Nordic Capacity Calculation Methodology Project (Nordic CCM)

Nordic CCM

External Parallel Run Market Report
Appendix for Week 52 of 2023

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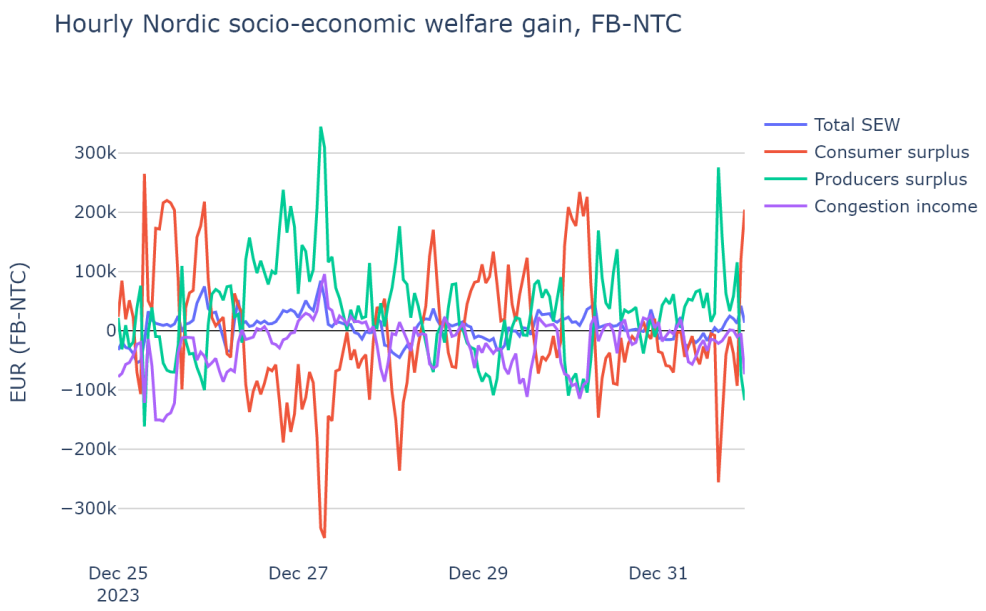
Domain validation

Energy Delivery Day:	Mon. 25.12	Tue. 26.12	Wed. 27.12	Thu. 28.12	Fri. 29.12	Sat. 30.12	Sun. 31.12
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	0	2	0	0
Final domain acceptance (1 TSO =25%)	100%	100%	100%	100%	100%	100%	100%

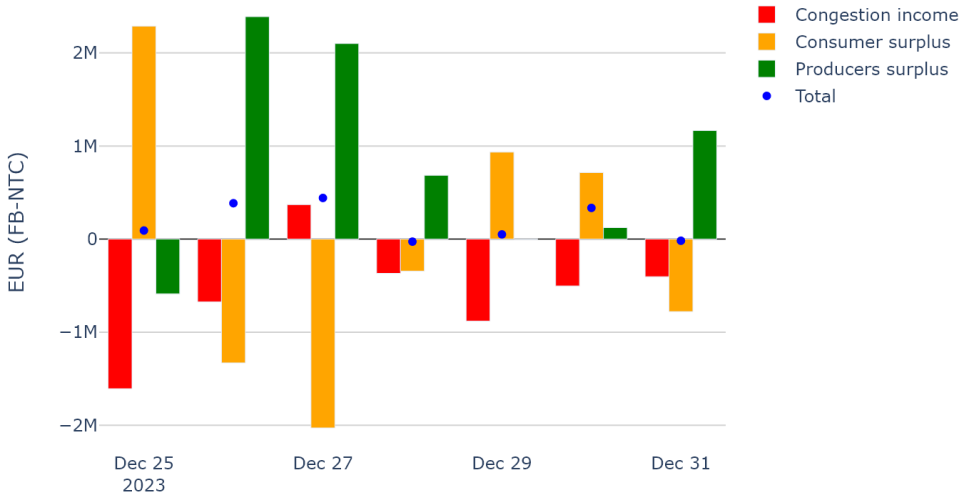
Socio Economic Welfare

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.

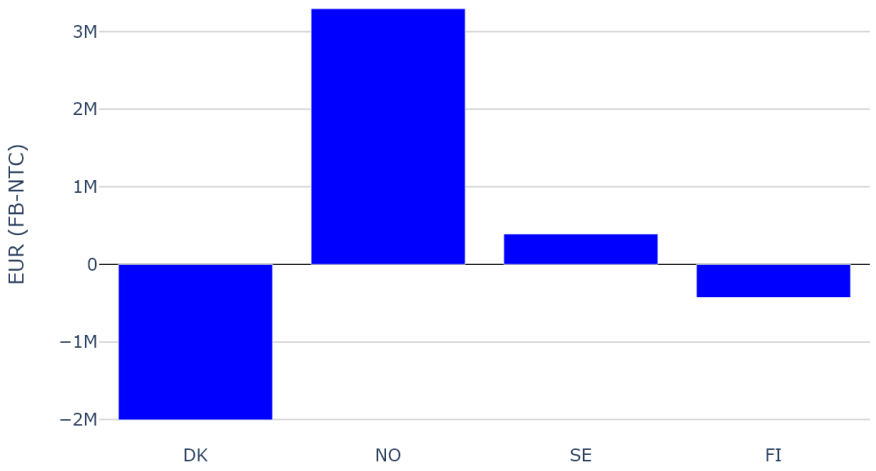
Nordics

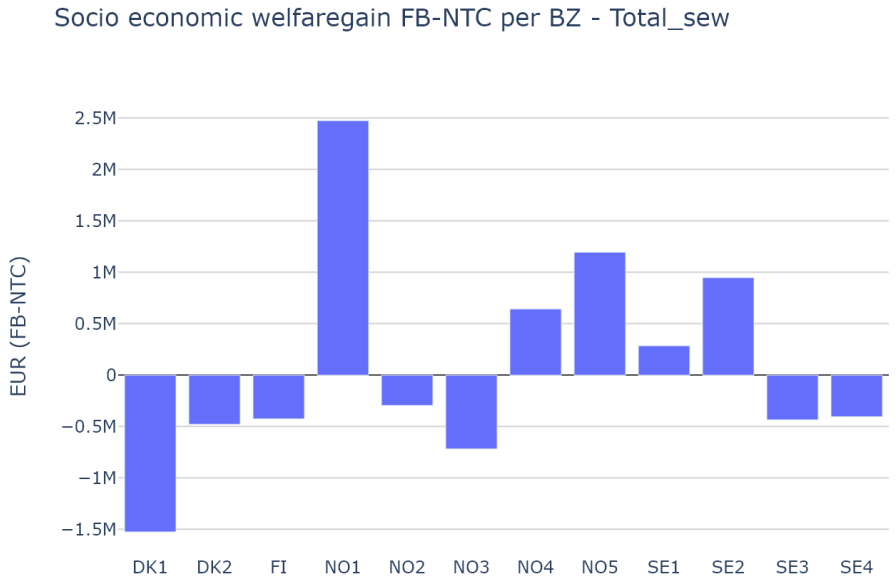


Nordics socio-economic welfare per stakeholder and day

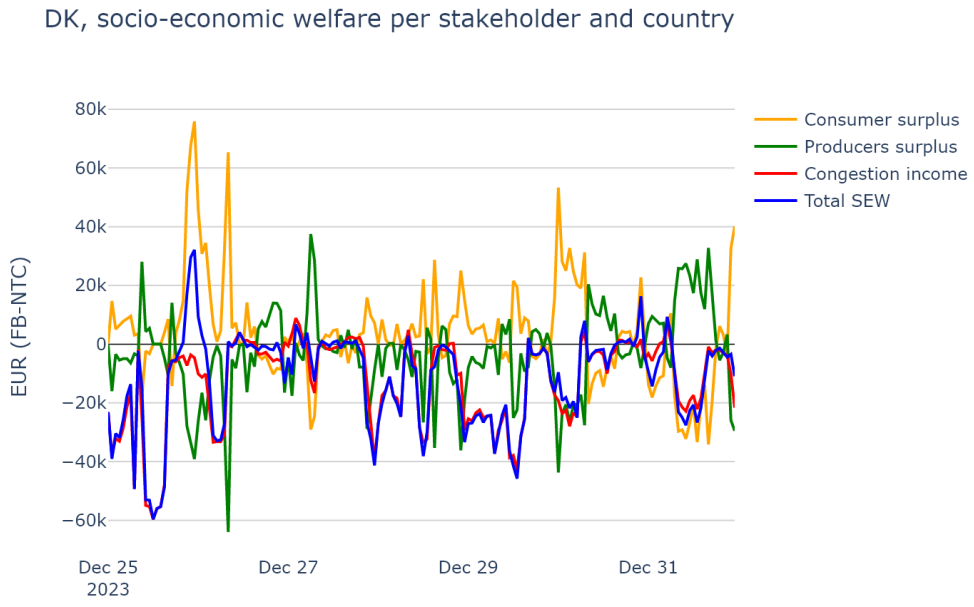


Total Nordic socio-economic welfare per country

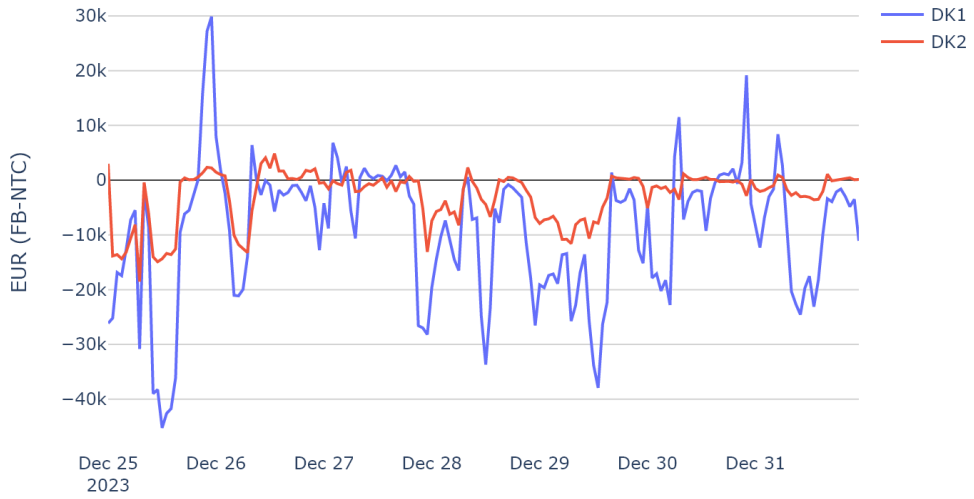



Socio economic welfaregain FB-NTC per BZ - Total_sew
EUR (FB-NTC)
2.5M
2M
1.5M
1M
0.5M
0
−0.5M
−1M
−1.5M
DK1
DK2
FI
NO1
NO2
NO3
NO4
NO5
SE1
SE2
SE3
SE4

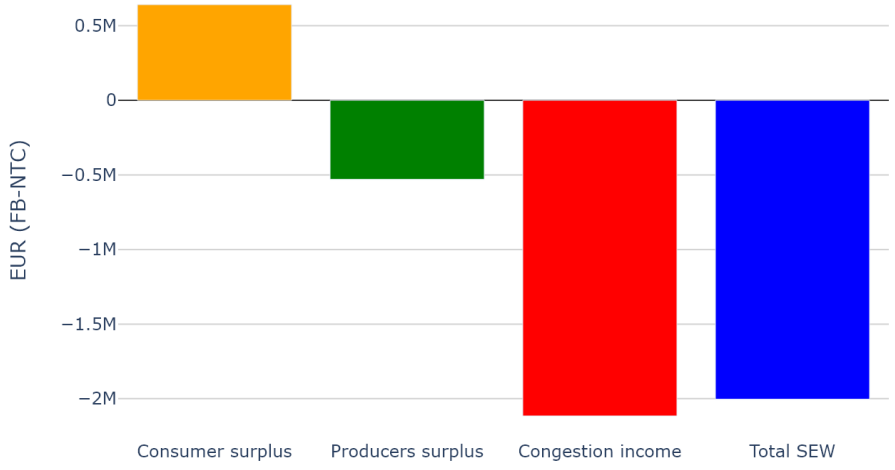
Denmark


DK, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
80k
60k
40k
20k
0
−20k
−40k
−60k
Dec 25
2023
Dec 27
Dec 29
Dec 31
Consumer surplus
Producers surplus
Congestion income
Total SEW

Total socio economic welfaregain FB-NTC per BZ in DK

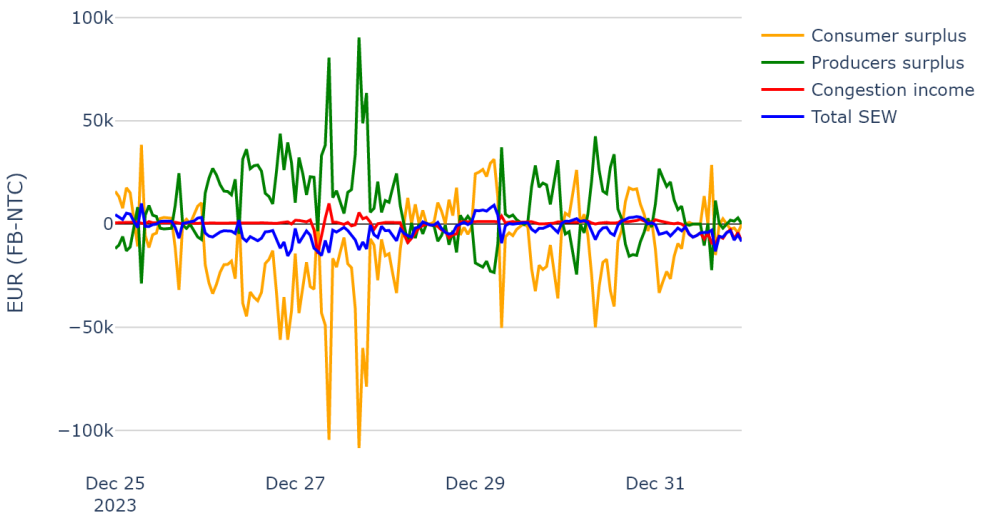


DK, socio-economic welfare per stakeholder and country

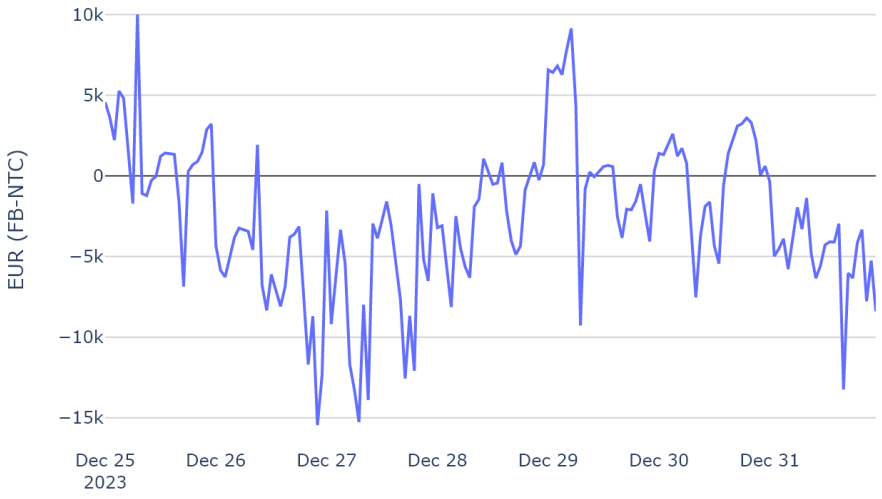


Finland

FI, socio-economic welfare per stakeholder and country



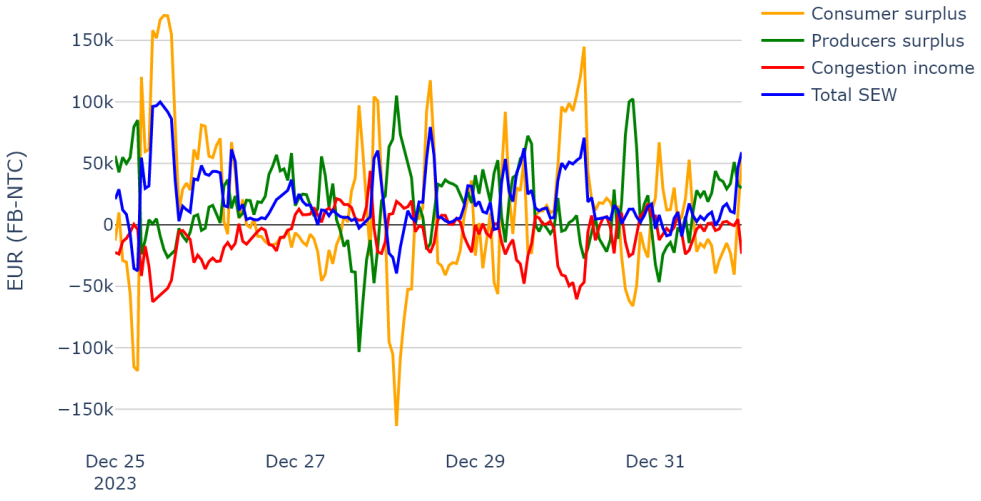
Total socio economic welfaregain FB-NTC per BZ in FI



