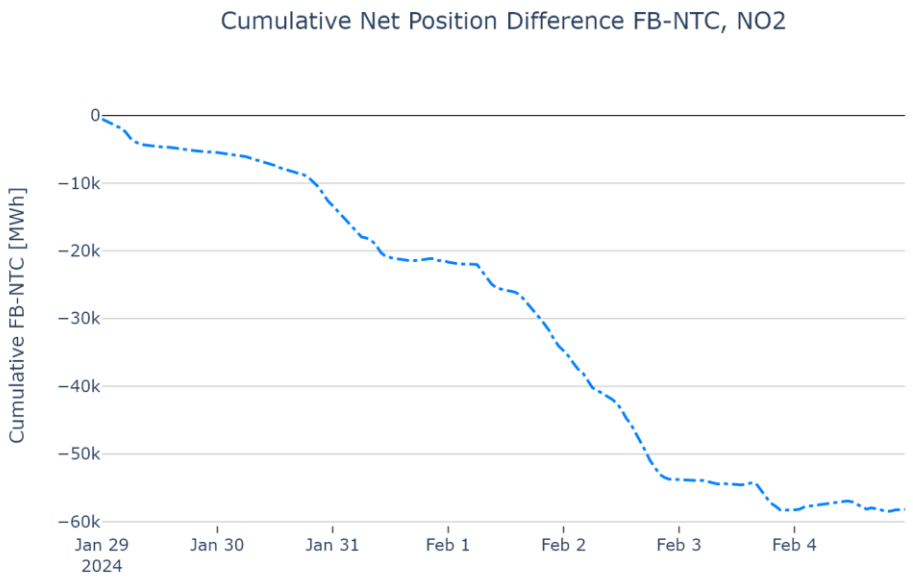

Total Net Position NO
FB
NTC
Net position [MWh/h]
4000
2000
0
−2000
−4000
−6000
−8000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

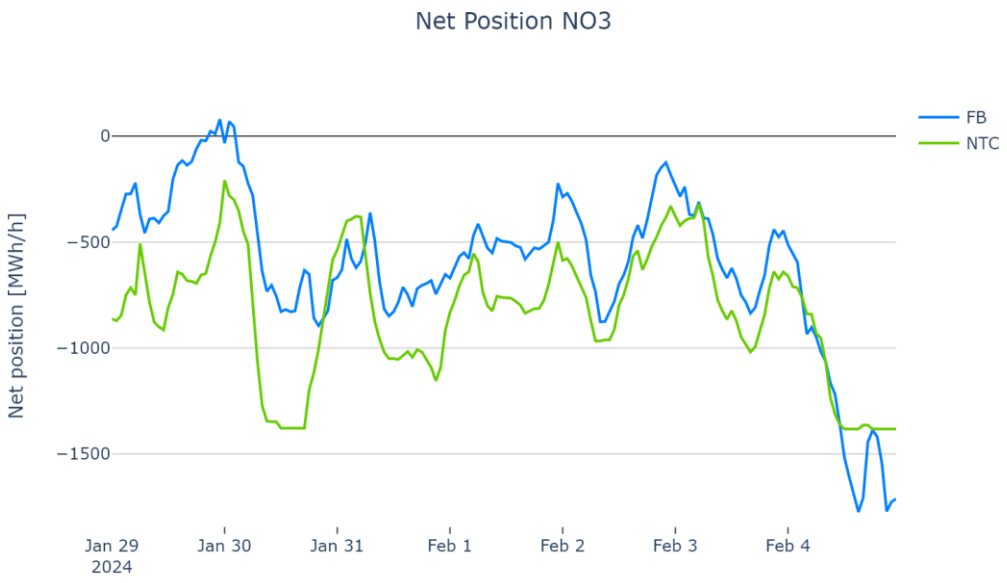

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
0
−20k
−40k
−60k
−80k
−100k
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

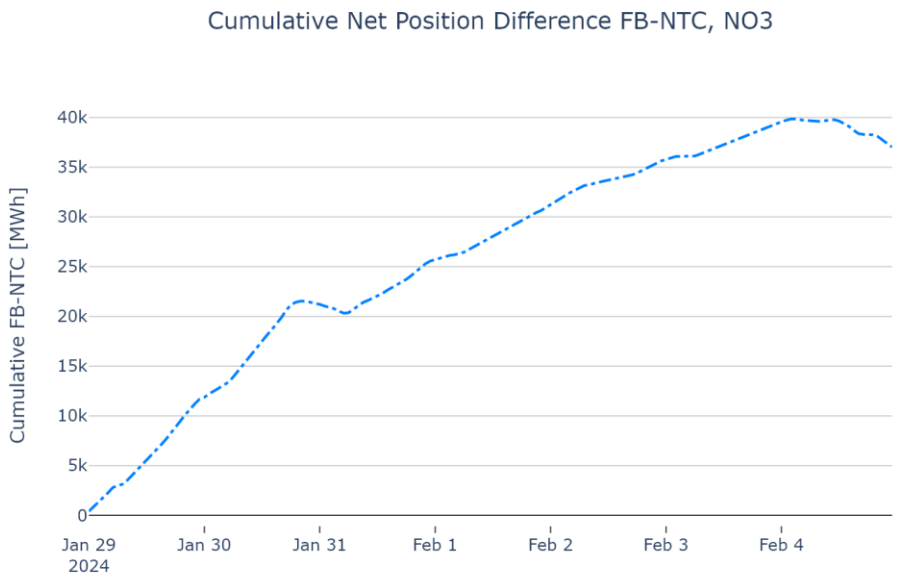

Net Position NO1
FB
NTC
Net position [MWh/h]
−2500
−3000
−3500
−4000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

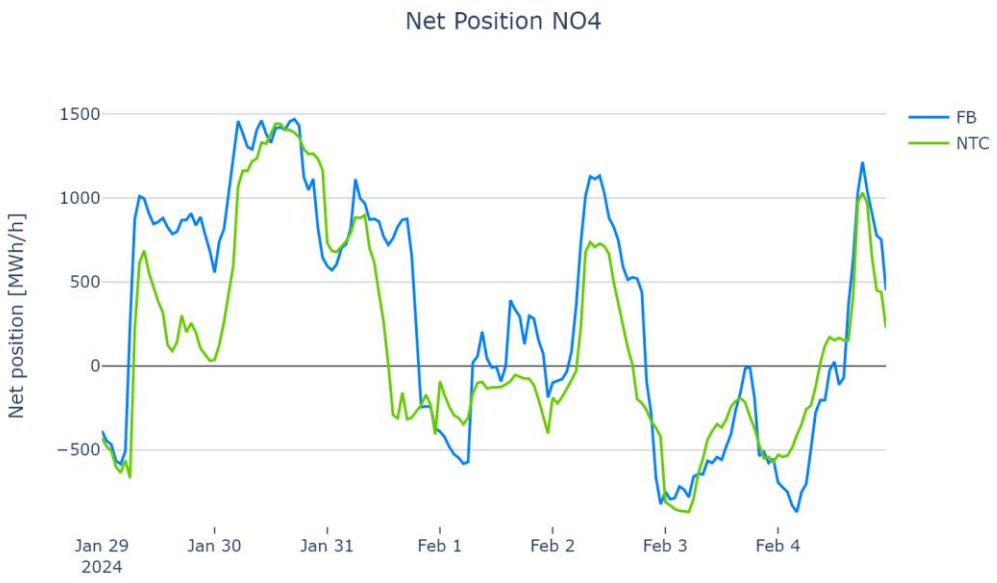

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
0
−1000
−2000
−3000
−4000
−5000
−6000
−7000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

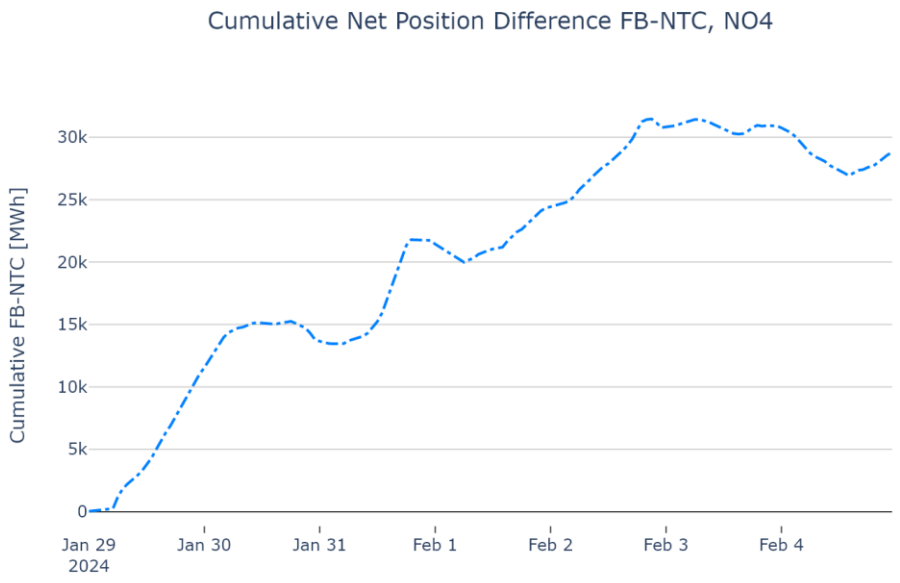

Net Position NO2
FB
NTC
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

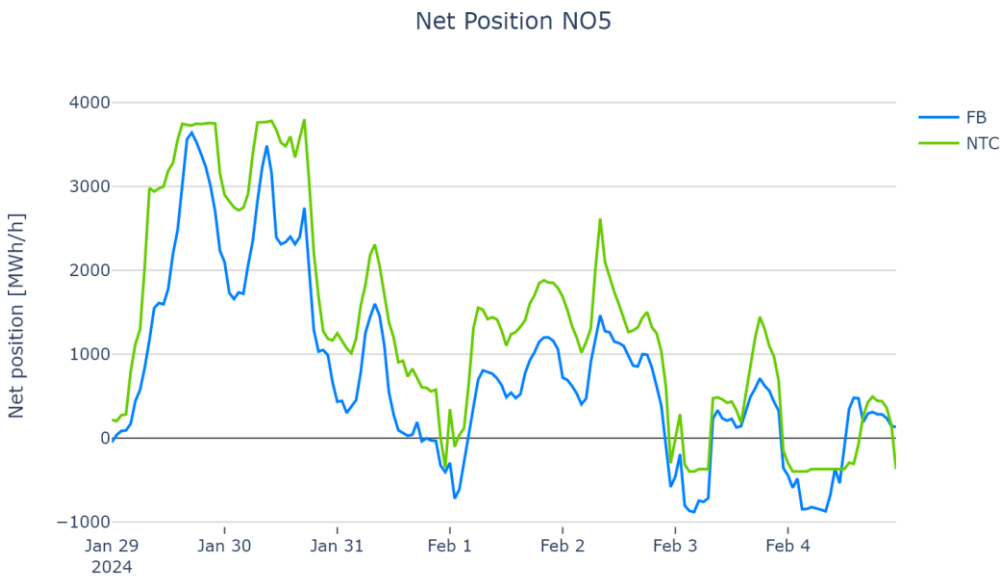

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
0
−10k
−20k
−30k
−40k
−50k
−60k
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

