

# Media Release

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## Energy transition and security of supply are possible but need bold policy decisions, says Axpo

Switzerland can complete the energy transition and achieve security of supply at the same time, according to Axpo CEO Christoph Brand and Chief Economist Martin Koller. Speaking today to representatives from government, industry, politics and academia at an online presentation, they explained how this could be achieved and financed. The necessary expansion of renewable energies is possible, they stressed, if the right approval processes and financing options are put in place.

Switzerland intends to phase out nuclear energy and reduce CO<sub>2</sub> emissions to net zero, in line with its Energy Strategy 2050. This will require the rapid development of domestic renewable energies. However, Switzerland has made hardly any progress in this area and the pace of expansion would have to be accelerated significantly to attain this goal. In the worst case scenario, blackouts would become a reality by 2025. If the pace of expansion does not increase, almost a third of the electricity will have to be imported by 2035. To ensure security of supply, Switzerland now has to decide which energy mix can best accomplish this monumental task, how the necessary power sources can be expanded to the required scale, and what the financial cost would be of doing so.

Drawing on Axpo's national and international expertise, and its position as Switzerland's largest power producer, Christoph Brand and Martin Koller presented a scenario that would achieve the energy transition while simultaneously ensuring security of supply.

### Reliable power from renewable energies

- Scenario assumptions:
  - By 2050, demand will increase by more than 35 per cent as electric vehicles, heat pumps and hydrogen production, as well as a growing population, consume more power than can be saved through efficiency measures.
  - Switzerland will depend on imports during the winter to efficiently meet peak power demand at certain times. The Axpo scenario defines an import limit of 10 TWh. The goal of a fully energy self-sufficient Switzerland would be too costly and its implementation would face public opposition.
- The Axpo scenario envisions the use of various CO<sub>2</sub>-neutral technologies for production and, in addition to a strong expansion of photovoltaics on rooftops, also foresees alpine PV installations, wind, geothermics and biomass. In comparison to a focus on one individual technology, this diversified approach would take advantage of all the potentials and result in an improved power supply during winter. No one single technology or measure could solve the problem on its own. The energy transition can only be achieved in a timely manner through a combination of technologies and measures. When it comes to hydropower, the scenario is rather optimistic in that residual water remediation and expansion balance each other out and production would remain at today's level.
- As of 2040, gas power plants using CO<sub>2</sub>-neutral gas would be used during the winter months to cover impending shortages when nuclear power plants have to be replaced after a service life of 60 years.

- With this mix, the Swiss annual balance would be more or less offset, in that domestic power production and consumption would be about the same.
- During 'dark doldrums' – an extreme situation with very little solar and wind production –, Switzerland, thanks to its storage reserves, which reserve water for power production, could be supplied with power for at least two weeks.
- In the Axpo scenario, the grid surcharge fund would have to be able to incur a maximum debt of about eleven billion francs in the year 2046, which would not be possible under current law. Subsequently, the debt ratio would again begin to drop. These costs could be reduced with a stronger focus on one technology (PV) and with more power imports, but import dependency would increase, and, in a stress case, result in supply shortages. In any case, financing costs are negligible in comparison to the impacts of a power shortage.
- The scenario assumes an acceleration of approval procedures as opposed to the status quo. If these protracted processes were to be further improved, the renewable energies of water and wind could be more effectively expanded.

In summing up, Christoph Brand pointed out the main obstacles: "Technically, the necessary expansion of renewable energies is possible. However, the long approval processes and lack of profitability prevent swift progress. Switzerland must solve these problems so that expansion can finally move forward."

## How to make your own power mix with 'power switcher'

The Axpo scenario was calculated and presented using the company's new publicly accessible online 'power switcher' tool. Using it to configure the expansion of various power sources, interested parties can individually create the Swiss power mix of the future. The tool allows them to see if their power mix can cover future demand or how much electricity would need to be imported to prevent a blackout. In addition to the Axpo scenario, the 'power switcher' also features those of the Federal Office of Energy, Social Democratic Party (SP) National Councillor Roger Nordmann, Green Liberal Party National Councillor Jürg Grossen, and former SP National Councillor Rudolf Rechsteiner. It is also possible to see how a 'business as usual' scenario would play out.

Calculations are based on transparent, verifiable data and all assumptions are disclosed. Axpo continues to develop the 'power switcher', which can be found at [powerswitcher.axpo.com](https://powerswitcher.axpo.com)

Discover the facts, background to and interdependencies of the energy transition at [axpo.com/energy-transition](https://axpo.com/energy-transition). You can also listen to the latest [Energy Voices](#) podcast with Federal Councillor Simonetta Sommaruga (in German).

### About Axpo

Axpo is Switzerland's largest producer of renewable energy and an international leader in energy trading and the marketing of solar and wind power. 5,000 employees combine experience and expertise with a passion for innovation. Axpo develops innovative energy solutions based on state-of-the-art technologies for its customers in more than 40 countries in Europe, the USA and Asia.

### More information

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