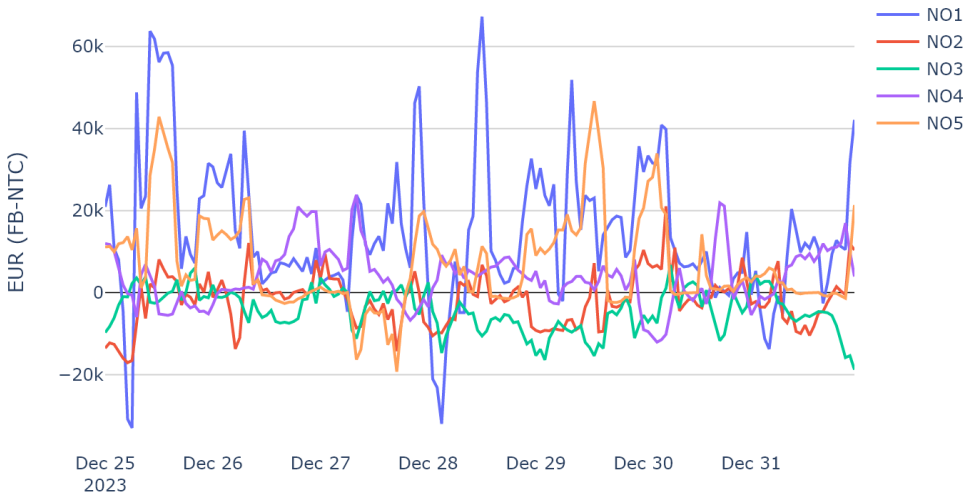
FI, socio-economic welfare per stakeholder and country

Norway

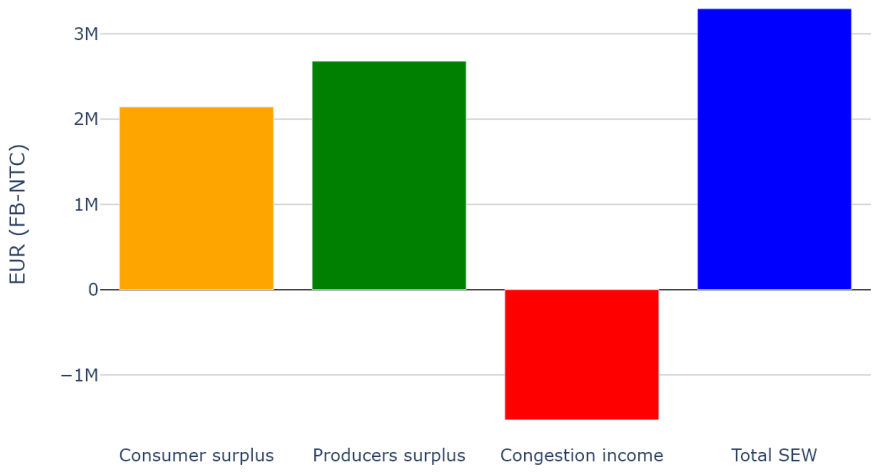
NO, socio-economic welfare per stakeholder and country



Total socio economic welfaregain FB-NTC per BZ in NO

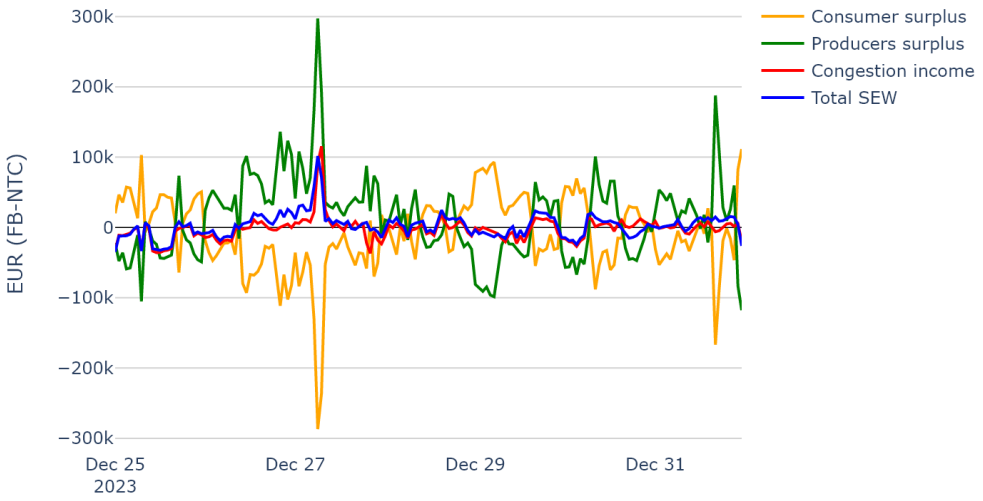


NO, socio-economic welfare per stakeholder and country

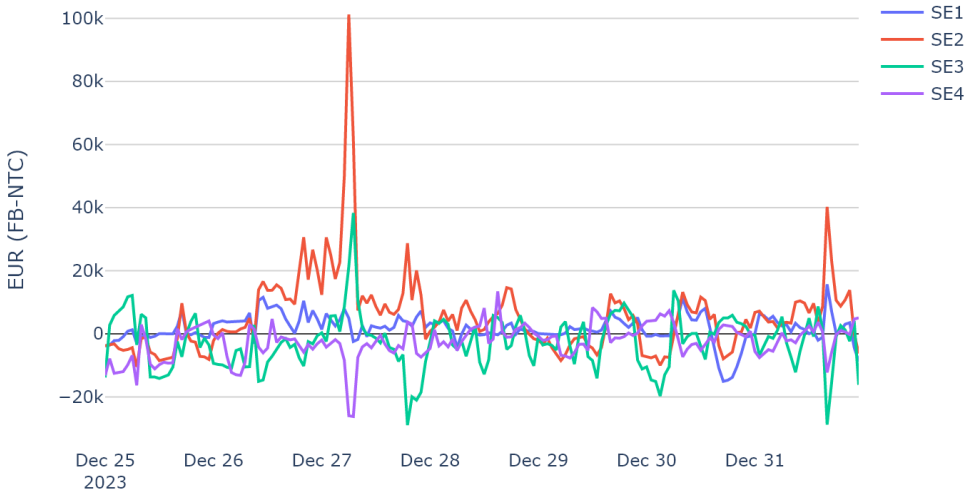


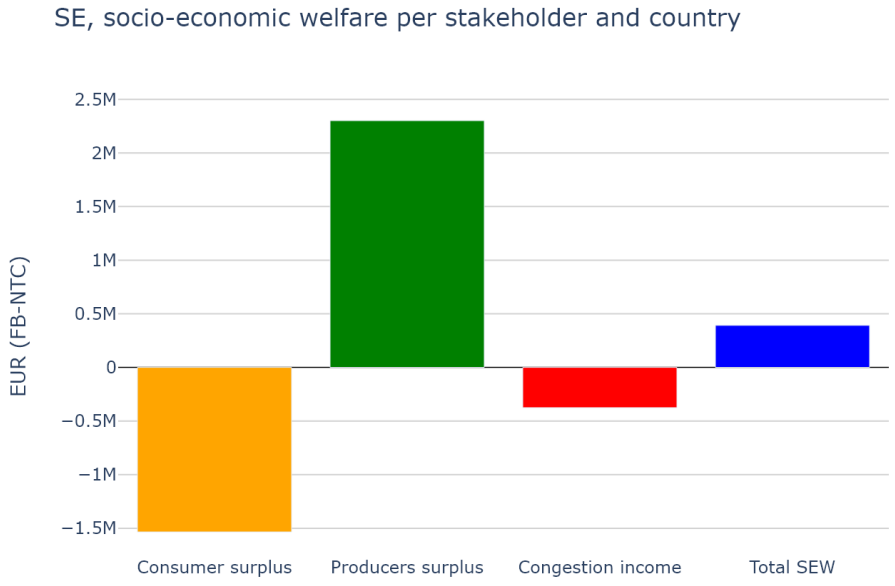
Sweden

SE, socio-economic welfare per stakeholder and country

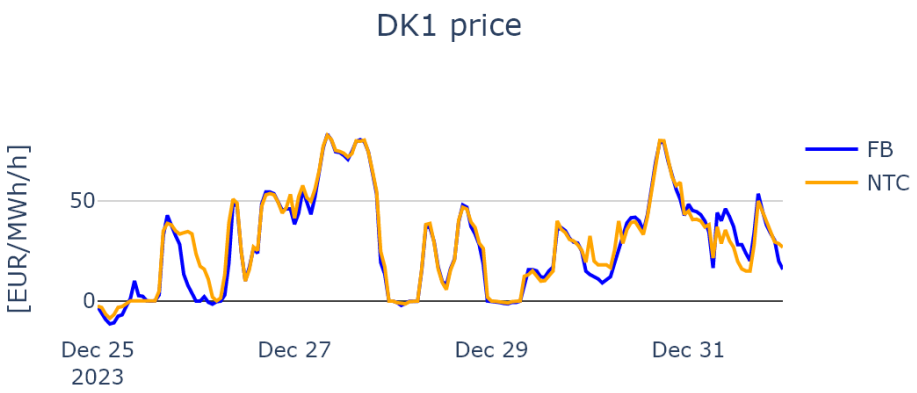


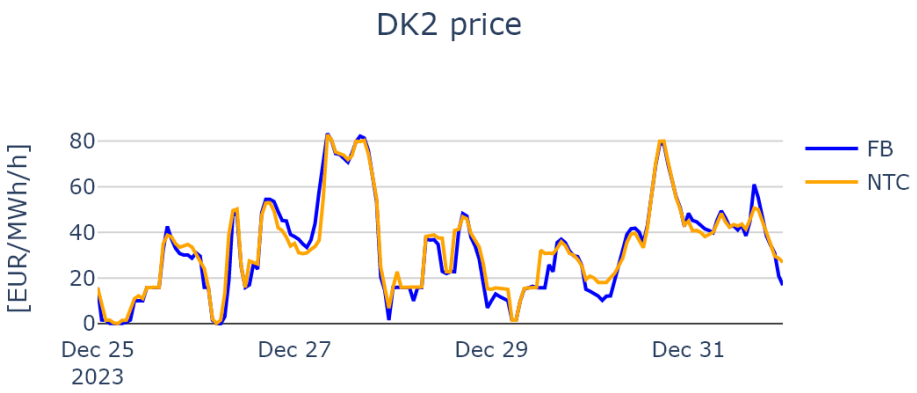
Total socio economic welfaregain FB-NTC per BZ in SE

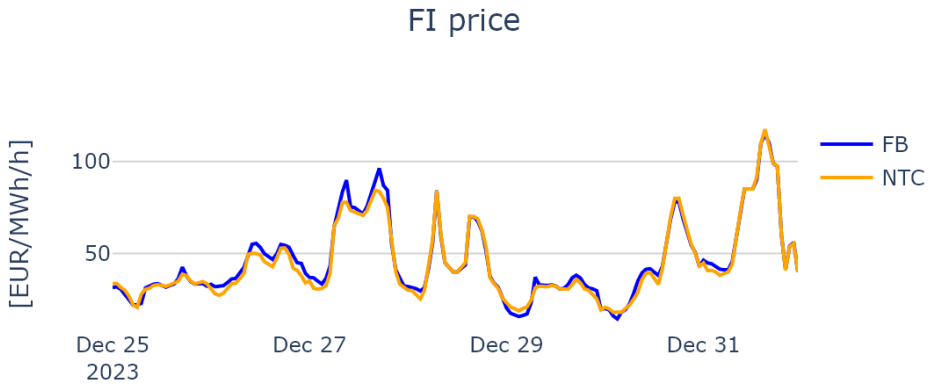


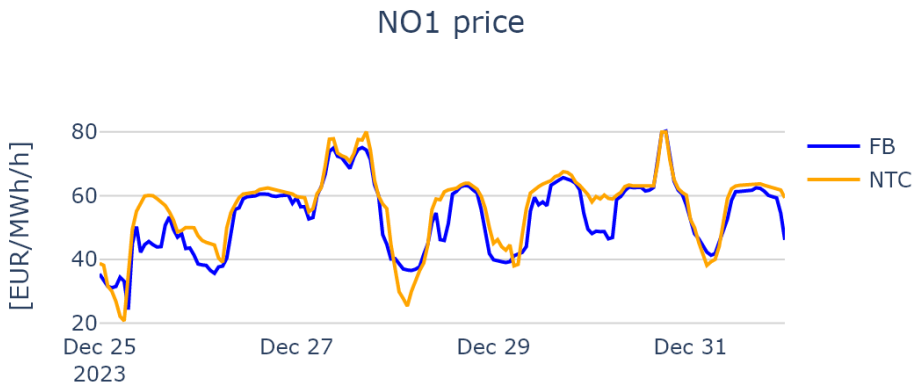

SE, socio-economic welfare per stakeholder and country
EUR (FB-NTC)
2.5M
2M
1.5M
1M
0.5M
0
−0.5M
−1M
−1.5M
Consumer surplus
Producers surplus
Congestion income
Total SEW

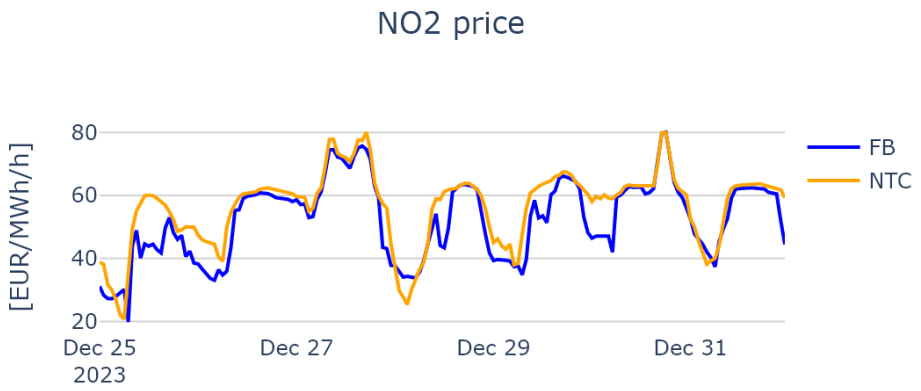
Prices

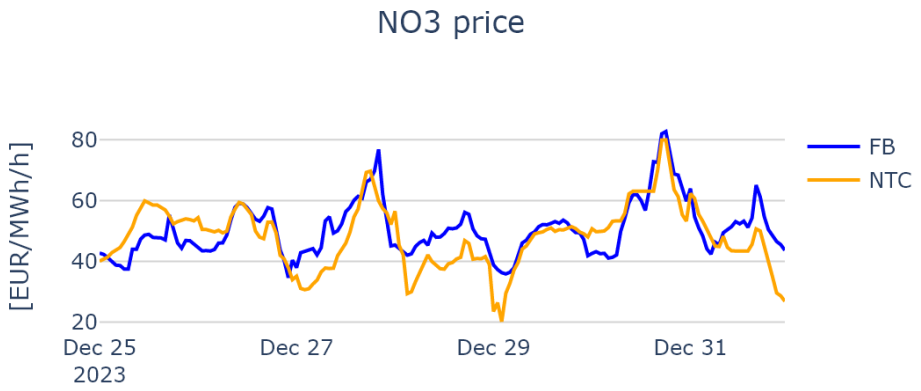

DK1 price
[EUR/MWh/h]
50
0
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

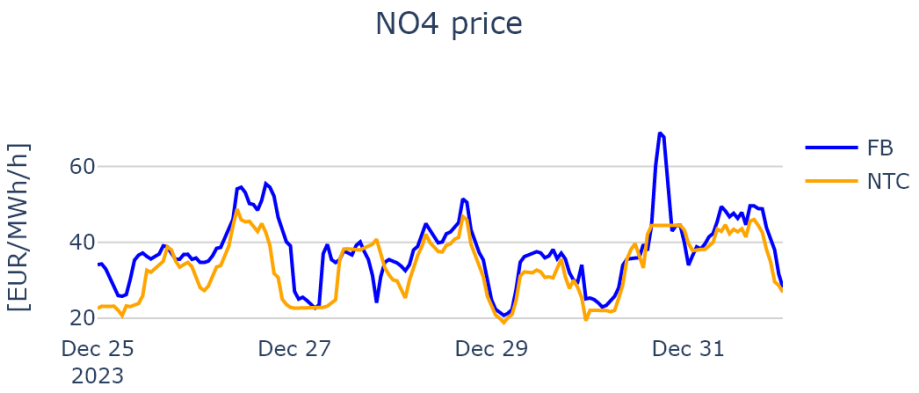

DK2 price
[EUR/MWh/h]
80
60
40
20
0
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

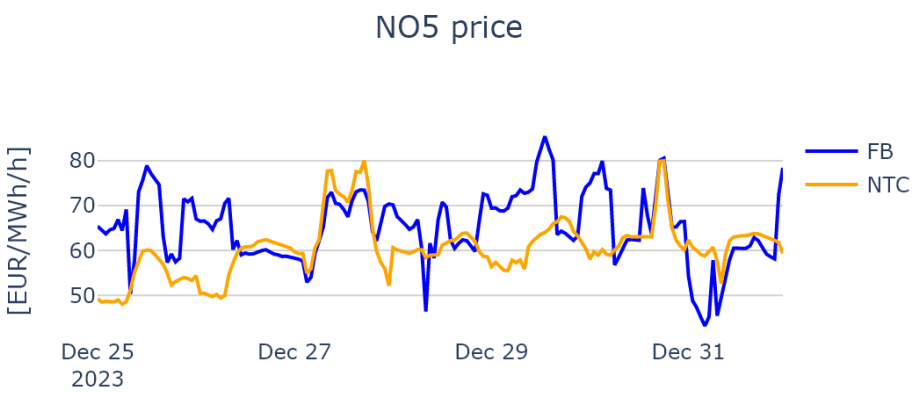

FI price
[EUR/MWh/h]
100
50
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

