

FINDIT

Leveraging the Swiss financial sector to finance direct investments in the energy transition

Overview key insights and recommendations of FINDIT project conducted by: S Eberhart, TS Schmidt, B Steffen, F Egli
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The context

Achieving a net-zero energy system requires a major redirection of financial flows, placing investors at the centre of the transition. While sustainable investments are growing rapidly, most research focuses on securities rather than real-economy assets. Switzerland alone needs up to CHF 2.1 billion annually until 2035 in new renewable energy and storage investments. Initial evidence suggests Swiss actors –utilities and financial investors – play a significant role in financing renewable assets abroad, often exceeding domestic deployment. However, there is no systematic, asset-level assessment of these investments or their underlying drivers, leaving their overall impact unclear.

The project

The FINDIT project analyses the role of Swiss investors in the energy transition using a mixed-methods approach across three work packages. WP1 applies a quantitative, data-driven analysis based on BloombergNEF asset-level financing data to map domestic and international renewable energy investment flows across OECD countries, with imputation techniques and Monte Carlo simulations used to address data gaps and uncertainty. WP2 combines a detailed, self-constructed dataset on Swiss utilities' power plant holdings with semi-structured interviews of utilities and financial investors to examine investment strategies, drivers, and barriers. WP3 employs fixed-effects panel regressions for 48 countries to assess how climate policy frameworks influence total and foreign renewable energy investment inflows.

The findings

Switzerland's international RE investments stand out as remarkably high relative to its domestic utility-scale projects. Although absolute investment volumes are modest compared with larger economies, Switzerland ranks among the top seven countries in terms of net capital outflows to RE projects abroad. This indicates that Swiss actors – despite limited space and generation capacity of utility-scale projects at home – play a role in supporting the energy transition globally. These outflows are primarily directed toward European markets, particularly neighbouring countries such as Germany, France, and Italy, as well as Nordic countries and the United States. The strong European focus reflects both geographical proximity and institutional familiarity, while the U.S.

Take-Home Messages

- **Integrated in the European renewable energy landscape:** Switzerland has one of the highest shares of outgoing international renewable energy investments, primarily directed toward neighbouring countries, highlighting its strong role in the European market despite limited domestic deployment and underscoring the importance of close integration into the European energy system
- **Domestic barriers redirect capital abroad:** Complex permitting procedures, limited land availability, and small project sizes make utility-scale renewable energy investments challenging. This suggests that improving domestic investment conditions could help attract and retain more private capital. On the positive side: Capital will not be the limiting factor for the Swiss transition
- **Utilities try to invest domestic despite challenges:** Swiss utilities continue to finance domestic renewable energy projects even when risk/return profiles are challenging, motivated by strategic or societal objectives and mandates. In contrast, financial investors refrain from domestic investments, as they cannot assume the risks, nor achieve the required returns for such risk levels
- **Swiss financial investors underinvest in renewables relative to sector size:** Although Switzerland has a large and sophisticated financial sector, its financial institutions allocate less capital to renewable energy than peers abroad - revealing untapped potential to mobilize private finance for the energy transition particularly in the form of debt investments by banks
- **Strong, credible climate policy frameworks attract international renewable energy investment:** International evidence confirms that higher policy ambition significantly increases the inflow of renewable investment, emphasizing the importance of stable, long-term policy signals for countries aiming to attract foreign investments for its energy transition.

Recommended actions

- **Improve domestic investment conditions:** Streamline permitting procedures, reduce regulatory fragmentation, enable larger-scale projects, and deploy a balanced mix of price-based and quantity-based support policies to unlock more domestic renewable energy investment
- **Mobilize banks for the international energy transition:** Strengthen the role of Swiss banks in international renewable energy asset finance, notably through greater provision of debt financing, as for example seen in Spain, France, or Germany.

investments highlight the influence of globally active asset managers headquartered in Switzerland. At the same time, the data show that Switzerland's international RE investments by financial investors remain below average when measured relative to the size of its financial sector. Despite the country's vast pool of capital, Swiss financial institutions allocate a comparatively small share of assets to RE compared with peers in Spain, Denmark, France, Germany, Portugal, and the Netherlands. In particular, Swiss banks play a very limited role compared with those in these other countries. Taken together, these findings suggest that while Switzerland contributes to international RE finance, it still underleverages its potential as a global financial hub for sustainable energy investment.

In addition, the qualitative analyses shed light on why domestic investments remain very limited. Financial investors are primarily guided by the risk–return profiles of larger investment opportunities, and current Swiss conditions do not meet these requirements. Complex and fragmented permitting procedures, stringent land-use constraints, and limited project scalability make domestic projects often risky and financially unattractive. Further, hardly any existing projects can be acquired, meaning Swiss financial investors largely refrain from investing into renewable energy projects locally. Utilities, while facing the same challenges, still pursue some domestic projects – driven by public mandates, long-term strategic objectives, or a societal commitment to energy security and sustainability. Because of their dominant market position and more strategic (not purely return-driven) approach, utilities capture most viable opportunities, leaving little room for other investor types. This of course further reduces the role financial investors can play domestically. Notably, smaller-scale projects such as rooftop solar PV have gained momentum within Switzerland, with utilities actively investing and supporting end-customers seeking to install panels. Utilities of course also retain extensive expertise and historical investments in large hydro power but often mention that domestic capacity is largely saturated. However, rather than exporting their hydro expertise abroad, most utilities use international

markets as an opportunity to diversify their technology portfolios with new technologies – particularly wind and solar. When investing abroad, the distinction between utilities and financial investors becomes less pronounced than in domestic activities. Nevertheless, even in international markets, utilities maintain a more hands-on role through project development, operations, and maintenance. Increasingly, hybrid models are emerging in which utilities and financial investors collaborate, combining financial capacity with technical expertise.

Finally, the analysis of policy impacts on international investments underscores the critical role of policy ambition in shaping investment decisions. While the results for total RE investment are mixed, we find a clear and positive relationship between climate policy stringency and foreign RE investment flows. In other words, stronger and more comprehensive policy frameworks tend to attract greater international capital, confirming that policy credibility remains a central determinant of cross-border investment in RE. Both price-based and quantity-based mechanisms contribute to this effect, although the difference in their relative impact is not statistically significant, highlighting that a diverse policy mix is likely effective for countries seeking to attract international investment.

Available publications:

Eberhart, S., Schmidt, T. S., Steffen, B., & Egli, F. (2025). The internationalization of re-newable energy finance. *IScience*, 28(5). <https://doi.org/10.1016/j.isci.2025.112367>

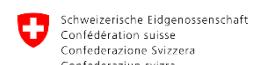
Further related publications from EPG:

Dukan, M., & Steffen, B. (2025). Cost of capital for renewables and enabling technologies: Measuring the multidimensional heterogeneity in Switzerland. *Applied Energy*, 390, 125822. <https://doi.org/10.1016/j.apenergy.2025.125822>

Dukan, M., Giger, D., Schmid, N., & Schmidt, T. (2025). Incentivizing winter solar PV production in regions with seasonal weather patterns: case study of Switzerland. *Environmental Research: Energy*, 2(4), 045014.

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