AMPRION-WEBINAR

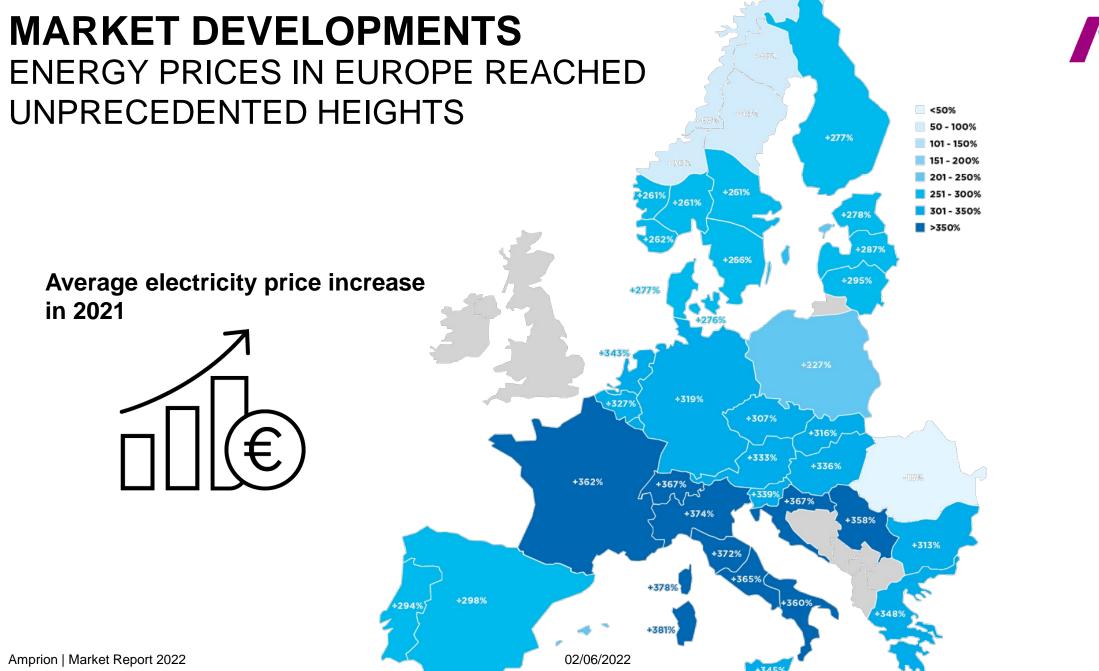
MARKET REPORT 2022 PRESENTATION OF KEY FINDINGS

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CURRENT DEVELOPMENTS IN THE ELECTRICITY MARKET – IMPACT OF HIGH ENERGY PRICES

LENA BREUER PROJECT MANAGER MARKET REPO







MARKET DEVELOPMENTS ELECTRICITY PRICES – FOCUS ON CWE



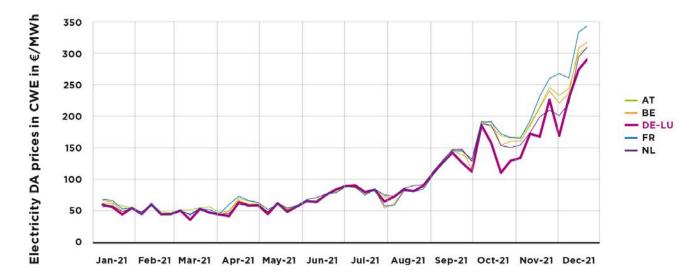
- In the CWE region, prices have been rising, particularly from September 2021 onwards
- Average day-ahead prices in CWE:

Bidding Zone	2020	2021
DE-LUX	30 €/MWh	97 €/MWh
FR	32 €/MWh	109 €/MWh
BE	32 €/MWh	104 €/MWh
AT	33 €/MWh	107 €/MWh
NL	32 €/MWh	103 €/MWh

Impact on TSOs:

 price levels affect the TSOs' costs, in particular for the procurement of transmission losses and balancing as well as for redispatching

Day-ahead prices in CWE 2021

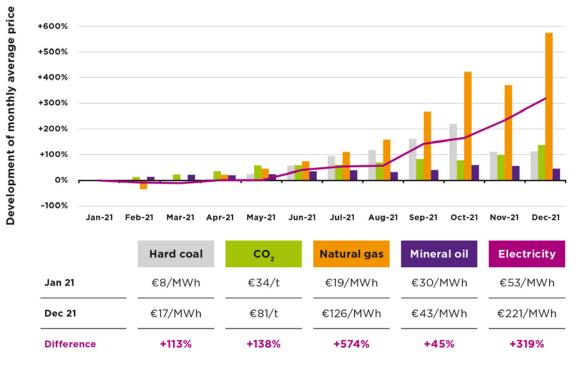


High increases in energy prices also impact TSOs – although European market integration partly reduces the negative effects

MARKET DEVELOPMENTS WHY ARE ENERGY PRICES INCREASING?



