Università
della
Svizzera
italiana

**Istituto
di
ricerche
economiche**

The wholesale market for electricity 2024

February 2025

Executive summary

This Report investigates the trends observed in 2024 for wholesale electricity prices in Switzerland, in light of the evolution of both global and European energy markets, and energy and climate policies in Switzerland and the European Union (EU-27). Its three chapters describe, in turn, the development of electricity demand, supply, and prices in Switzerland and the neighbouring countries (Germany, France, Italy, Austria), the evolution of energy and climate policies in Switzerland and the EU-27, and finally the prospects for 2025 and the goals set in the Climate and Energy Plan for Canton Ticino approved in Summer 2024.

Demand, supply, and prices for electricity

Electricity demand grew slightly during the first 10 months of 2024 across most European countries except Germany. On the supply side, the same period of time saw a strong growth of all renewables, with increases up to +20% for hydroelectricity and +8% for other renewables. This trend was compensated by a slump in thermoelectric generation (-28.4% in the EU-27), with an already weak gas-fired generation hitting a further -14.7%. Nuclear generation remained broadly stable (-1.6% in Switzerland, +4.6% in the EU-27) with the exception of Germany, that switched off its last nuclear plant in April 2023 and became one of the largest electricity importers in Europe.
As for wholesale electricity prices, yearly averages recorded decreasing values across the continent. In Switzerland, the yearly average for 2024 was 76.0 EUR/MWh, down by -29.4% as compared to the 107.7 EUR/MWh of 2023. The other countries followed a similar trend, with the highest prices on the Italian market (127.4 EUR/MWh in 2023, 108.4 EUR/MWh in 2024) and the lowest on the French one (97.2 EUR/MWh in 2023, 58.0 in 2024). Average values result however from a long stagnation in the first part of the year, and a strong price recovery since Autumn 2024. In Switzerland the peak of 126.2 EUR/MWh reached in December 2024 had not been touched since February 2023.

Strong tensions in the gas market

Throughout 2024 electricity prices were still driven by gas prices and, to a lesser extent, by those of coal and emissions' allowances, that build up the bulk of generation costs for fossil-fuelled plants. The Dutch market TTF, hosting the largest volumes in Europe, saw prices dropping by -15.9%, from the 40.8 EUR/MWh of 2023 to the 34.3 EUR/MWh of 2024. On a monthly basis, however, prices saw a rally from the 28-30 EUR/MWh of Spring and Summer 2024 to the 48 EUR/MWh of December 2024 and the 50 EUR/MWh of January 2025. This trend is due to three drivers: the halt to Russian gas transits through Ukraine from January 2025, a tight balance of the global market for LNG, and a relatively low level of storage inventories in Europe.

Stable prices for coal and oil

In the coal and oil markets prices remained broadly stable. Oil prices set at 83.8 USD/bbl in 2023 and 82.0 USD/bbl in 2024, whereas coal prices dropped from the 135.1 USD/t of 2023 to the 118.9 USD/t of 2024.

Lower costs for greenhouse gas emissions

Finally, the cost of emissions' allowances in the EU slid by 22.1%, from the 83.2 EUR/t recorded in 2023 to the 64.8 EUR/t of 2024.

Energy and climate policies: social acceptance in the spotlight

2024 saw a number of energy and climate policies adopted both in Switzerland, and in the EU-27. The public debate was particularly lively in Switzerland, where 2 referenda on energy and climate were held in 2024, and one took place in February 2025. In June 2024, indeed, the Swiss citizens approved the "Mantelerlass", a set of legislative acts aiming at preparing the electricity industry for reaching net zero by 2050. In September 2024 they rejected the "Biodiversity initiative", that was asking for stricter rules for selecting which biotopes and

landscapes can host renewable-based generation plants. Finally, in February 2025 they rejected the “Initiative for environmental responsibility”, that aimed at bringing the environmental footprint of the Swiss economy within planetary boundaries in just 10 years.
The outcomes of the referenda highlight the importance of defining policies and infrastructural plans that suit the population and local communities in the years to come. As this Report goes to press, the committees promoting the popular initiatives “for forest protection”, “for the protection of Municipalities”, and “solar” are collecting signatures, suggesting that stakeholders and citizens are increasingly interested in having a say in these multifaceted topics.

The agreement with the EU-27 and the Swiss Hydrogen Strategy

The end of 2024 saw the achievement of two long awaited milestones for Switzerland: the successful conclusion of the negotiations with the EU-27 – concerning, among other things, the inclusion of Switzerland into the bloc’s internal energy market – and the publication of the Swiss Hydrogen Strategy drafted by the Federal Council.
The draft agreement between Switzerland and the EU-27 brings about several benefits for Swiss energy companies and consumers: next to the full integration of Switzerland in the European internal market for electricity, it allows a more efficient use of cross-border transmission lines and balancing resources. Switzerland will be allowed to preserve its own plans for security of supply and decarbonization, and will enjoy a grace period of a few years before the full liberalization of the retail market for electricity. Finally, the draft agreement grants Switzerland a seat in several technical bodies that support the evolution of the EU-27 legislation for energy markets, thus allowing an easier adaptation of the national legislation.
The Swiss Hydrogen Strategy came instead just a few months after the approval of the EU-27 “decarbonized gas package”. The approach of the Federal Council to the hydrogen economy focusses on four main pillars: the need of identifying and labelling green and low-carbon hydrogen supplies, the integration of Swiss hydrogen infrastructures in the European hydrogen market, the support for research and technological development, and finally the need of avoiding inefficiencies in the use of energy and financial resources, for example by limiting the use of green hydrogen where the direct use of green electricity is a viable option.

In the EU-27: market design and consumer protection

Another topic that was in the spotlight in 2024 is the “Electricity Market Design” package introduced in the EU-27 in June 2024 through the. This package comes as an answer to the price spikes observed in the 2022 energy crisis and to some bugs in the current market design. The provisions focus on a better use of interconnection lines, a broader supply of flexibility, including from end consumers, and the need of providing end consumers a wider set of supply contracts less influenced by fossil fuel prices.

The outlook for 2025

Due to the trends observed on the natural gas market, electricity prices are expected to remain stable throughout the first half of 2025, with a decline in the second half of the year. The global scenario is however burdened with several uncertainties, such as the wars in Ukraine and the Gaza strip, the possibility of a global tariff war, the risk of a looser commitment to decarbonization of several major countries, and finally the evolution of the Chinese economy. Renewable-based productions are instead subject to meteorological trends and, in Switzerland, the relatively low replenishment level of hydropower storages.
Within this setting, the Cantonal Plan for Energy and Climate published in mid 2024 is a valid tool for guiding mitigation and adaptation efforts, while protecting households and industrial consumers. The plan comes with a generous financial endowment. The challenge will lie in finding the best strategies to involve the residents in a transition whose magnitude can hardly be overstated.

Contacts
Osservatorio Finanze Pubbliche ed energia
Istituto di Ricerche Economiche
Università della Svizzera italiana
Via Buffi 6
6900 Lugano
Svizzera

e-mail alessandra.motz@usi.ch
web https://www.ire.usi.ch/it