

A decorative graphic on the left side of the slide, consisting of a complex, interconnected network of thin grey lines forming various geometric shapes, primarily triangles and quadrilaterals, creating a wireframe effect.

FLOW-BASED CAPACITY CALCULATION IN THE NORDIC REGION

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EXPECTED FLOW-BASED GO-LIVE IN OCTOBER 2024

The current phase is the final 6 months of external parallel run before go-live.

FLOW-BASED
A CAPACITY
CALCULATION
METHOD THAT
REPRESENTS THE
PHYSICAL GRID AS
MARKET
CONSTRAINTS.

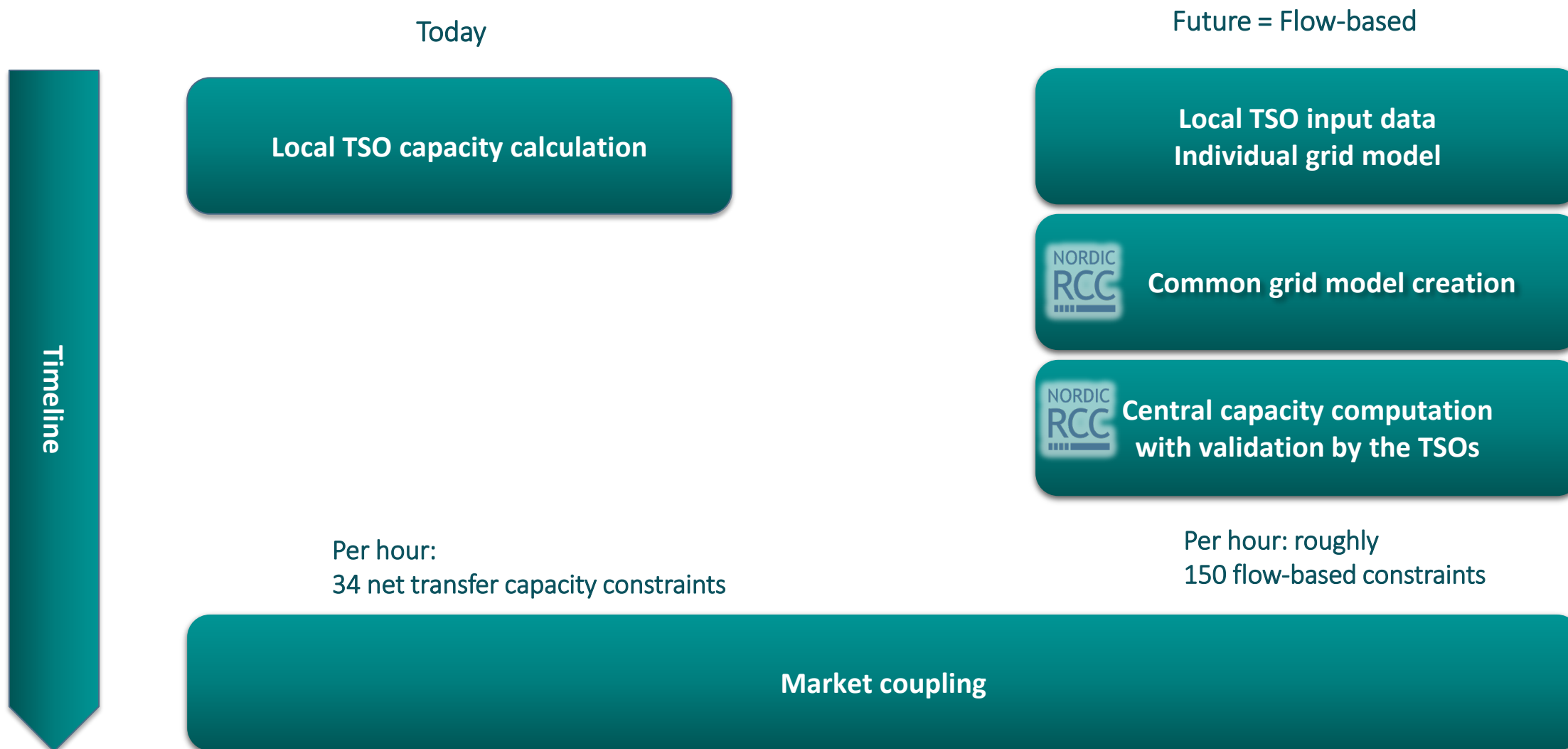


WHY?

TO INCREASE THE
FLEXIBILITY
NECESSARY FOR THE
GREEN TRANSITION.

