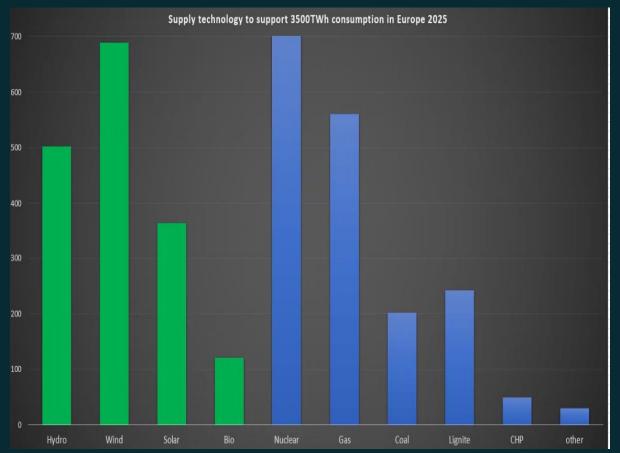


Tor Reier Lilleholt Analysesjef torli@volue.com +47 48155425 Were do we see the future of power prices?

Danish Energy days Aarhus 13.03.2025

## European power Balance 2025:

The green shift will soon reach 50% new renewable share!



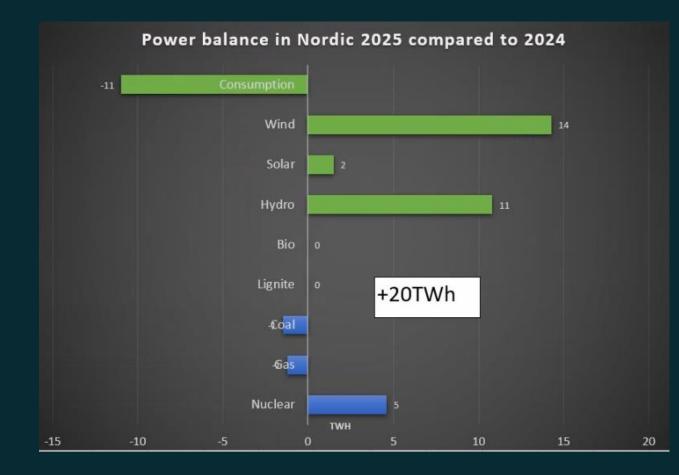


#### Supply in Europe:

- Renewable production might exceed 1700TWh in 2025 and cover close to 50% of total consumption
- Wind production might challenge nuclear generation to be the highest contributor in Europe in 2025 with more than 700TWh production
- Solar production has the highest % growth increase of almost 15% from last year
- We still see 400TWh coal/lignite production left.
- Gas is a strong contributor and very important for flexible production and will be one of the most important price signals in the future

### What about the Nordic power balance in 2025?

The surplus in 2025 will be extreme, and we need to look at the northern part!



#### 2024

- 2024 did deliver 12TWh below normal assumptions for the power balance
- High temperatures and low wind

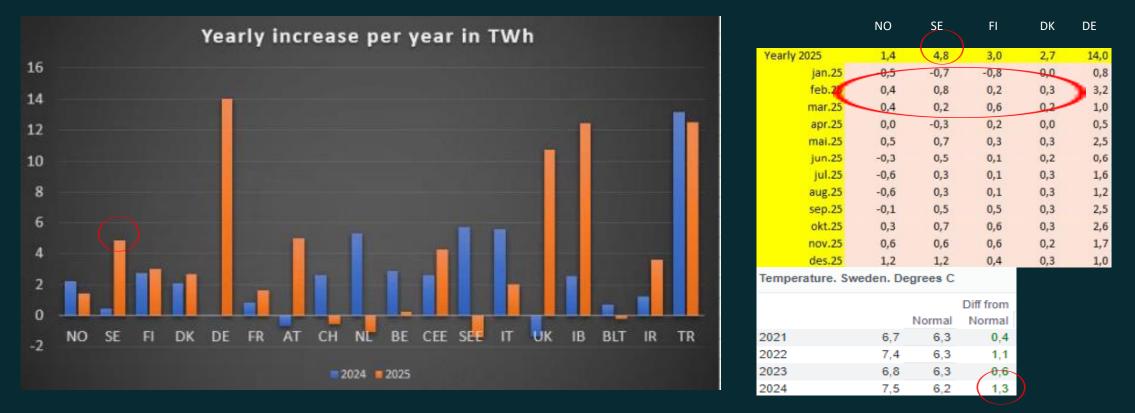
#### 2025

- 11 TWh consumption increase (5TWh temperature adjusted)
- New renewables will continue to grow with expectations of 2500MW new wind power capacity and 3000MWp new solar power installations
- Hydro with a significant surplus in the snow and hydro reservoirs (+19TWh in the northern part)
- Nuclear with higher availability and less maintenance

## We might see record high NP surplus in the power balance and a very high export in 2025.

## The increase in Nordic power is approaching!

Will we see a 12TWh NP increase in consumption this year?

