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ΕΝΩΣΗ ΒΙΟΜΗΧΑΝΙΚΩΝ ΚΑΤΑΝΑΛΩΤΩΝ ΕΝΕΡΓΕΙΑΣ

15 th SE Europe Energy Dialogue

SEE Electricity Market Dynamics

Infrastructure and Markets

Thursday 20 June 2024

Climate change - European Green Deal

- Climate change is a global issue that affects us all. There is broad agreement on the goal of reducing CO2 emissions across all sectors of industry, transport, buildings and energy. However, the goal of reducing emissions by 55% by 2030 compared to 1990 is ambitious.
- When developing countries increase their emissions, any efforts to reduce emissions at European level will not have the intended climate effect.
- Securing the necessary raw materials and the most efficient technologies is a prerequisite.
- The introduction of new taxes (such as the CBAM) and the removal of free allowances for energy-intensive industries from 2026 are both revenue-generating measures.

Taxation - Competitiveness of European industry

- The proposed changes include a significant increase in the price of CO2 allowances and a gradual reduction in the free allowances provided to sectors exposed to the risk of carbon leakage.
- This will result in an increase in prices for a number of industrial products.
- To mitigate the impact, the Carbon Border Adjustment Mechanism will be introduced, imposing an import price on iron, aluminium, fertilisers, cement and energy based on their carbon footprint.
- At the same time, the decarbonisation of the above industrial processes will be strengthened to reduce direct emissions. This will be achieved through the implementation of measures such as electrification and carbon capture and utilisation (CCU).

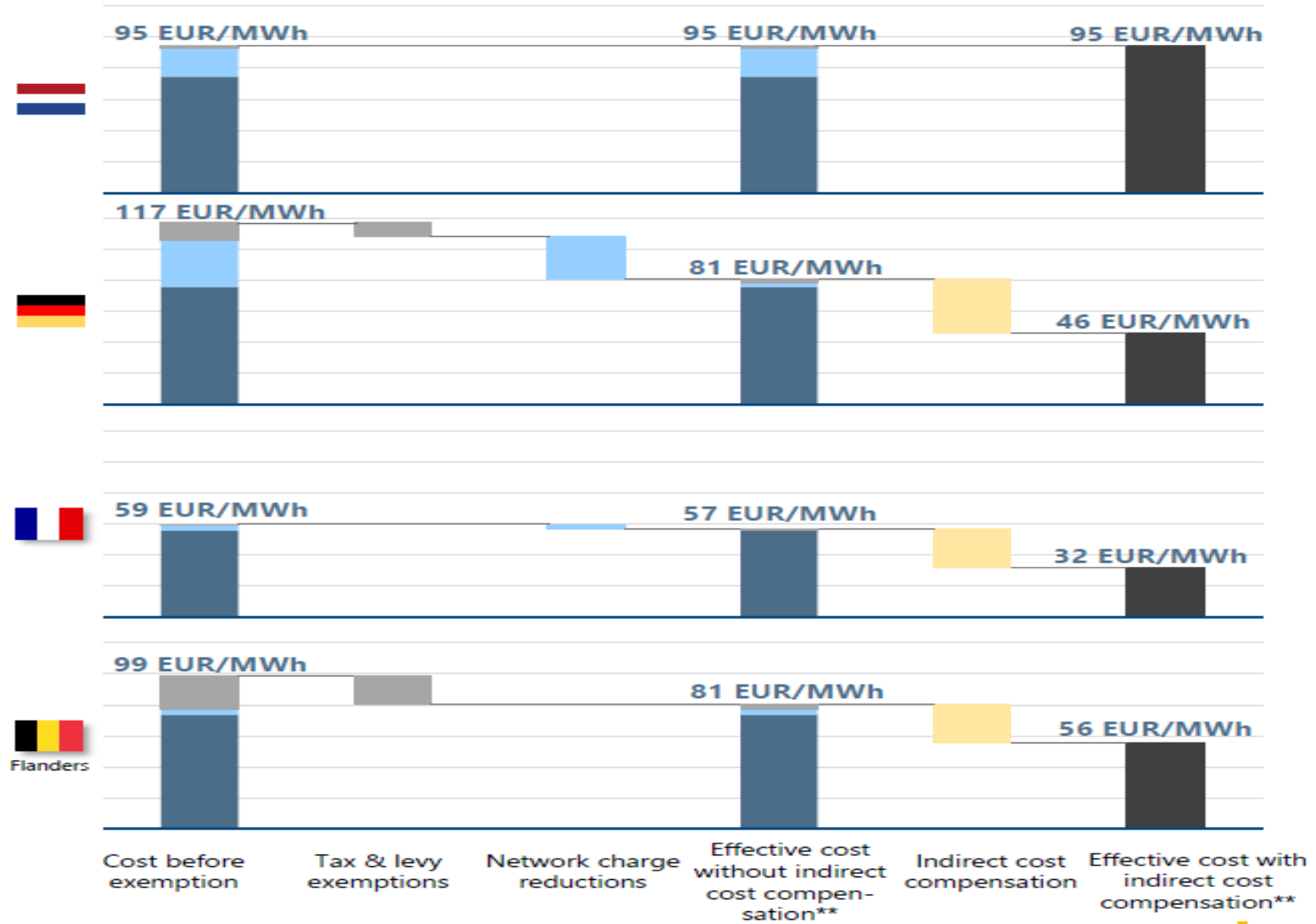
CBAM- In practice, a high-risk sourcing effort is a challenging undertaking.

