APG: Almost a Third More Electricity Imports in October Than in the Previous Year.

The APG Factbox in October shows 32% increase in electricity imports. Renewable production “only” covers 67% of the Austrian electricity demand.

Due to a prolonged dry period in Austria, the weeks of October (calendar weeks 40 – 43) were characterized by an extraordinary low run-of-river production (1,444 GWh), which was the reason that the production from renewables could only cover 67 percent (2,840 GWh) of the electricity consumption in October. Compared to October 2022, the run-of-river production in 2023 is almost 30 percent lower. However, electricity production form wind power (644 GWh) increased by 55% compared to October 2022 (416 GWh). 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.

As a result of the low run-of-river production, Austria had to import more electricity from abroad in October. On balance 1,064 GWh electricity had to be imported from abroad, 32% more than in October 2022.

Positive momentum of installed PV systems makes forecasts of electricity demand more difficult

In October (calendar weeks 40 – 43) 4,235 GWh (gigawatt hours) electricity were consumed in Austria. Compared to the average of the years 2017-2021 the figure is around 11 percent lower than the reference value. On the one hand, this is due to the particularly warm weather conditions in October, and on the other hand, to the increasing individual electricity production of private PV systems. Since also in October many households and business enterprises were able to cover part of their electricity demand with their own PV systems, their electricity consumption is not recorded in the public APG grid, which means that experts are facing big challenges when it comes to establishing consumption forecasts.

“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,” explains Gerhard Christiner, CTO at APG.

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 occur on sunny days, 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. This also significantly changes the electricity price curve and even leads to negative market prices at noon on weekends with low demand when there are no more electricity consumers or when distribution over longer distances is not possible due to grid bottlenecks. We will have to increasingly shift our electricity consumption to the hours where we can expect surplus production from renewables in the future.

“These developments show that it is absolutely urgent to change our consumption behavior, strengthen and digitalize our grids to increase the flexibility in the electricity system through

interaction with the customers. However, we can only achieve this with even faster approval procedures and a new law governing the electricity industry (Elektrizitätswirtschaftsgesetz, ELWG), which creates the framework for a modern, customer-centered energy system. We need bold and prompt legal measures so that we can go ahead with the implementation of our projects without any delay," hopes Christiner.

No energy transition without a strong grid

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.

In 2023 such measures had to be carried out on 192 days until the end of October, with 23 days in October alone. This is a fact that provides food for thought and also costs a lot of money. Until the end of October the redispatch measures, which are indispensable for ensuring the security of electricity supply, generated costs of 126 million euros. These are costs that at the end of the day have to be borne by the electricity customers. An efficient grid with sufficient capacities and adequate storage capacities on all levels of the system would considerably reduce the need of redispatch measures and thus cut the associated costs. Therefore the immediate expansion of the grid infrastructure as well as electricity storage facilities should have top priority.

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 October the provinces Burgenland (178 GWh) and Tyrol (134 GWh) generated the highest electricity surplus and made it available throughout Austria via the APG grid. Styria (with 331 GWh) and Lower Austria (285 GWh) were the provinces to withdraw the most electricity from the grid.

We have to act responsibly when it comes to energy consumption

Despite the operational challenges, it is important to still act responsibly when it comes to electricity consumption. Saving electricity reduces CO_2 and overall systemic costs which is a significant contribution to ensuring system security. The trend of reducing CO_2 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 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_2 reduction and system security. The APG Powermonitor can be found at: 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.

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 733 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.*

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