PENTA
Pentalateral Energy Forum

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THIRD PENTALATERAL GENERATION ADEQUACY ASSESSMENT
Common statement by the Ministries

Today, Transmission System Operators (TSO) of the Pentalateral Energy Forum published their third edition of the Pentalateral Generation Adequacy Assessment for the interconnected electricity system of Austria, Belgium, France, Germany, Luxembourg, the Netherlands and Switzerland. The joint initiative investigates the ability to balance electricity supply and demand in a highly interconnected region, while accounting for important local specificities such as ambitious developments of renewable energies, decreasing capacities of nuclear and coal power plants, and changing grid infrastructures.

Complementary to ENTSO-E's Mid-Term Adequacy Forecast and national studies, results were derived for the year 2025 in different scenarios. The assessment confirms that our system is adequate according to common reliability standards in a base case scenario that reflects current policies and expected developments – including coal phase-out plans in Germany and the Netherlands, as well as nuclear phase-out plans in Belgium, Germany and Switzerland. However, it also identifies some potential risks with unknown probability in scenarios with lower than expected availabilities of gas and nuclear power.

Compared to previous analyses, several remarkable methodological improvements have been made in this third edition of the Pentalateral Adequacy Assessment. Upon request from the competent Ministries in the Pentalateral Energy Forum, TSOs have applied an enhanced modeling framework for flow-based market coupling including the 70% prerequisite from the Electricity Market Regulation 2019/943, improved the underlying climate data, and presented a novel type of analysis of hours critical for system adequacy.

The Ministries welcome that the group of TSOs further developed and applied their adequacy analysis within the Pentalateral Energy Forum while making use of the dialogue between Ministries, TSOs, Regulators and Market parties, exchanging knowledge and sharing experiences. The Ministries share the viewpoint that this regional report provides important insights for fostering security of supply, and they will use those insights in their further coordination of national policies. For instance, the detailed analysis of critical hours presented in this report is laying a foundation to better understand and manage extreme weather events, especially in the framework of the Risk Preparedness Regulation, thus allowing to integrate more and more fluctuating renewables in the system. Furthermore, the report also provides useful insights into areas where further work towards methodological improvements deems to be needed, such as the better integration of market effects on the economic assessment of power plants.

While the Clean Energy Package has been leading to significant changes in the energy landscape, the European Green Deal is ahead of us and will come with new challenges. Against this background, the Ministries of the Pentalateral Energy Forum are committed to continue spearheading the active collaboration on security of supply in the region, in close alignment with other stakeholders on a European and national level. In that view, the Forum has already started the discussion on future adequacy assessments and on focus areas providing most value. Enhanced availability and quality of input data, identification and modeling of the demand-side, as well as economic assessments of future power plants have been identified as important topics where the Pentalateral Energy Forum seems to be the right place to contribute further. In the months to come, the Forum will therefore continue to play its role by providing a platform for discussion and collaboration on further improvements for security of supply and its monitoring in the region and beyond.