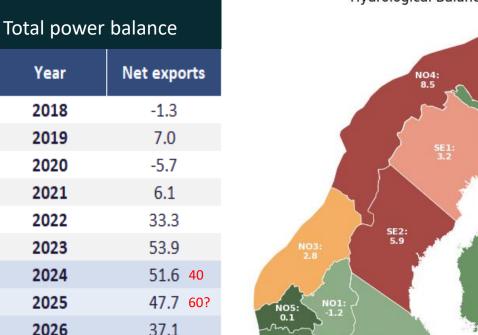


- Very high temperatures compared to normal in Feb/March and several other months last year
- NP: 2024 did see a 9 TWh increase in consumption
- 2025: Normal assumptions account for half of the increase, and the rest comes mainly from data centers, EV, heat pumps and offshore electrification in Norway

# Hydrological status

## Hydrological situation

- A very mixed situation in the Nordic region
- Northern areas with a major surplus
  - Hydrological balance surplus of 19TWh
    - Hydro reservoirs:
      - Might not come below 50% this spring
      - We expect above 90% in hydro reservoirs this autumn
  - Total power balance surplus at almost 80TWh
- Extreme transport from north to south and further to the Continent in 2025
- Southern areas with a small deficit
  - We expect above normal hydro reservoirs after summer



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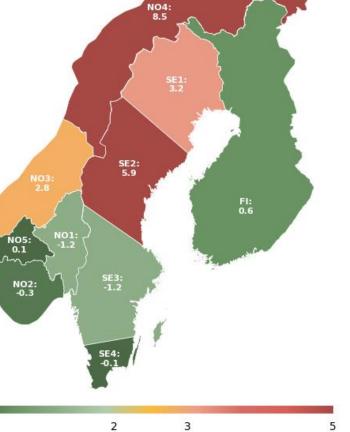
2027

2028

2029

2030





## Gas market expectations

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## THE gas price outlook

PS! We have seen heavy falls at this time of the year as temperature risks were eliminated

Our base forecast is currently 2-4 euros below market.

- Weather-related risks will gradually evaporate
- LNG outlook positive as more global production will come online this year and high prices in Europe attracts LNG

#### Risks

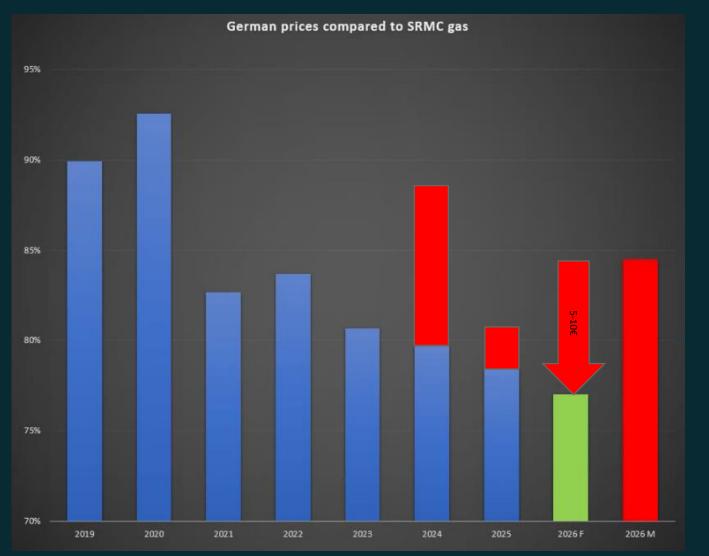
- US/EU sanctions harm Russian LNG exports more sanctions to come?
- Peace deal?
- Pipeline/infrastructure risk?
- Storage development: Curve backwardation can make storage filling difficult. Force buying needed to reach 90% target by 1 Nov?





