

Viking Interconnector – Initial Impressions

13th March, 2024



Introduction

- Some initial results on the performance of the Viking Interconnector
- Who trades the interconnector
- Trading with GB TSO National Grid
- Interconnectors and Stability
- Counter Trading with Germany and its effect on Viking
- Thoughts on the Summer to come

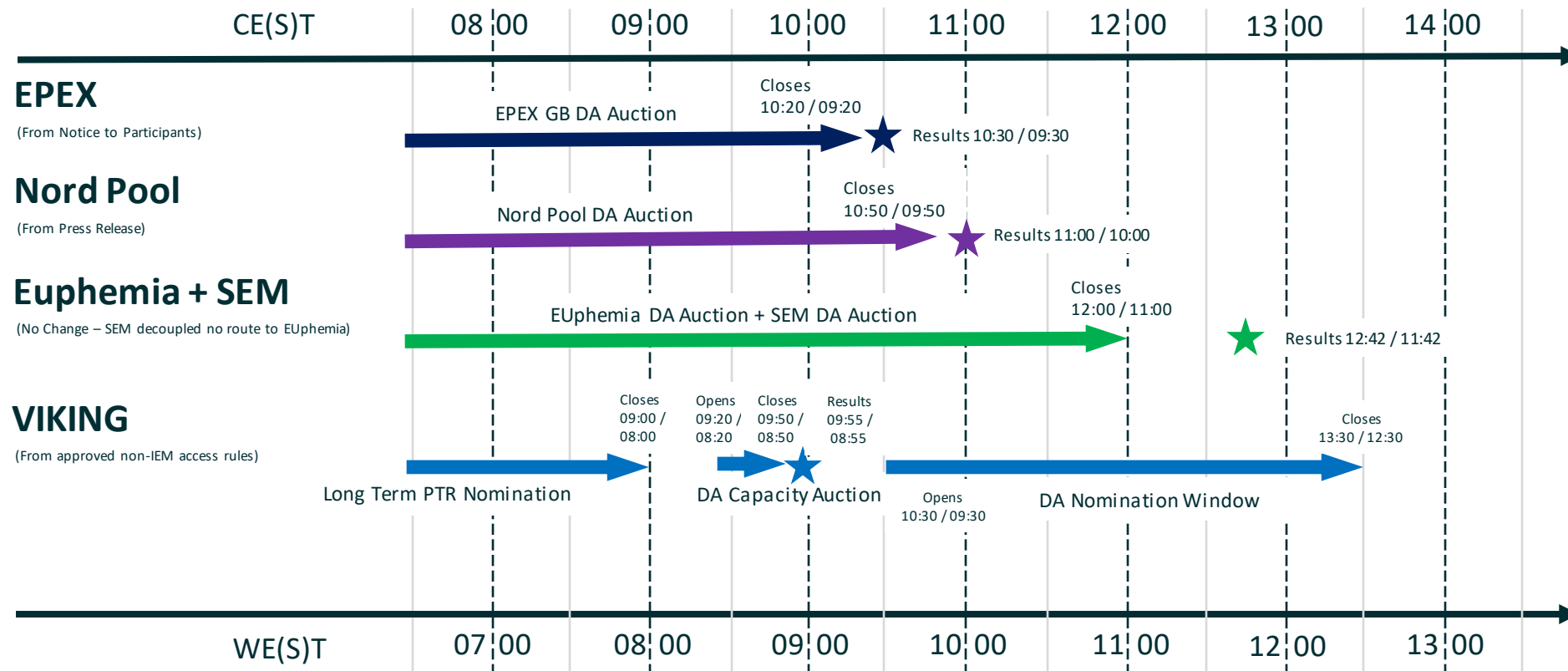


Viking Link Key Stats

- World's Longest Interconnector at 765km
- HVDC
- £1.7bn ~ €2bn
- Construction Started 2019
- Commercial Go-Live date 29/12/2023
- 1400MW but currently restricted to 800MW
- Loss Factor – 3.7%