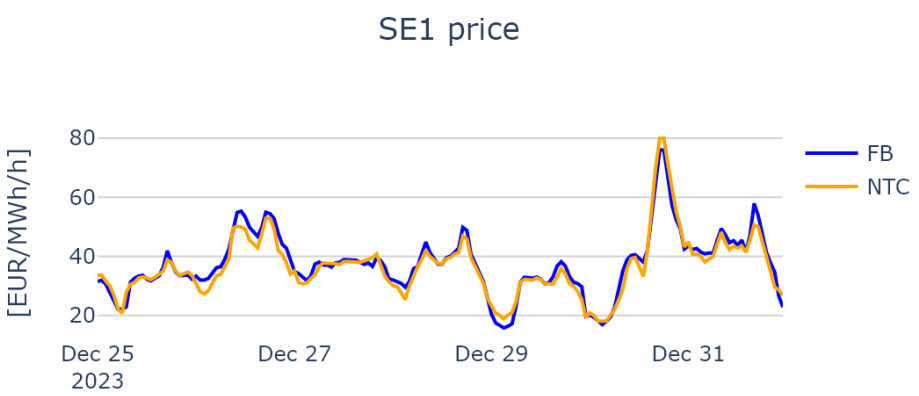

NO1 price
[EUR/MWh/h]
80
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

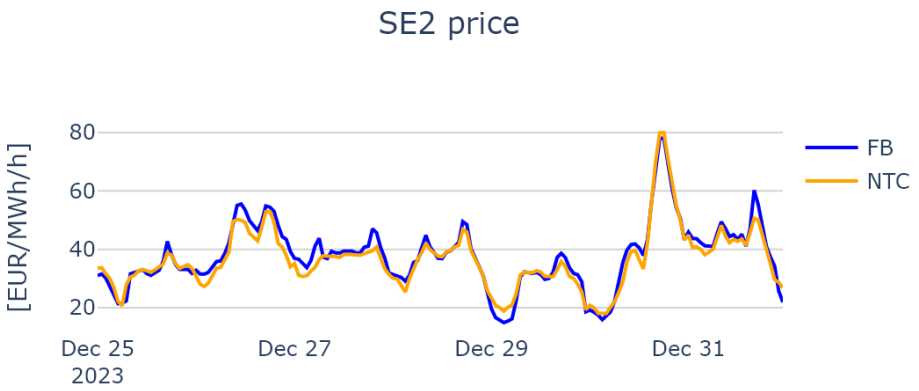

NO2 price
[EUR/MWh/h]
80
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

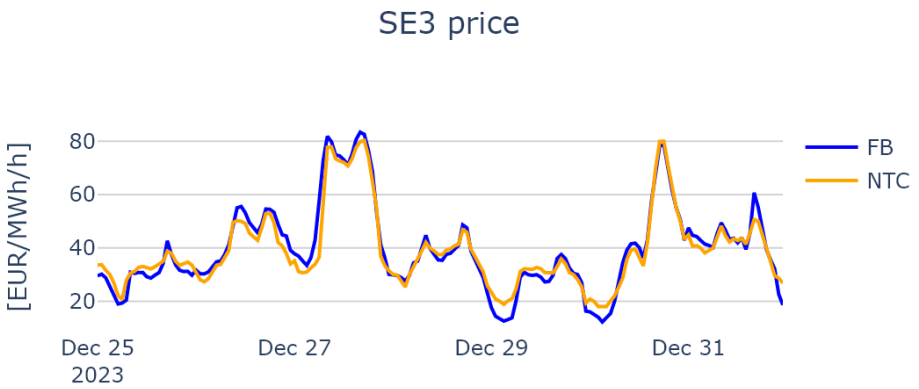

NO3 price
[EUR/MWh/h]
80
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

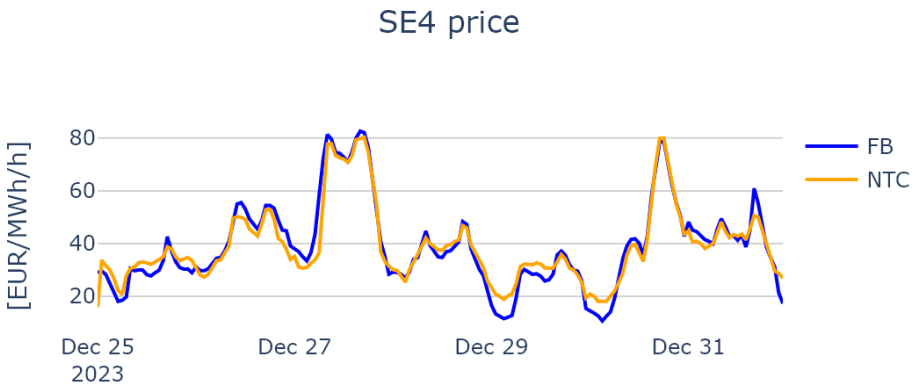

NO4 price
[EUR/MWh/h]
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC


NO5 price
[EUR/MWh/h]
80
70
60
50
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC


