



# **APG: Austria in November Electricity Exporting Country for the First Time in 16 Years**

**APG Factbox shows more electricity exports than imports in November for the first time since 2007 thanks to extraordinarily high renewable production.**

The weeks of November (calendar weeks 44 - 48) were characterized by an extraordinarily good run-of-river production in Austria due to sufficient amounts of precipitation all over the country. Thus a total of 5,216 GWh (Gigawatt hours) electricity were produced from renewable sources to cover approximately 87 percent of the Austrian electricity demand (6.022 GWh). Hydropower alone contributed 3,878 GWh, which is a share of around 74 percent of the renewable energy. Wind power provided a share of around 21 percent with 1,073 GWh. In contrast to November 2022, run-of-river production increased by 72 percent, and wind power more than doubled compared to the previous year. This dynamic clearly reveals the volatility of an overall system that is based on renewable energies, and it highlights the need for high-capacity grids, storage facilities, power plant reserves and intelligent digitalization within the system.

## **Austria electricity exporting country in November for the first time in years**

Usually, renewable production (in particular hydropower) decreases strongly in the winter months. However, the extraordinarily good production in November resulted in Austria being able to export electricity on 14 days (on balance). Overall 46 GWh more electricity was exported than imported, which means that for the first time since 2007 Austria is an electricity exporting country in November. This development shows that the volatility of the energy system of the future will pose big challenges to the electricity management and the organization of the whole system. Only a high-capacity overall system will be able to cope with the volatility in a cost-effective, efficient and sustainably manageable way.

## **Need for redispatch measures highlights existing deficits**

A strong grid is necessary to make the volatile, renewable electricity available and to transport the electricity to where it is needed. To avoid grid overloads and ensure a secure supply of electricity, the electricity flow is managed with so-called redispatch measures, i.e. the targeted and controlled use of thermal and hydraulic power plants.

During the first eleven months of 2023 redispatch measures were necessary already on 209 days (17 in November). This is a fact that provides food for thought and also costs a lot of money. Until the end of November the redispatch measures, which are indispensable for ensuring the security of electricity supply, generated costs of approximately 134 million euros, which is already 43 percent more than the total costs of 2022.

“On average we have to resort to redispatch measures on every other day to prevent grid overloads. Especially too much electricity – supplied at the wrong time – is problematic. This shows the need for the rapid implementation of all grid investment projects and the need for a suitable legal framework – in other words, a massive acceleration of approval procedures. This would also massively reduce the resulting costs for the electricity customers,” emphasizes Gerhard Christiner, CTO at APG.



## **Positive momentum of installed PV systems makes analysis of electricity demand more difficult**

In November (calendar weeks 44 - 48), 6,022 GWh of electricity were consumed from the public grid in Austria. Compared to the average for 2017-2021, this is around 7 percent below the reference value. This is primarily due to increased production and consumption of private photovoltaic systems. As a result, Austria's electricity consumption cannot be precisely verified at present and the electricity consumption forecasts in the future are also subject to uncertainties. At the same time this dynamic leads to massive back-feeding of regional electricity surpluses from the distribution grids into the trans-regional APG grid. The hitherto usual peak consumption at noon does no longer "exist", on the contrary, the flow of electricity is completely reversed and the regional electricity surpluses have to be transported via the transmission grid to storage power plants or abroad. In addition to the new challenges regarding load flows, this also significantly changes the electricity price curve and even leads to negative market prices on weekends with low demand.

"Regarding the energy transition and the increasing share of renewables in the energy mix the rapid expansion of PV systems is a development that we explicitly welcome. With the expected expansion of PV systems by almost 2,000 MW by the end of this year, a capacity equivalent to that of all hydropower plants along the Danube will be connected to the grid within a year. The ongoing expansion of PV capacities requires a comprehensive strategy regarding the expansion of grid and storage capacities. Similarly, a comprehensive digitalization of all players in the electricity system is necessary to efficiently manage the system and to handle the volatile renewables," explains Gerhard Christiner.

## **Energy exchange within Austria**

The trans-regional electricity grid of APG also enables the exchange of energy within the country. Electricity surpluses in individual provinces can thus be distributed throughout Austria to compensate deficits. In November the provinces Lower Austria (286 GWh) and Burgenland (234 GWh) generated the highest electricity surplus and made it available throughout Austria via the APG grid. Styria (170 GWh) and Vienna (121 GWh) were the provinces to withdraw the most electricity from the grid.

## **We have to act responsibly when it comes to energy consumption**

It is important to still act responsibly when it comes to electricity consumption. Saving electricity reduces CO<sub>2</sub> and overall systemic costs which is a significant contribution to ensuring system security. The trend of reducing CO<sub>2</sub> has to be pushed further. This also includes electricity from private PV units to cover the consumption of households. In addition, the sustainable expansion of power grids, renewable production, and storage facilities is still the order of the day."

Tips for saving electricity can be found at [www.apg.at/stromspartipps](http://www.apg.at/stromspartipps) or on the Climate Ministry's mission11.at page. With the APG Powermonitor, it is possible for the Austrian population to see the most effective electricity saving hours and thus make an active contribution to CO<sub>2</sub> reduction and system security. The APG Powermonitor can be found at: [www.apg.at/powermonitor](http://www.apg.at/powermonitor).

APG continually keeps track of the development of the domestic electricity industry and regularly publishes diagrams at <https://www.apg.at/infografiken> regarding the topics: energy exchange, energy consumption in Austria, energy consumption in Europe, import/export, electricity prices, etc.

## **APG strengthens grids until 2034 with 9 billion euros**



After a thorough analysis of the current problems, APG has planned the necessary investment projects and is investing around EUR 9 billion in the electricity infrastructure by 2034. The transformer capacity will be almost doubled to 57,000 MVA, the number of substations will be increased by around 39 percent to 90 and the number of transformers by around 74 percent to 165. The entire system of the west-east axis will be strengthened by building, converting or reinforcing around 500 km of 380 kV and around 400 km of 220 kV power lines. More information at: <https://www.apg.at/news-presse/apg-zukunftsnetz-bringt-versorgungssichere-energiewende-auf-ueberholspur/>

### **About Austrian Power Grid (APG)**

*As independent transmission system operator Austrian Power Grid (APG) is in charge of ensuring the security of electricity supply in Austria. With our high-performance and digital electricity infrastructure and the use of state-of-the-art technologies we integrate renewable energies, we are the platform for the electricity market, and we provide access to reasonably priced electricity for Austria's consumers and thus create the basis for Austria as supply-secure and future-oriented industrial and business location and place to live. The APG grid totals a length of about 3,400 km and is operated, maintained and continuously adapted to the increasing challenges of the electrification of businesses, industry and society by a team of approximately 850 specialists. Thanks to our committed employees Austria had a security of supply of 99.99 percent also in 2022 and thus ranks among the top countries worldwide. Our investments of 490 million euros in 2023 (2022: 370 million euros) are a motor for the Austrian economy and a crucial factor in reaching Austria's climate and energy targets. Until 2034 APG will invest a total of approximately 9 billion euros in grid expansion and renovation projects.*

### **Should you have any questions, please contact:**

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