- In practice, the leveling of the playing field and carbon costs depend on the percentage of production exported to the EU, the accuracy in confirming emissions at installations in third countries, and the effective prevention of circumvention through reallocation of resources.
- The proposal does not include a rebate mechanism for the part of production exported to countries outside the EU.
- The inclusion of the products in question introduces risks into the value chains of the products.
- Another proposal under consideration is the abolition of compensation for the indirect cost of emissions, which would place a significant burden on steelworks and smelters.

The objective of achieving net-zero emissions will result in the decarbonisation of the industrial sector ;

- The experience of the pandemic has demonstrated the need for the expansion and development of domestic industry in order to achieve a more balanced productive development of the economy.
- Unfortunately, today we see energy-intensive industries such as the steel industry shrinking as they are burdened with uncompetitive energy prices, despite falling prices.
- Other multinational industries are also closing their factories in our country, citing the lack of a clear path forward in the YOULA and Sonoco Alcore tunnel.

Electricity costs for 2024, Germany 46€/Mwh, Greece 90€/MWh



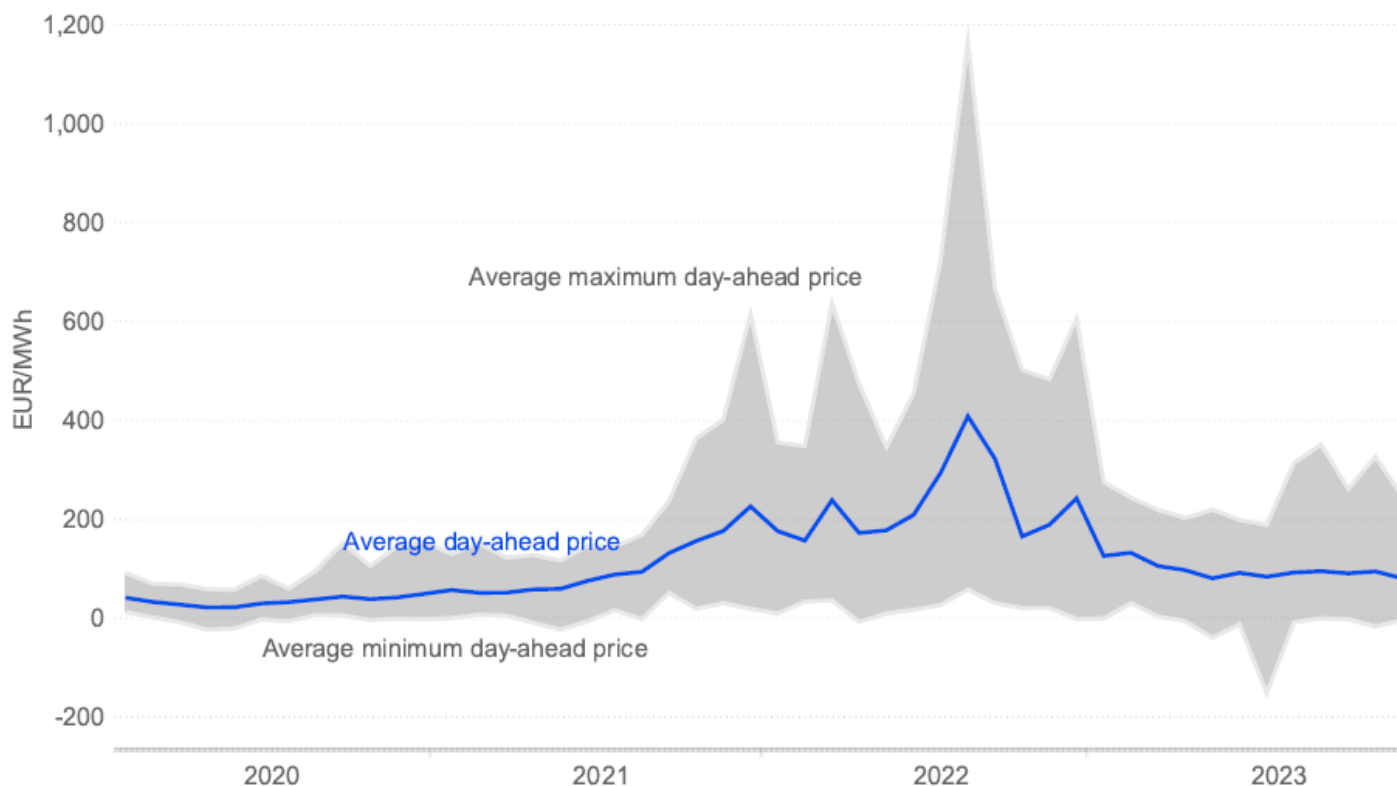
Noncompetitive energy prices - Reasons

- The discrepancy can be attributed to a number of factors. On the one hand, the higher prices of the Greek wholesale market have an impact.
- On the other hand, the lower discounts for regulated charges applicable in our country for large industries also play a role.
- Furthermore, the "reduced" state aid given to eligible industries compared to that received by corresponding German and French industries is a contributing factor.
- A typical example of a "shrinkage" subsidy is the subsidy given to domestic industries to offset the burden of CO2 costs. The amount provided is 60% less than the German equivalent.