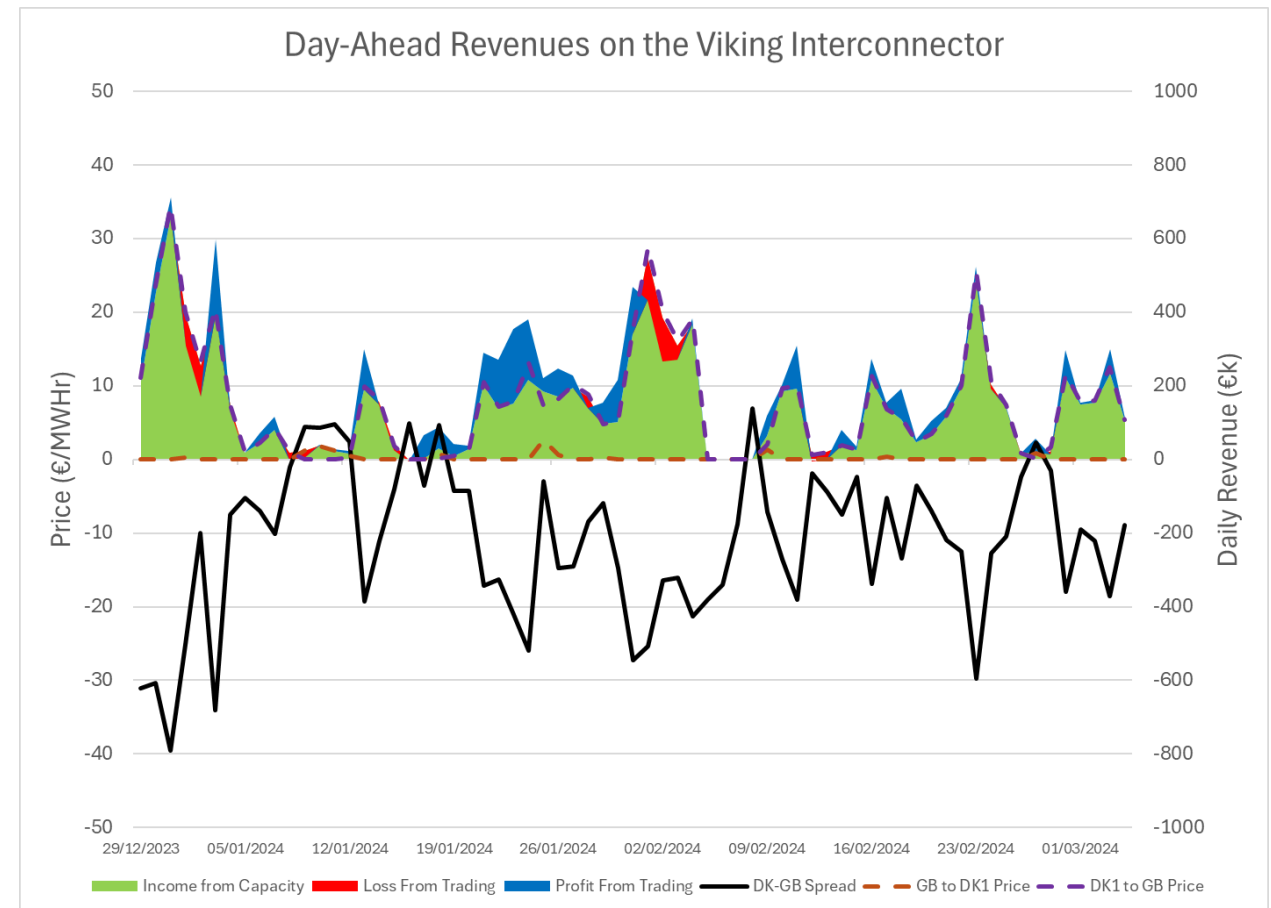


Day-Ahead Explicit Allocation Timetable



Revenues from Day-Ahead Trading

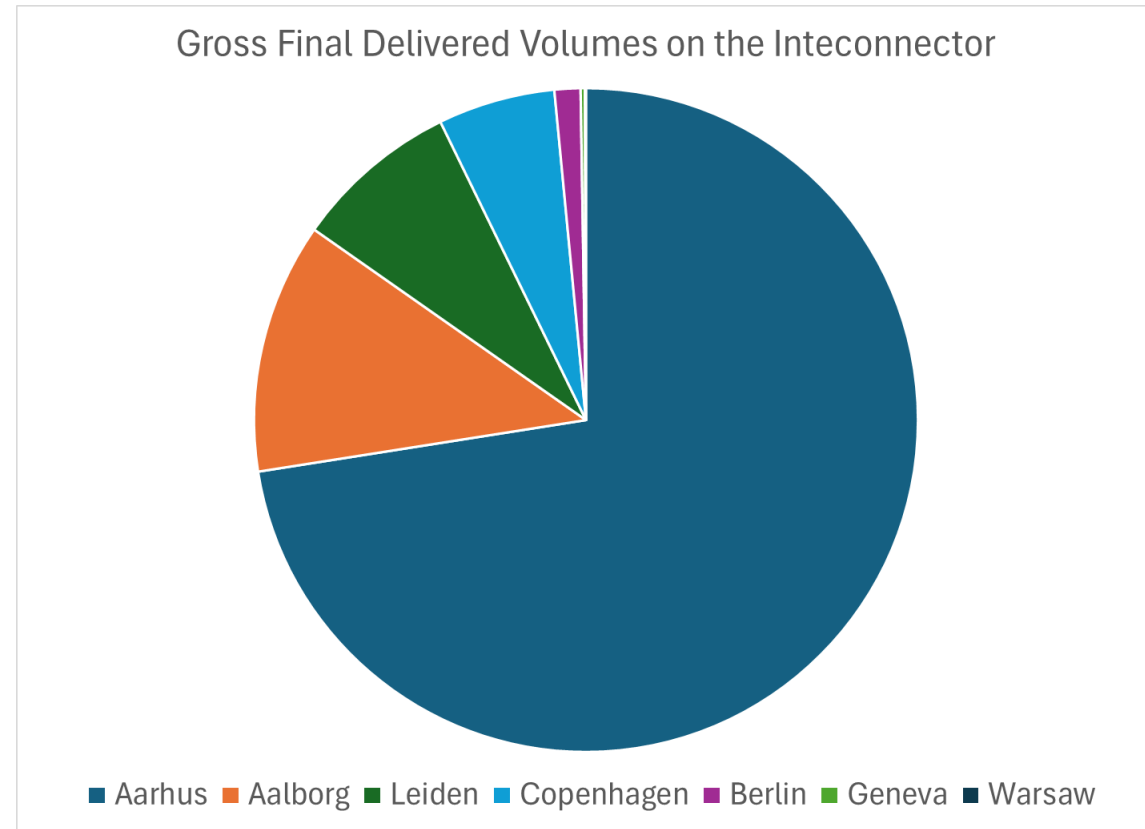
- Up to 4th March, Revenues from day-ahead trading were:
- €10m from capacity sales (money to Viking so 50/50 NGET and Energinet)
- €2m from trading profits on the interconnector that went to capacity holders