## Power price expectations

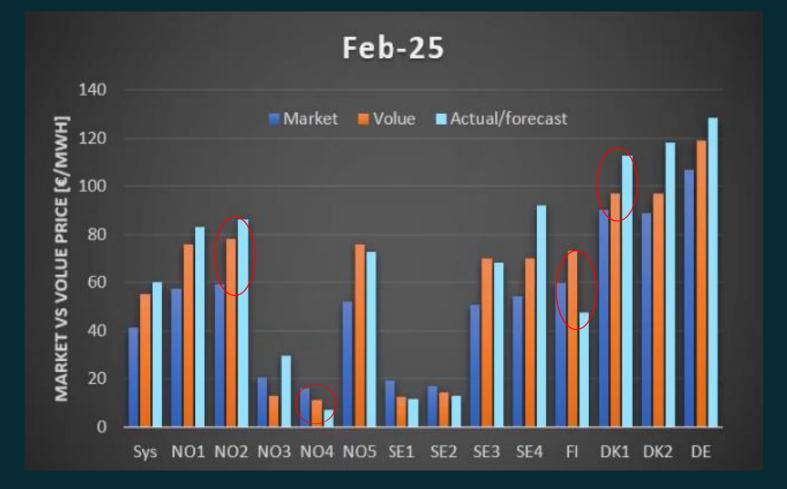
#### Looking at the connection between German actual spot prices and the SRMC of gas! Still EEX market seems to have risk premium for 2026!



- DE has removed a lot of thermal and nuclear production lately and introduced a lot of non-controllable production from wind and solar
- 2024 has seen low wind performance, and 2025 might see significantly more RE
- The production might increase significantly more than the consumption and the need for hours from gas will be reduced also in 2025
- Closing prices for 2025 had a lot lower risk margin on the upside
- Market prices 2026 show a higher risk margin towards SRMC for gas than we should expect from this approach.
- We might see 5-10€/MWh lower prices.

## Still some potential in the FWD market in all areas!

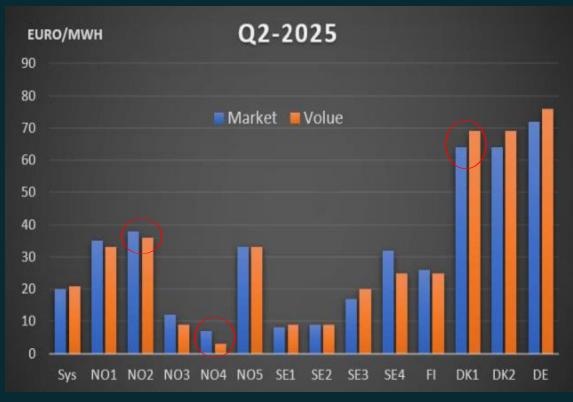
- The market did underestimate the hydrological pressure in the north and overestimate the pressure on the prices in the south
- Finland lost Estlink2 and the prices were set under pressure



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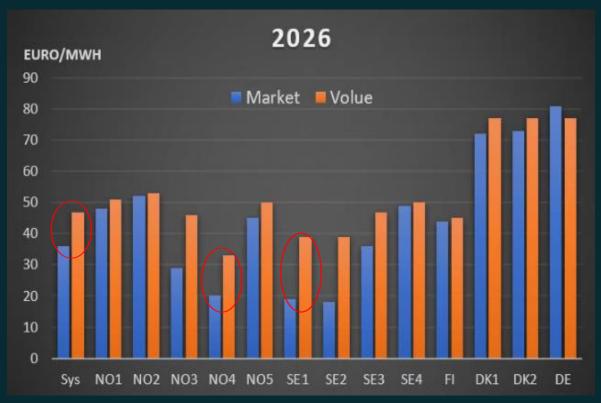
## Hedging opportunities?

#### • Q2-2025



- No significant signals for Q2-2025 but watch out for lower fuel prices
- Significant upside potential for all areas in NP for 2026

#### 2026



## Price uncertainty — don't forget the huge spread!

One price curve is one of many scenarios!

Distribution of simulated prices Q2-2025 [EUR/MWh]

#### Nordic system price

Percentiles	Marked	Avg	0%	10%	35%	50%	65%	90%	100%
2025-Q2	20	22	7,5	13,5	19	22	26	33,5	46

#### **DK1 price**

Percentiles	Marked	Avg	0%	10%	35%	50%	65%	90%	100%
2025-Q2	64	69	36	48	64	69	75	89	99

