

EXECUTIVE SUMMARY

EUROPEAN MARKET INTEGRATION HAS PROCEEDED WITH SUPPORT FROM AMPRION – DESPITE A FAST-CHANGING GENERAL MARKET ENVIRONMENT.

PRICE CONVERGENCE IN CENTRAL WESTERN EUROPE (CWE) REMAINED AT HIGH LEVELS

In 2021, energy prices in Europe reached unprecedented heights of more than €600/MWh in some hours. Hand in hand with increased imports and exports, the developments on the energy markets have led to challenges for the transmission system operators (TSOs). The high price levels especially in Q4 2021 concerned the TSOs' costs, in particular, for the procurement of transmission losses and balancing as

well as for redispatching. However, enhancements in market integration helped to keep price convergence in CWE at the previous year's level of around 51%. All in all, market integration contributed highly to mitigate the impact of the turbulences on the energy markets, also in 2022 where the situation is becoming even more tense.

NEED-ORIENTED GRID EXPANSION REMAINS A TOP PRIORITY

To accommodate electricity trading with low limitations, grid expansion remains a top priority. Yet, such grid enhancement needs to consider both grid and market needs. This is also shown by the analysis of trade-limiting grid elements in the context of the EU 70% transmission capacity target. The key findings of this analysis reveal the differences between offer-

ed capacities to the market based on target values and the requested capacity based on the market coupling results. The results show the importance of considering the interaction between market and grid to derive an efficient roadmap for the future grid expansion.

THE AMPRION SYSTE(M)ARKET CONCEPT PROVIDES SOLUTIONS TO KEY QUESTIONS RELATED TO THE FAST-CHANGING FUTURE MARKET ENVIRONMENT

The substantial increase in energy prices, the current geopolitical situation and two system splits in 2021 (without any major disturbances of supply) stress the importance of preserving a reliable and resilient energy system. Systemic solutions consisting of accelerated grid expansion, European market integration and new ideas such as Amprion's Syste(M)arket are

needed. Amprion's Syste(M)arket platform bundles all relevant system needs and ensures that they are available in sufficient quantity and at the right location. We believe that our concept of the "Syste(M)arket" can make a valuable contribution to the creation of a sustainable energy system and thus to achieving the European and national climate goals.

The war against Ukraine and the possible scarcity of fuels is expected to further strain the system. Such challenges in the current geopolitical context call for timely and systemic solutions. Amprion is highly committed to further increase market integration and to enhance its grid to make it fit for the future developments.