Who Trades the Interconnector

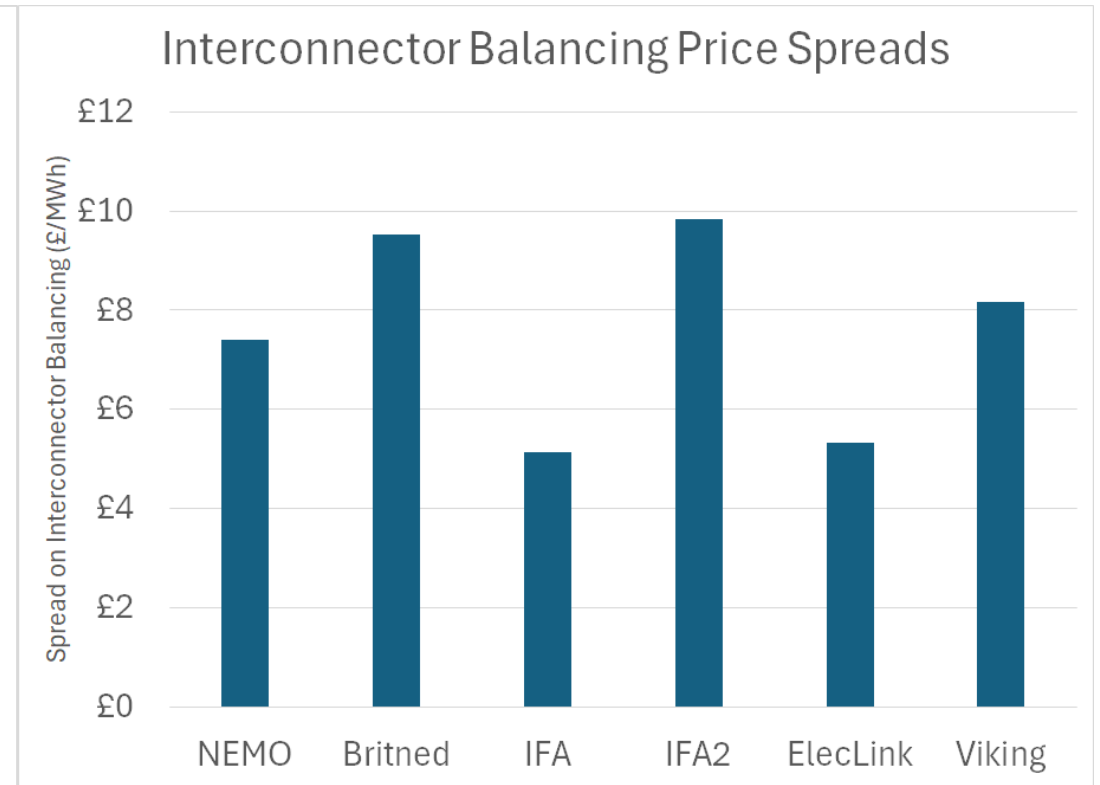
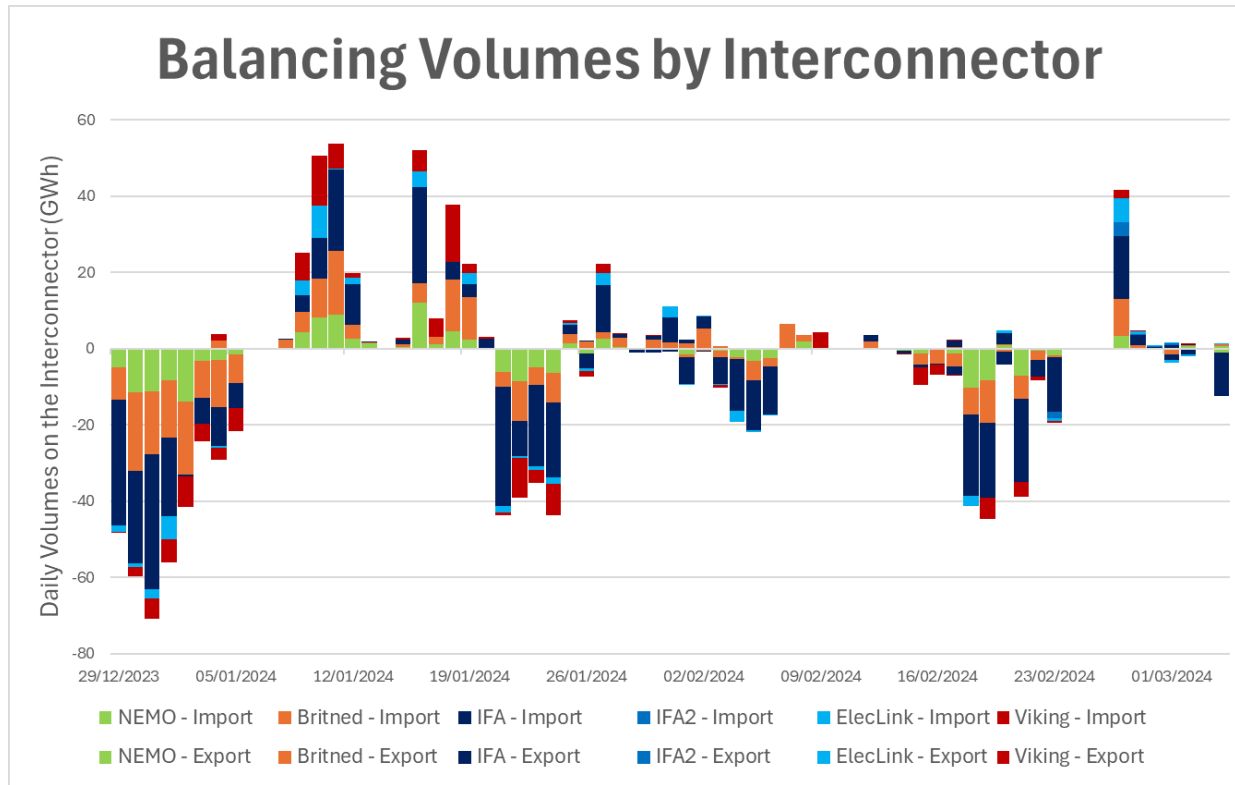
- Up to 4th March, Volumes traded on the interconnector (adding imports and exports together, not netting) were:

City	Volume (MWh)	Percent
Aarhus	908854	72.5%
Aalborg	153107	12.2%
Leiden	100795	8.0%
Copenhagen	71489	5.7%
Berlin	15877	1.3%
Geneva	2610	0.2%
Warsaw	603	<0.1%