### European simulated prices: Long term 'Base' scenario, Des. 2024, €/MWh

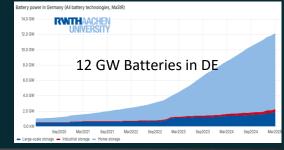
Lowest prices

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Year	System	NO1	NO2	NO5	NO3	NO4	SE1	SE2	SE3	SE4	Finland	Jutland	Zealand	Germany	Netherlands	UK	Estonia	Latvia	Lithuania	Poland
2021	62.3	74.7	75.1	74.6	41.1	35.0	42.5	42.6	66.0	80.5	72.3	88.1	87.9	96.8	103.0	137.6	70.5	71.7	72.6	68.0
2022	135.9	192.5	211.3	192.1	41.9	24.5	59.1	62.0	129.2	152.1	154.0	219.0	210.2	235.5	241.9	240.0	195.0	230.0	235.0	135.0
2023	56.4	66.9	81.0	70.0	29.9	29.9	39.9	39.9	51.7	64.8	56.4	86.7	90.2	95.2	95.8	113.0	97.0	98.0	98.0	117.0
2024	37.9	43.1	50.8	<u>42.9</u>	29.4	25.3	27.0	26.1	37.7	51.2	47.4	70.6	71.1		76.9	85.3	90.3	90.0	90.0	98.0
2025	40.4	49.4	50.4	49.1	21.6	19.7	21.1	21.2	43.6	45.9	48.9	75.3	76.7	78.2	75.7	87.5	71.9	72.3	72.0	105.2
2026	49.0	52.7	53.8	52.5	42.3	35.2	38.7	38.8	49.6	49.8	47.2	73.1	74.2	74.9	73.5	84.7	63.4	63.9	63.6	105.6
2027	52.1	54.3	54.7	54.2	49.3	44.4	46.5	46.5	52.8	52.9	51.5	64.2	65.7	64.7	63.7	71.3	60.6	61.0	60.1	102.7
2028	53.8	55.7	55.7	55.7	51.5	47.3	50.8	50.8	56.0	56.0	56.2	57.3	61.4	56.8	56.0	62.0	64.1	64.5	63.1	98.2
2029	54.2	55.4	55.2	55.5	52.9	52.1	54.2	54.1	56.6	56.7	59.2	54.8	60.2	53.1	52.9	58.5	67.3	67.6	65.9	97.0
2030	52.3	53.1	53.1	53.1	52.1	51.5	52.9	52.8	54.8	54.9	59.3	52.1	56.5	50.5	49.1	52.0	67.7	69.3	66.8	95.5

Not market-to-market assumptions, but Volue assumptions

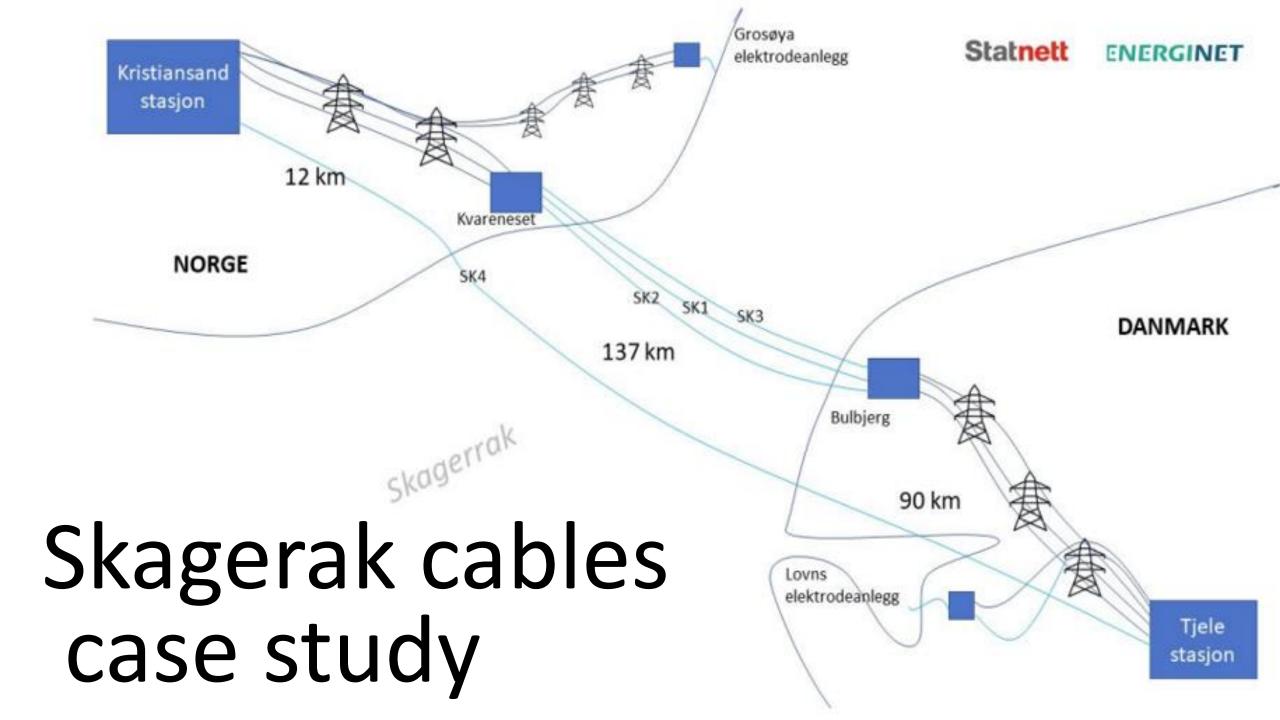
### The number of hours around zero and below vs. high prices!

