Energy
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Project

Collective financing of renewable energy

Energy cooperatives – a traditional model with future potential

Energy cooperatives – a traditional model with future potential

In order to switch to renewable energies, electricity and heat increasingly need to be produced locally. Cooperatives can play a pioneering role as local players. The first survey on energy cooperatives in Switzerland shows: there is considerable potential, but the market environment is difficult.

This is what the local implementation of energy policy can look like – with energy cooperatives providing the impetus.
Source: shutterstock

At a glance

- Energy cooperatives use renewable energies decentrally and consequently support the expansion plans of the Energy Strategy 2050.
- With their local roots, energy cooperatives make the promotion of renewable energy sources more acceptable.
- For Swiss energy cooperatives to be able to expand their electricity production, they need better sales conditions.

The cooperative use of resources has a long tradition in Switzerland – in addition to cheese cooperatives or housing cooperatives, energy cooperatives have also existed in Switzerland since the late 19th century. Cooperative organisations are back in the news in connection with the Swiss Energy Strategy 2050. This aims to expand decentralised renewable energy sources substantially. A task that seems tailor-made for locally based cooperatives.

However, not enough was known to date about these organisations to properly assess the potential of energy cooperatives in this country. Researchers at WSL Birmensdorf and the University of Bonn wanted to close this knowledge gap. They surveyed Swiss energy cooperatives on topics such as financing, partners, plans and prospects. About half of the approximately 300 Swiss energy cooperatives responded to the survey. These are mainly electricity generators, in most cases using photovoltaic systems.

Difficult market conditions

The responses to the WSL survey clearly show where the energy cooperatives are being squeezed: it is very difficult to sell electricity with ecological added value at a price that covers the cost of production. In the past, more than half of the cooperatives cited this difficulty as an obstacle to growth. Looking to the future, even more respondents are expecting to see their growth restricted by sales difficulties.

A glance at the subsidy environment illustrates the problems. Many of the cooperatives were established shortly after the cost-covering feed-in remuneration was introduced in 2009. The Swiss government uses this subsidy instrument to reimburse the cost of generating renewable electricity, thus enabling the plants to operate economically. However, the level of the subsidy is limited and is by no means sufficient to cover current funding applications. New projects have no chance of obtaining funding because there are long waiting lists and the feed-in remuneration is set to expire in 2022.

Because the sources of national funding are slowly drying up, it is not surprising that very few of the cooperatives surveyed have significantly increased their production capacity recently. Cooperatives that nevertheless managed to do this often received support at the municipal level – reason enough for the researchers to examine the role of the municipality as a success factor more closely in four case studies.

A fruitful partnership

They discovered that the relationship between the municipality and the cooperative is not limited to one-sided support, but is instead strongly based on reciprocity. Energy cooperatives receive substantial benefits. For example, the municipalities provide them with roof surfaces for solar plants free of charge, or at a reduced cost. They grant loans to cooperatives, purchase electricity from them at a higher price than the market price, or pay the green electricity surcharge by purchasing guarantees of origin.

For their part, the case study municipalities – all of which have been awarded the Energy City label – see energy cooperatives as ideal partners when it comes to implementing their energy goals. The cooperatives have local roots and are not profit-oriented, thus ensuring that the municipality’s contribution ultimately benefits its own population. According to the researchers, this further legitimises the municipality’s commitment to renewable energy sources and increases the acceptance of the funding.

Energy suppliers are influential

In addition to the municipalities, the case studies revealed another key player. These are the local energy suppliers, which are themselves often state-owned. They enjoy a monopoly as electricity providers for small consumers and are thus the only customers for the electricity that energy cooperatives produce beyond their own requirements. Energy suppliers facilitate cooperative projects with subsidised feed-in tariffs. They also make the cooperatives dependent on them, however, as the case studies showed. On the other hand, energy cooperatives are able to benefit from the monopoly via the energy supplier. Within this context, the cooperatives surveyed by WSL are sceptical about a complete liberalisation of the electricity market – less than half see liberalisation as a great opportunity for energy cooperatives.

Learning from the big neighbour

The results suggest that while Swiss energy cooperatives are able to provide impetus for the decentralised development of renewable energies, they have not exploited their full potential to date. So what needs to be done for cooperatives to grow? The researchers cite the situation in Germany, where relevant data has been available for some time. The big neighbour to the north is seen as an Eldorado for energy cooperatives. They are on average much bigger than their Swiss counterparts. Researchers see the main reason for this in their unrestricted access to subsidised feed-in tariffs, which was the case until recently. This security means German cooperatives also have no difficulty selling their electricity on the fully liberalised German market. Another of the German energy cooperatives' success factors is their stronger networking. Regional networks improve the exchange of know-how and facilitate political lobby work.

Comparison with Germany underscores the importance of sales markets for the development potential of Swiss energy cooperatives. According to the researchers, greater political support is needed for electricity produced by cooperatives to be marketable. In addition to feed-in tariffs, they cite more generous rules for private consumption and a general increase in energy prices through steering levies on fossil fuels as possible approaches. If renewable electricity production becomes more attractive for cooperatives, they should be expected to continue promoting the decentralised expansion of renewable energy. To date, energy cooperatives account for only 1 to 1.5 % of solar power production – a figure similar to that in Germany.

The researchers stress, however, that the significance of cooperatives should not be measured solely in terms of the volume of electricity generated. This is because cooperatives generate not just energy, but also understanding and acceptance for the energy transition.

Produkte aus diesem Projekt

- Energiegenossenschaften aus einer Postwachstumsperspektive
  Date of publication: 19.06.19
- Zivilgesellschaftliches Engagement und Rahmenbedingungen für erneuerbare Energie in der Schweiz
  Date of publication: 19.06.19
- Energiegenossenschaften: eine wirtschaftsgeographische Perspektive
  Date of publication: 19.06.19
- Energiegenossenschaften in der Schweiz: Ergebnisse einer Befragung
  Date of publication: 19.06.19
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  Date of publication: 19.06.19
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- Zukunft der deutschen Energiegenossenschaften, Herausforderungen und Chancen aus einer Innovationsperspektive
  Date of publication: 19.06.19
- Energy cooperatives in Germany – an example of successful alternative economies?
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- Energiegenossenschaften stehen unter Druck
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- Finanzierung von erneuerbaren Energien über Bürgerbeteiligungsmodelle
  Date of publication: 19.06.19
- Energiegenossenschaften: Erneuerbare Energie dank starker lokaler Verankerung
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- Energy Cooperatives and Municipalities in Local Energy Governance. Arrangements in Switzerland and Germany
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