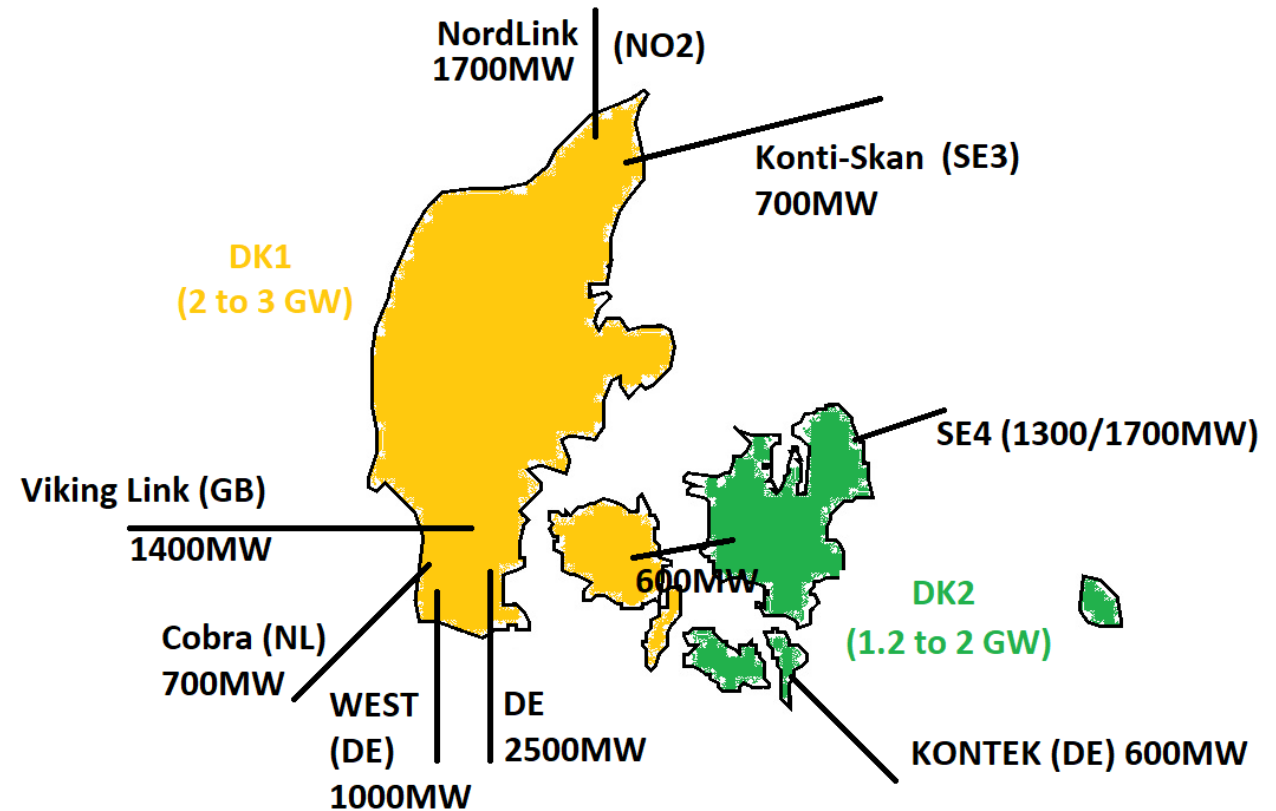


Interconnector Trading with NG ESO



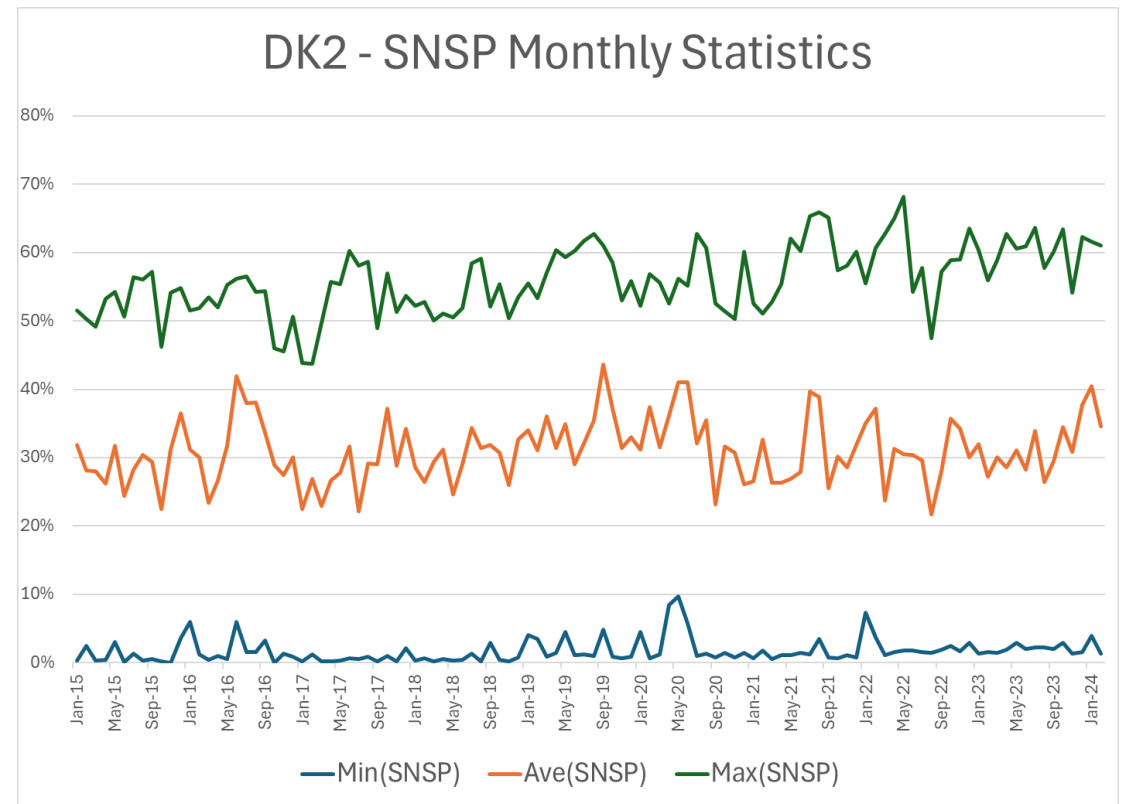
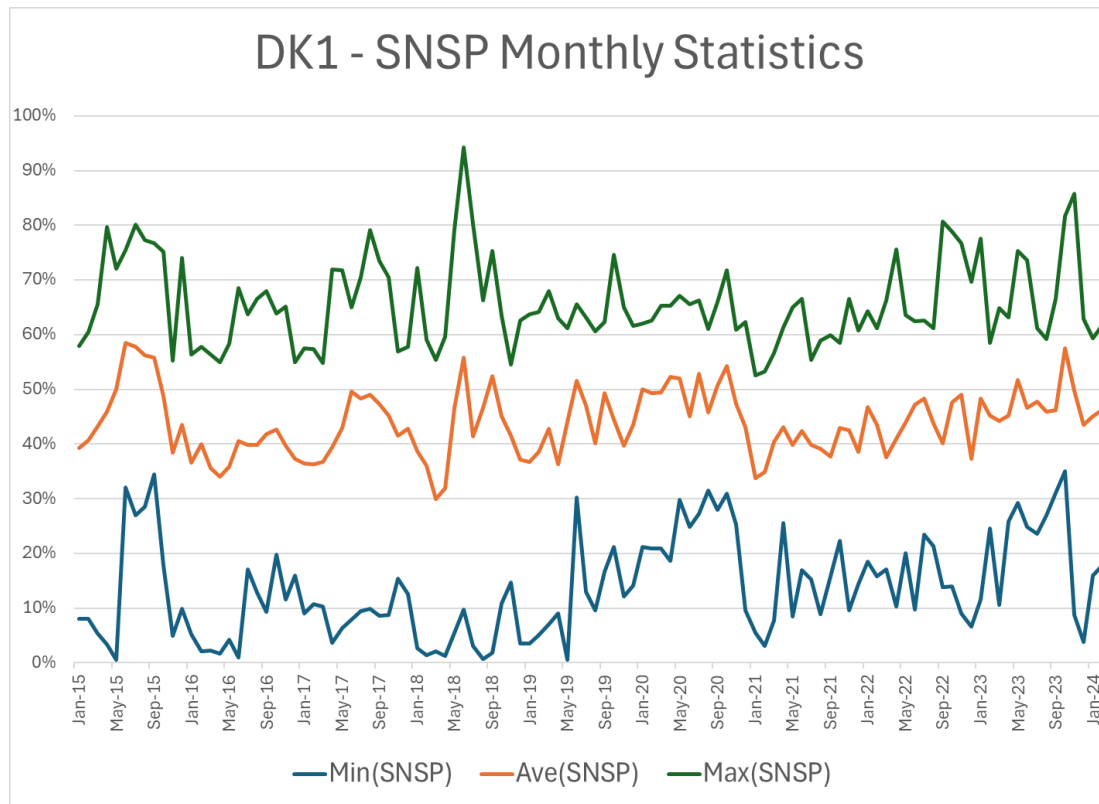
Impact of Non-Synchronous Generation and Interconnection

- DK1 – Island with single AC connection to DE