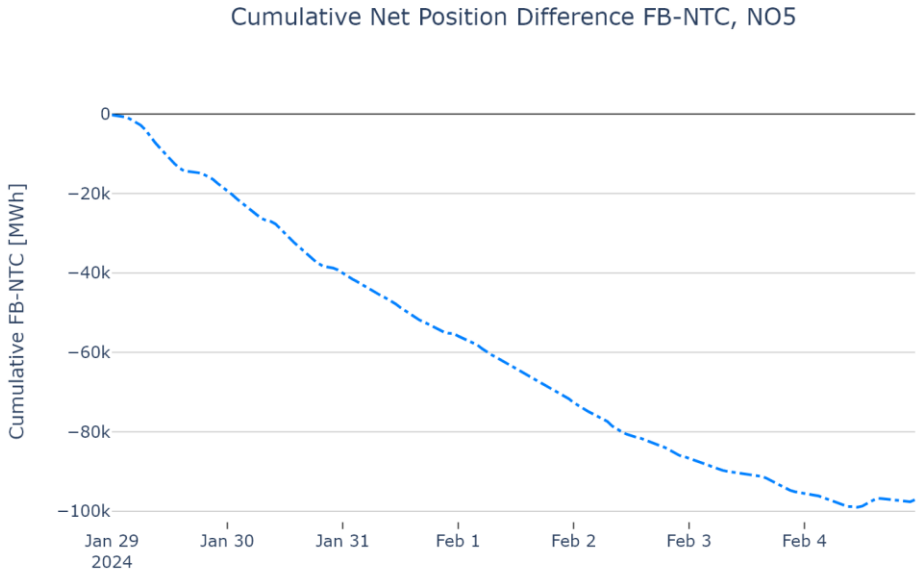

Net Position NO3
FB
NTC
Net position [MWh/h]
0
−500
−1000
−1500
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
40k
35k
30k
25k
20k
15k
10k
5k
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

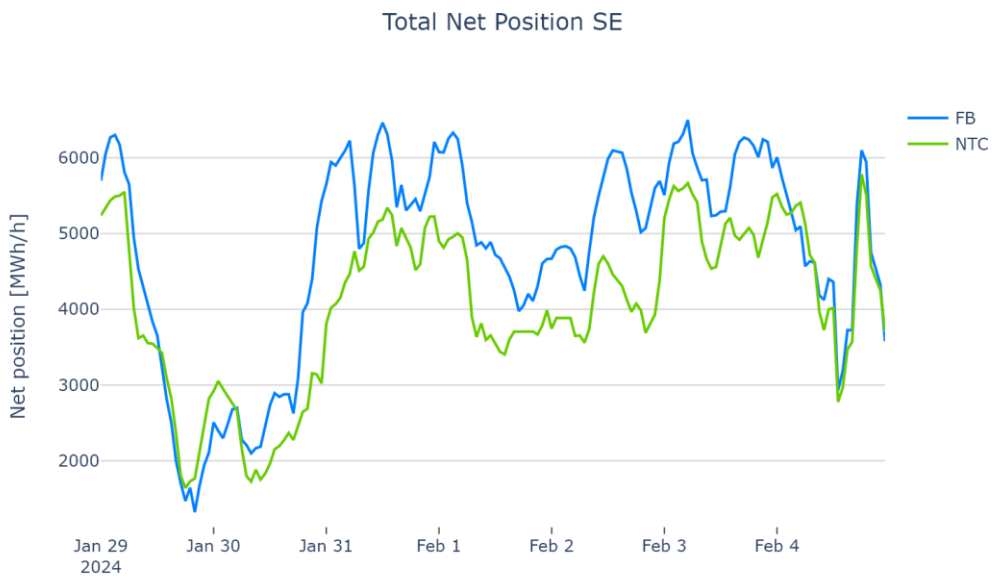

Net Position NO4
Net position [MWh/h]
1500
1000
500
0
−500
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4
FB
NTC

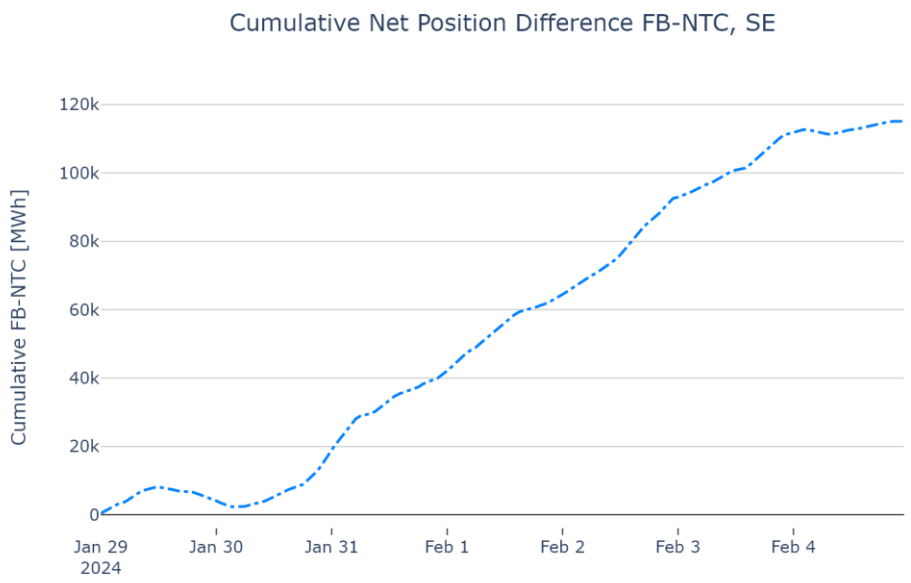

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
30k
25k
20k
15k
10k
5k
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

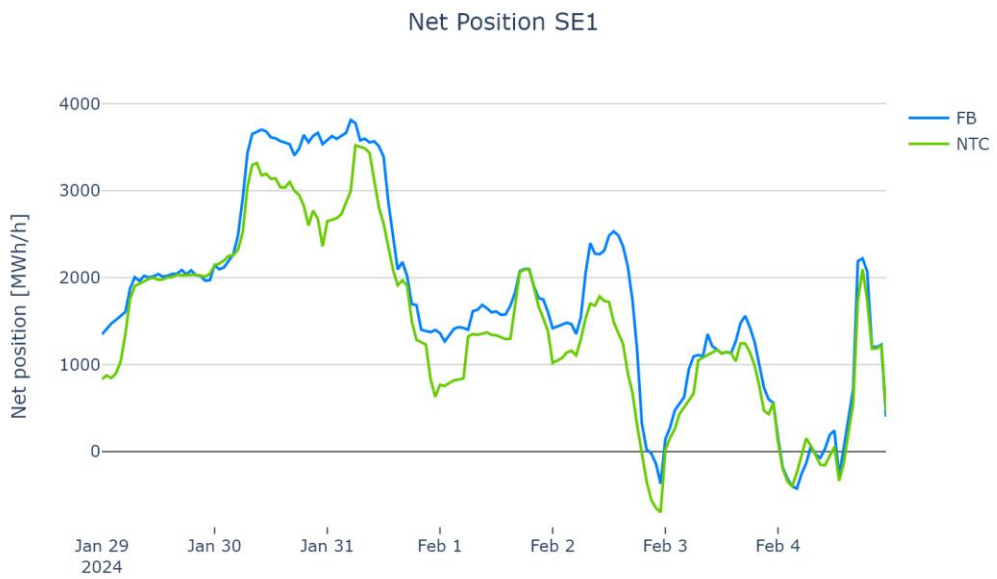

Net Position NO5
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4
FB
NTC

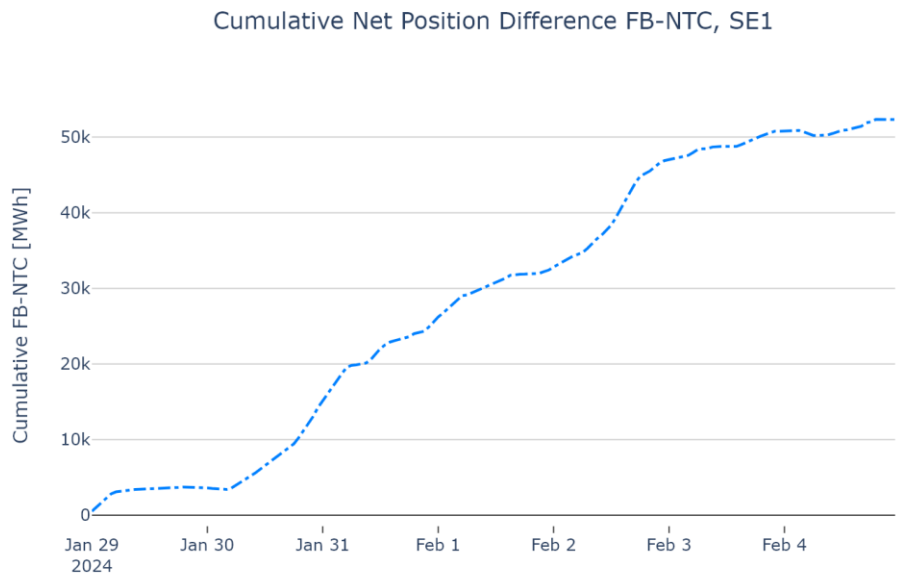

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
0
−20k
−40k
−60k
−80k
−100k
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

