Lack of Risk Awareness

We're discussing which technologies are likely to prevail in 50 years. However, predicting the future is difficult. Instead, what we need are the right incentives.

Armin Eberle

Energy is not something that comes up in a typical conversation. People simply assume that it is always available. Consumers value the product, but they do not want to think about the infrastructure necessary for it. Worse yet, mobile phone towers and utility poles are considered annoying. Even the cost of energy is hardly known. How many people know the cost of their energy bill? This is also true for many companies.

Energy only becomes a major concern when the supply is cut off, unreliable, or becomes more expensive ("oil price shock"). Such disruptions are a particular concern for the thousand or so energy-intensive industrial companies in Switzerland, as energy prices and the availability of energy are crucial to their competitiveness.

People generally only pay attention to energy when a new power plant is built ("not in my backyard"), when there are blackouts or adverse effects on the environment. Normally, however, energy is not a focus of Swiss citizens. Not even the accident at the Fukushima nuclear power plant in 2011 significantly raised awareness of the problem among the Swiss population. This is in stark contrast to the political response: Fukushima gave rise to the energy transition and the policy known as Energy Strategy 2050, which will continue to reverberate in the political system for years to come.

Differing Views of Risk

This discrepancy in looking at energy-related topics may be due to an inability to perceive risks objectively. In a recent study, the Swiss Federal Office for Civil Protection cited a prolonged, serious shortage of power as the greatest risk facing Switzerland. Both the likelihood of such an event occurring and its impact are estimated to be greater than the risks from, for example, pandemics, earthquakes, or a refugee crisis. Yet there has been little public reaction because people are not fully aware of the probabilities and risks. On the contrary, intuition can often be deceptive. For example, many travelers are afraid of flying, but do not fear the much riskier drive to the airport.

The impact of an electricity shortage and all the related side effects are difficult to comprehend. Computers, control systems, and heating systems would fail, as would trucks because there would be no electricity to power the pumps that fuel their diesel engines. The same applies to CO_2 emissions. The consequences of climate change are difficult to perceive. We do not see or smell CO_2, but plants need it. According to scientists, the likelihood of climate change occurring is very high. But when will it affect whom and how hard?

Predicting the Future Is Difficult

The discussion regarding the future and supply of energy is therefore mainly a topic for experts. Politics is stepping into this debate, which is a good thing. But here, too, predicting the future is difficult. Both energy systems and climate change are slow-slow, long-term issues. Conversely, the pace of the economy and technical innovation are often underestimated.

Both action and inaction have consequences that only become clear decades later. Should we look for a technical solution that enables us to produce as much energy as we want with almost no risk or waste (fusion), or should the solution be decentralized and renewable, one that is purely solar-based? Does this development have to be defined, controlled, and subsidized by the state? Or should we rely more on "swarm intelligence," on decentralized decisions that move in the right direction? The current discussion of the future framework conditions is crucial, whether they are achieved as part of the Energy Strategy 2050 or through the introduction of incentive taxes in the amount of the uncovered environmental costs and risk premiums.

Incentives to Change the Way We Think

In terms of energy efficiency, an approach based on incentives has proven effective: companies that agree to reduce their carbon emissions get a refund of their CO_2 tax. This gives them a concrete financial incentive, improves their competitiveness, and contributes to climate protection. Such target agreements, combining economic measures with incentive taxes, result in a sustainable solution that provides economic, social, and environmental benefits.

This successful example shows that instead of discussing which technology will be dominant in Switzerland or around the world in 50 years, politicians have to provide the right incentives, so that energy consumers can make the right decision themselves.

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The Energy Transition: Our Greatest Opportunity

The fear of a nuclear accident has disappeared. Many believe that the energy transition is on track and everything is settled. Wrong! This attitude is putting the country at risk and preventing the creation of 85,000 new jobs.

Adèle Thorens Goumaz

The energy transition has been heavily discussed in parliament since the Fukushima nuclear accident, which occurred several months before the Swiss federal elections in 2011. However, the subject does not seem to have the same priority for the public as it does for politicians: Fewer than 20% of respondents have listed it as a major concern in the Credit Suisse Worry Barometer over the last few years.

In the eyes of the Swiss people, unemployment and questions related to immigration and co-existing with the foreign population, respectively, were more important than the Fukushima disaster during this period. The SNB's decision to scrap the minimum exchange rate for the Swiss franc to the Euro, or an economic crisis resulting from the failure of the bilateral agreements are presumably much further up on the list of concerns of the Swiss people this year – they will certainly be perceived as a much bigger threat than a potential nuclear accident.

Closing Old Plants

The Federal Council's prompt decision to no longer approve any new nuclear power plants following the Fukushima accident eased the concerns of a large part of the population, and many now view the issue as settled. But this is not the case. It's not enough to stop building new nuclear power plants in order to achieve the agreed nuclear phase-out. Existing nuclear plants must be closed as well. Before Fukushima, operators planned lifespans of around 40 to 50 years. There are already safety issues at the Mühleberg plant, and Beznau is the oldest nuclear power plant in the world still in operation.

Following the Federal Council's decision to put a stop to new nuclear power plants, there is a new sense of urgency about closing the old ones. They can no longer be replaced by new nuclear plants, so Switzerland must now rely on renewable energies and energy efficiency measures. As a result, additional support measures will be necessary, especially as Switzerland lags behind other countries in this area.

The Swiss parliament has been discussing the Energy Strategy 2050, which aims to provide solutions to these major challenges as well as measures to prevent climate change. Unfortunately, the phase-out of nuclear energy has by no means been conclusively settled. The energy strategy does not include an age limit for old power plants and even enables life extensions to beyond 60 years, while other nuclear power plants around the world are shut down after an average of less than 30 years. Furthermore, the thoroughly sensible measures included in the strategy to promote renewable energies and energy efficiency are being attacked by the conservative parties. Against this backdrop, it is to be feared that implementing the phase-out of nuclear power will be left to the next generation. At the same time, Switzerland will have to make massive investments in an outdated technology and accept the increased risk of a nuclear accident.

It is thus to be expected that the issue will return to the focus of the public. Greens have initiated a popular initiative seeking the removal of nuclear power plants from the network after 45 years and replacing them with clean energies. It will be presented to voters as a supplement to the Energy Strategy 2050, as the latter does not provide a satisfactory solution with respect to the closure of old nuclear power plants. The energy strategy could also be attacked by conservative movements through a referendum. A strong defense must therefore be presented to the public.

New Jobs

As a result, the energy transition could quickly leapfrog from the lower rungs of priority among the Swiss population that it currently occupies – unfairly, in my view – and become a more important issue. It is highly topical and extremely important for the future of our economy. According to estimates by the Swiss Energy Foundation, the energy transition could create up to 85,000 new jobs in Switzerland by 2035. Greater energy efficiency will also free up financial resources, increase the competitiveness of Swiss companies, and boost the purchasing power of households. The energy transition represents more than a shift from an outdated and risky technology to clean and innovative technologies. It is also our greatest opportunity to create added value and new jobs for the Swiss economy, which is causing so much concern at the moment.

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