Rating Energy

Overview of the methodical rating assignment
to companies in the energy sector

November 2022

Introduction

The total energy consumption of the Swiss population and economy increased to 794,720 terajoules in 2021 (+6.3%), about five percent below the 2019 figure, covered by 29.3% fuels for engines, 26.3% electricity, 14.1% petroleum fuels for heating, 15.4% gas, and 14.9% other energy sources (e.g., wood energy, district heating, industrial waste, and renewables). The breakdown by consumer group included 36.6% industry and services, 31.8% transport and 30.3% households. The energy sector's share, measured by end-user spending of CHF 25.8 billion in 2021, was 3.5% of Switzerland's gross domestic product (GDP). While natural gas and petroleum products have to be imported completely, 61.5% of the domestic electricity generation totaling 64.2 billion kWh (-8.2%) could be generated by domestic hydropower in 2021. Swiss nuclear power plants contributed a further 28.8% of electricity production. Other types of electricity generation such as wind, photovoltaics, biomass, waste incineration, etc., on the other hand, have so far accounted for only a small share of domestic electricity production.

There are currently around 650 network operators in Switzerland. Many are also active as cross-connected companies for water and/or gas supply. Their basic tasks are to produce electricity and feed it into the grid, to transport electricity over long distances through the transmission grid, and to distribute electricity through regional and local distribution grids to the end consumer. The entire Swiss electricity network at all network levels covers more than 250,000 km.

This industry documentation provides a brief overview of the various rating-relevant aspects in the credit assessment of companies in the electricity sector. At the beginning, the most important institutional framework conditions from the perspective of a credit rating agency are characterized.

General Conditions & Market Structures

Based on the 2007 Electricity Supply Act (StromVG), the Swiss electricity market is currently undergoing a gradual liberalization process. Since 2009, large consumers with an annual consumption of more than 100,000 kilowatt hours have been able to freely choose their electricity supplier. Full market liberalization, i.e. freedom of choice for all electricity customers, was originally scheduled to take place in 2014. However, this step was postponed indefinitely by the Federal Council. Fedafin does not expect full liberalization in the medium term.

The opening of the electricity market presupposes that all market participants are guaranteed non-discriminatory network access. As a natural monopoly, the electricity grid needs to be regulated accordingly. In the sense of unbundling, cross-subsidization between grid operation and other activities such as production, trading and distribution should

no longer be possible (Art. 10 StromVG). The regulatory task is performed by the Federal Electricity Commission Elcom, which in particular monitors grid usage tariffs and charges and decides on grid access in the event of disputes. The transmission grid has been transferred in its entirety to the national grid company Swissgrid, which is responsible for the operation, security, expansion and, temporarily from 2022, the tendering of the hydropower reserve.

In addition to the prices for network use, Elcom also monitors the electricity tariffs applicable to consumers without free network access. These must be based on the prime costs of efficient production. In the case of customers with free network access, on the other hand, electricity suppliers are free to set electricity tariffs.

Swiss electricity suppliers and producers as well as network operators are largely publicly owned. In 2012, for example, around 88% of the share capital of utility companies was held by the public sector. As large parts of the range of products and services offered by these companies effectively fall within the scope of basic supply, support from the public owners can often be assumed in the event of imminent insolvency. In the case of partner plants, the shareholders also undertake to cover the costs of the electricity produced and thus provide a deficit guarantee. Annex 1 visualizes the shareholding structure of the large electricity groups.

To promote the expansion of electricity generation from renewable energies, Switzerland had a cost-covering feed-in tariff (KEV). This was replaced in January 2018 by the new feed-in tariff system (EVS). The EVS is intended to promote renewable energy generation in a more cost-efficient and market-based manner.

In some EU countries, especially in Germany, the expansion of renewable energy capacity is already well advanced thanks to generous subsidies. The price collapse on the electricity market triggered by this, among other things, put many power plant operators in Switzerland under economic pressure. In 2021/2022, this situation has fundamentally changed. Among other things, ongoing geopolitical tensions are leading to an exponentially increased, highly volatile electricity price. Baseload 2025 tariffs tripled to 200 EUR/MWh as of the end of September 2022. While this is fundamentally beneficial for power plant operators, it leads to new challenges in electricity trading in terms of liquidity management in connection with required margin underlays.

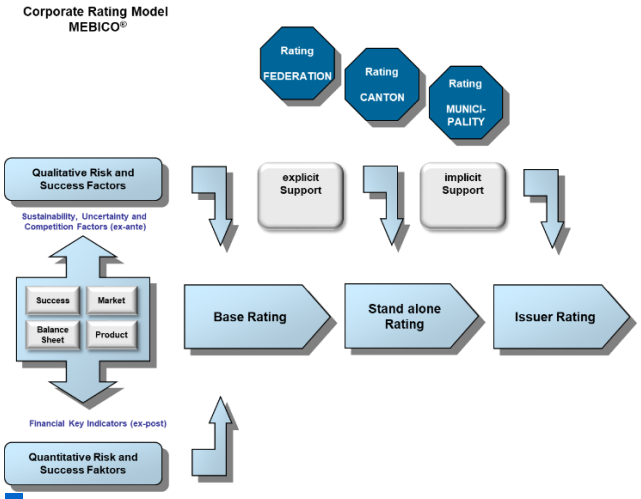
After Alpiq had already applied for federal support in December 2021, but withdrew it shortly thereafter, Axpo applied to the federal government in September 2022 for a temporary credit line of up to CHF 4 billion as a precautionary measure to secure liquidity. The federal government's support was provided by means of an emergency decree. This can be replaced by an urgent law that is limited until the end of 2026.