Despite falling prices - high volatility remains

Day-ahead prices and variability remain higher than pre-crisis

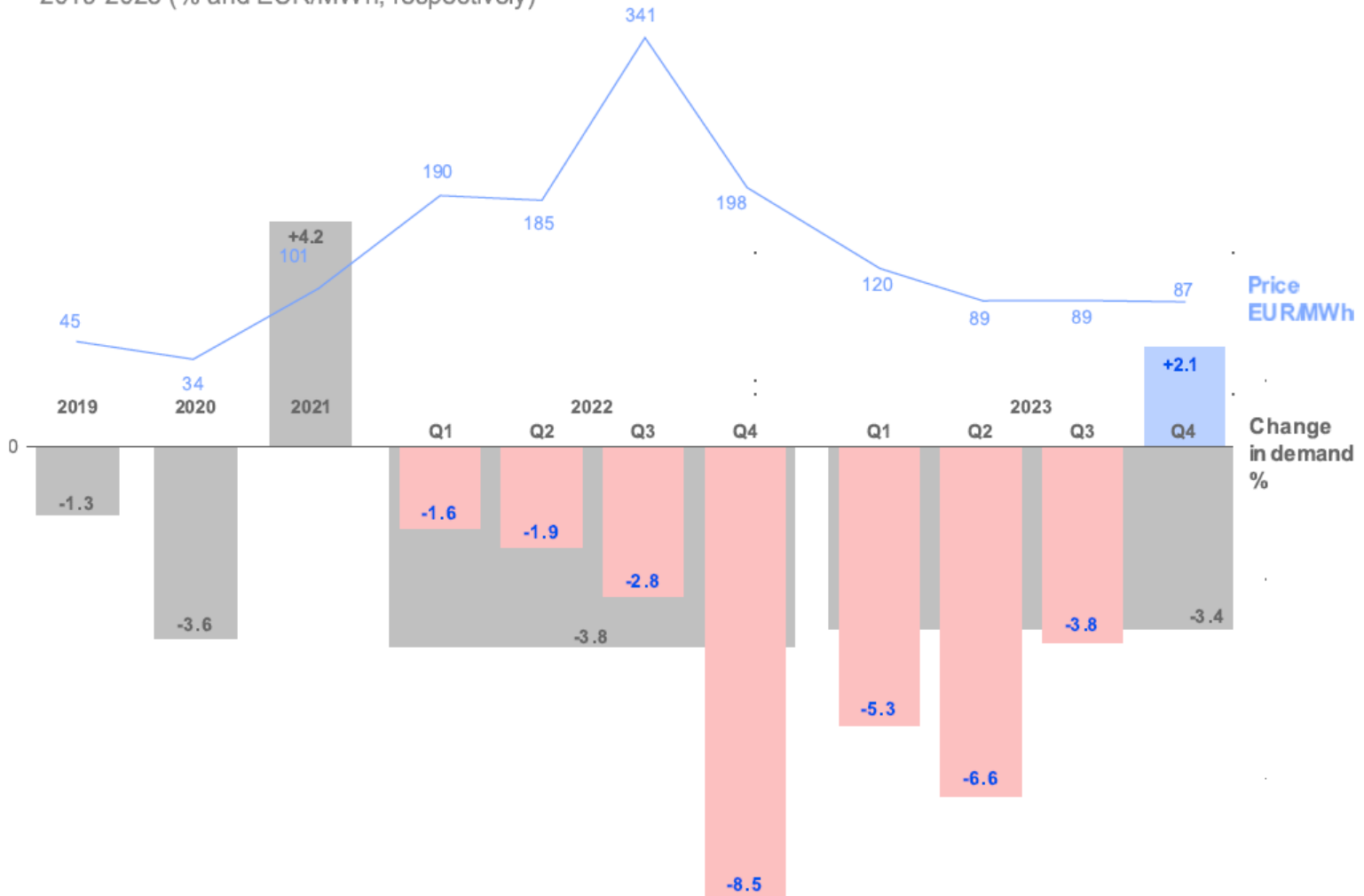
Evolution of the average of the minimum, average and maximum day-ahead electricity prices per month and Member State in the EU-27 /EEA(Norway), Switzerland – 2019 - 2023 (EUR/MWh)



Will there be an increase in demand that will offset the RES production;

Electricity demand: overall decrease in 2023, rebound at the last quarter

Changes in electricity consumption and average day-ahead prices in the EU-27/EEA(Norway)*, Switzerland, 2019-2023 (% and EUR/MWh, respectively)**