- Sharp increase in commodity prices (esp. gas prices)
- Increase in gas prices due to global demand and supply dynamics as a result of the global economic recovery from the COVID 19 pandemic
- Other factors:
 - Lower wind generation in Germany
 - Availability of power plants (among others French nuclear power plants)
 - Increased prices for CO₂ certificates
 - Europe's below-average gas storage levels
 - Limited additional gas imports via pipelines



Price developments in DE 2021

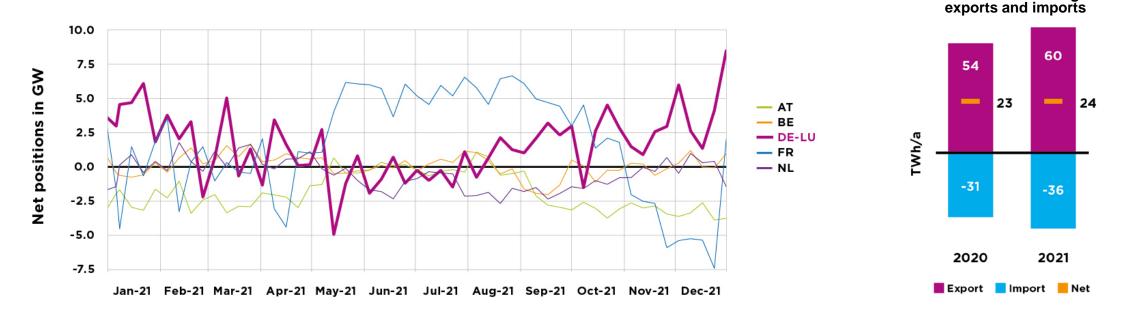
Soaring gas prices are one major reason for electricity price increase

MARKET DEVELOPMENTS COMMERCIAL IMPORTS AND EXPORTS



German/Luxembourgian

- Significant increase in total German imports and exports (DA export: 60 TWh in 2021 → +11% and DA import: 36 TWh in 2021 → +16%)
- Ongoing trend towards net imports of Germany during summer months and net exports during winter months

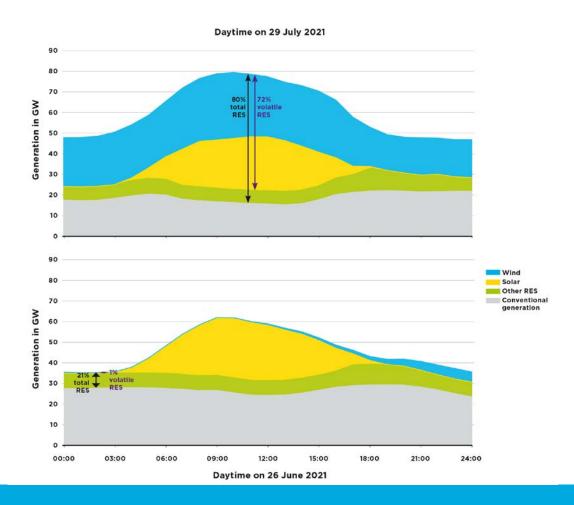


High import and export flows result in a higher utilisation of the European transmission grid

MARKET DEVELOPMENTS RENEWABLE POWER GENERATION IN GERMANY



- The German net position depends to a large extent on the variable wind and solar generation
- In 2021, the share of electricity generated from renewable energies (RE) has decreased (43% in 2021) in comparison to 2020 (49%)
- But availability of RE varies significantly depending on the time of day, season and general weather conditions:
 - Highest share of volatile RE net electricity generation on 29 July at 11 a.m.: 72% (Solar & Wind), 80% (total)
 - Lowest share of volatile RE net electricity generation on 26 June at 2 a.m. : 1% (Solar & Wind), 21% (total)



The fluctuating pattern of renewable energies remains a major challenge for system operation and market

MARKET DEVELOPMENTS PRICE CONVERGENCE IN CWE

- Price convergence in CWE at similar level as in the previous year (51% at max.: ± 1 €/MWh)
- However, significant differences in the course of the year:
 - Very high price convergence in Q2 and Q3 2021 (over 60%).
 - Very low price convergence (approx. 30%) in Q4 2021
- Average price spread in CWE increased significantly in Q4 2021 (over 25 €/MWh)
 - In 2020, the average price spread was approx.
 3 €/MWh

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Price convergence and price spread in CWE



Price convergence at previous year's level despite high price differences in Q4 2021

02/06/2022

MARKET DEVELOPMENTS SUMMARY



European market integration was driven forward in 2021 with the support of Amprion - despite a rapidly changing general market environment:

Electricity Prices	The German electricity prices has quadrupled and the gas price increased nearly sevenfold in 2021
Imports and Exports	High import and export flows result in a higher utilisation of the European transmission grid
Price Convergence	Price convergence in CWE at previous year's level despite high price differences in Q4 2021

► The evolving challenges in the current geopolitical context call for timely and systemic solutions

THANK YOU VERY MUCH FOR YOUR PARTICIPATION IN OUR WEBINAR!

In case you have any further questions, please do not hesitate to contact us at: MarketReport@Amprion.net

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We are looking forward to your message.

The report is available for download on our homepage: https://www.amprion.net/Market/Market-Report/Market-Report-2022/