- DK2 – Island with single AC connection to SE4
- Does this mean there is a potential system stability issue





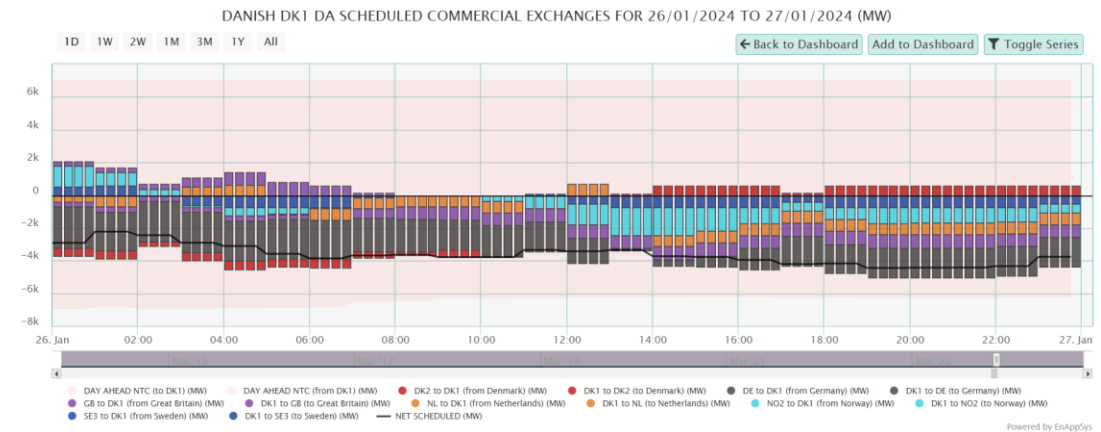
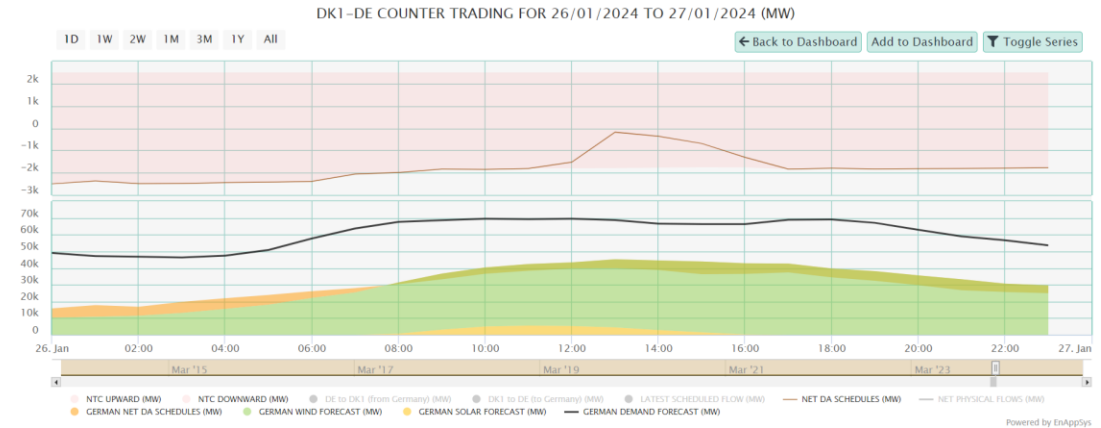
Impact of Non-Synchronous Generation and Interconnection





