



APG: Until the End of September 125.6 Million Euros Necessary to Prevent Grid Overloads

The APG Factbox in September indicates 10 million euros for redispatch measures and a 87% coverage of electricity consumption by renewable energies.

In September alone the costs for necessary interventions in the schedules of electricity production totaled 10 million euros. Electricity flows are managed with so-called redispatch measures, which means a targeted and controlled use of thermal and hydraulic power plants to prevent grid overloads and ensure the security of electricity supply.

In 2023 such measures had to be carried out on 169 days until the end of September, with 20 days in September alone. This is a fact that provides food for thought and also costs a lot of money. In 2023 the redispatch measures, which are indispensable for ensuring the security of electricity supply, generated costs of 125.6 million euros until the end of September, which is 31.6 million euros more than the total costs of 2022. 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 have top priority.

87 percent share of renewables

In the weeks of September (calendar weeks 36-39) the production from renewables in Austria was 3,576 GWh (gigawatt hours). This means that on balance 87% of the domestic electricity consumption (4,097 GWh) could be covered. The main share was provided by hydropower which accounted for 2.693 GWh or approximately 75% of the renewables. Wind power contributed 492 GWh (approx. 14%) and PV facilities 267 GWh (approx. 7%).

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

“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 all hydropower plants along the Danube will be connected to the grid,” explains Gerhard Christiner, CTO at APG.

At the same time this dynamic poses new challenges for the grids. The increased production of individual PV systems leads to massive backfeeding 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 of electricity 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 strengthen our grids and to advance the digitalization of all players in the energy system to make possible flexibilities of electricity customers available for the entire system. 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,” explains Christiner.

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 CO₂ and overall systemic costs which is a significant contribution to ensuring system security. The trend of reducing CO₂ 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 CO₂ reduction and system security. The APG Powermonitor can be found at: www.apg.at/powermonitor.

High feed-in by Austria's hydropower strongholds

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 September Tyrol was able to feed 249 GWh in the trans-regional grid, while Upper Austria contributed 207 GWh. With 294 GWh Vienna had to withdraw the most, along with Styria (246 GWh).

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, we provide access to reasonably priced electricity for Austria's consumers and thus create the basis for Austria as industrial and business location and place to live which benefits from the security of electricity supply and is fit for the future. 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. Also in 2022 Austria had a security of supply of 99.99 percent 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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