SE1 price
[EUR/MWh/h]
80
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

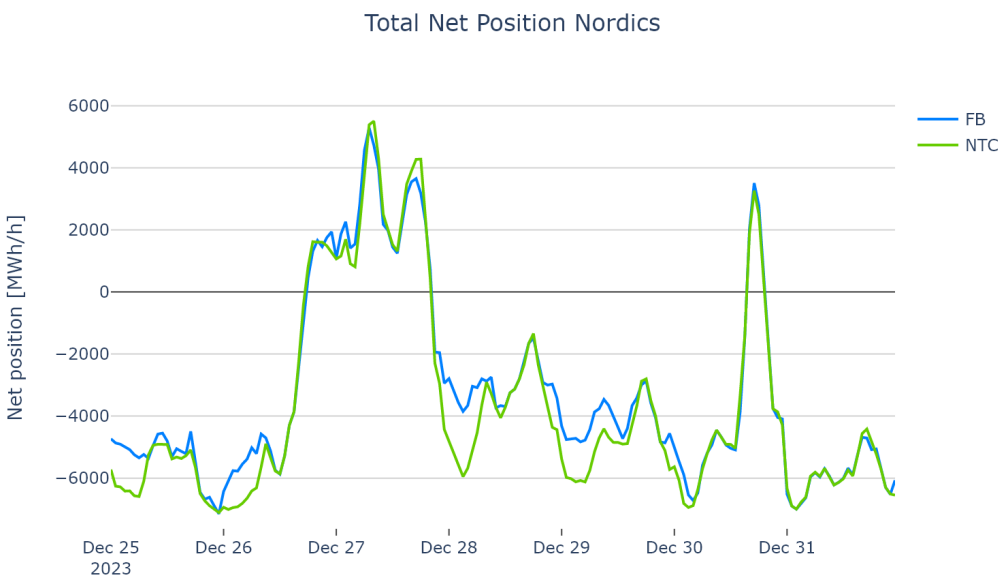

SE2 price
[EUR/MWh/h]
80
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

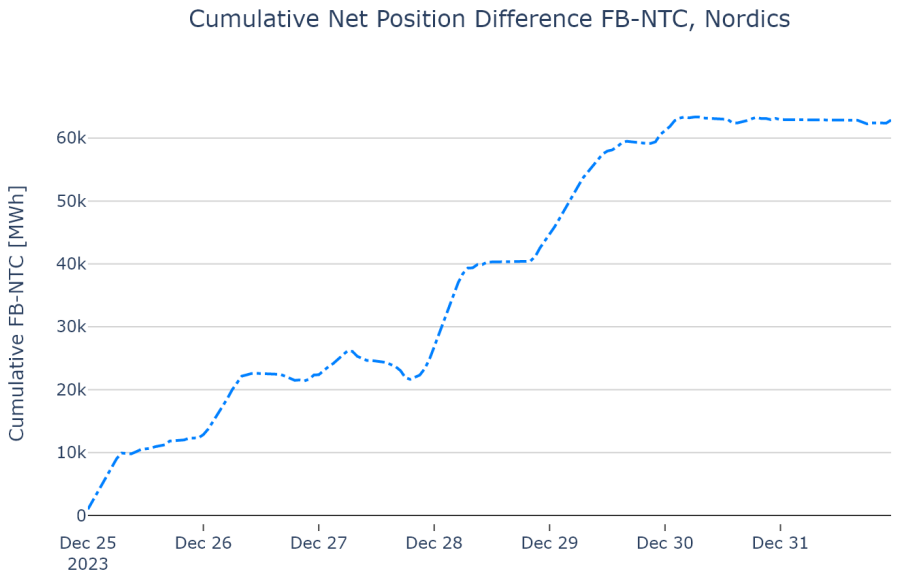

SE3 price
[EUR/MWh/h]
80
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC


SE4 price
[EUR/MWh/h]
80
60
40
20
Dec 25
2023
Dec 27
Dec 29
Dec 31
FB
NTC

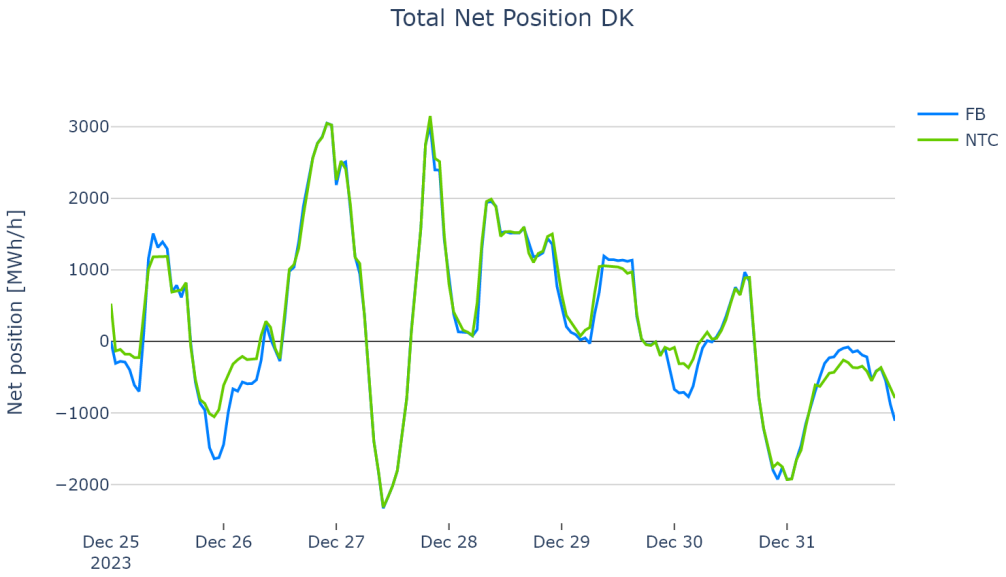
Net positions

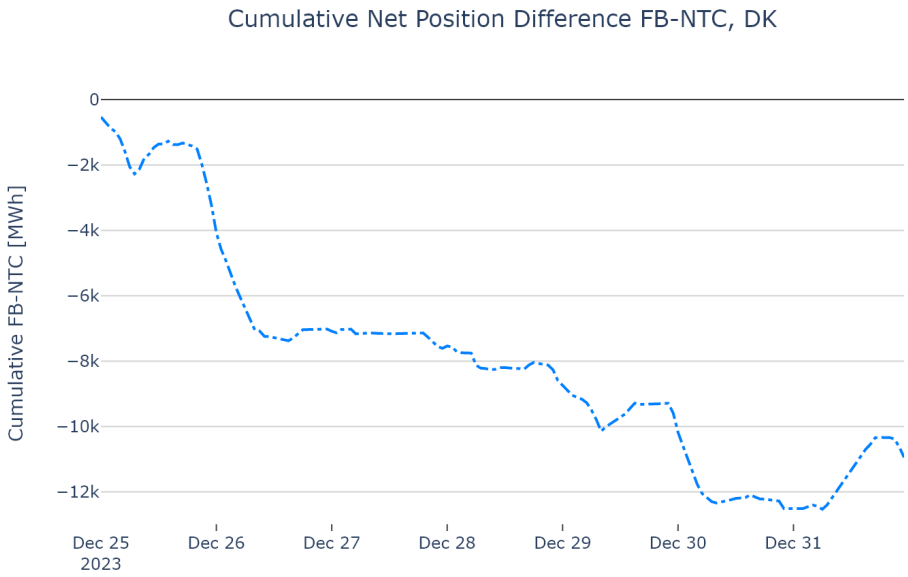
Nordics

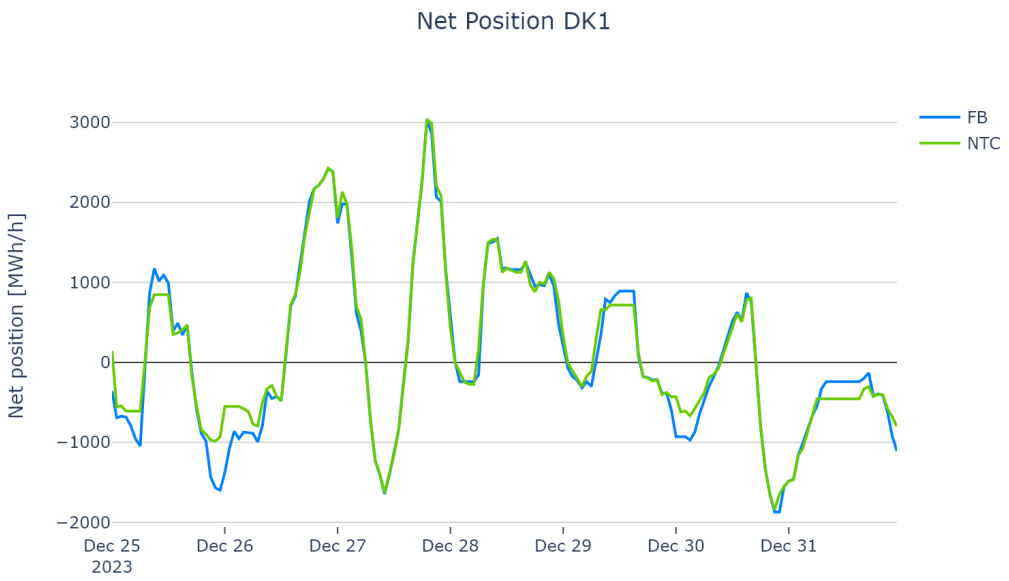


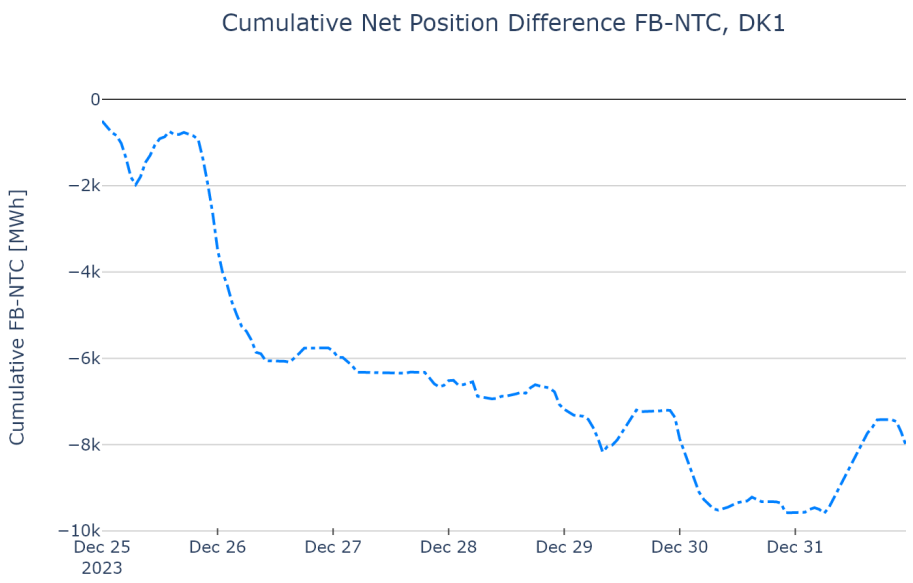


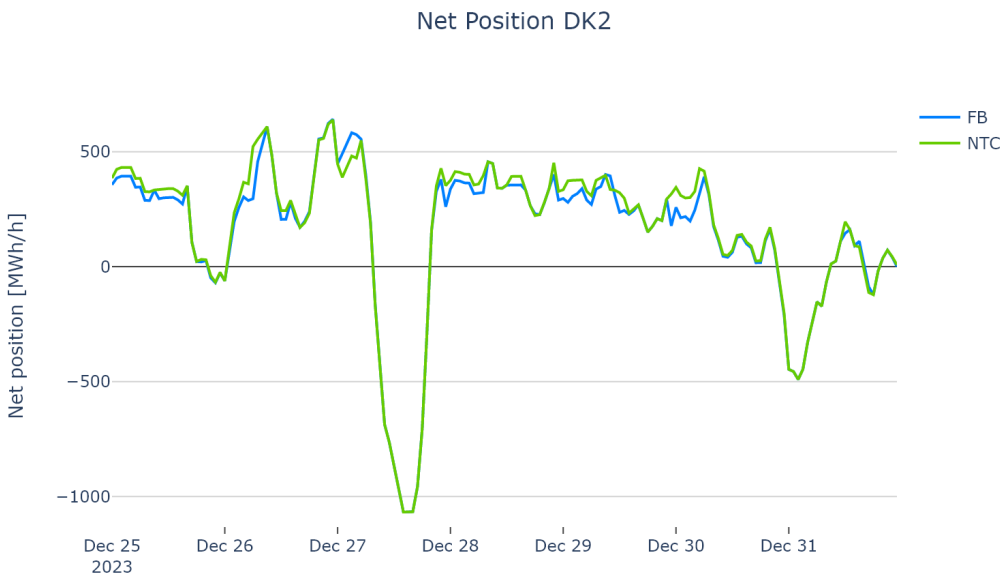
Denmark

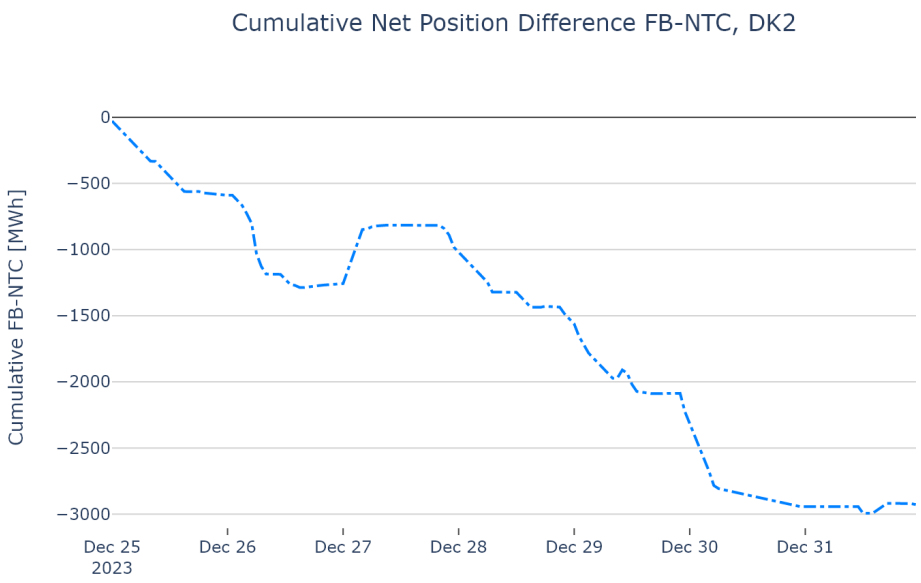

Total Net Position DK
FB
NTC
Net position [MWh/h]
3000
2000
1000
0
−1000
−2000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31


Cumulative Net Position Difference FB-NTC, DK
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
−12k
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31


Net Position DK1
FB
NTC
Net position [MWh/h]
3000
2000
1000
0
−1000
−2000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

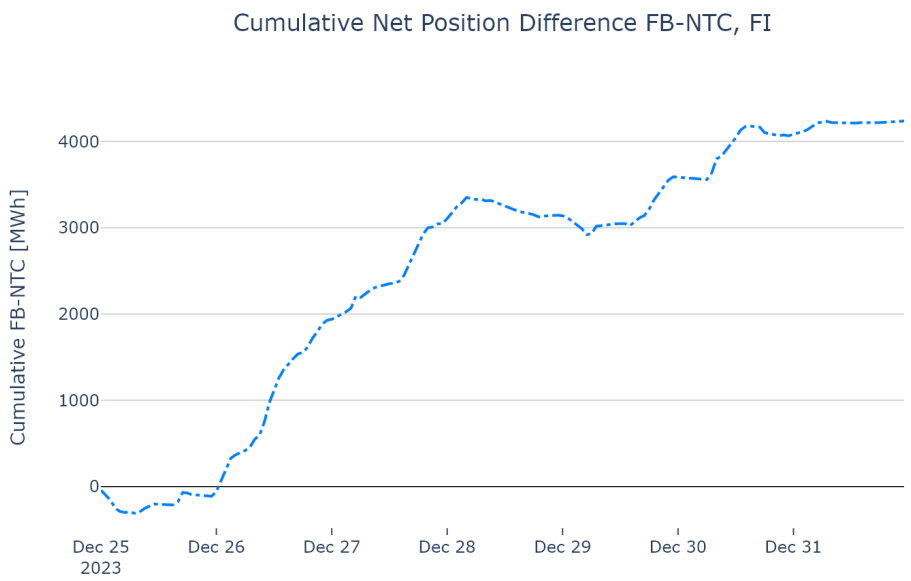

Cumulative Net Position Difference FB-NTC, DK1
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31


Net Position DK2
FB
NTC
Net position [MWh/h]
500
0
−500
−1000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

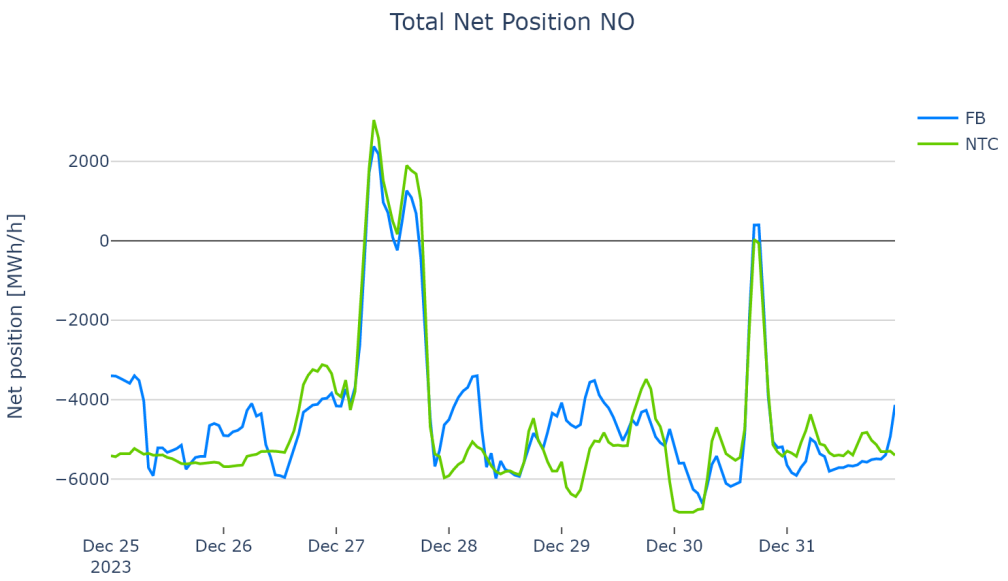

Cumulative Net Position Difference FB-NTC, DK2
Cumulative FB-NTC [MWh]
0
−500
−1000
−1500
−2000
−2500
−3000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

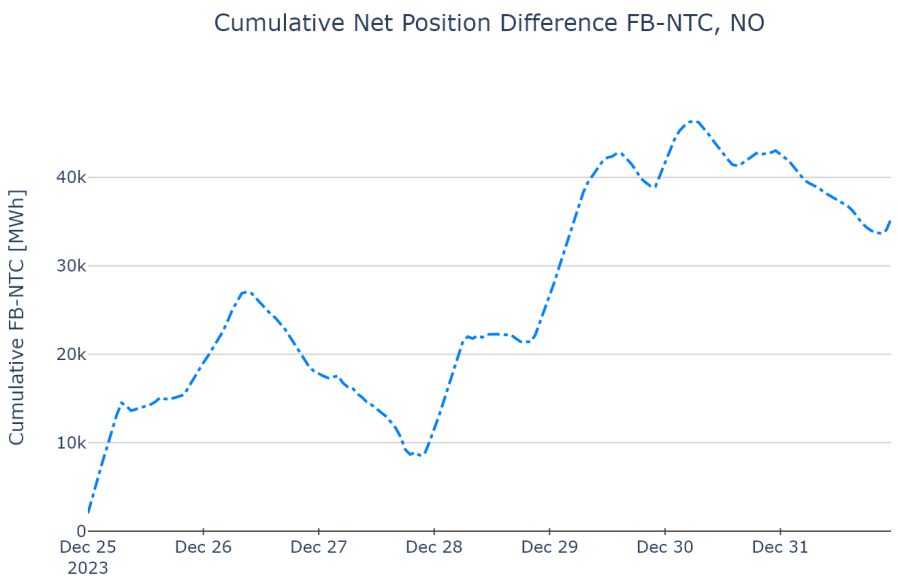
Finland

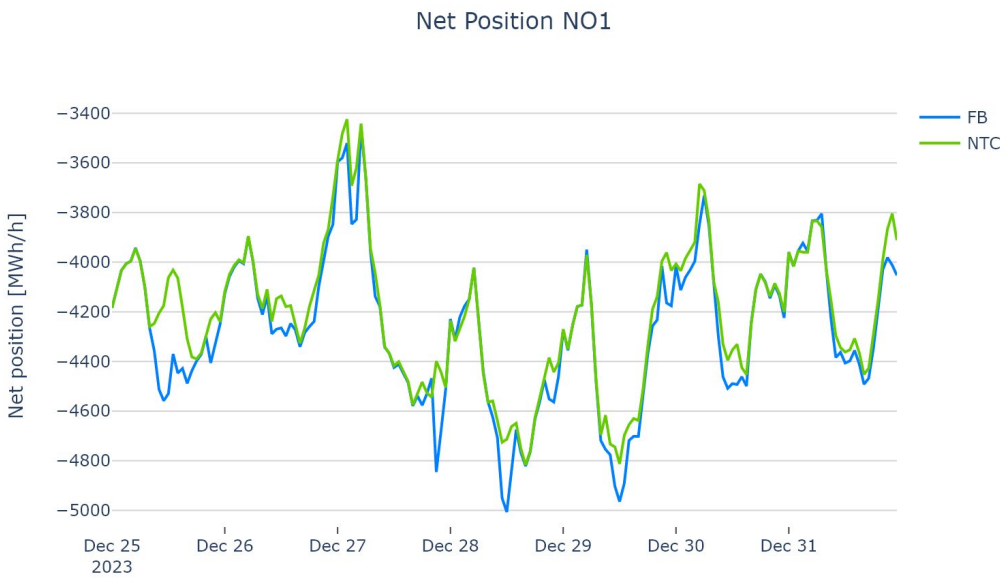
Total Net Position FI
FB
NTC
Net position [MWh/h]
−500
−1000
−1500
−2000
−2500
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

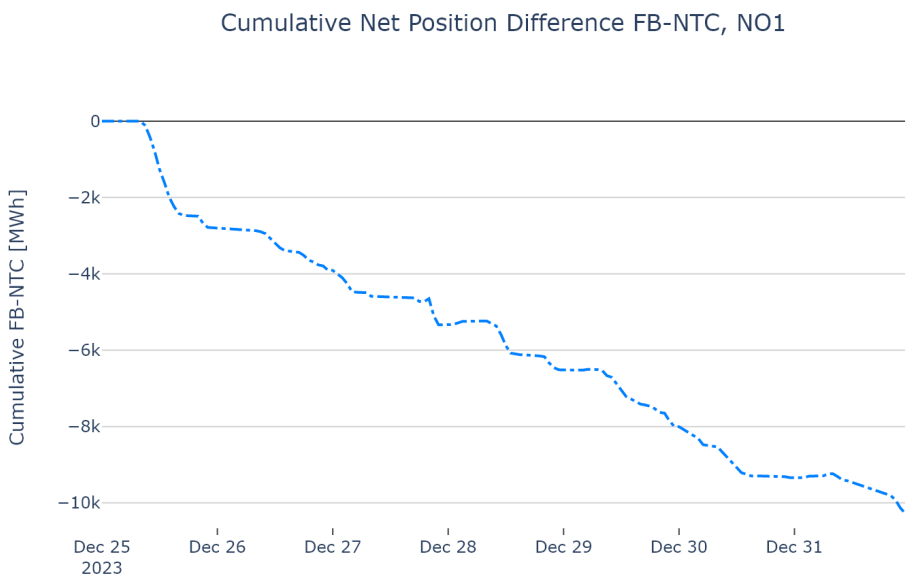

Cumulative Net Position Difference FB-NTC, FI
Cumulative FB-NTC [MWh]
4000
3000
2000
1000
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

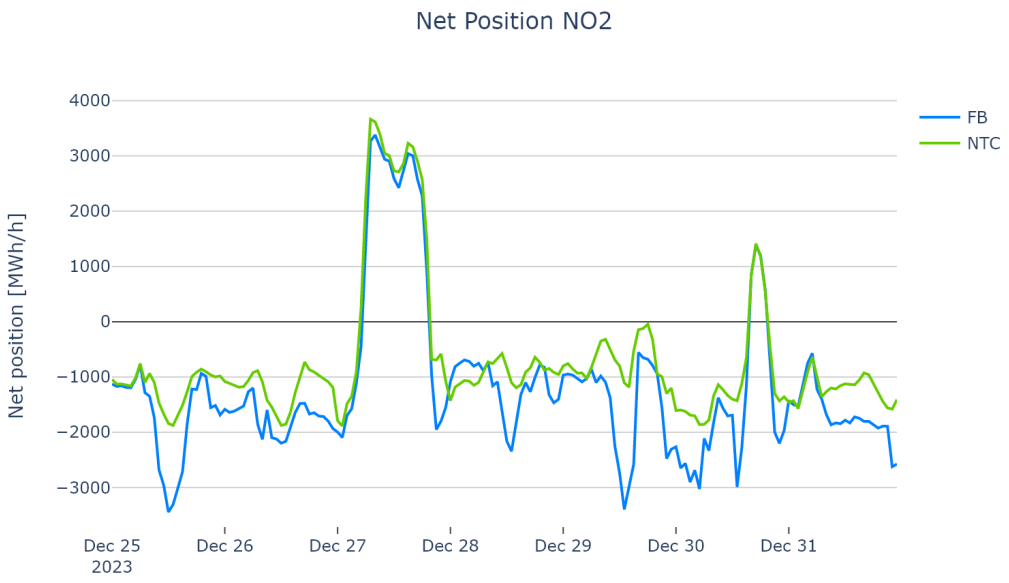
Norway

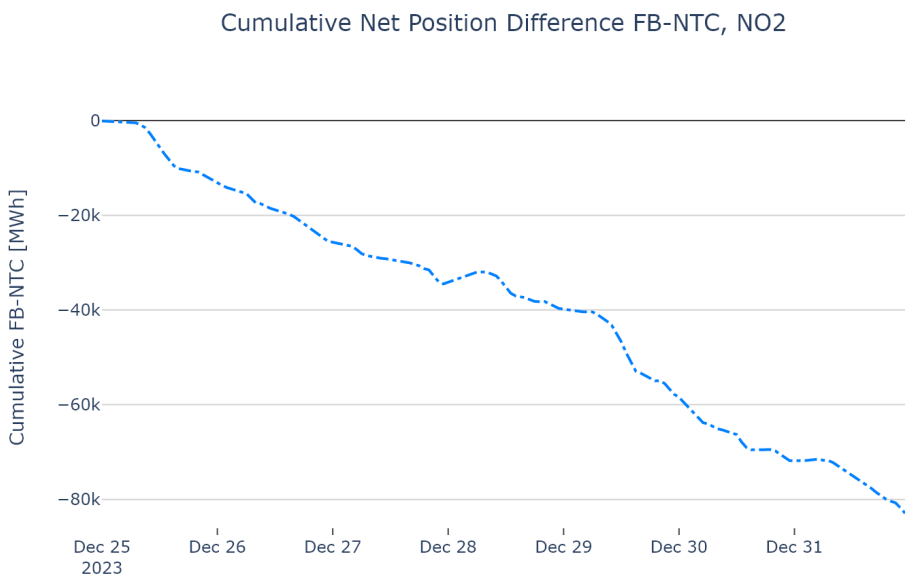

Total Net Position NO
FB
NTC
Net position [MWh/h]
2000
0
−2000
−4000
−6000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

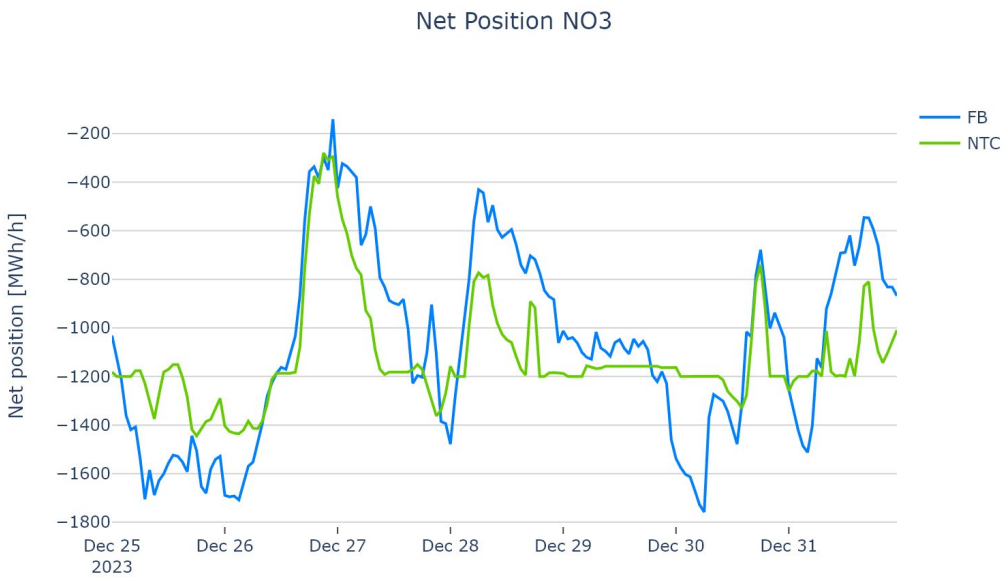

Cumulative Net Position Difference FB-NTC, NO
Cumulative FB-NTC [MWh]
40k
30k
20k
10k
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