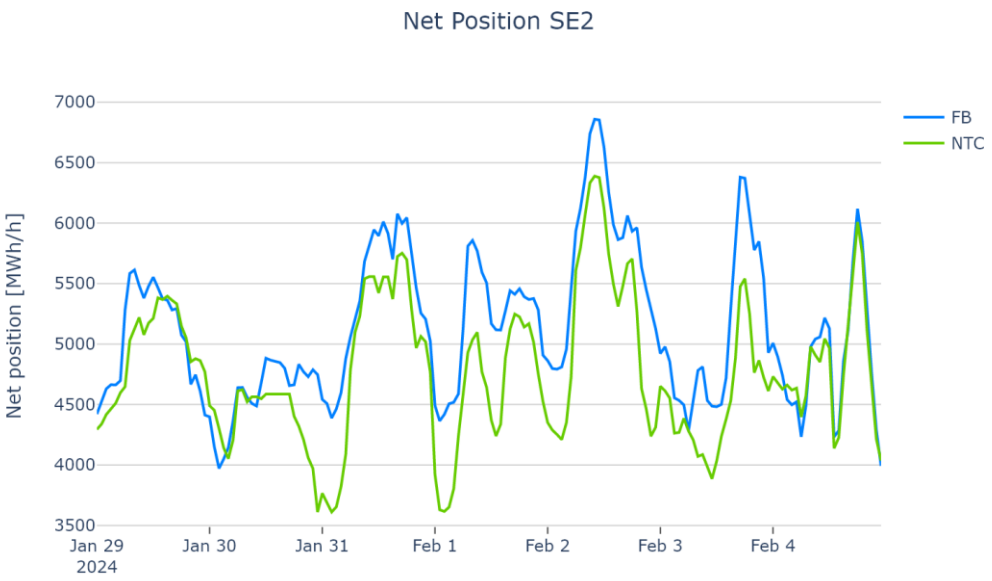
Sweden

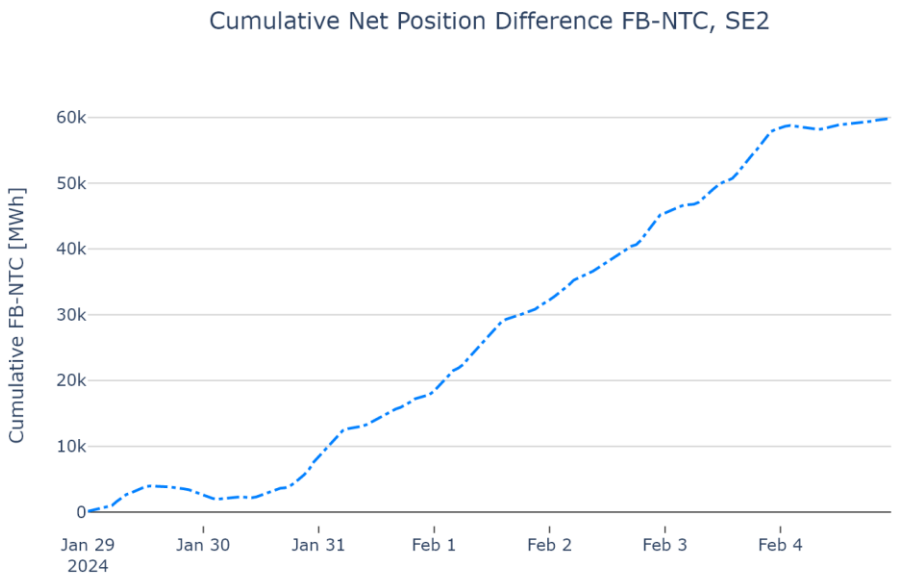

Total Net Position SE
FB
NTC
Net position [MWh/h]
6000
5000
4000
3000
2000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

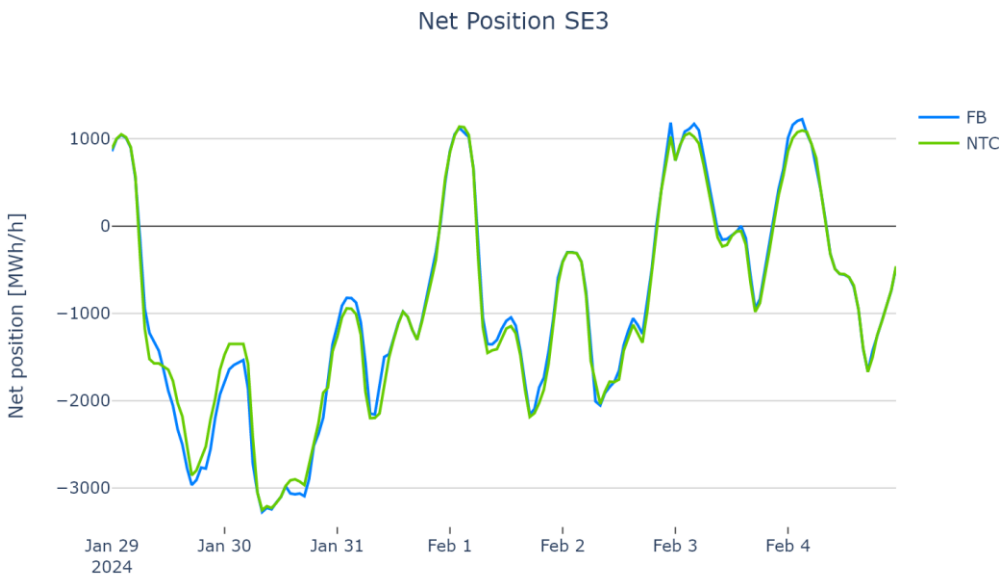

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
120k
100k
80k
60k
40k
20k
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

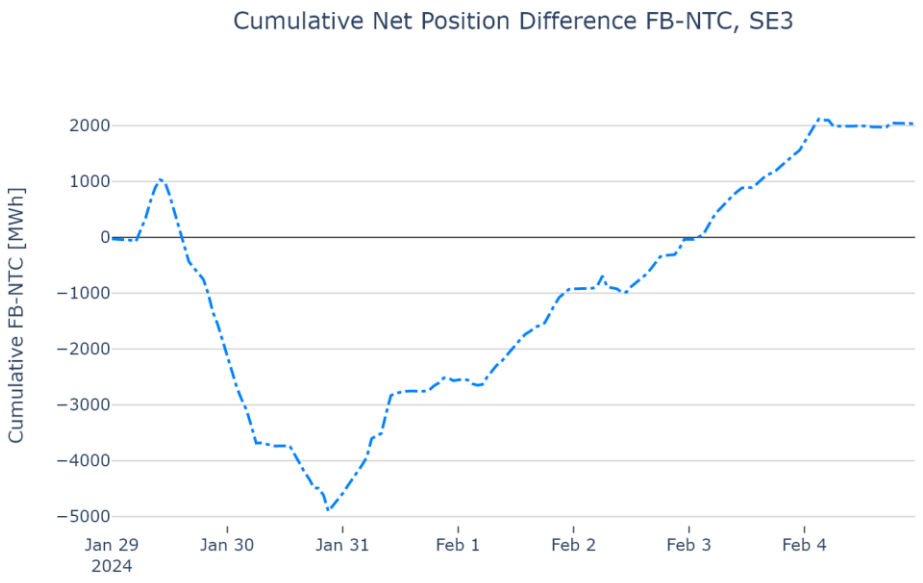

Net Position SE1
Net position [MWh/h]
4000
3000
2000
1000
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4
FB
NTC

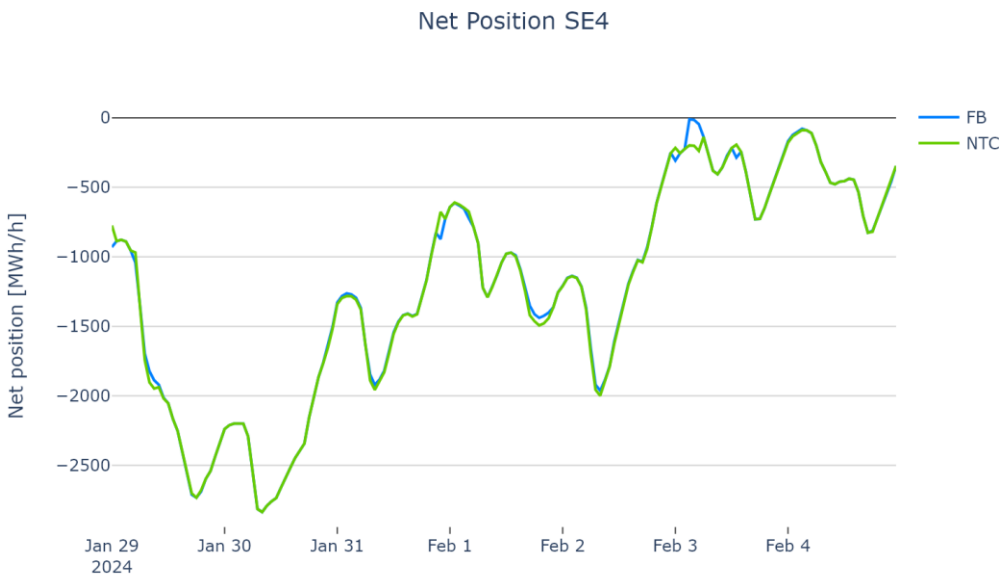

Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
50k
40k
30k
20k
10k
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