Counter Trading with Germany and its effect on Viking

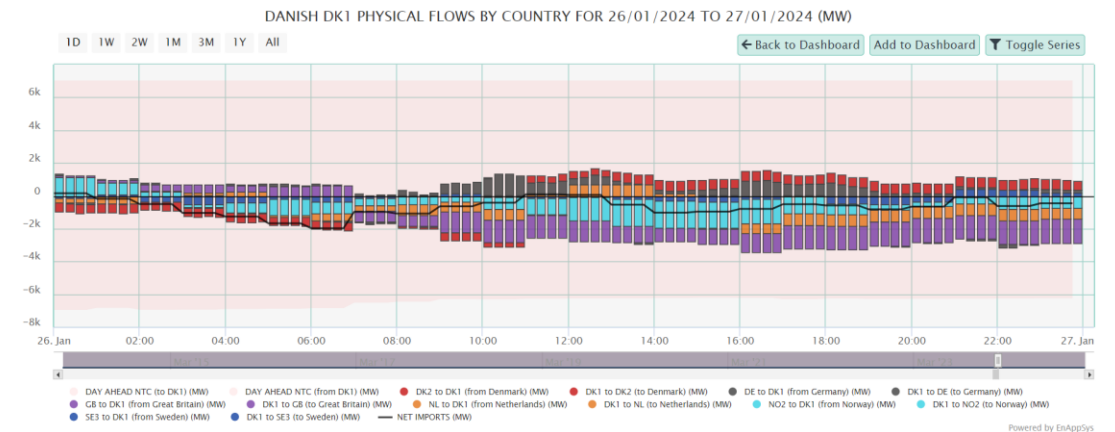
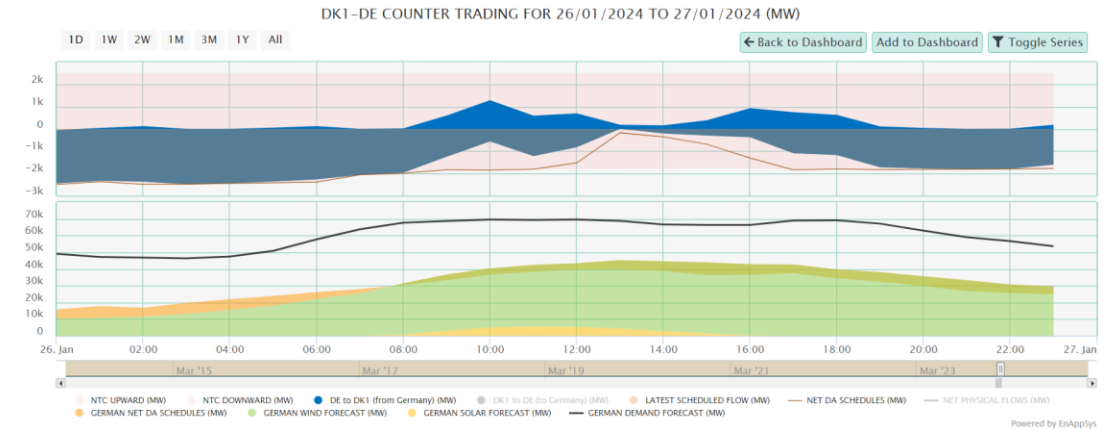
- High renewables in Germany
- Denmark exporting to Germany
- To reduce curtailment Germany needs to countertrade





Counter Trading with Germany and its effect on Viking

- High renewables in Germany
- Denmark exporting to Germany
- To reduce curtailment Germany needs to countertrade
- After countertrading where does the volume that was going to Germany go?
- Curtailments in Denmark plus opening up the Viking Link to full export pushing 600MW more power into GB