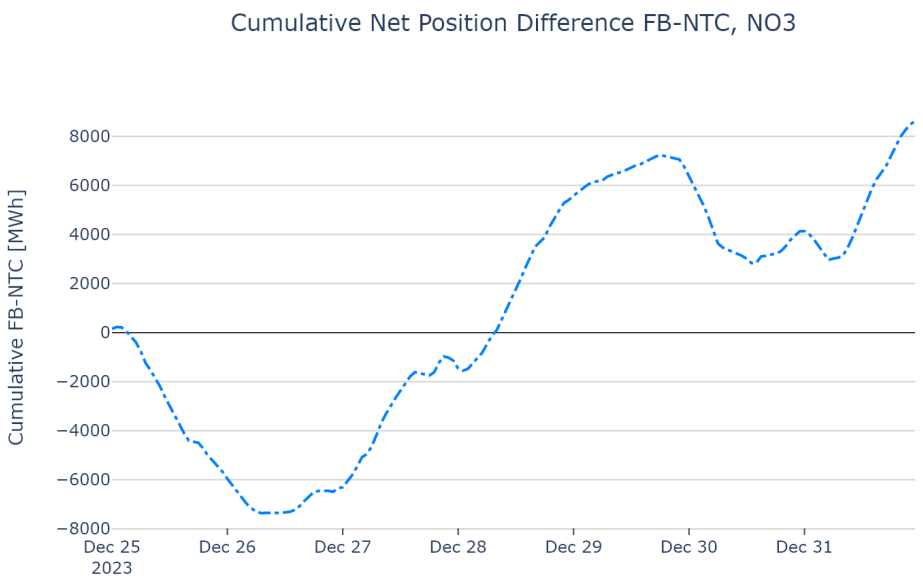

Net Position NO1
Net position [MWh/h]
−3400
−3600
−3800
−4000
−4200
−4400
−4600
−4800
−5000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31
FB
NTC

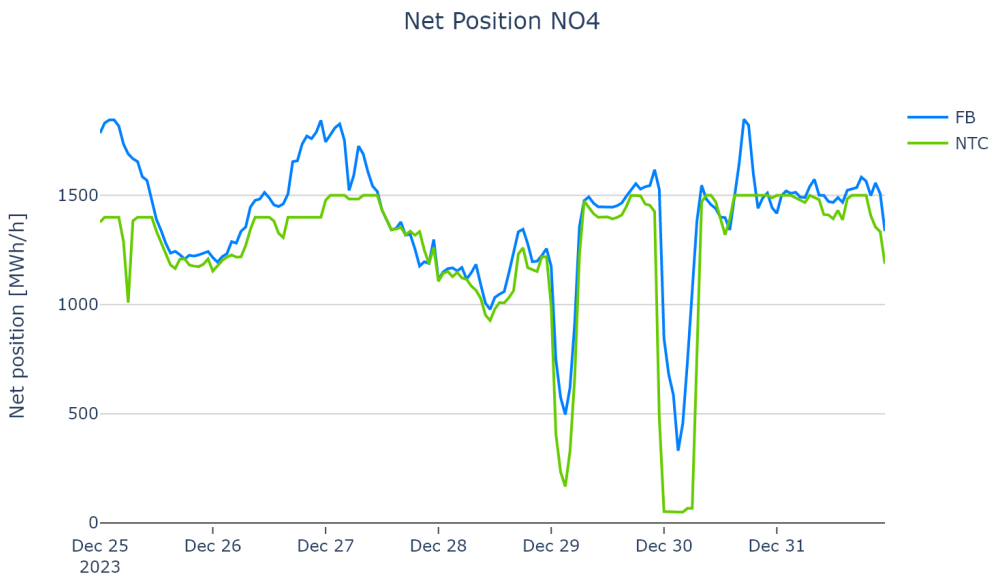

Cumulative Net Position Difference FB-NTC, NO1
Cumulative FB-NTC [MWh]
0
−2k
−4k
−6k
−8k
−10k
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

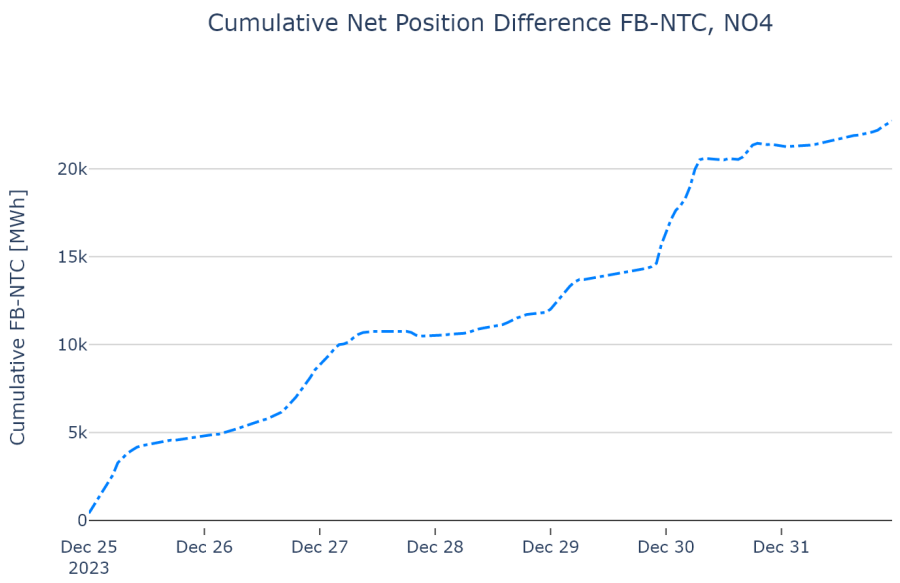

Net Position NO2
Net position [MWh/h]
4000
3000
2000
1000
0
−1000
−2000
−3000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31
FB
NTC

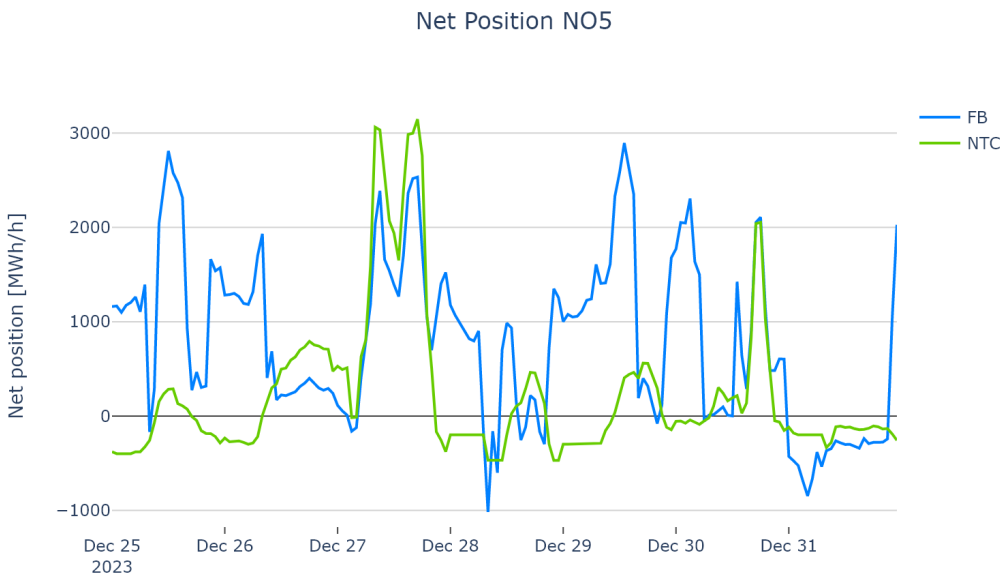

Cumulative Net Position Difference FB-NTC, NO2
Cumulative FB-NTC [MWh]
0
−20k
−40k
−60k
−80k
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

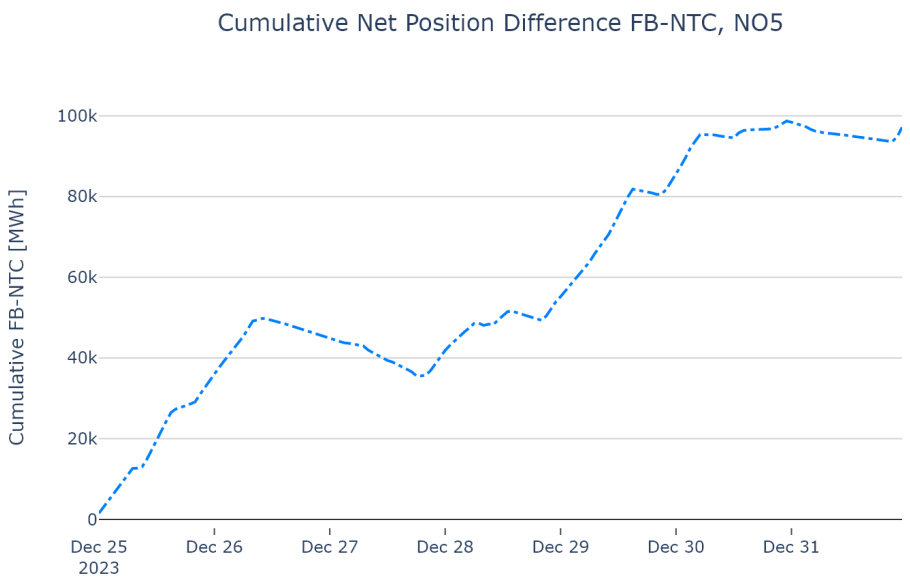

Net Position NO3
FB
NTC
Net position [MWh/h]
−200
−400
−600
−800
−1000
−1200
−1400
−1600
−1800
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31


Cumulative Net Position Difference FB-NTC, NO3
Cumulative FB-NTC [MWh]
8000
6000
4000
2000
0
−2000
−4000
−6000
−8000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

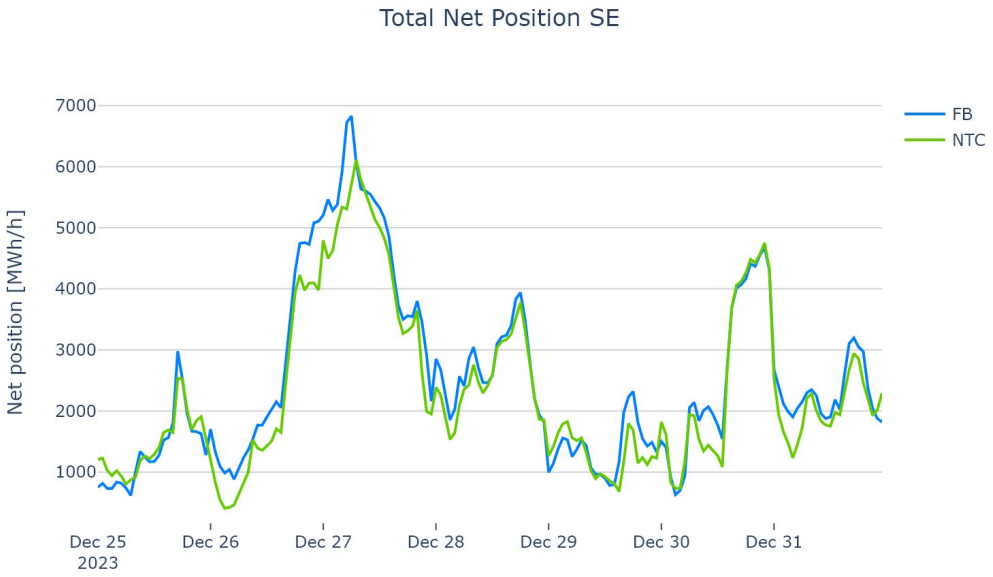

Net Position NO4
FB
NTC
Net position [MWh/h]
1500
1000
500
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

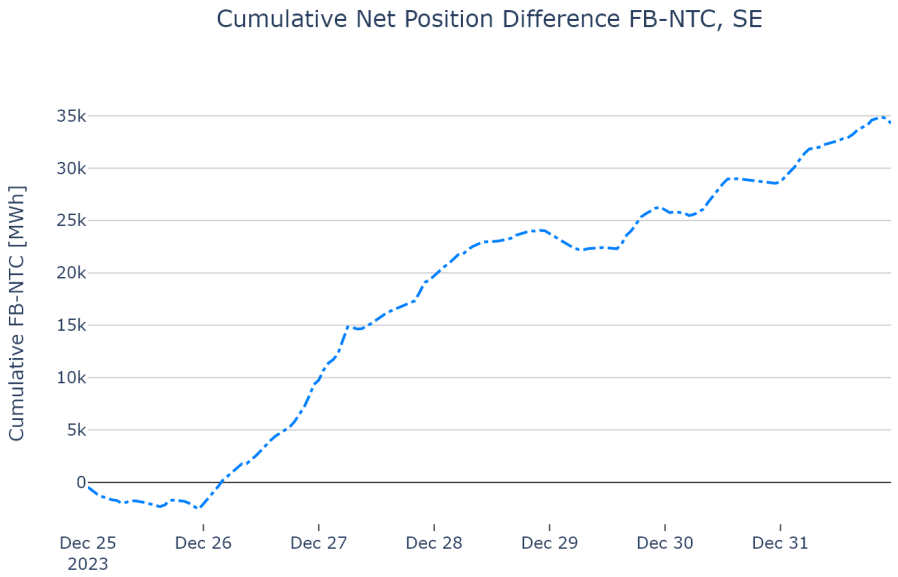

Cumulative Net Position Difference FB-NTC, NO4
Cumulative FB-NTC [MWh]
20k
15k
10k
5k
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

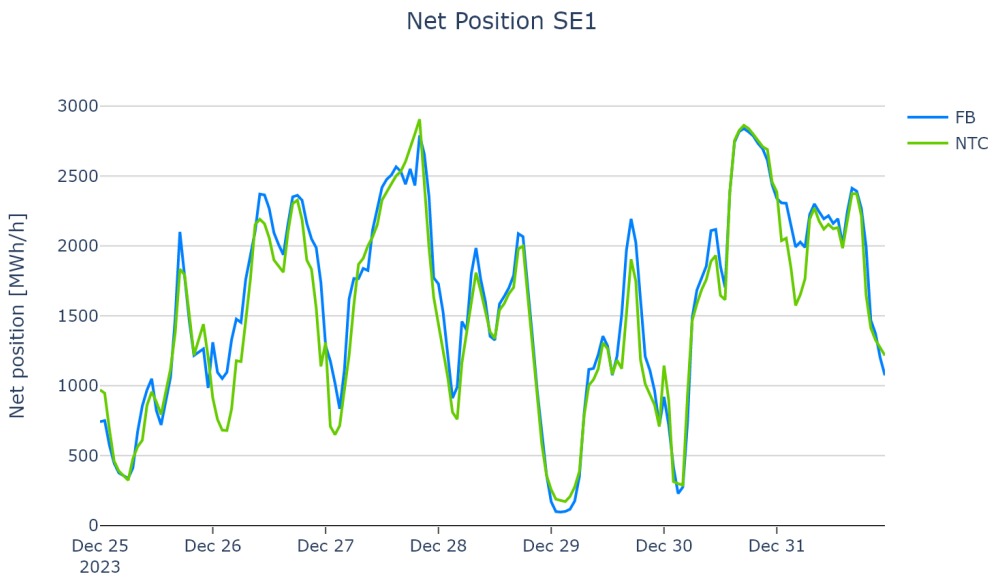

Net Position NO5
FB
NTC
Net position [MWh/h]
3000
2000
1000
0
−1000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

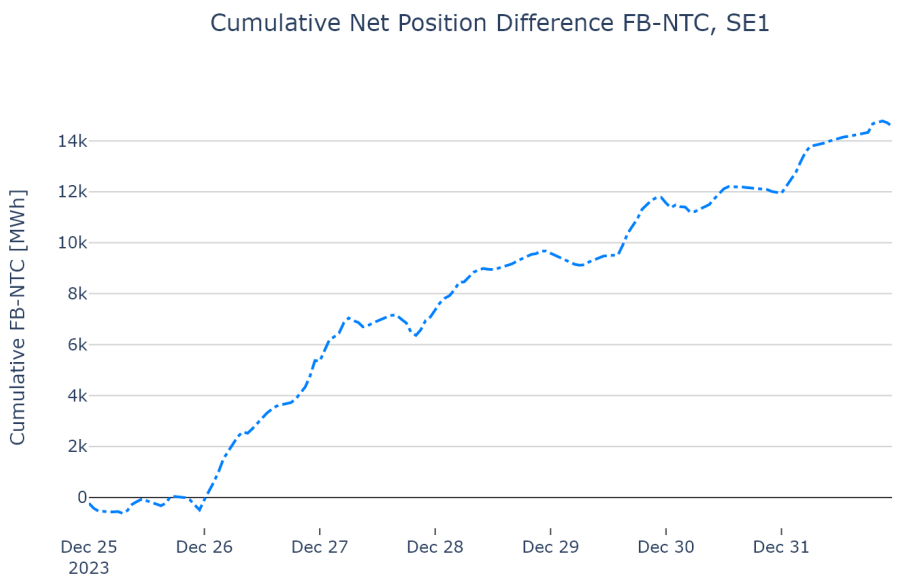

Cumulative Net Position Difference FB-NTC, NO5
Cumulative FB-NTC [MWh]
100k
80k
60k
40k
20k
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