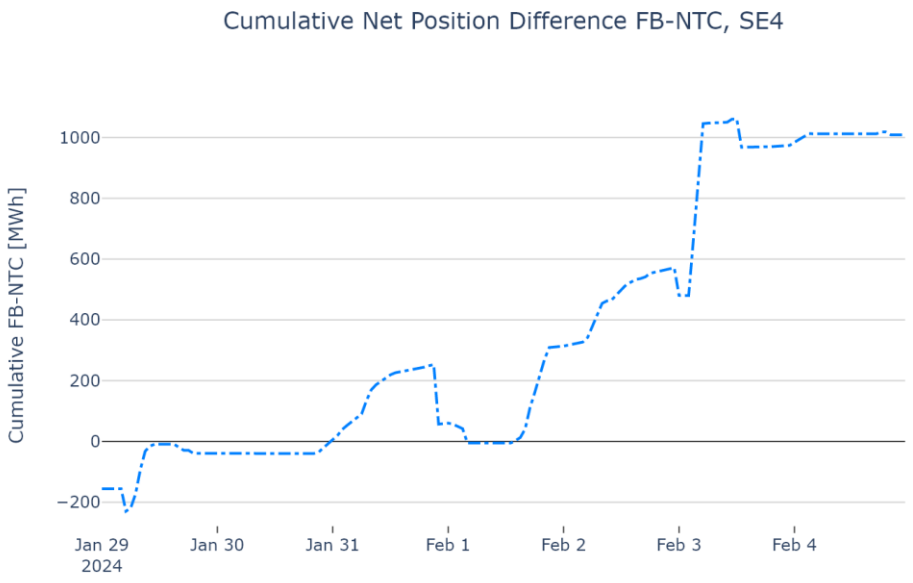

Net Position SE2
Net position [MWh/h]
7000
6500
6000
5500
5000
4500
4000
3500
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4
FB
NTC


Cumulative Net Position Difference FB-NTC, SE2
Cumulative FB-NTC [MWh]
60k
50k
40k
30k
20k
10k
0
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4


Net Position SE3
FB
NTC
Net position [MWh/h]
1000
0
−1000
−2000
−3000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

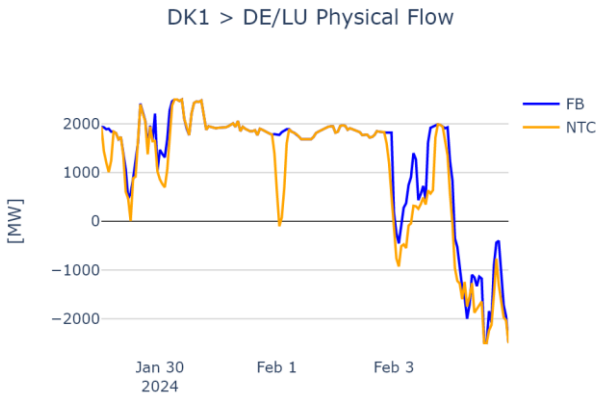

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
2000
1000
0
−1000
−2000
−3000
−4000
−5000
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

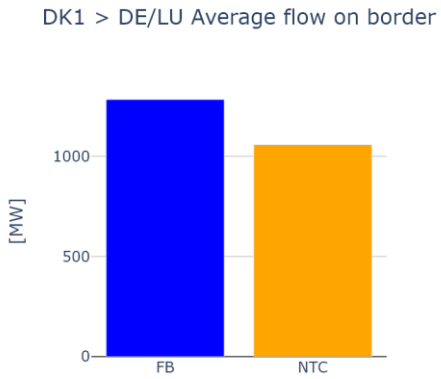

Net Position SE4
FB
NTC
Net position [MWh/h]
0
−500
−1000
−1500
−2000
−2500
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

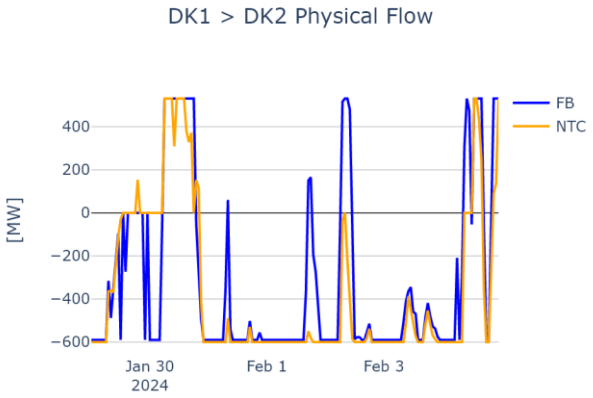

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
1000
800
600
400
200
0
−200
Jan 29
2024
Jan 30
Jan 31
Feb 1
Feb 2
Feb 3
Feb 4

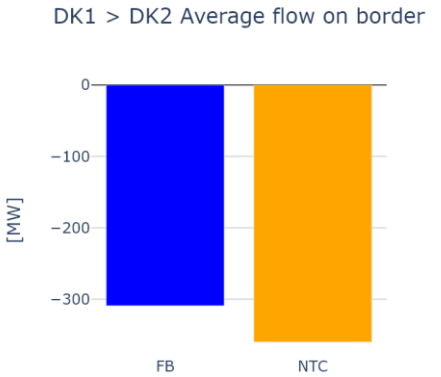
Border flow

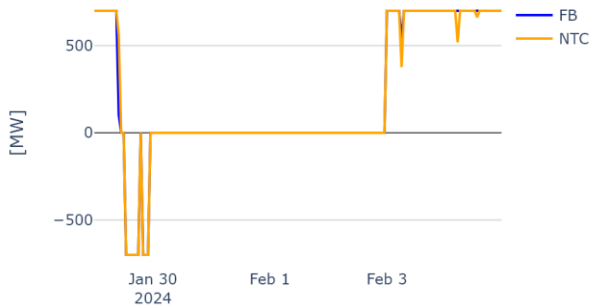
The flows present here, both in FB and NTC, represent the physical flow on the lines and are calculated as the product of the NP and the PTDF matrix. When comparing the NTC-results in this report with those present in the DA market there will be a difference as the DA flows are calculated without the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

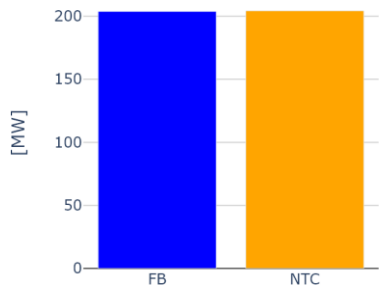


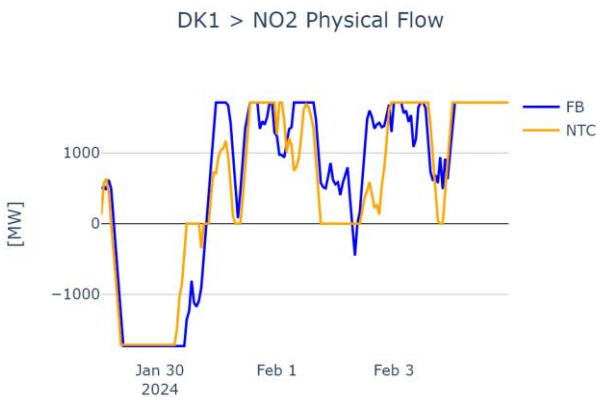


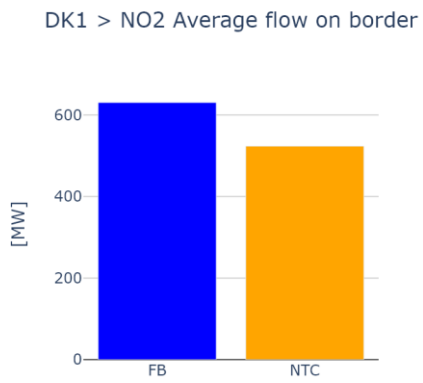


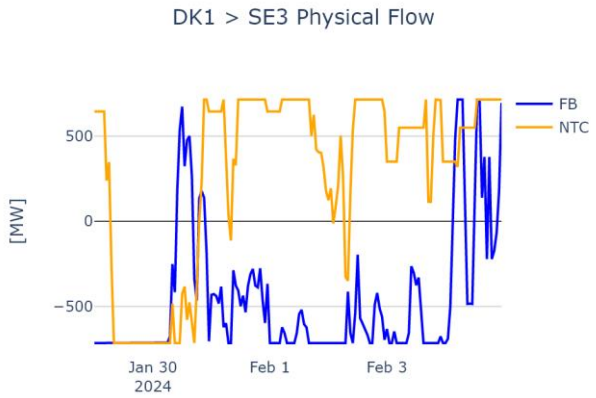


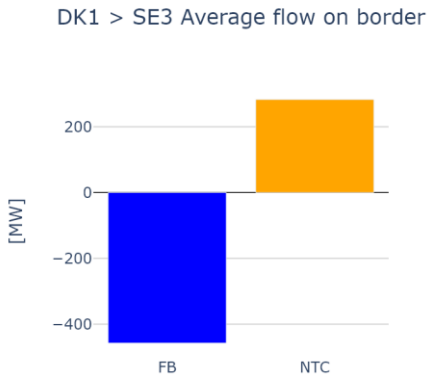

DK1 > NL Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 30
2024
Feb 1
Feb 3