A REQUIREMENT IN
EU REGULATION 2015/1222
ESTABLISHING A GUIDELINE
ON CAPACITY ALLOCATION
AND CONGESTION
MANAGEMENT.

MORE DETAILS AND COORDINATION



FLOW-BASED
IMPROVES THE
UTILIZATION OF THE
GRID.



EXTERNAL PARALLEL RUN RESULTS

Simulations of the Nordic flow-based capacities have run since December 2022.

- Simulations have run in a test environment for the market algorithm.
- Sensitivity analysis, changing only one parameter:
 - Changed:
 - **Capacities in capacity calculation region Nordic and the external borders to the continent.**
 - Not changed:
 - Day-ahead order books used in all bidding zones.
 - Day-ahead capacities used in the rest of Europe.

Data is not a forecast of the future, but a calculation and comparison of the daily impact of a change in the capacity calculation.



Improved utilization of the Nordic grid with flow-based enables increased flow from North to South-West by **6,5 TWh** that was not possible with net transfer capacity.

This is an increase of 67%.

Flow-based impact July 2023 - June 2024

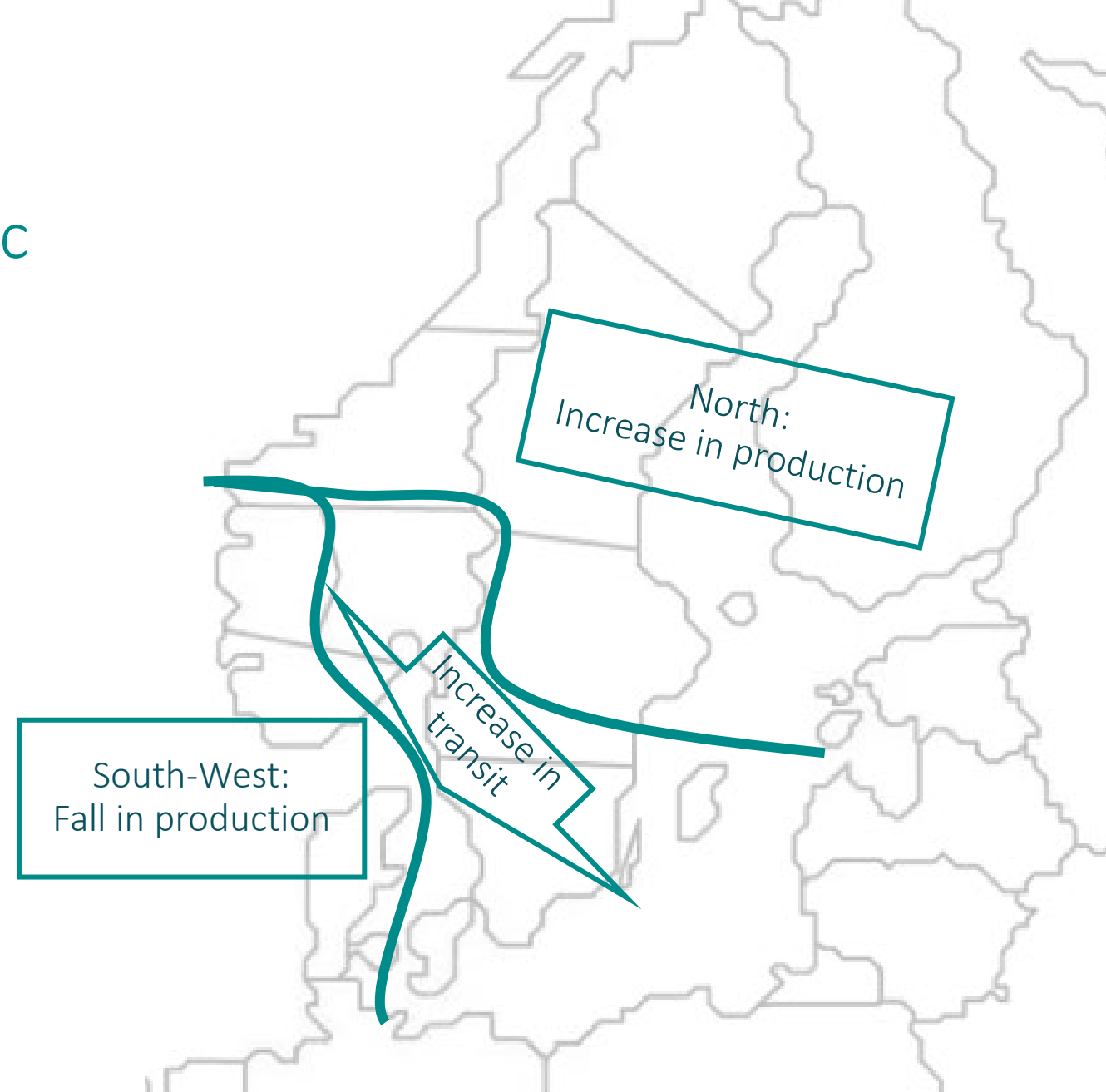


Figure: Impact from the implementation of Nordic flow-based from external parallel run results.