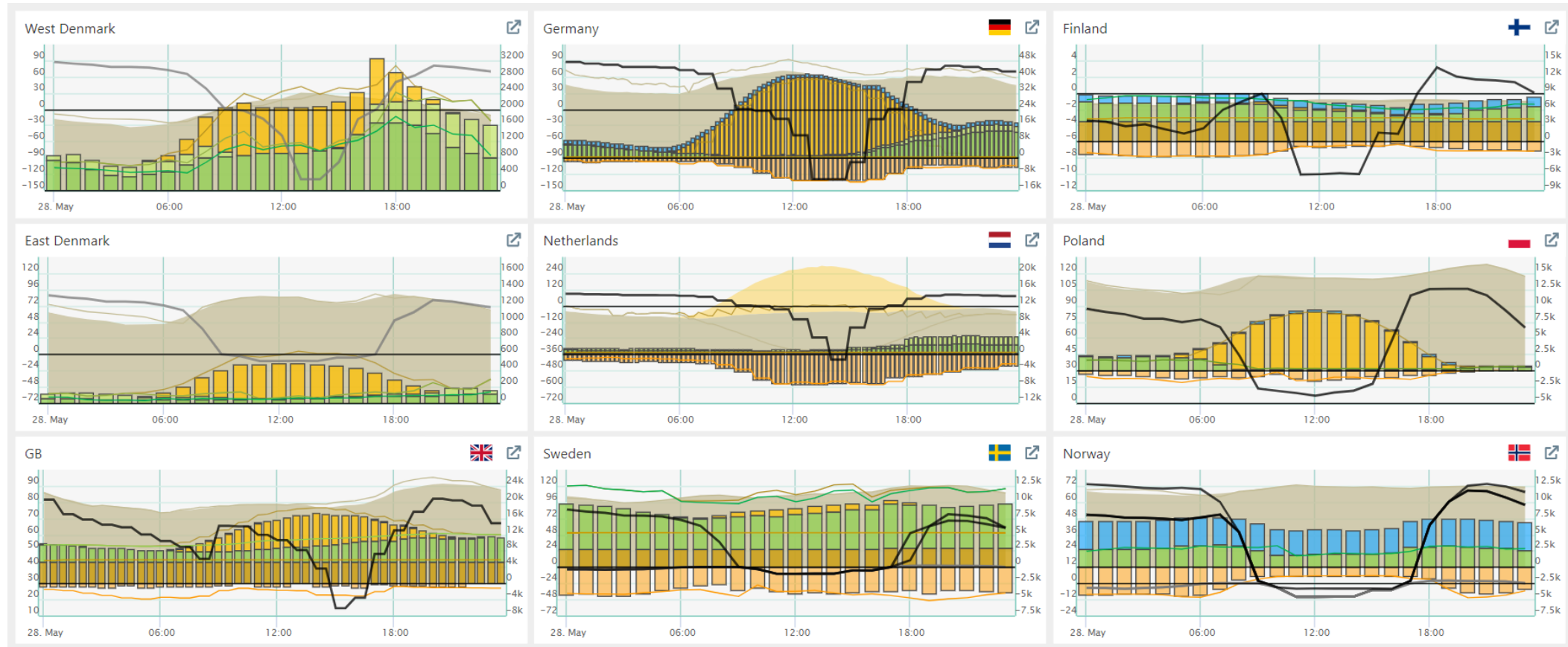


Counter Trading with Germany and its effect on Viking





Look back at 2023 – Outlook for 2024

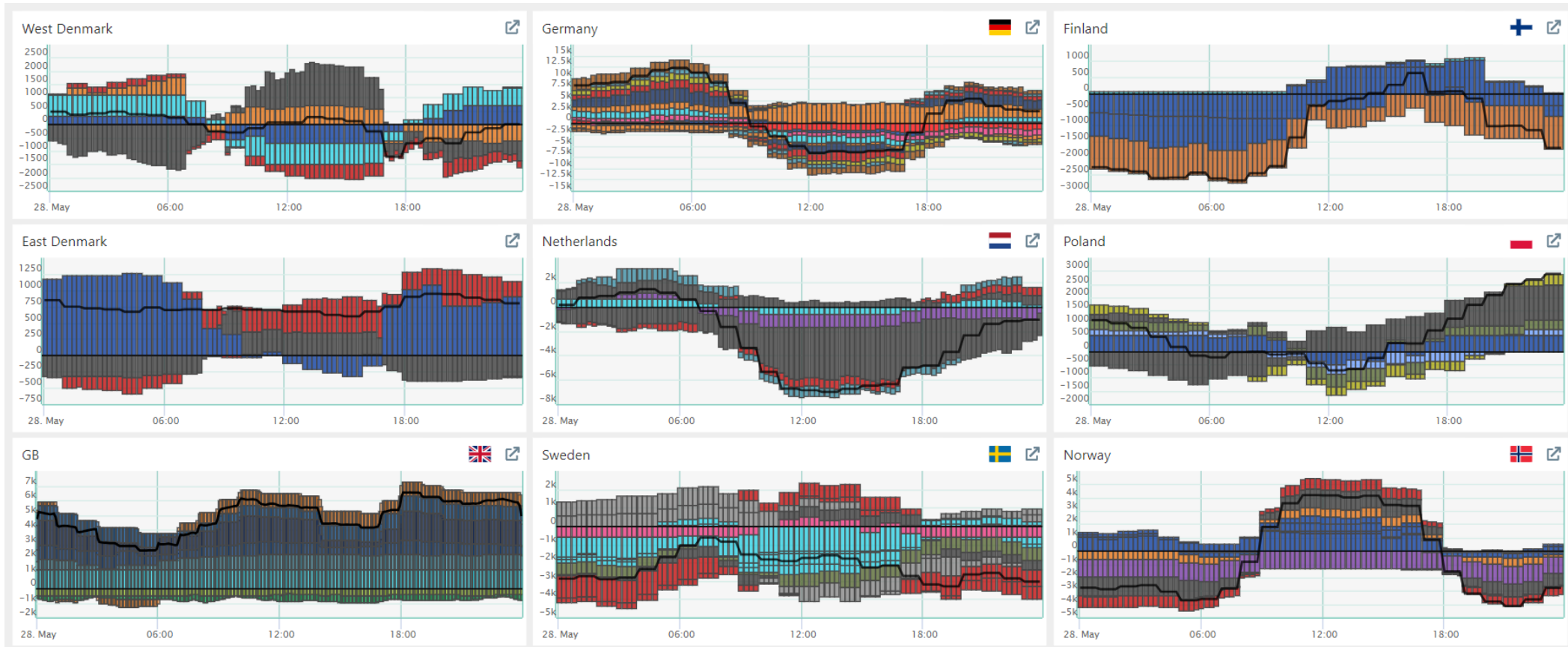


28th May, 2023 – Not really summer ...