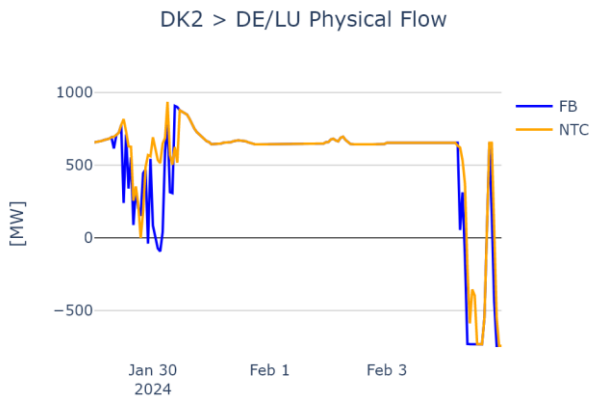

DK1 > NL Average flow on border
[MW]
200
150
100
50
0
FB
NTC

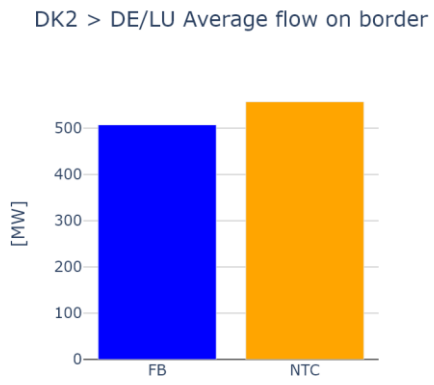

DK1 > NO2 Physical Flow
FB
NTC
[MW]
1000
0
−1000
Jan 30
2024
Feb 1
Feb 3

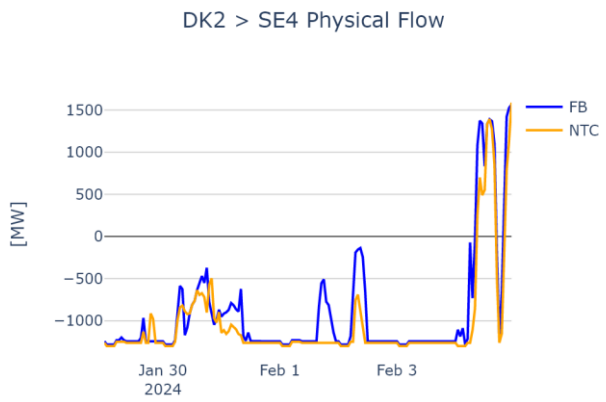

DK1 > NO2 Average flow on border
[MW]
600
400
200
0
FB
NTC

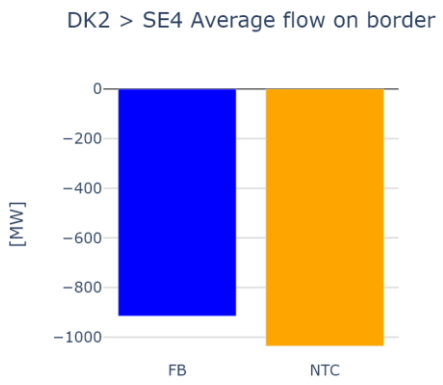

DK1 > SE3 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 30
2024
Feb 1
Feb 3

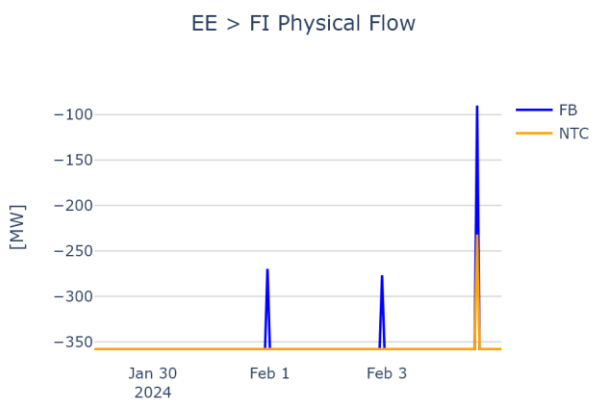

DK1 > SE3 Average flow on border
[MW]
200
0
−200
−400
FB
NTC

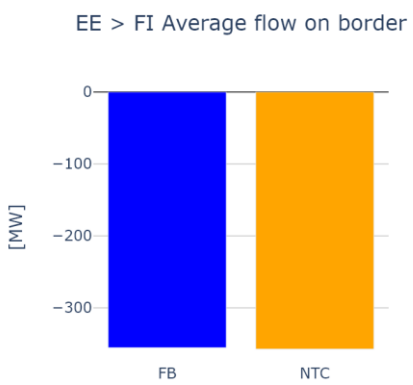

DK2 > DE/LU Physical Flow
1000
500
0
−500
[MW]
Jan 30
2024
Feb 1
Feb 3
FB
NTC

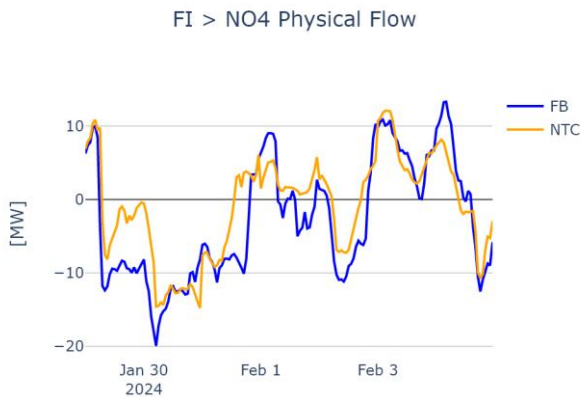

DK2 > DE/LU Average flow on border
500
400
300
200
100
0
[MW]
FB
NTC

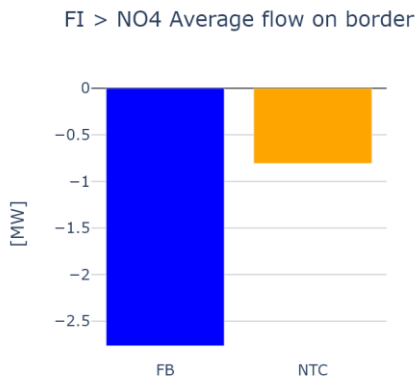

DK2 > SE4 Physical Flow
1500
1000
500
0
−500
−1000
[MW]
Jan 30
2024
Feb 1
Feb 3
FB
NTC

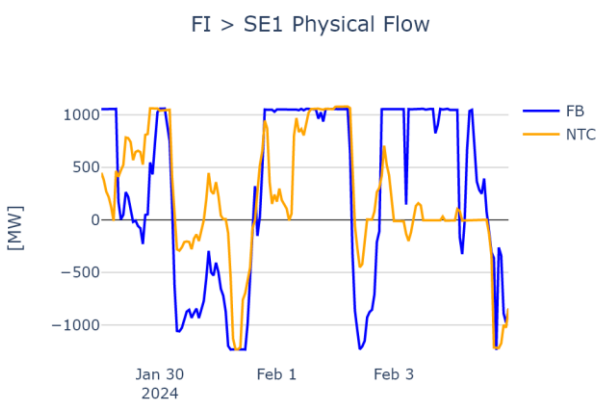

DK2 > SE4 Average flow on border
0
−200
−400
−600
−800
−1000
[MW]
FB
NTC

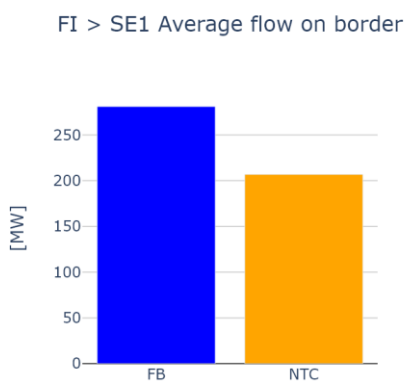

EE > FI Physical Flow
−100
−150
−200
−250
−300
−350
[MW]
Jan 30
2024
Feb 1
Feb 3
FB
NTC