HIGHER UTILIZATION OF NORDIC PRODUCTION

3% increase in export to the continent in hours with export.

7% fall in import from the continent in hours with import.

Flow-based impact July 2023 - June 2024

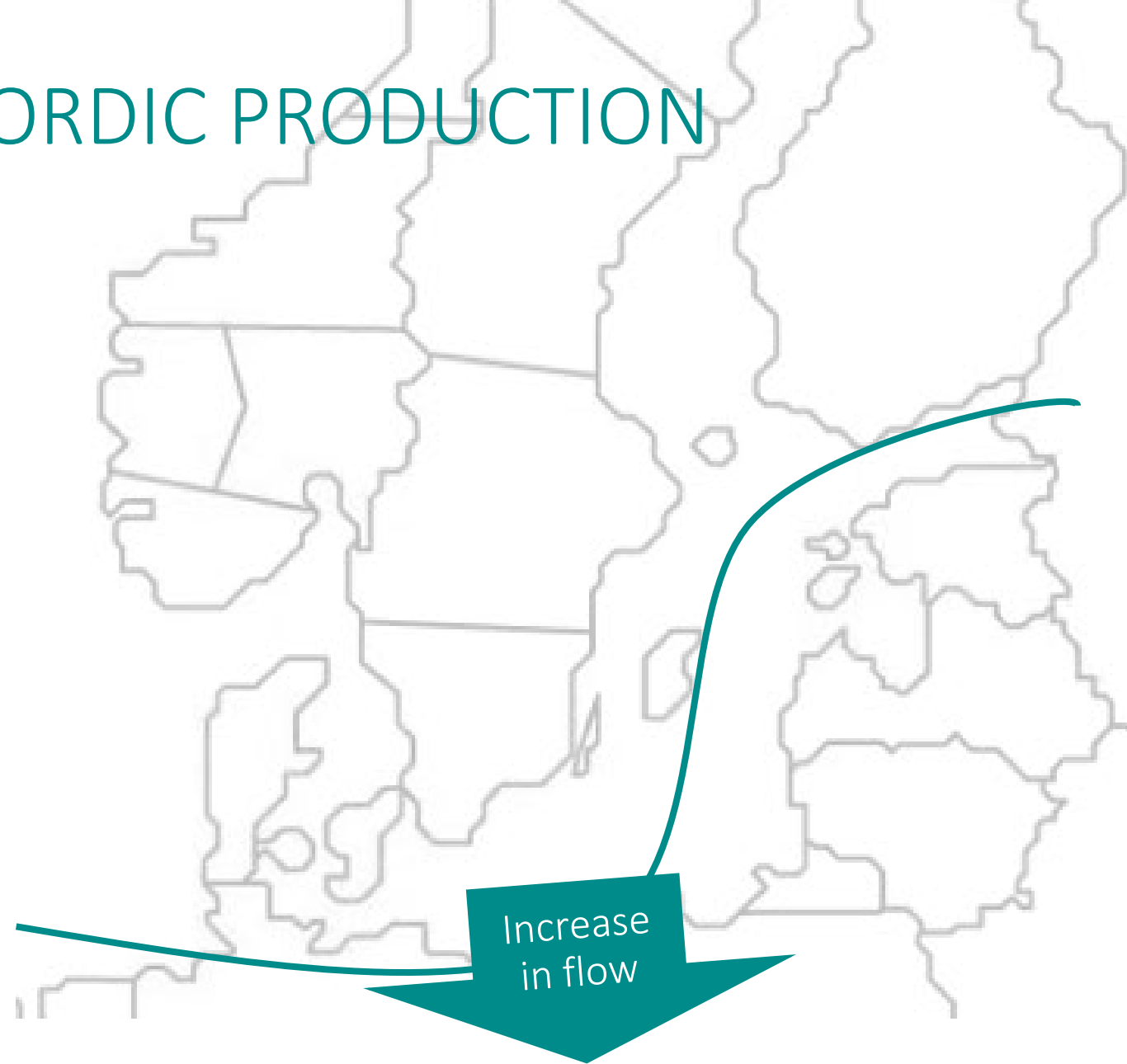
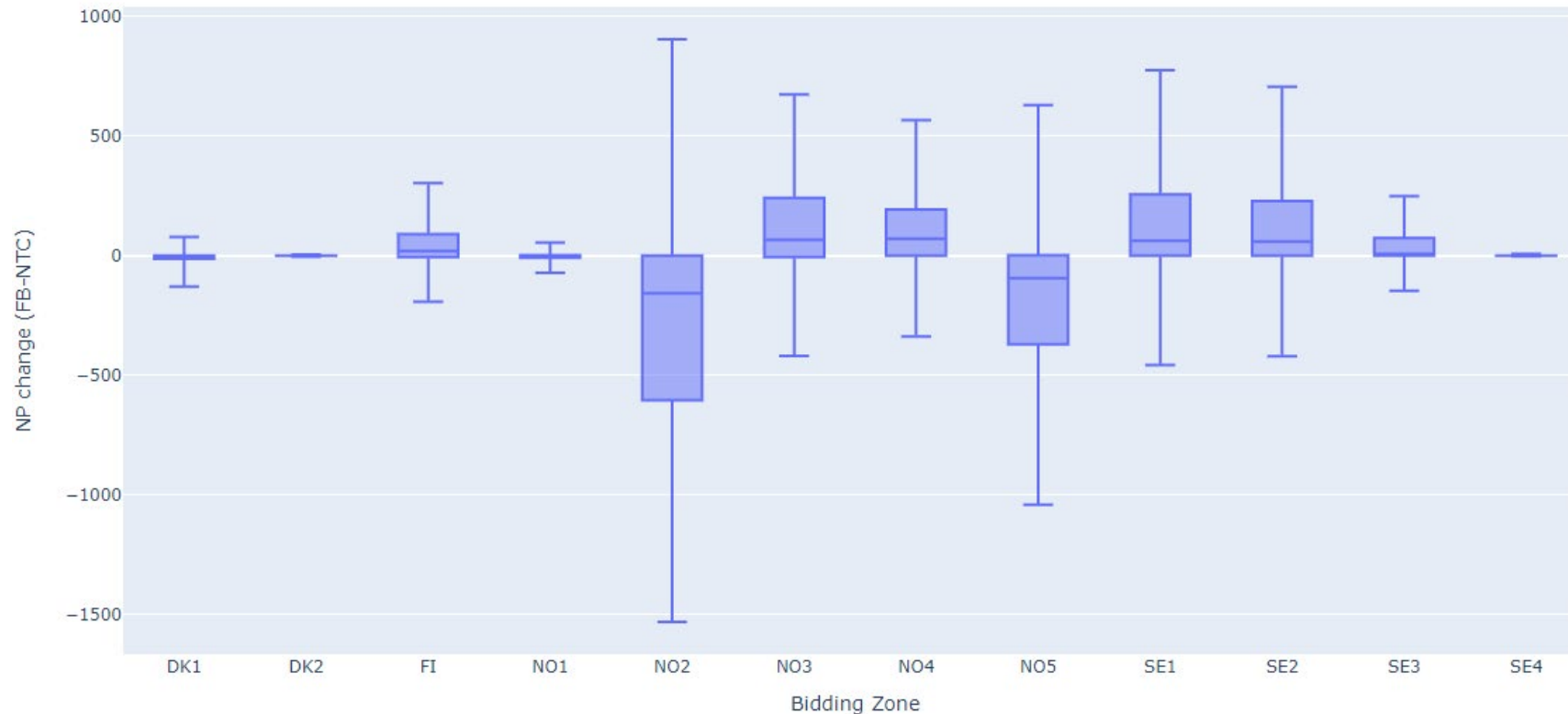


Figure: Average flow-based prices in each bidding zone.

THE IMPACT OF FLOW-BASED DIFFERS GREATLY FROM BIDDING ZONE TO BIDDING ZONE

Flow-based impact July 2023 - June 2024

Positive value: Increase in export/fall in import in bidding zone with flow-based.
Negative value: Fall in export/increase in import in bidding zone with flow-based.



Boxplot: The 99% fractile of the day-ahead net position (NP) change in MWh/h between flow-based and production per bidding zone.

ARE YOU READY FOR FLOW-
BASED?

IF NOT, THEN INFORMATION CAN BE FOUND AT
[HTTPS://NORDIC-RCC.NET/FLOW-BASED/](https://nordic-rcc.net/flow-based/)

AND QUESTIONS CAN BE SENT TO
CCM@NORDIC-RCC.NET