As part of Energy Strategy 2050 plan, Switzerland has decided to reduce its overall energy consumption, produce an increased amount of renewable energy and phase out nuclear energy in the long term. This will especially impact the canton of Aargau, as it has three of the five nuclear plants in Switzerland: Beznau I, Beznau II and Leibstadt.

But what potential does renewable energy have in Aargau? In cooperation with the canton as well as AEW Energie AG and the Paul Scherrer Institute (PSI), WSL has put together a synopsis. A key question was the role that local resources, such as forest energy wood, might play in the future.

Several Aargau datasets (energy statistics, AGIS geo data, etc.) showed that about 60% of Aargau’s current energy needs are covered by local renewable energy sources, a level roughly on par with the country as a whole. At 2,925 gigawatts per year, hydropower is the largest source of renewable energy. Another 1,100 or so gigawatt hours of electricity comes from solar energy, about 50 from wind energy and about 25 from micro-hydropower plants.

**Major energy reserves in forest energy wood**

Biomass energy will play an important role in the future energy mix mainly because it can be used to produce electricity, heat and fuel when it’s needed, so it’s not dependent on the time of day or year. The additional electricity created by utilizing biomass could amount to some 145 gigawatt hours if no additional heat is produced and no fuel is produced. The largest biomass energy reserves are stored in forest energy wood.

Conclusion: The canton of Aargau can meet the goals of the national energy strategy in terms of electricity production primarily on the basis of renewable sources of energy. In this respect, it is a model for Switzerland. (rlä)