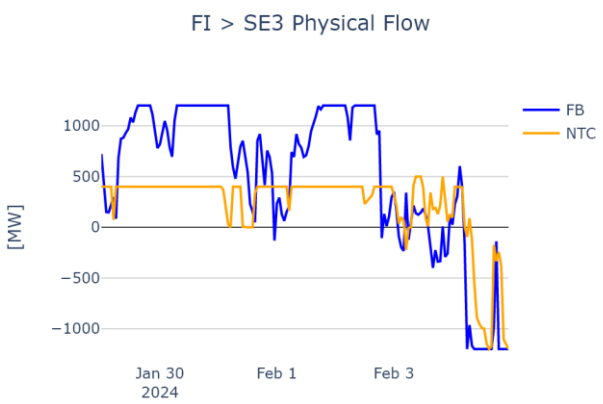

EE > FI Average flow on border
0
−100
−200
−300
[MW]
FB
NTC

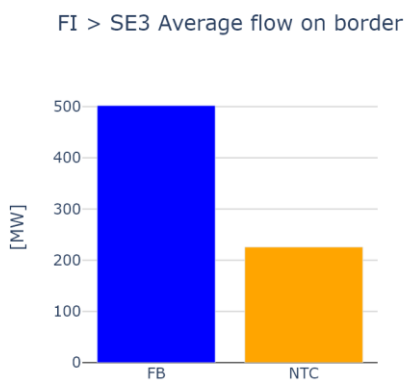

FI > NO4 Physical Flow
FB
NTC
[MW]
10
0
−10
−20
Jan 30
2024
Feb 1
Feb 3

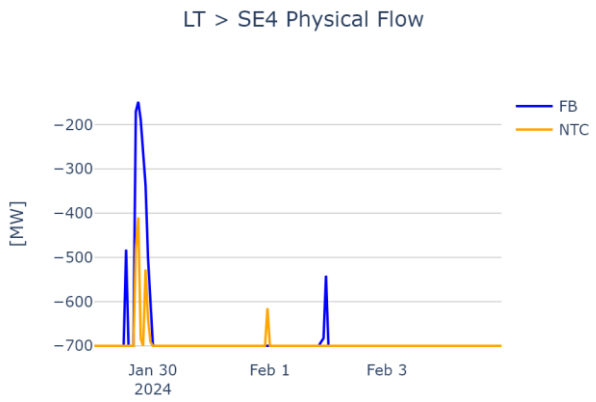

FI > NO4 Average flow on border
[MW]
0
−0.5
−1
−1.5
−2
−2.5
FB
NTC

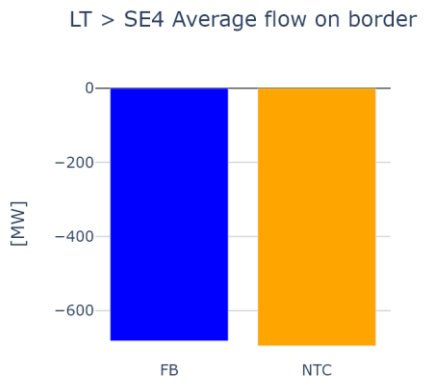

FI > SE1 Physical Flow
FB
NTC
[MW]
1000
500
0
−500
−1000
Jan 30
2024
Feb 1
Feb 3

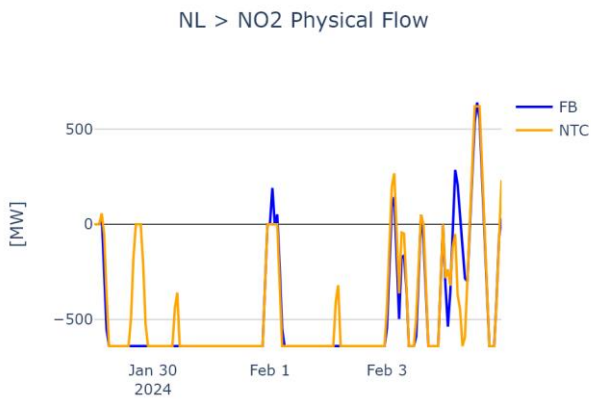

FI > SE1 Average flow on border
[MW]
250
200
150
100
50
0
FB
NTC

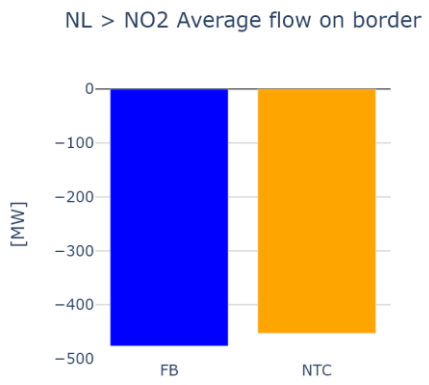

FI > SE3 Physical Flow
FB
NTC
[MW]
1000
500
0
−500
−1000
Jan 30
2024
Feb 1
Feb 3

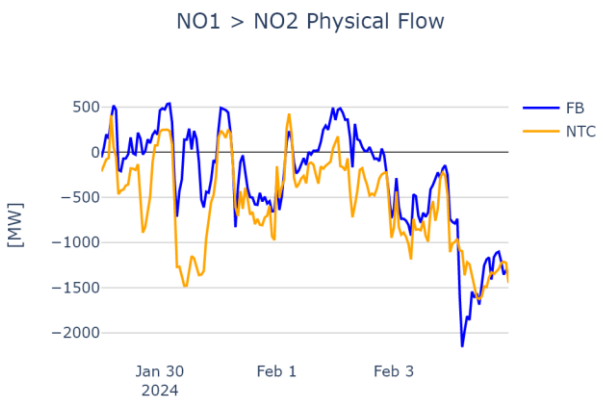

FI > SE3 Average flow on border
[MW]
500
400
300
200
100
0
FB
NTC

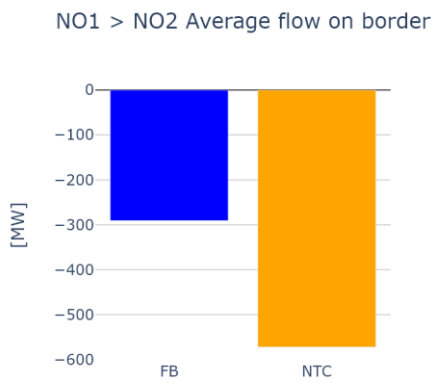

LT > SE4 Physical Flow
FB
NTC
[MW]
−200
−300
−400
−500
−600
−700
Jan 30
2024
Feb 1
Feb 3

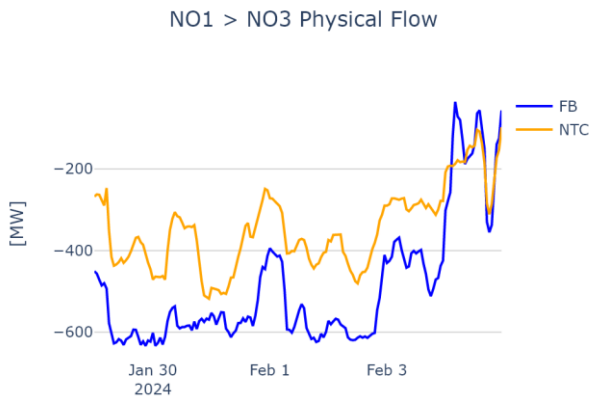

LT > SE4 Average flow on border
[MW]
0
−200
−400
−600
FB
NTC

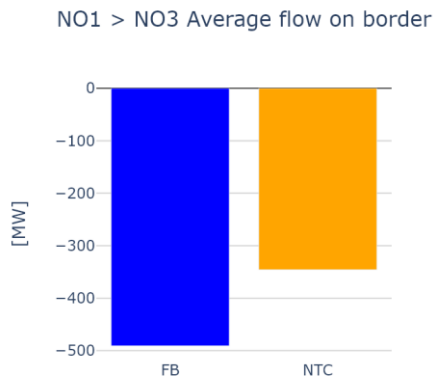

NL > NO2 Physical Flow
FB
NTC
[MW]
500
0
−500
Jan 30
2024
Feb 1
Feb 3

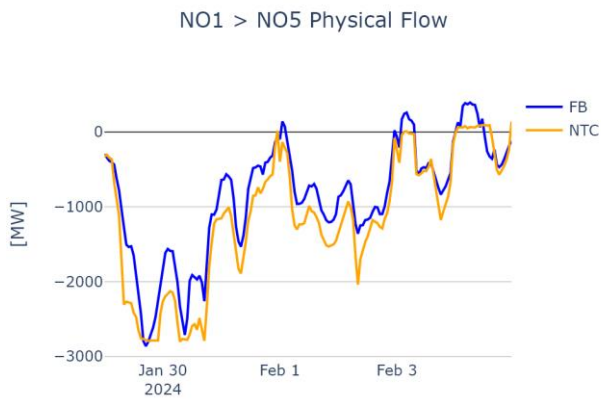

NL > NO2 Average flow on border
[MW]
0
−100
−200
−300
−400
−500
FB
NTC

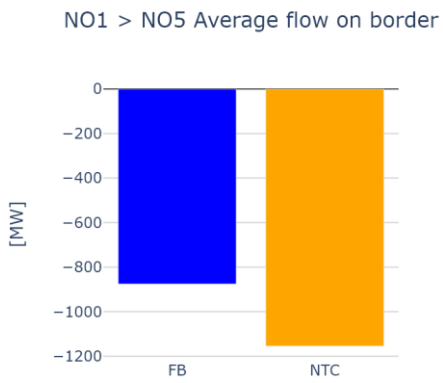

NO1 > NO2 Physical Flow
FB
NTC
[MW]
500
0
−500
−1000
−1500
−2000
Jan 30
2024
Feb 1
Feb 3