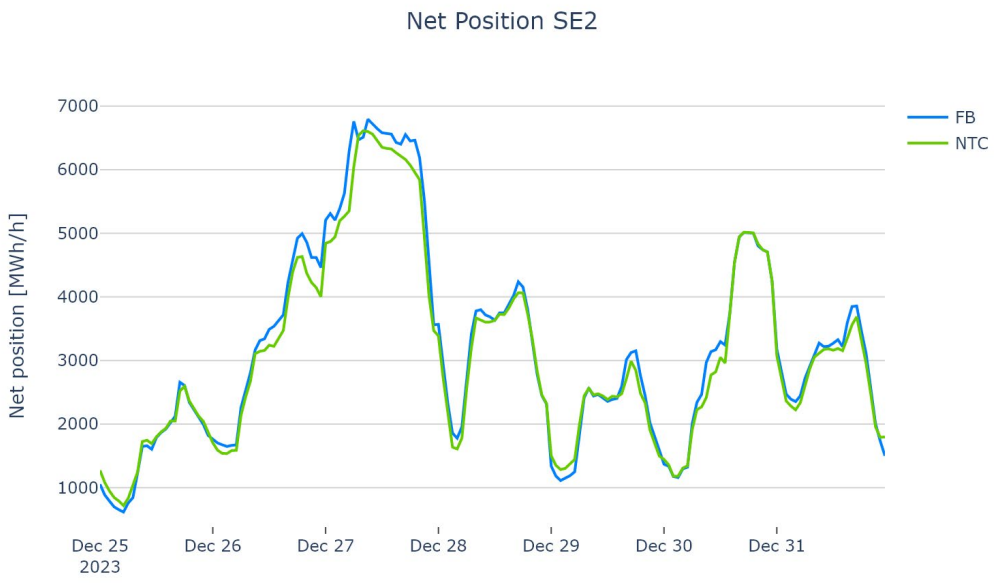
Sweden

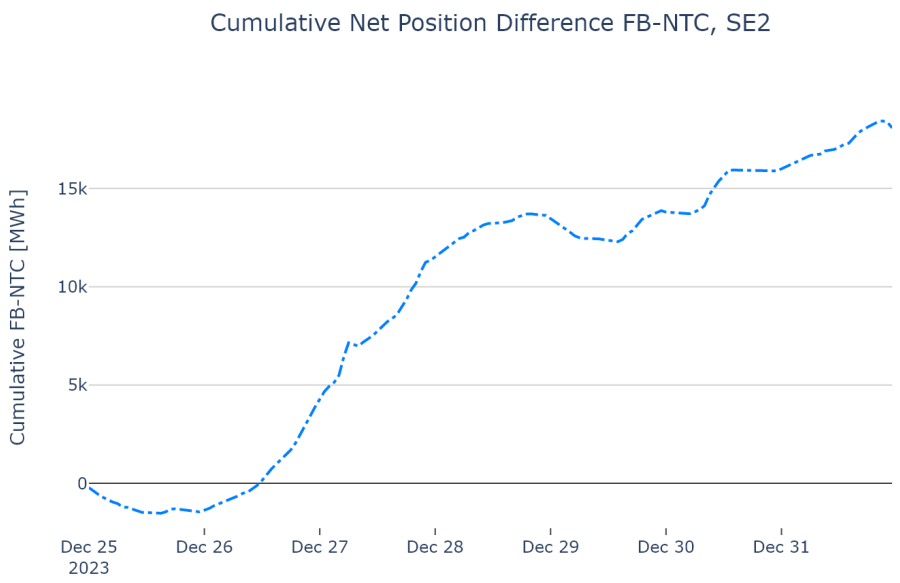

Total Net Position SE
Net position [MWh/h]
7000
6000
5000
4000
3000
2000
1000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31
FB
NTC

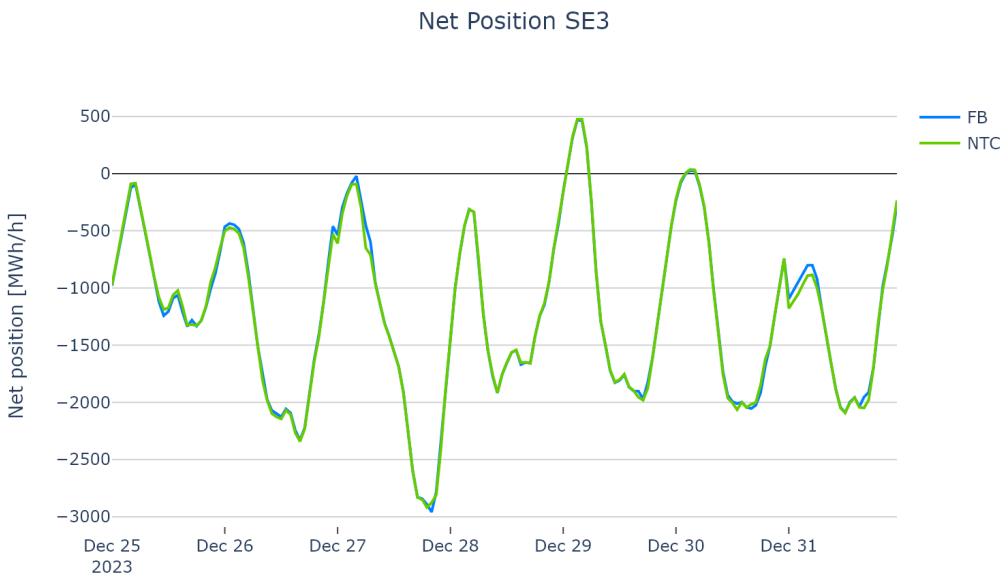

Cumulative Net Position Difference FB-NTC, SE
Cumulative FB-NTC [MWh]
35k
30k
25k
20k
15k
10k
5k
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

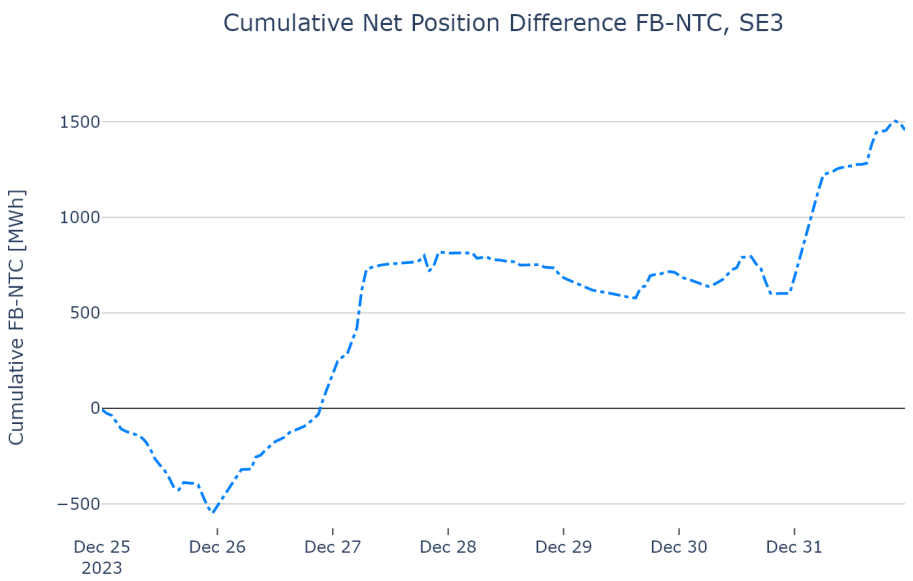

Net Position SE1
Net position [MWh/h]
3000
2500
2000
1500
1000
500
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31
FB
NTC

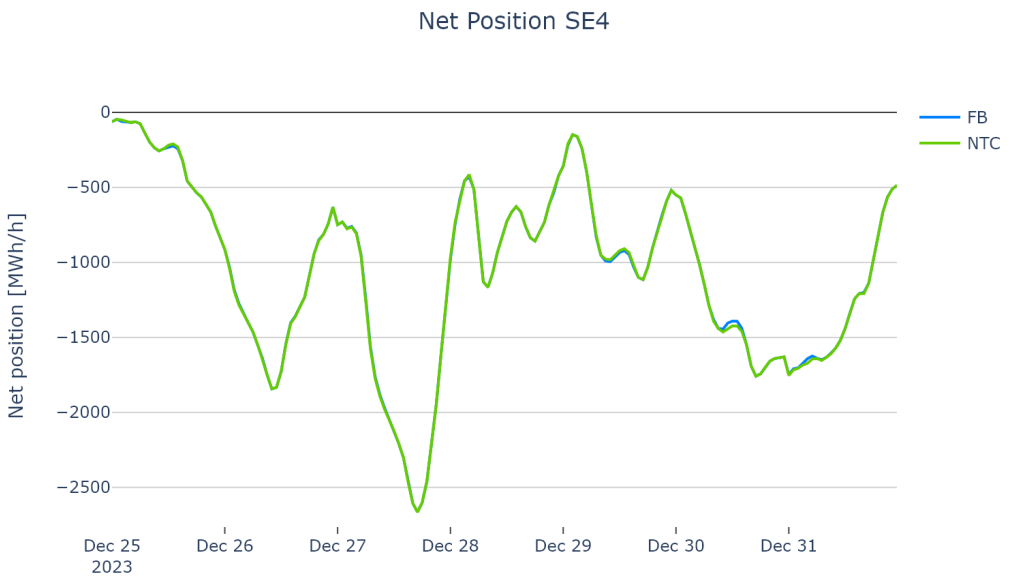

Cumulative Net Position Difference FB-NTC, SE1
Cumulative FB-NTC [MWh]
14k
12k
10k
8k
6k
4k
2k
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

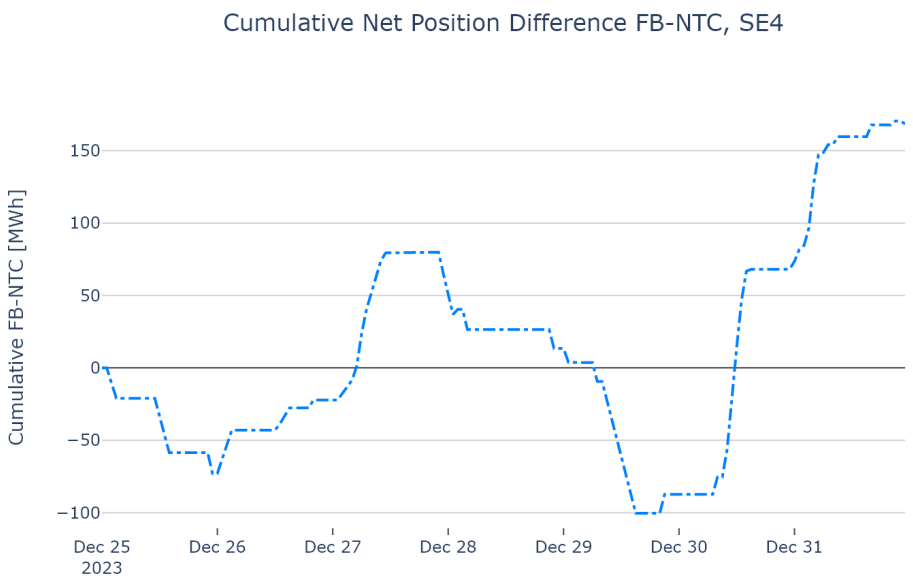

Net Position SE2
Net position [MWh/h]
7000
6000
5000
4000
3000
2000
1000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31
FB
NTC


Cumulative Net Position Difference FB-NTC, SE2
Cumulative FB-NTC [MWh]
15k
10k
5k
0
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31


Net Position SE3
FB
NTC
Net position [MWh/h]
500
0
−500
−1000
−1500
−2000
−2500
−3000
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

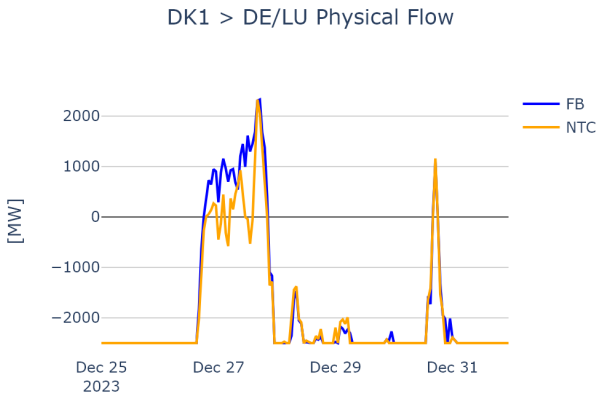

Cumulative Net Position Difference FB-NTC, SE3
Cumulative FB-NTC [MWh]
1500
1000
500
0
−500
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

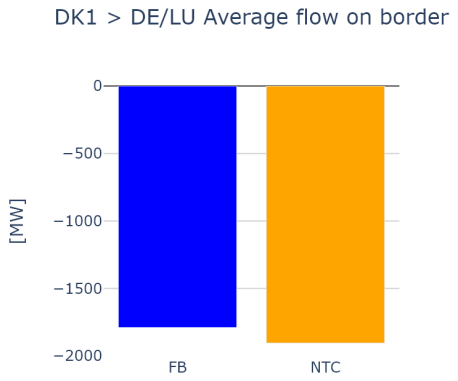

Net Position SE4
Net position [MWh/h]
0
−500
−1000
−1500
−2000
−2500
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31
FB
NTC

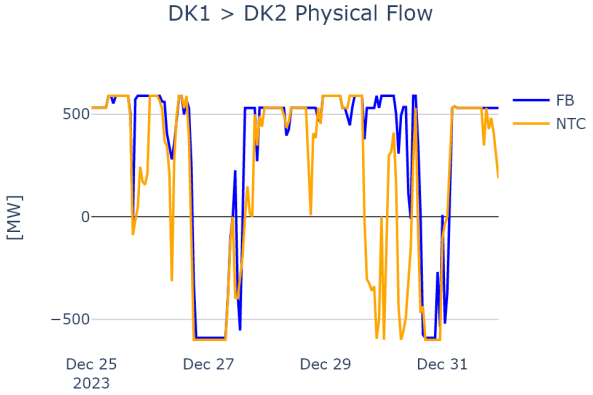

Cumulative Net Position Difference FB-NTC, SE4
Cumulative FB-NTC [MWh]
150
100
50
0
−50
−100
Dec 25
2023
Dec 26
Dec 27
Dec 28
Dec 29
Dec 30
Dec 31

