



**Energy**

National Research Programmes 70 and 71

# Project

Switzerland and EU energy policy





## Switzerland and EU energy policy

The relationship between Switzerland and the EU leaves much to be desired. Switzerland's access to the European electricity market is one issue that urgently needs to be regulated. However, the agreement, which is actually desired by everyone, finds itself blocked. But just how important is full market access really for Switzerland's electricity supply and what would it mean for the achievement of the country's energy objectives if it were to go it alone?



The "Star of Laufenburg", Swiss cradle of the European electricity grid. *Source:* Wikimedia Commons / Badener





## At a glance

- Over the short term, Switzerland can secure its electricity supply even without an electricity agreement with the EU – but the costs will be greater.
- In the long term, there is a risk of electricity supply bottlenecks if no electricity agreement is reached.
- The failure to enter into such an electricity agreement will not endanger the expansion of renewable energies but will likely lead to the construction of gas-fired power stations in Switzerland.

The phasing out of nuclear power, energy efficiency, the expansion of renewable energies and a reduction in CO<sub>2</sub> emissions – the objectives that Switzerland has set itself with Energy Strategy 2050 are ambitious. And they make our country more dependent on the European electricity market. After all, electricity trading is an important means for balancing the fluctuating availability of hydropower, wind power and solar energy. The electricity industry and the authorities have therefore already been working for a long time on reaching an agreement that secures free access to the European electricity market.

However, since Swiss voters came out in favour of the popular initiative “against mass immigration”, the EU is no longer on such friendly terms with headstrong Switzerland. In the absence of an institutional framework agreement that governs Switzerland’s relationship with the EU, the latter does not wish to conclude any further agreements either in the area of electricity or in other fields. However, this framework agreement, which is difficult to reconcile with the Swiss concept of sovereignty, is hanging by a thread. Does this therefore mean that the energy strategy is at risk of failure and that electricity trading may be impaired? And what is the situation as regards the security of Switzerland’s electricity supply?

This question has been addressed by researchers at various Swiss universities. They conclude that Switzerland, in the short term at least, will also be able to manage without an electricity agreement, even if this entails higher costs. In the long term, however, there is a risk of trouble.



## From a key player to an onlooker

In order to understand how it has come to the current difficult situation, the researchers investigated the past development of the relationship between Switzerland and Europe in the area of electricity. Until the 1990s, Switzerland was a central and influential player and was home to the most important control centre in the European electricity grid – insiders like to talk about the “Star of Laufenburg”.

However, the more that the EU grew together from a political and technical perspective, the more difficult it became for Switzerland to participate in the electricity market at special conditions. Although the local electricity industry continues to be involved in the development of standards and Switzerland is implementing its own liberalisation measures in order to remain EU-compatible with a view to an electricity agreement, there is a risk that without progress at a political level the country will find itself excluded.

## Framework agreement as a stumbling block

An analysis of the players in the Swiss electricity landscape conducted by the researchers reveals that there is no lack of support for an electricity agreement with the EU: the major organisations predominantly support international networking and free access in the area of electricity – although the left-wing and green parties, trade unions and environmental associations are sceptical with respect to the complete opening up of the Swiss electricity market.

Yet the real bone of contention is the institutional framework agreement. More precisely, this would see the EU assure the adoption of future EU legislation by Switzerland. In the negotiations on the framework agreement, the EU is using the electricity agreement as leverage as it is well aware that this agreement is of far greater significance for Switzerland than for itself. For its part, Switzerland will remain excluded from important developments in the Europe-wide electricity market if no electricity agreement is reached.



## Significant risk over the long term

But how important is full market access for the Swiss electricity supply and what would be the consequences of Switzerland going it alone in the area of electricity? In order to answer this key question, the researchers replicated providers and consumers on the European electricity market within a computer model. The model simulates how much electricity flows, from which sources it is fed and at what price it is traded.

At first glance, the result is reassuring. Even without an electricity agreement, it suggests that the expansion of renewable energies will not be endangered and that the supply of electricity can be guaranteed until around 2030. Nevertheless, it will become more expensive. This is true both for consumers, who will have to pay higher electricity prices, as well as the economy, which will have to expect a greater trade deficit in the electricity sector.

Things will become really tight, however, when the Gösgen and Liebstadt nuclear power plants are removed from the grid. This step is planned to take place in 2029 and 2034, respectively. At this point at the latest, Switzerland will be reliant on electricity imports, especially for as long as the capacity of renewable energy sources is not yet fully developed. According to the model, the alternative is gas-fired power stations on Swiss soil – an option that goes against the objectives of the energy strategy as these plants emit CO<sub>2</sub>. However, even this stopgap will be unable to assure supply security should an electricity agreement fail to be reached. The researchers come to this conclusion as the model repeatedly indicates electricity supply bottlenecks after 2030.

## A vital interest

Viewed over the long term, the outlook without an electricity agreement is therefore not so rosy. An agreement appears essential in order to keep prices low and secure the electricity supply over the long term.

This research project thus also concludes that Switzerland has a major interest in reaching an agreement with the EU about access to the electricity market. It may also be necessary to appease market-critical interest groups with accompanying measures. Above all, however, Switzerland will unlikely be able to get around swallowing the bitter pill of the framework agreement, opine the researchers.



## Produkte aus diesem Projekt

- The Effect of European Integration on Swiss Energy Policy and Governance  
Date of publication: 01.01.18
- L'accord bilatéral sur l'électricité avec l'UE  
Date of publication: 10.10.19
- Switzerland's influence on European energy policy continues to decline  
Date of publication: 06.03.20
- The Swiss energy transition and the relationship with Europe (2019)  
Date of publication: 01.06.19
- Beziehungen unter Strom – Die Schweiz, die Elektrizität und die Europäische Union  
Date of publication: 16.09.20



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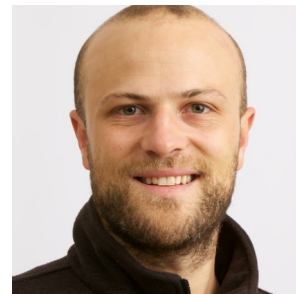


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