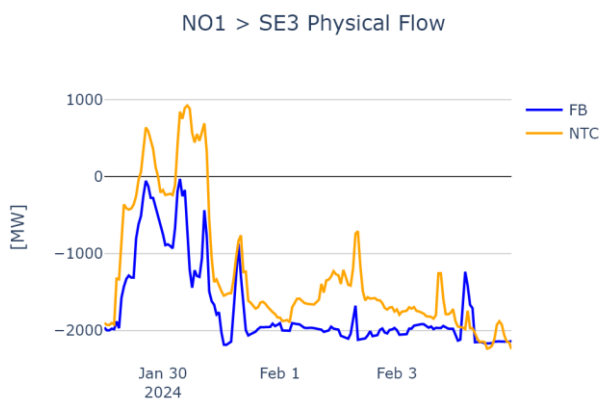

NO1 > NO2 Average flow on border
[MW]
0
−100
−200
−300
−400
−500
−600
FB
NTC

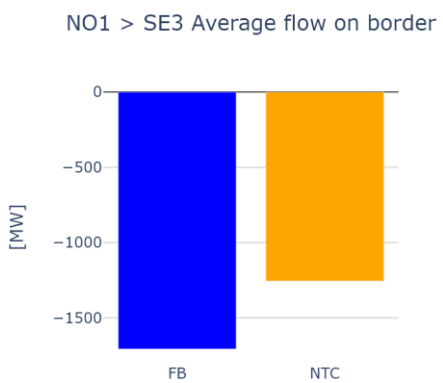

NO1 > NO3 Physical Flow
FB
NTC
[MW]
−200
−400
−600
Jan 30
2024
Feb 1
Feb 3

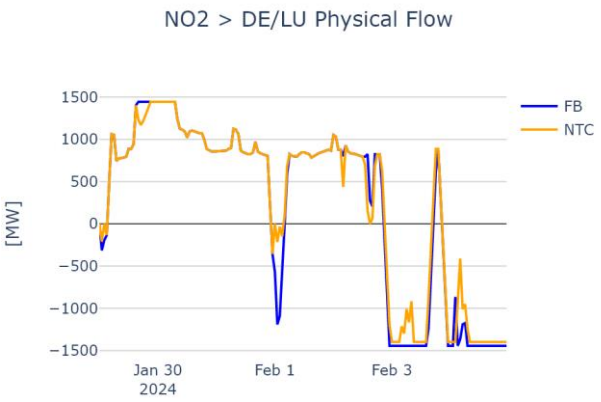

NO1 > NO3 Average flow on border
[MW]
0
−100
−200
−300
−400
−500
FB
NTC

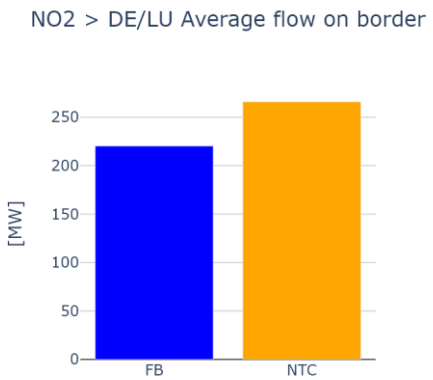

NO1 > NO5 Physical Flow
FB
NTC
[MW]
0
−1000
−2000
−3000
Jan 30
2024
Feb 1
Feb 3

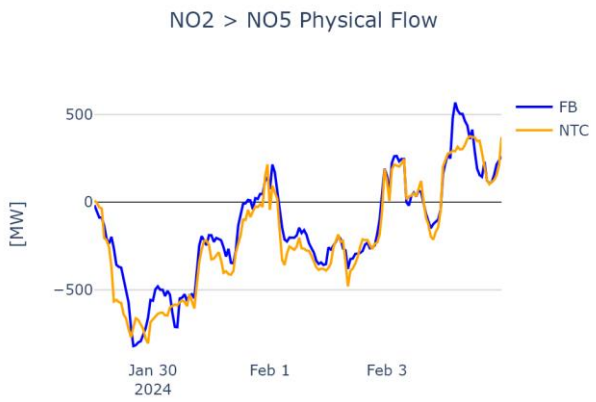

NO1 > NO5 Average flow on border
[MW]
0
−200
−400
−600
−800
−1000
−1200
FB
NTC

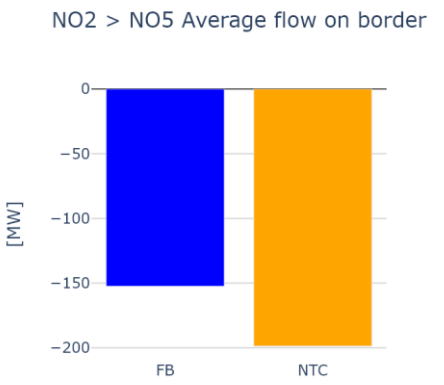

NO1 > SE3 Physical Flow
FB
NTC
[MW]
1000
0
−1000
−2000
Jan 30
2024
Feb 1
Feb 3

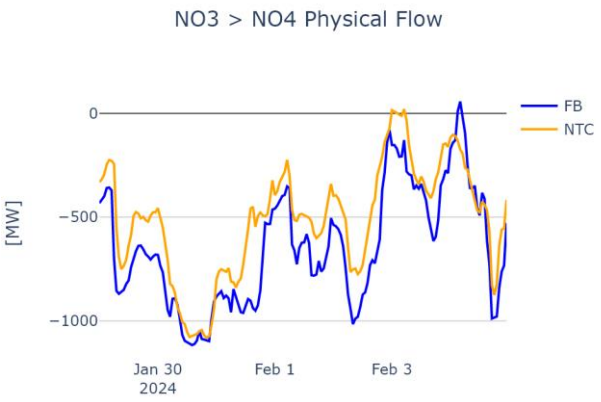

NO1 > SE3 Average flow on border
[MW]
0
−500
−1000
−1500
FB
NTC

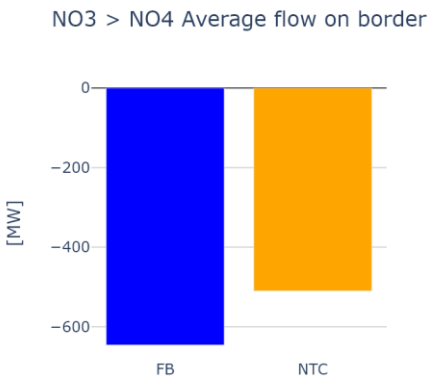

NO2 > DE/LU Physical Flow
1500
1000
500
0
−500
−1000
−1500
[MW]
Jan 30
2024
Feb 1
Feb 3
FB
NTC

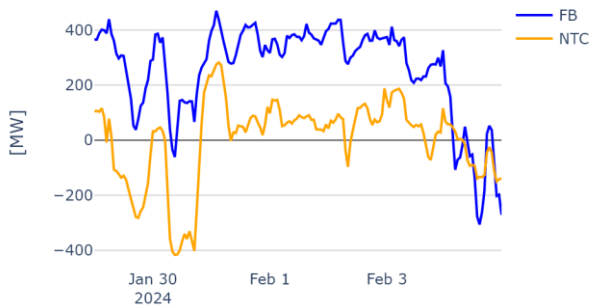

NO2 > DE/LU Average flow on border
250
200
150
100
50
0
[MW]
FB
NTC

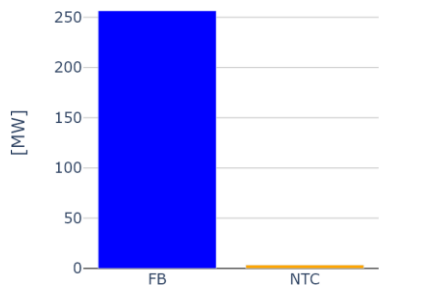

NO2 > NO5 Physical Flow
500
0
−500
[MW]
Jan 30
2024
Feb 1
Feb 3
FB
NTC

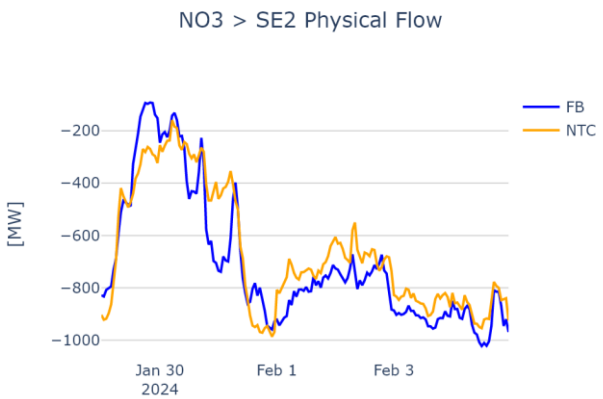

NO2 > NO5 Average flow on border
0
−50
−100
−150
−200
[MW]
FB
NTC

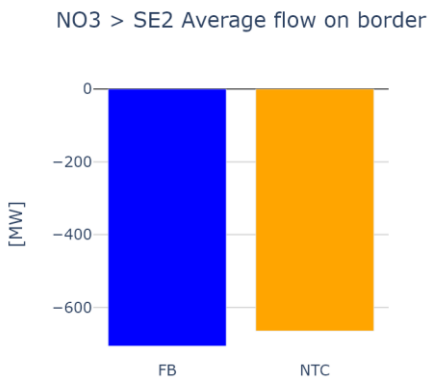

NO3 > NO4 Physical Flow
0
−500
−1000
[MW]
Jan 30
2024
Feb 1
Feb 3
FB
NTC

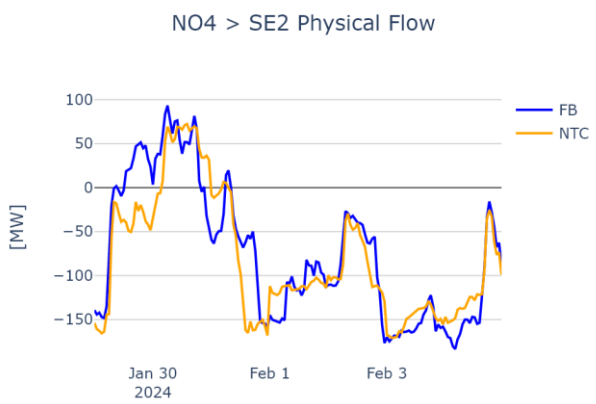

NO3 > NO4 Average flow on border
0
−200
−400
−600
[MW]
FB
NTC

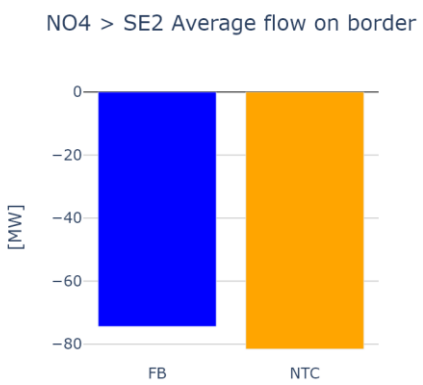

NO3 > NO5 Physical Flow
FB
NTC
[MW]
400
200
0
−200
−400
Jan 30
2024
Feb 1
Feb 3

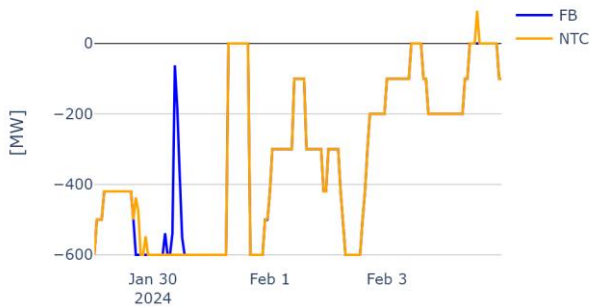

NO3 > NO5 Average flow on border
[MW]
250
200
150
100
50
0
FB
NTC

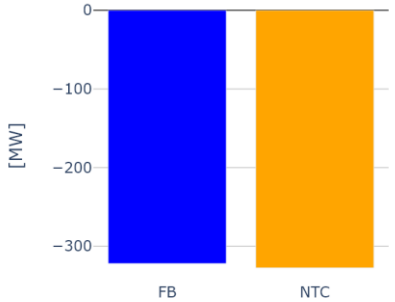

NO3 > SE2 Physical Flow
FB
NTC
[MW]
−200
−400
−600
−800
−1000
Jan 30
2024
Feb 1
Feb 3