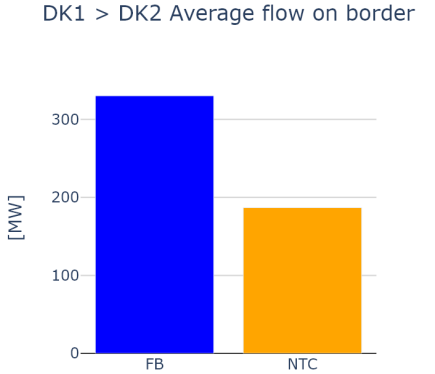
Border flow

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

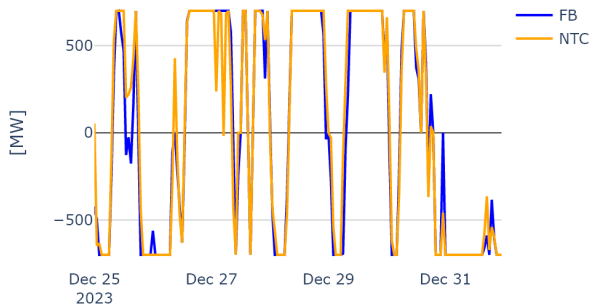




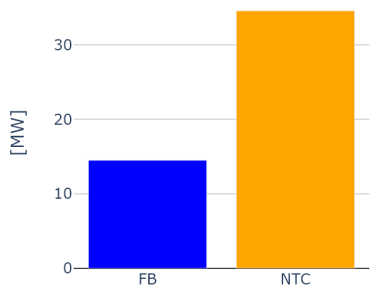




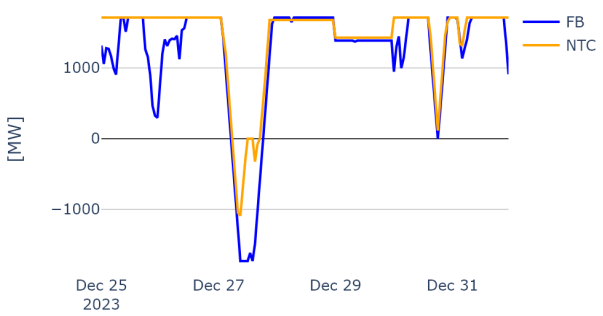
DK1 > NL Physical Flow



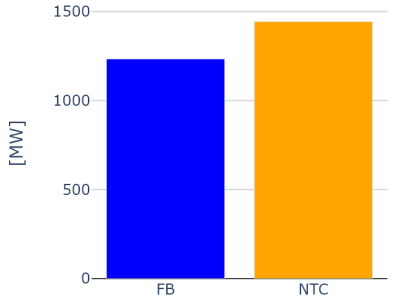
DK1 > NL Average flow on border



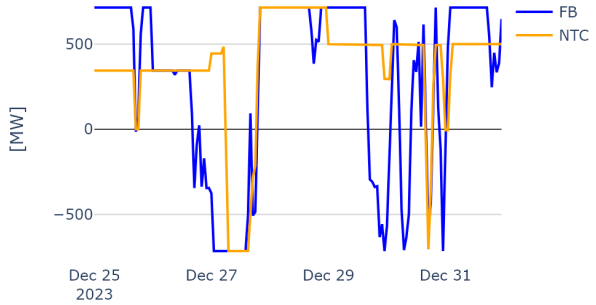
DK1 > NO2 Physical Flow



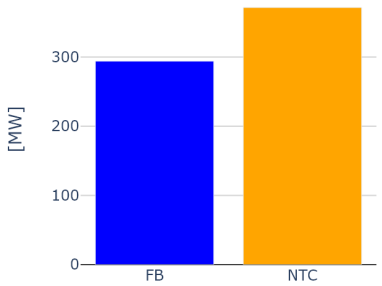
DK1 > NO2 Average flow on border

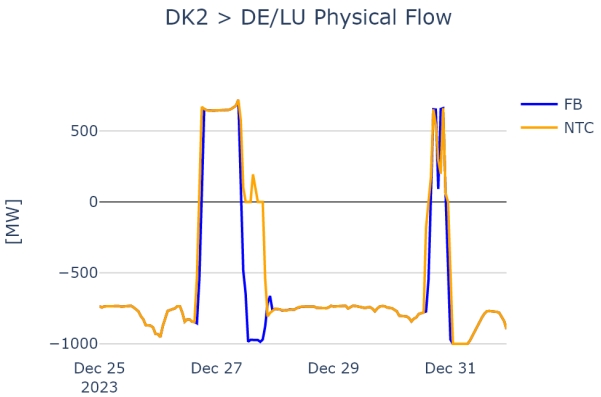


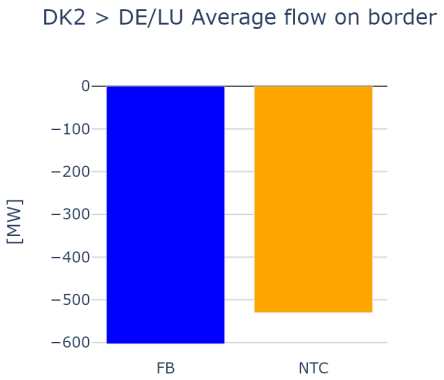
DK1 > SE3 Physical Flow

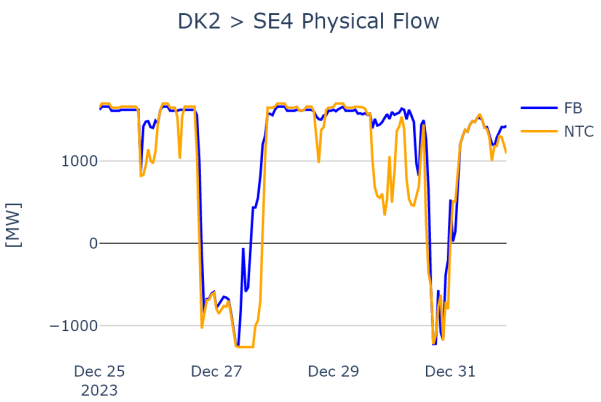


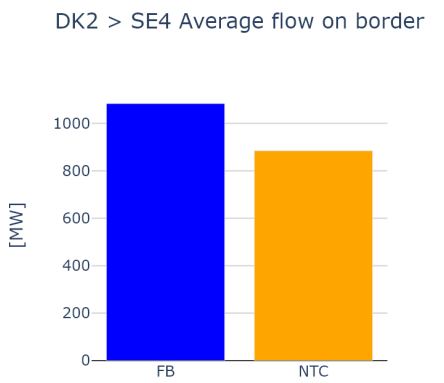
DK1 > SE3 Average flow on border

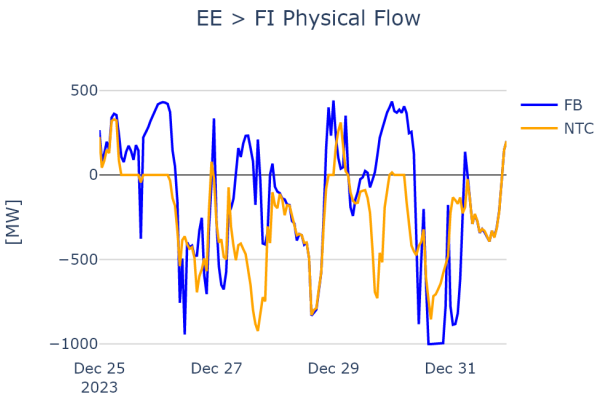


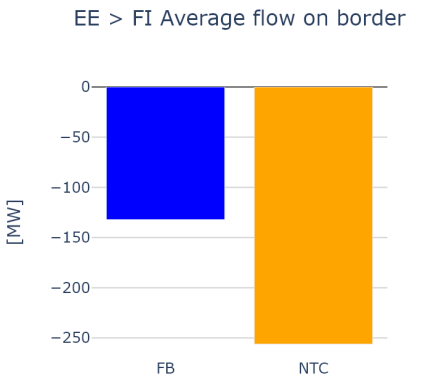

DK2 > DE/LU Physical Flow
FB
NTC
[MW]
500
0
−500
−1000
Dec 25
2023
Dec 27
Dec 29
Dec 31


DK2 > DE/LU Average flow on border
[MW]
0
−100
−200
−300
−400
−500
−600
FB
NTC

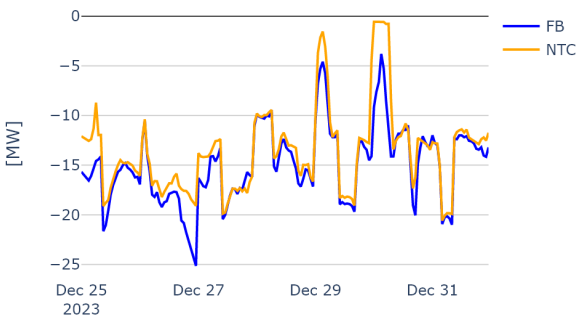

DK2 > SE4 Physical Flow
FB
NTC
[MW]
1000
0
−1000
Dec 25
2023
Dec 27
Dec 29
Dec 31


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

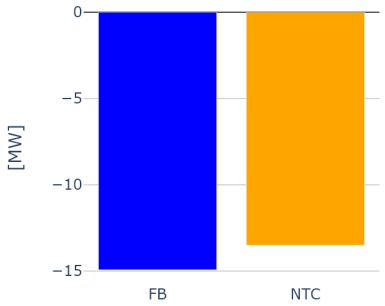

EE > FI Physical Flow
FB
NTC
[MW]
500
0
−500
−1000
Dec 25
2023
Dec 27
Dec 29
Dec 31


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

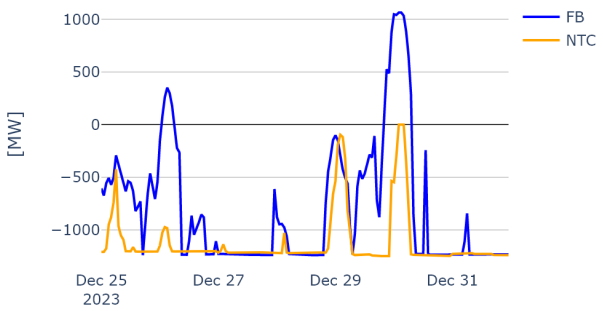
FI > NO4 Physical Flow



FI > NO4 Average flow on border

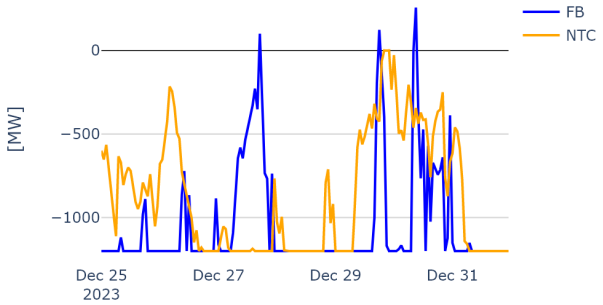


FI > SE1 Physical Flow

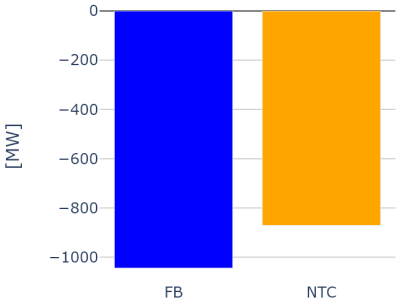


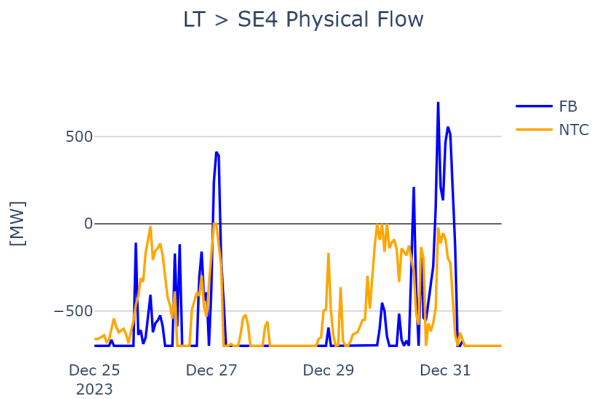
FI > SE1 Average flow on border

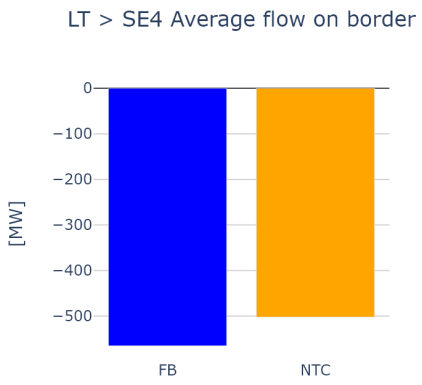
FI > SE3 Physical Flow

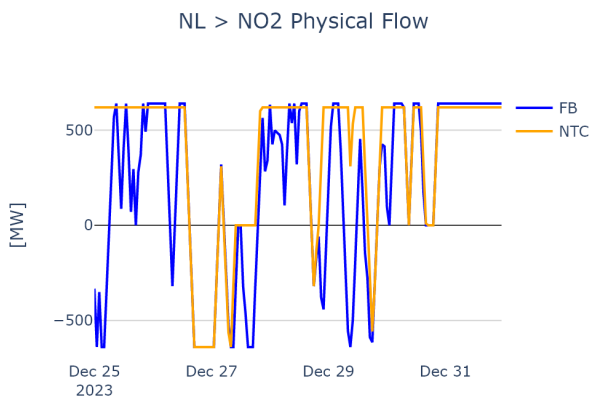


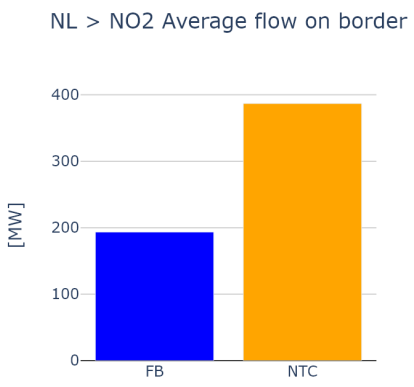
FI > SE3 Average flow on border

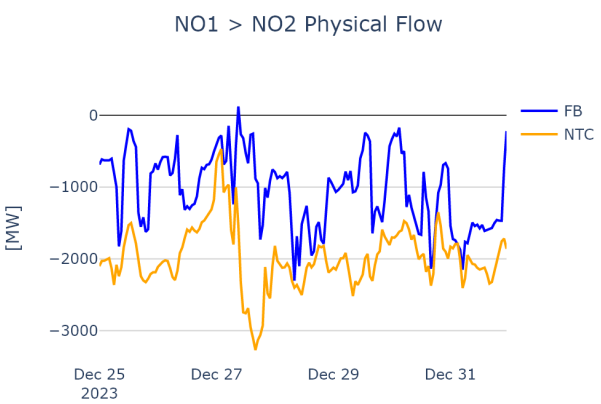


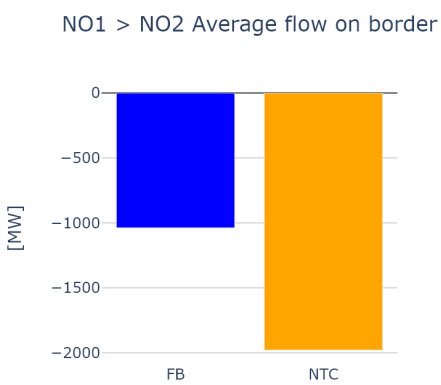

LT > SE4 Physical Flow
FB
NTC
[MW]
500
0
−500
Dec 25
2023
Dec 27
Dec 29
Dec 31

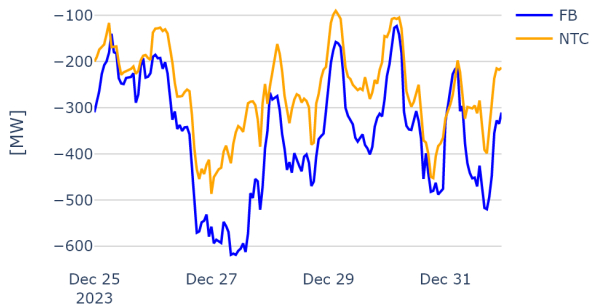

LT > SE4 Average flow on border
[MW]
0
−100
−200
−300
−400
−500
FB
NTC

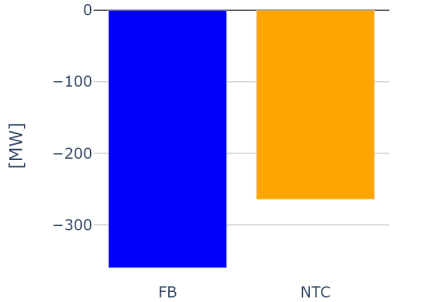

NL > NO2 Physical Flow
FB
NTC
[MW]
500
0
−500
Dec 25
2023
Dec 27
Dec 29
Dec 31

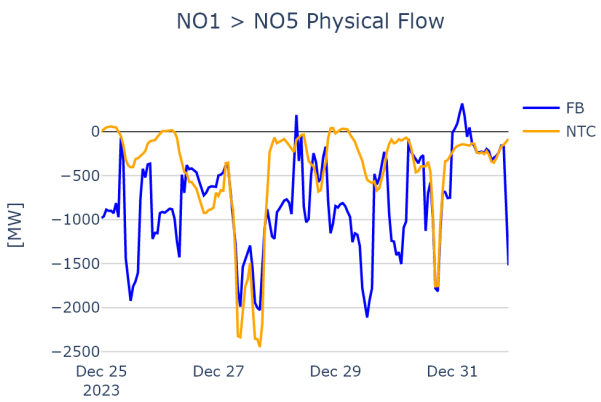

NL > NO2 Average flow on border
[MW]
400
300
200
100
0
FB
NTC

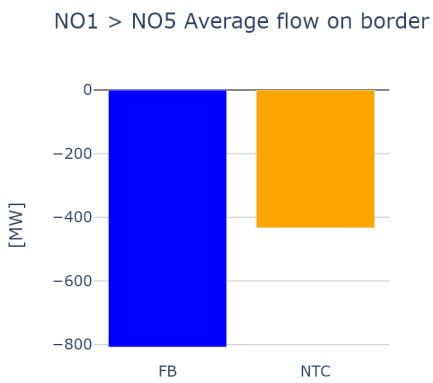

NO1 > NO2 Physical Flow
FB
NTC
[MW]
0
−1000
−2000
−3000
Dec 25
2023
Dec 27
Dec 29
Dec 31

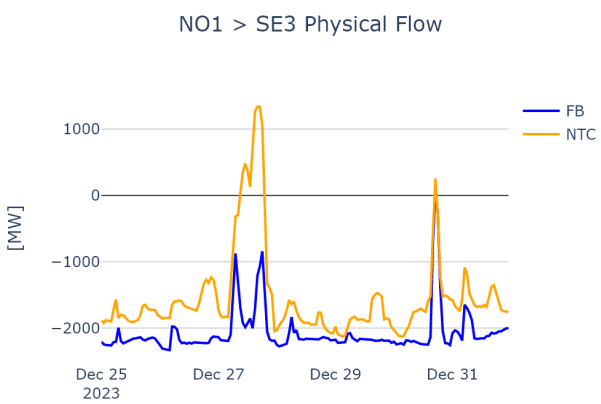

NO1 > NO2 Average flow on border
[MW]
0
−500
−1000
−1500
−2000
FB
NTC

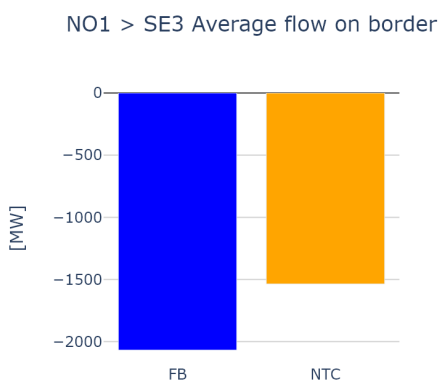

NO1 > NO3 Physical Flow
FB
NTC
[MW]
−100
−200
−300
−400
−500
−600
Dec 25
2023
Dec 27
Dec 29
Dec 31