Increase in occurrence of negative prices

-3.4%

Decrease in electricity demand in 2023



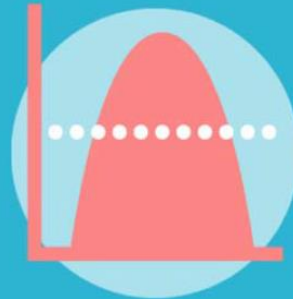
+84 TWh

Additional wind and solar generation



93 €/MWh

Average EU Day-Ahead price



12-fold

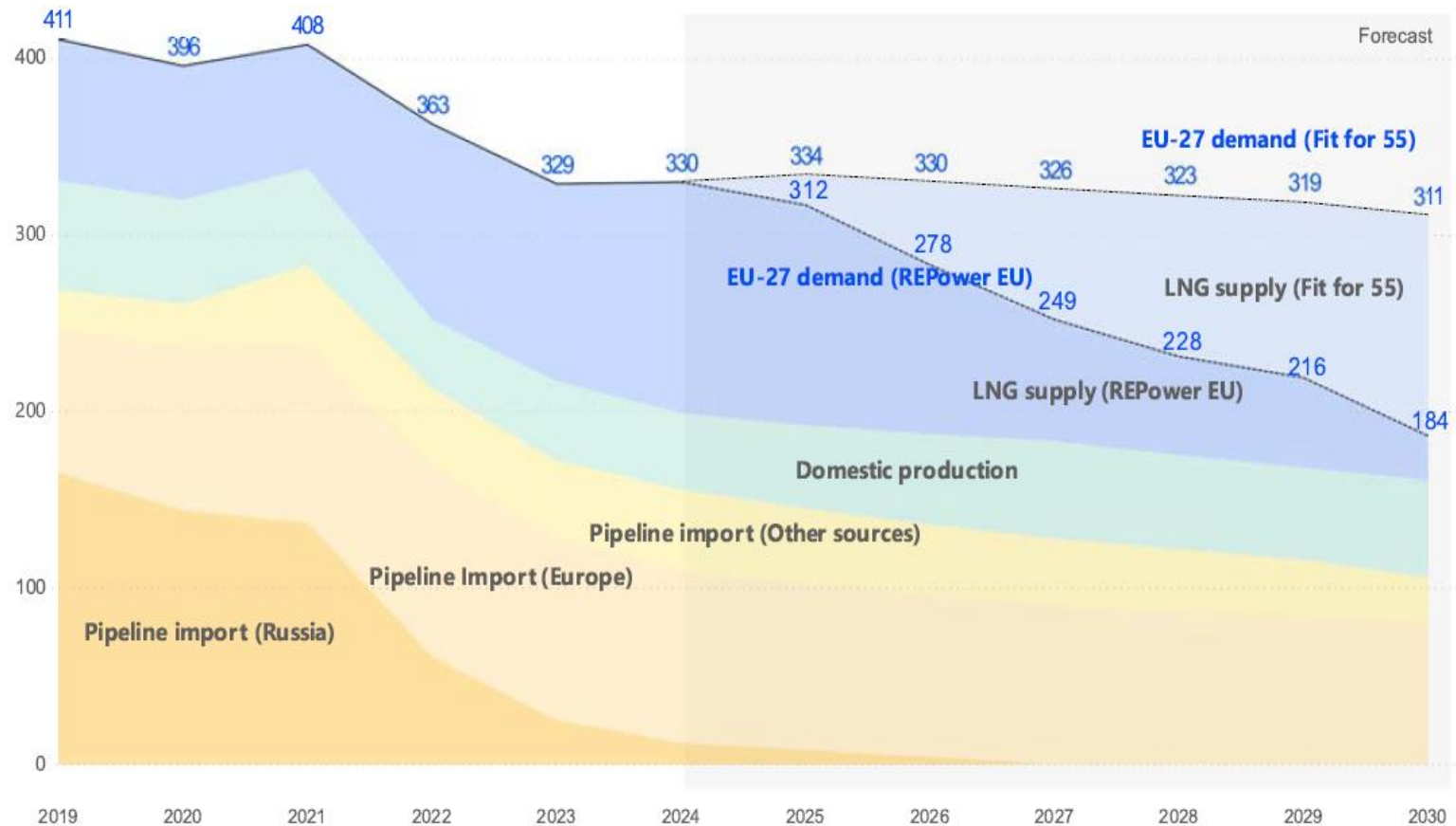
Increase in occurrences of negative prices



LNG gas supply will adapt to declining EU gas demand (fit for 55);

Liquefied natural gas supply will adapt to declining EU gas demand

EU gas supply outlook relative to Fit For 55 and REPowerEU demand scenarios – 2019-2030 (bcm)



Without a significant increase in the load, it will not be possible to avoid interruptions.

- As long as there is no significant increase in load, interruptions in the operation of RES will continue.
- This is due to the fact that the increase in load also goes through the development of industry, the replacement of electricity in industries with electricity (electrification) or with hydrogen (electrolysers) and the sequestration of CO₂ (CCS).
- However, these investments cannot start until the industries see the light at the end of the tunnel, i.e. competitive energy costs.ç.

Electricity Market Design: Non fossil flexibility is a priority

- Member states are invited to establish a support mechanism for the availability of flexible power, with a focus on demand response and storage.
- Load shifting/curbing or triggering can be used to achieve peak-hour load reduction and sunny-hour load increase more efficiently
- A study must be conducted to assess the system's flexibility requirements, with a particular focus on demand and storage.
- This mechanism will provide consumers with the option to reduce their load during peak hours and maintain load during periods of need, increasing their overall load.

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