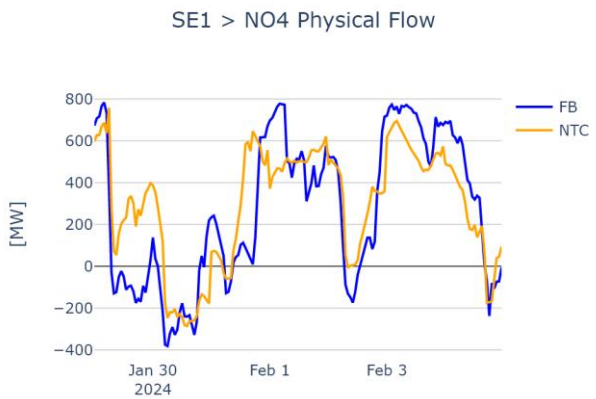

NO3 > SE2 Average flow on border
[MW]
0
−200
−400
−600
FB
NTC

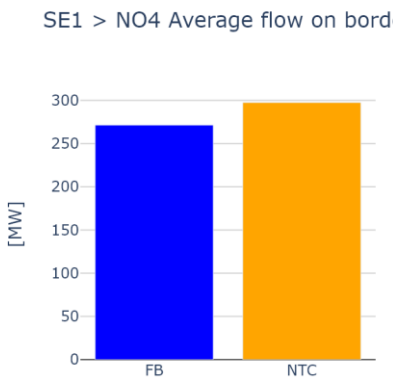

NO4 > SE2 Physical Flow
FB
NTC
[MW]
100
50
0
−50
−100
−150
Jan 30
2024
Feb 1
Feb 3

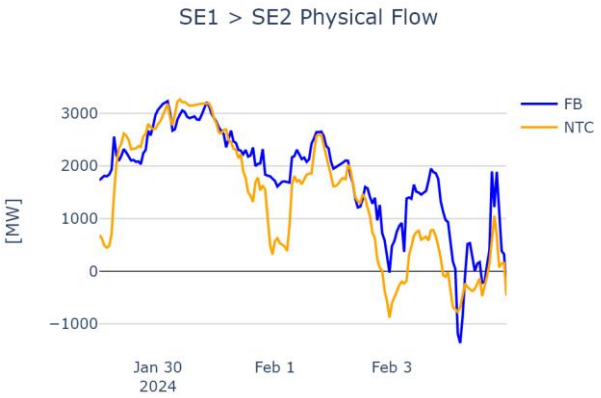

NO4 > SE2 Average flow on border
[MW]
0
−20
−40
−60
−80
FB
NTC

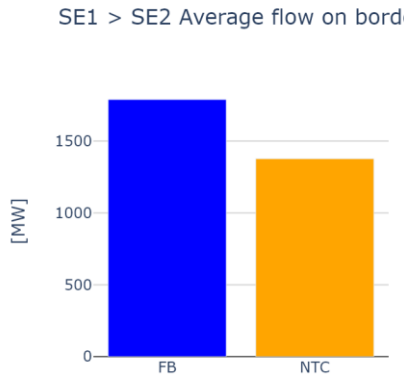

PL > SE4 Physical Flow
FB
NTC
[MW]
0
−200
−400
−600
Jan 30
2024
Feb 1
Feb 3


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

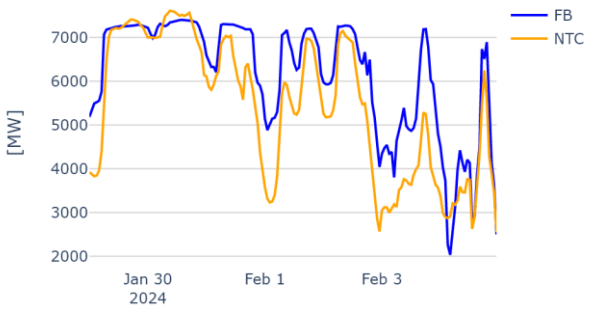

SE1 > NO4 Physical Flow
FB
NTC
[MW]
800
600
400
200
0
−200
−400
Jan 30
2024
Feb 1
Feb 3


SE1 > NO4 Average flow on border
[MW]
300
250
200
150
100
50
0
FB
NTC

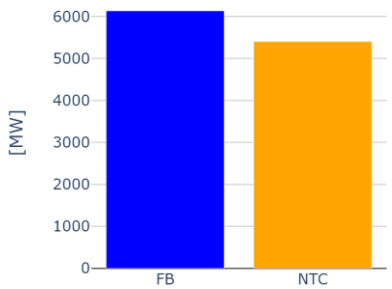

SE1 > SE2 Physical Flow
FB
NTC
[MW]
3000
2000
1000
0
−1000
Jan 30
2024
Feb 1
Feb 3


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

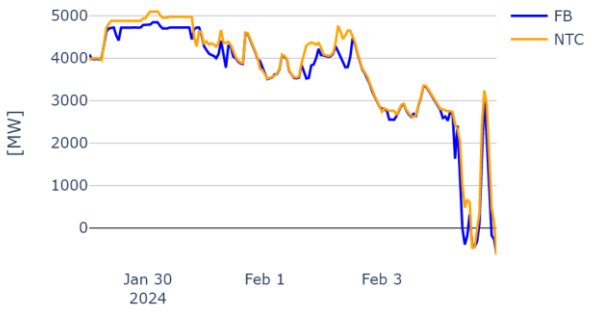
SE2 > SE3 Physical Flow



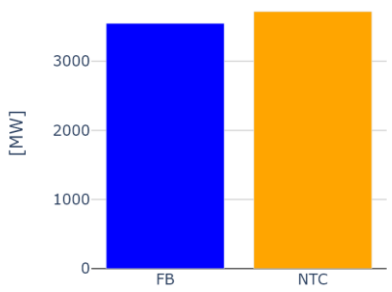
SE2 > SE3 Average flow on border



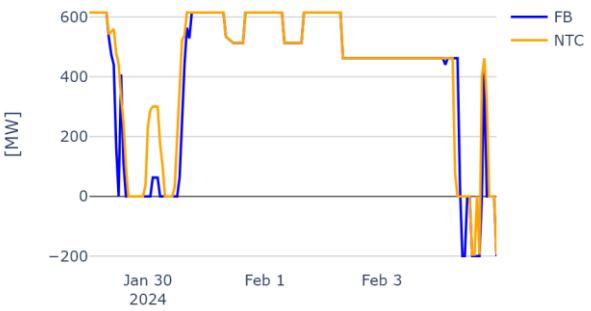
SE3 > SE4 Physical Flow



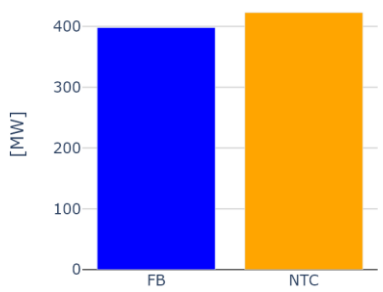
SE3 > SE4 Average flow on border



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	5310024	17
DK1 > DK2	543889	6
DK1 > NL	788487	7
DK1 > NO2	3158563	14
DK1 > SE3	1901237	17
DK2 > DE/LU	2284652	21
DK2 > SE4	1391800	7
EE > FI	2880089	48
FI > NO4	4714	4
FI > SE1	391694	2
FI > SE3	1758426	9
LT > SE4	3745963	32
NL > NO2	1649962	17
NO1 > NO2	17459	0
NO1 > NO3	1791472	19
NO1 > NO5	309513	2
NO1 > SE3	7938231	25
NO2 > DE/LU	2937599	18
NO2 > NO5	112806	2
NO3 > NO4	972472	9
NO3 > NO5	898263	16
NO3 > SE2	1722418	14
NO4 > SE2	108149	4
PL > SE4	1963567	33
SE1 > NO4	406250	3
SE1 > SE2	-120020	0
SE2 > SE3	10784044	9
SE3 > SE4	5735122	7
SE4 > DE/LU	2435343	27

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	-968	-1
DK1 > DK2	12	-21442	-2
DK1 > NL	0	0	0
DK1 > NO2	4	-20162	-5
DK1 > SE3	14	-28933	-3
DK2 > DE/LU	3	-108	0
DK2 > SE4	20	-5201	0
EE > FI	0	0	0
FI > NO4	41	-2349	-5
FI > SE1	8	-414	0
FI > SE3	38	-34337	-1
LT > SE4	0	0	0
NL > NO2	8	-16872	-4
NO1 > NO2	51	-29150	-1
NO1 > NO3	7	-18685	-7
NO1 > NO5	7	-13159	-5
NO1 > SE3	8	-42012	-7
NO2 > DE/LU	1	-1213	-1
NO2 > NO5	25	-9069	-2
NO3 > NO4	9	-121827	-9
NO3 > NO5	12	-44236	-12
NO3 > SE2	9	-152076	-15
NO4 > SE2	27	-10166	-5
PL > SE4	1	-6377	-11
SE1 > NO4	33	-33114	-4
SE1 > SE2	76	-189819	-1
SE2 > SE3	49	-918318	-2
SE3 > SE4	45	-142956	-1
SE4 > DE/LU	0	0	0