Rating Energy

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

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Introduction

In 2019, total energy consumption by the Swiss population and economy in was 834,210 terajoule. It was covered by 35.3% motor fuels, 24.7% electricity, 13.5% heating fuels, 13.8% natural gas, and 12.7% other energy carriers. The share of renewable energy sources in total consumption amounted to approximately 20%. In 2019, the energy sector accounted for 4% of Switzerland's gross domestic product (GDP), measured by end-consumer expenditure of CHF 28.2 billion. While all natural gas and oil products must be imported, 56.4% of the domestic electricity generation of a total of 67,761 GWh in 2018 was generated by domestic hydropower. The Swiss nuclear power plants contributed a further 35.2% of electricity production. In contrast, other types of electricity generation such as wind, photovoltaics, biomass, waste incineration, etc. have so far only accounted for a small share of domestic electricity production.

There are currently around 700 utilities in Switzerland. Many of them are also active in the water and gas supply sector. Their basic activities are the production of electricity and its feeding into the grid, the transport of electricity over long distances through the transmission grid, and the distribution of electricity through regional and local distribution grids to the end consumer. The entire Swiss electricity grid at all grid levels covers over 250,000 km.

This sector documentation provides a brief overview of the various credit-relevant aspects when assessing the creditworthiness of companies in the energy sector. At the beginning, the most important institutional framework conditions from the point of view of a credit rating agency are being characterized.

General Conditions & Market Structures

Based on the 2008 Electricity Supply Act (StromVG), the Swiss electricity market is currently undergoing a gradual liberalization process. Since 2009, large consumers with an annual consumption of over 100,000 kilowatt hours have been able to choose their electricity supplier freely. Full market liberalization, i.e. freedom of choice for all electricity customers, was originally scheduled for 2014. However, this step was postponed indefinitely by the Federal Council.

The opening of the electricity market requires that all market participants be guaranteed non-discriminatory access to the grid. The electricity grid as a natural monopoly must therefore be regulated accordingly. Thus, in the sense of unbundling, cross-subsidization between grid operation and other activities such as production, trade, and distribution should no longer be possible (article 10 StromVG). The Federal Electricity Commission (Elcom) is responsible for regulation. In particular, Elcom monitors grid usage tariffs and fees and decides on grid access in the event of disputes. The

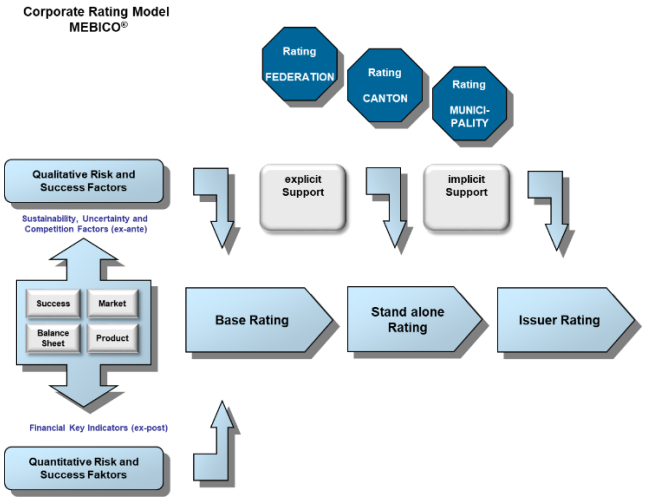
transmission grid has been fully transferred to the national grid company Swissgrid, which is now responsible for operation, security, and expansion.

In addition to grid usage prices, Elcom also monitors the electricity tariffs applicable to consumers without free utility choice. These must be based on the prime costs of an efficient production. For customers with free utility choice, however, the electricity suppliers can set tariffs freely.

The Swiss electricity providers and producers as well as utilities are largely in public ownership. For example, in 2012 around 88% of the share capital of utilities was held by the public sector. Since large parts of the services offered by these companies in fact fall within the scope of basic supply, support from public owners can often be assumed in the event of impending insolvency. In the case of partner plants, shareholders also undertake to cover the costs of the electricity produced and thus provide a deficit guarantee.

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). With the EVS, the promotion of renewable energy generation is intended to be more cost-efficient and market-based.

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, which has been partly triggered by this, is putting many power plant operators in Switzerland under economic pressure.



1 Assessment of creditworthiness of public sector companies

Credit Rating Concept

The credit rating model is designed as an expert system and, thanks to its modular structure, takes account of the fact that the creditworthiness of public sector companies is determined both externally (exogenously) and internally (endogenously). In a first step, the exogenous credit rating factors are systematically analyzed, identified, and evaluated. In a second step, the endogenous creditworthiness factors are assessed using quantitative and qualitative factors (see also Figure 1).

Credit Rating Architecture

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

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 landmark decision by the Federal Council and parliament, the gradual withdrawal from nuclear energy was decided in 2011. The existing nuclear power plants are to be decommissioned at the end of their safety-related operating lifetime and not replaced by new nuclear power plants. The Energy Strategy 2050 drawn up by the Federal Council envisages that the resulting production losses will be compensated for on the one hand by increased energy savings (energy efficiency) and on the other hand by an increase in electricity from other sources. Specifically, hydropower and other renewable energies in particular are to be expanded. As the share of irregular electricity generation increases with increased wind and solar energy, further investments in grid infrastructure (e.g. smart grids) as well as in storage and reserve capacities will also be necessary.

However, the current price environment is discouraging many electricity suppliers from e.g. investing in new hydropower plants. The strong subsidies for renewable energies in the EU and especially in Germany have led to an enormous expansion of production capacities. The resulting price collapse, among other things, is massively reducing the profitability of hydropower and pumped storage plants. Numerous corresponding projects are therefore currently being postponed.

In the case of existing hydroelectric power plants, the decline in the price of electricity led to a battle for distribution between energy suppliers and mountain cantons. The focus is on the water rate (Wasserzins), i.e. the price that the suppliers have to pay for the use of the water to the cantons where hydropower is located. For the mountain cantons, especially for Valais and Grisons, water rates represent an important source of income. Even a partial reduction would place a significant burden on cantonal finances in the coming years.

In the current regulatory situation, however, low electricity prices also provide advantages for certain suppliers. As long as private consumers are not able to make a free choice of supplier, suppliers with low production capacities will continue to generate high margins. With the planned expansion of the liberalization of the electricity market, however, these profits will also come under pressure. The plan is that in the future all end consumers will have the opportunity to freely choose their electricity supplier. However, this full market liberalization is politically not uncontroversial. At international level, the Federal Council has been negotiating a bilateral electricity agreement with the EU since 2007. This is intended to govern Switzerland's integration into the inner-European electricity market. At present, however, it is not possible to foresee the conclusion of this agreement, particularly as long as the complete liberalization of the Swiss electricity market is not yet in sight.

The far-reaching upheavals in the energy sector that have already begun and the various political uncertainties will continue to influence the institutional framework and market environment for utilities in the future. These developments must therefore be closely monitored and adequately considered when assessing the creditworthiness of companies in the energy sector.

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