Some countries have experienced an exponential increase in the past 2 years, while other areas are more stable!

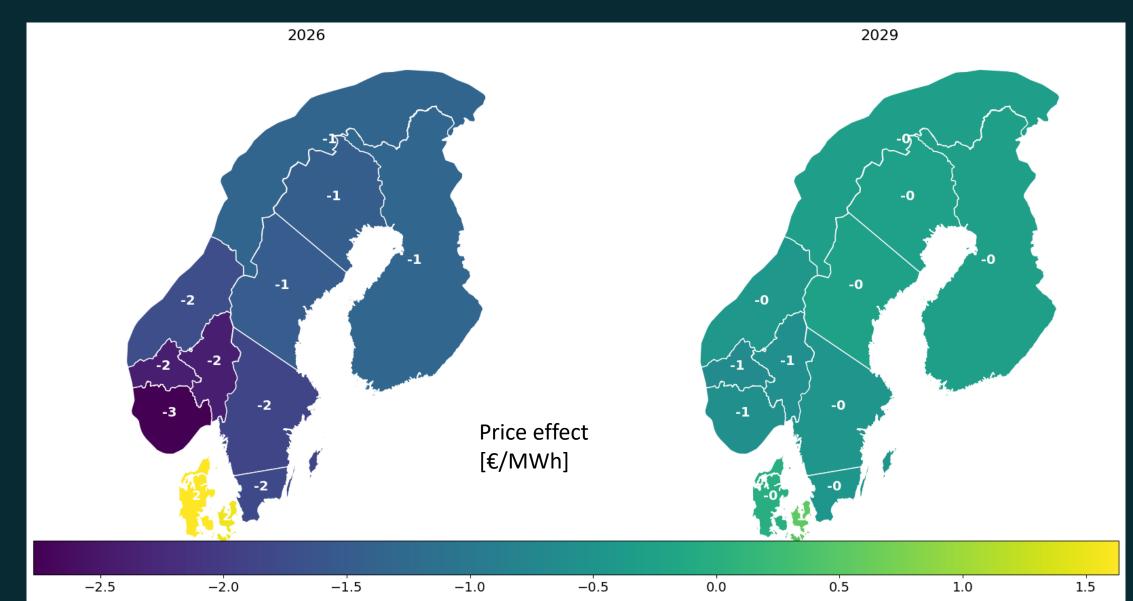




- Finland is dominating in the Nordic and has an effect on Swedish prices in particular
- UK, DE, which is the main exchange out of NO2, is not dominating areas on the negative prices
- DE, UK and NL with a high share at 50% above 1 NOK/MWh and have a low level of common prices to NO2 above this level
- The average price level is not that affected by extreme prices, for example, 90% of the prices in NO2 are between 1 and 86€/MWh (1NOK/MWh) even though the media focus on the other 10%.



## What if Norway doesn't renew Skagerak I & II?

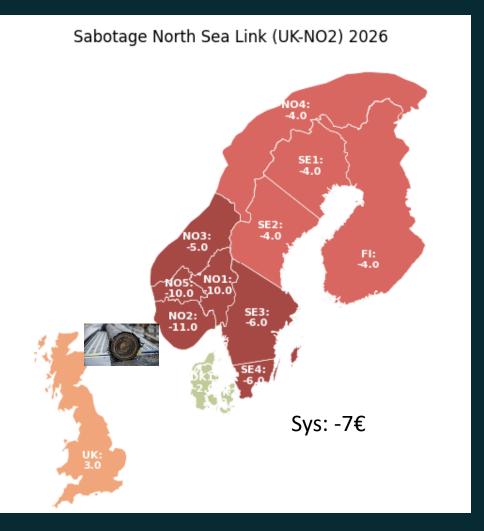


## Sabotage scenario



## Cutting North Sea Link (UK-NO2)

## Sabotage against 1400MW North Sea Link!



Price effect [€/MWh]