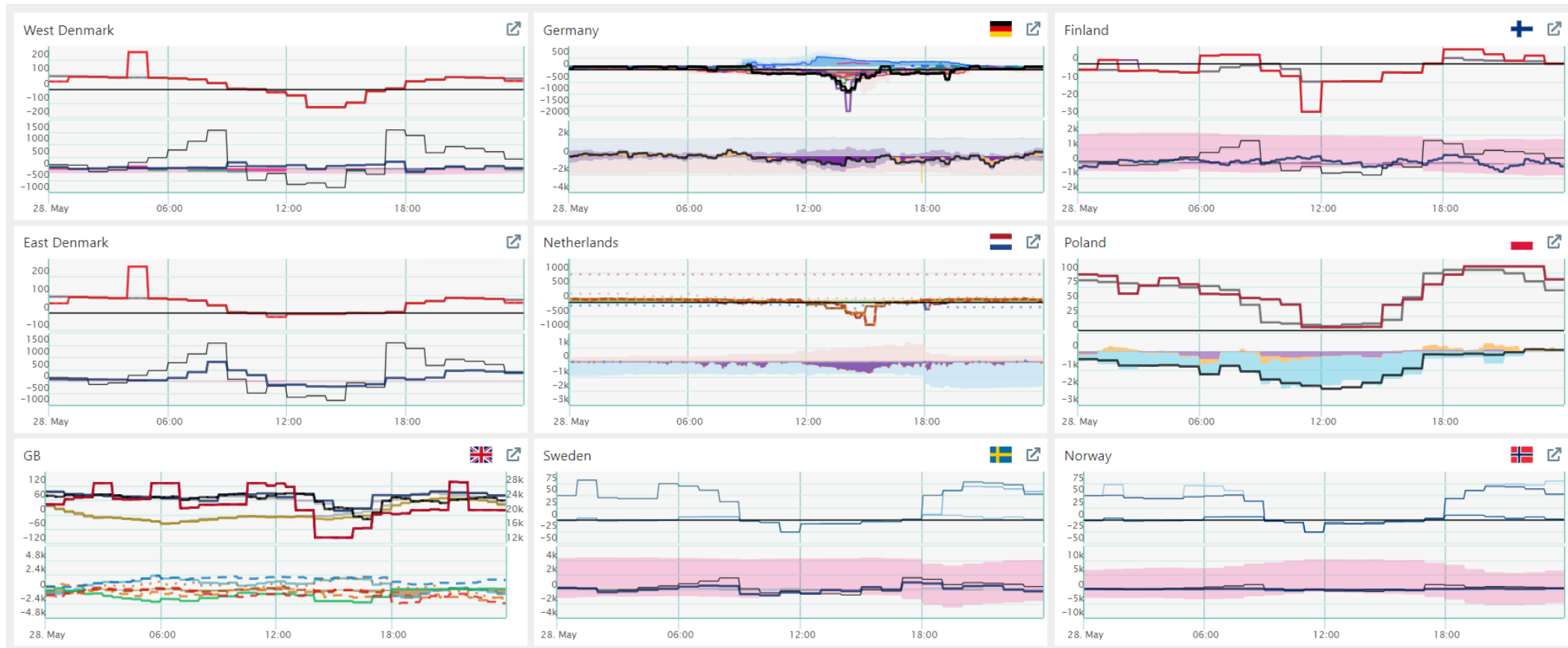
Look back at 2023

– Outlook for 2024



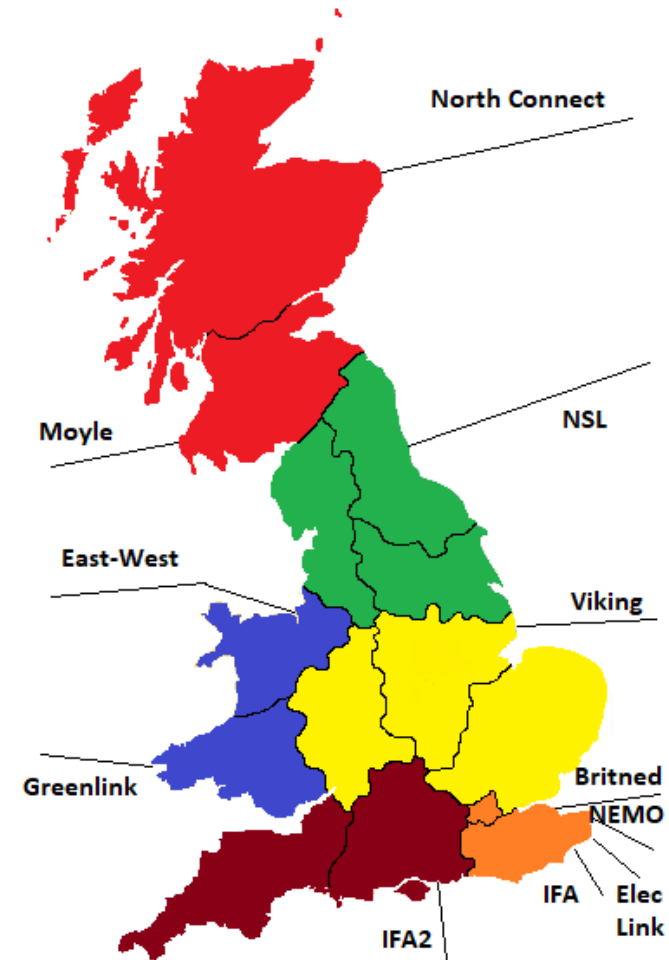


Look back at 2023 – Outlook for 2024



Bonus Content – Potential GB Zones

- UK Government is consulting on moving the GB market from one national market to a zonal market. What could this look like?
- Most Expensive Zones: South East Zone and Southern Zone
- Cheapest Zones: Scotland and Northern England
- Would change I/C dynamics for NSL (Norway) and Viking and maybe make North Connect (2nd Norway Cable) politically workable



MONTEL