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

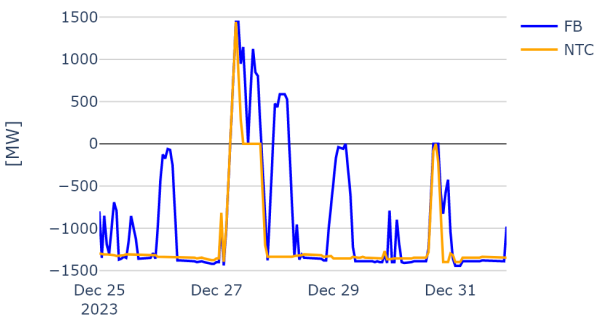

NO1 > NO5 Physical Flow
FB
NTC
[MW]
0
−500
−1000
−1500
−2000
−2500
Dec 25
2023
Dec 27
Dec 29
Dec 31


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

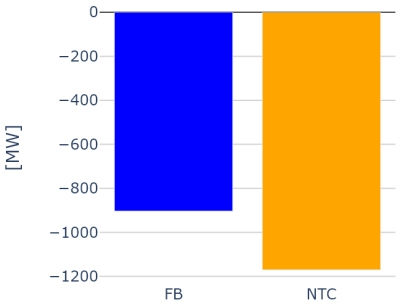

NO1 > SE3 Physical Flow
FB
NTC
[MW]
1000
0
−1000
−2000
Dec 25
2023
Dec 27
Dec 29
Dec 31


NO1 > SE3 Average flow on border
[MW]
0
−500
−1000
−1500
−2000
FB
NTC

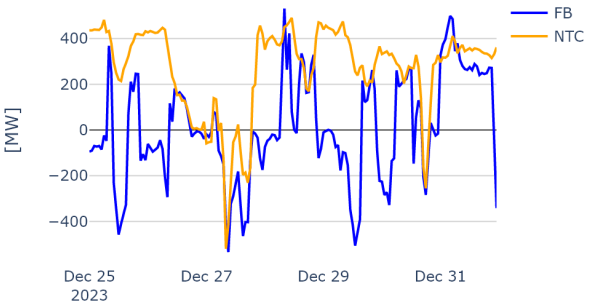
NO2 > DE/LU Physical Flow



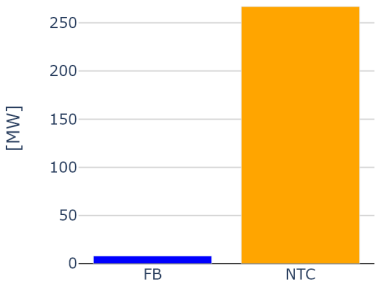
NO2 > DE/LU Average flow on border



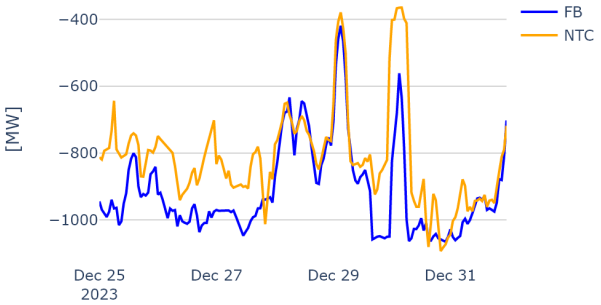
NO2 > NO5 Physical Flow



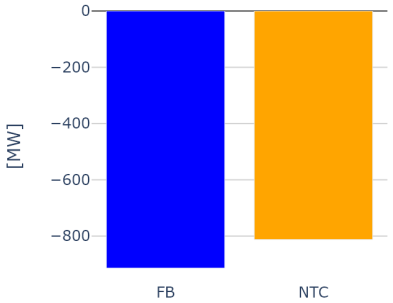
NO2 > NO5 Average flow on border

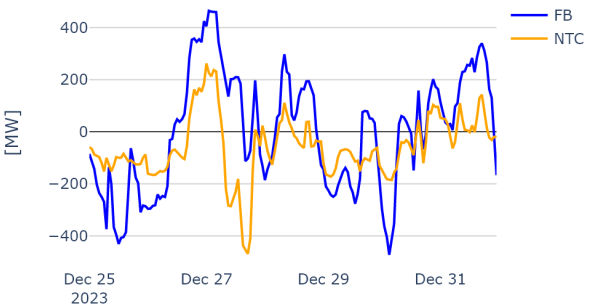


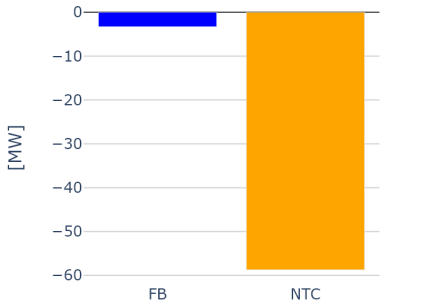
NO3 > NO4 Physical Flow

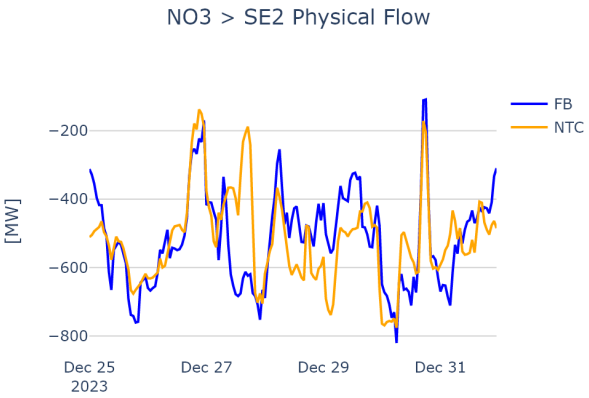


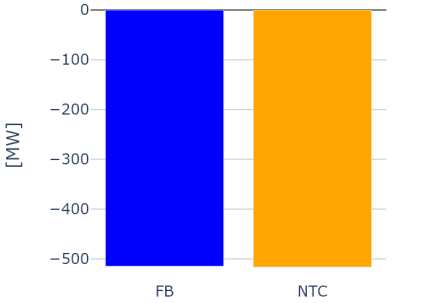
NO3 > NO4 Average flow on border

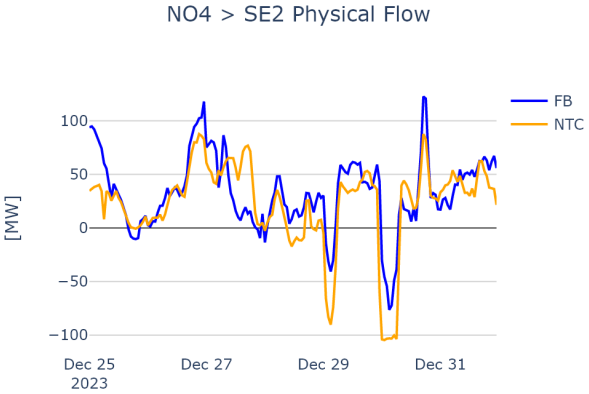


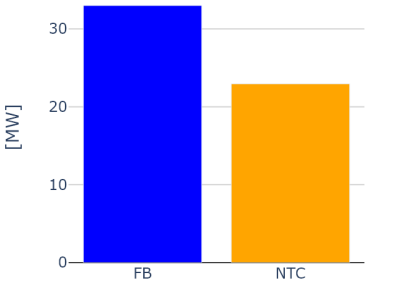

NO3 > NO5 Physical Flow
FB
NTC
[MW]
400
200
0
−200
−400
Dec 25
2023
Dec 27
Dec 29
Dec 31


NO3 > NO5 Average flow on border
[MW]
0
−10
−20
−30
−40
−50
−60
FB
NTC

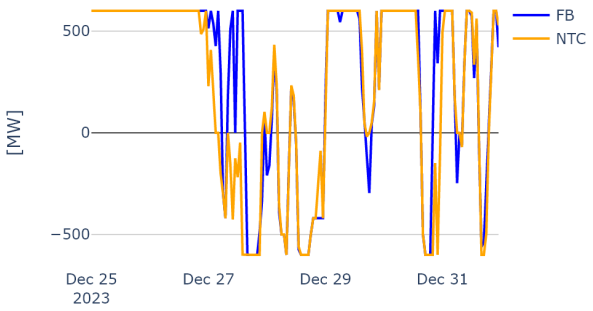

NO3 > SE2 Physical Flow
FB
NTC
[MW]
−200
−400
−600
−800
Dec 25
2023
Dec 27
Dec 29
Dec 31


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

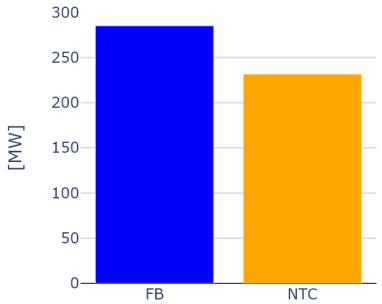

NO4 > SE2 Physical Flow
FB
NTC
[MW]
100
50
0
−50
−100
Dec 25
2023
Dec 27
Dec 29
Dec 31


NO4 > SE2 Average flow on border
[MW]
30
20
10
0
FB
NTC

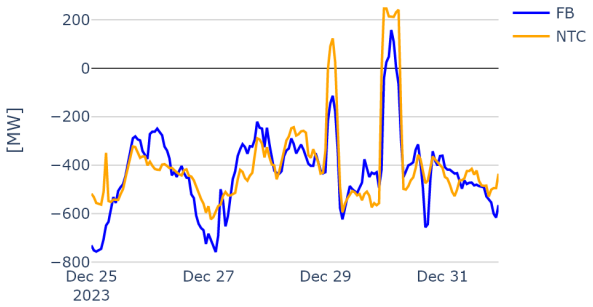
PL > SE4 Physical Flow



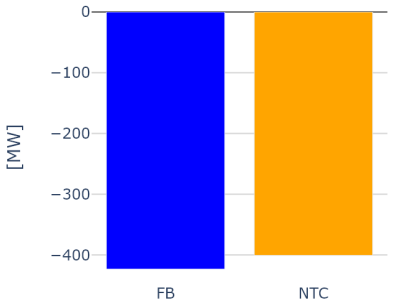
PL > SE4 Average flow on border



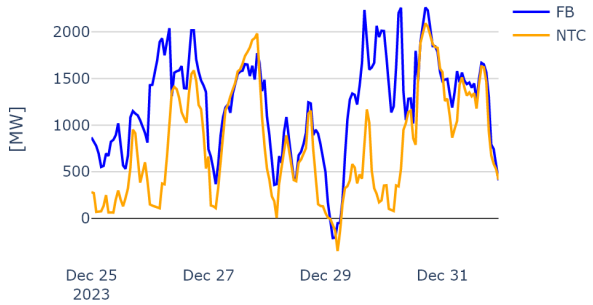
SE1 > NO4 Physical Flow



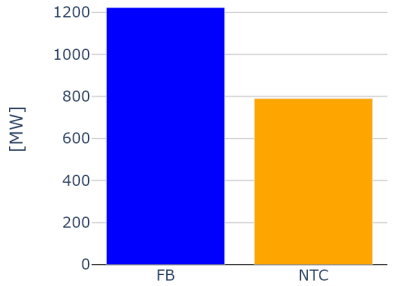
SE1 > NO4 Average flow on border



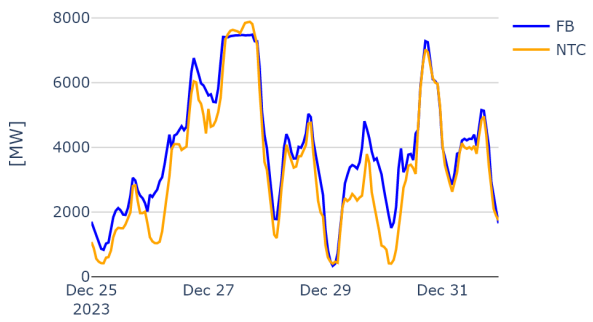
SE1 > SE2 Physical Flow



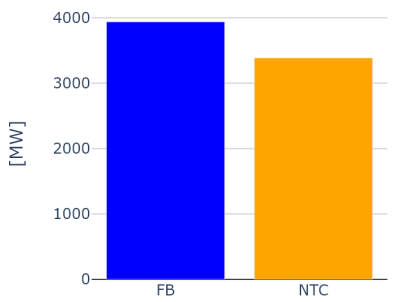
SE1 > SE2 Average flow on border



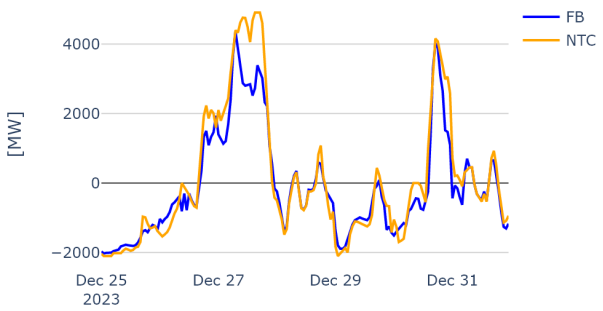
SE2 > SE3 Physical Flow



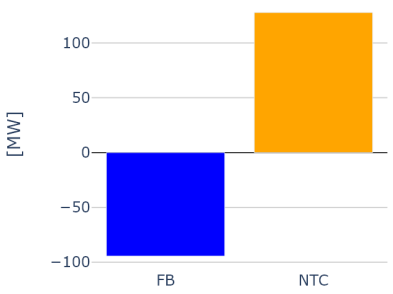
SE2 > SE3 Average flow on border



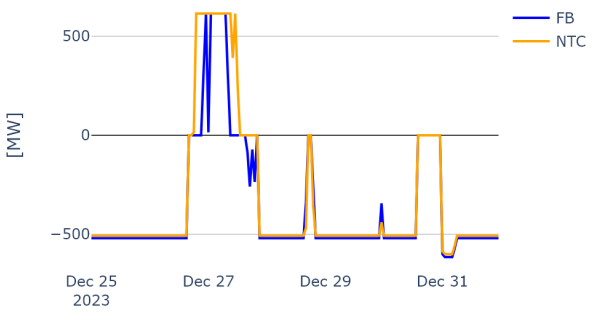
SE3 > SE4 Physical Flow



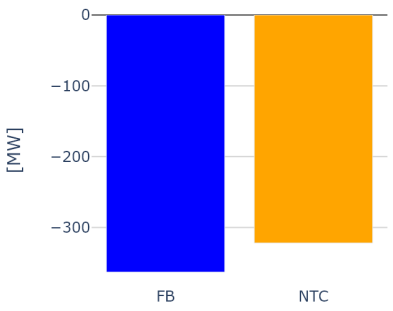
SE3 > SE4 Average flow on border



SE4 > DE/LU Physical Flow



SE4 > DE/LU Average flow on border



Flows per border (FB)

Values are rounded to the nearest integer.

Border	Congestion Income (total)	Avg. Price Spread
DK1 > DE/LU	3398168	8
DK1 > DK2	476253	5
DK1 > NL	1304257	11
DK1 > NO2	5671910	24
DK1 > SE3	1241990	12
DK2 > DE/LU	1809466	13
DK2 > SE4	1770669	7
EE > FI	6533	0
FI > NO4	21189	8
FI > SE1	1785754	9
FI > SE3	1225697	6
LT > SE4	776067	7
NL > NO2	1720342	20
NO1 > NO2	128390	1
NO1 > NO3	267478	3
NO1 > NO5	-2181047	-12
NO1 > SE3	5036458	14
NO2 > DE/LU	5670928	30
NO2 > NO5	-281308	-11
NO3 > NO4	1968182	13
NO3 > NO5	-269579	-6
NO3 > SE2	1169530	13
NO4 > SE2	6827	0
PL > SE4	1102589	11
SE1 > NO4	3962	0
SE1 > SE2	83580	0
SE2 > SE3	3304890	2
SE3 > SE4	70839	0
SE4 > DE/LU	1675035	20

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	1	-641	0
DK1 > SE3	20	-14168	-1
DK2 > DE/LU	0	0	0
DK2 > SE4	10	-1138	0
EE > FI	1	-32	0
FI > NO4	44	-3263	-3
FI > SE1	4	-97	0
FI > SE3	12	-8092	-1
LT > SE4	8	-734	0
NL > NO2	12	-195986	-24
NO1 > NO2	32	-33920	-1
NO1 > NO3	40	-112781	-5
NO1 > NO5	62	-2224488	-20
NO1 > SE3	8	-89793	-5
NO2 > DE/LU	4	-118047	-32
NO2 > NO5	69	-328206	-18
NO3 > NO4	2	-12269	-3
NO3 > NO5	54	-425530	-21
NO3 > SE2	2	-4729	-5
NO4 > SE2	57	-11584	-4
PL > SE4	18	-152425	-11
SE1 > NO4	60	-122831	-3
SE1 > SE2	56	-54235	-1
SE2 > SE3	73	-501768	-2
SE3 > SE4	21	-26214	0
SE4 > DE/LU	0	0	0