Credit Rating Concept

The credit rating model is designed as an expert system and, through its modular structure, accounts for the fact that the creditworthiness of public sector companies is determined both externally (exogenous) and internally (endogenous). In a first stage, the exogenous creditworthiness factors are systematically analyzed, identified and evaluated. In a second stage, the endogenous creditworthiness factors are assessed on the basis of quantitative and qualitative factors.

Credit Rating Architecture

In contrast to credit ratings assigned to private companies, the conceptual distinction between stand-alone ratings and issuer ratings is significant in the segment of public sector companies. While the stand-alone rating considers any explicit guarantees by third parties, the issuer rating can complementarily benefit from implicit support by the public sector as the owner of a company, as illustrated in figure 1. It is worth noting that public sector companies, aware of existing guarantees, often have significantly worse financial ratios than private companies. In particular, the regularly observed zero-profit condition is reflected in lower balance sheet ratings. Due to the basic supply character of electricity, this is also the case when assessing the creditworthiness of companies in the electricity sector.



1 Assessment of creditworthiness of public sector companies

Credit Rating Methodology

Rating assignments' methodological foundation is an asymmetrically extended Logit function, which realistically reflects the dynamics of credit risks. In particular, it allows consistent consideration of the financial and legal interdependence within the public sector as the owner of an institution by means of various parameters and indices. The methodological system allows a risk-adequate and objectively directly comparable credit assessment of utilities.

Rating Criteria

Both quantitative and qualitative elements are considered when assigning a credit rating to a company in the energy sector.

Quantitatively, credit risk is identified, analyzed, and evaluated on the basis of key figures from the balance sheet, income statement, and cash flow statement of past years that are specific to utilities (ex-post situation). This gives an objective picture of the autonomous financial management in comparison with other utilities.

Qualitatively, the credit assessment is supplemented by various risk and success factors that exert a systematic influence on the future development of the credit risk (ex-ante trend).

Qualitative Rating Criteria

Qualitative risk and success factors are systematically identified and assessed by the Rating Committee. Within the scope of the rating process, matters in four areas of the qualitative rating criteria for energy companies (not exhaustive) are of fundamental relevance to creditworthiness:

Institutional framework

- Market structures and barriers to competition
- Legal compensation and financing regime
- Strategic risk profile of the company
- Political and regulatory risks (e.g. turnaround in energy policy, market opening, European subsidy policy)

Corporate structure and strategy

- Complexity of the corporate and business structure
- Sustainability of the corporate strategy
- Effectiveness of corporate governance

Accounting and informational content

- Accounting and disclosure standards
- Balance sheet structure and valuation practice
- Expected development of leverage

Competitive position and market environment

- Degree of vertical integration
- Infrastructure and investment planning
- Diversification of power plant portfolio by energy sources
- Long-term nature of purchase and sales contracts
- Additional offers and diversification

Quantitative Rating Criteria

The systematic identification and evaluation of the current financial situation is carried out in the form of a balance sheet rating. Within the scope of the rating process, three creditworthiness-relevant issues within the financial autonomy and sphere of influence of a energy company (without completeness) are fundamentally relevant:

Assessment of capital structure and indebtedness

- Debt burden and coverage
- Equity ratio
- Net interest charges
- Debt financing structure and potential
- Asset coverage ratios

Assessment of earning power and profitability

- EBITDA margin
- Cash flow profitability
- Total capital return
- Depreciation rates
- FFO margins

Assessment of cash flow potential

- Operating cash flow
- Free cash flow
- Cash flow margins
- Production costs

Outlook

The Swiss electricity market is currently undergoing a transformation process that will intensify in the coming years. In a fundamental decision by the Federal Council and Parliament in 2011, the gradual phase-out of nuclear energy was decided. The existing nuclear power plants are to be decommissioned at the end of their safety-related operating life and not replaced by new nuclear power plants. The Energy Strategy 2050 drawn up by the Federal Council envisages compensating for the resulting production shortfalls, on the one hand, by increasing energy savings (energy efficiency) and, on the other, by increasing electricity from other sources. Specifically, hydropower and other renewable energies are to be expanded. As the share of irregular power generation increases with increased wind and solar energy, further investments in the areas of grid infrastructure (e.g. smart grids) as well as in storage and reserve capacities will also be necessary.

The currently very volatile electricity prices as well as legal and regulatory framework conditions are keeping many electricity suppliers from investing for example in new hydropower plants.

With the possible expansion of electricity market liberalization, profits would come under pressure in some cases. The plan is for all end consumers to have a free choice of electricity supplier in the future. However, this full market liberalization is not without political controversy. At the international level, the Federal Council has been negotiating a bilateral electricity agreement with the EU since 2007. The agreement is intended to regulate Switzerland's integration into the European internal electricity market. However, a conclusion of this agreement is currently not foreseeable, especially as long as the full opening of the Swiss electricity market is still pending.

The far-reaching changes already underway in the electricity sector and the various political uncertainties will continue to influence the institutional framework and the market environment for electricity supply companies in the future. These developments need to be closely monitored and adequately considered when assessing the creditworthiness of companies in the electricity sector.

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Disclaimer

Annex 1

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Dotted: no legal entity