

## Electricité suisse et Troisième Reich

*Swiss Electricity and the Third Reich*

(Publications of the ICE, volume 5)

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ISBN 3-0340-0605-5 (Chronos Verlag) / 2-601-03287-1 (Éditions Payot)

### Summary

During the war, the German authorities considered electricity imports to be one of the most important services which Switzerland could supply to the Third Reich. However, little is known about this aspect of relations between the two countries. This study examines the dilemmas which it represents.

Between the beginning of the 1930s and the end of the war, electricity production increased substantially both in Switzerland (up 90%) and in Germany (up 173%) (chapter I.1). Hydroelectric power stations permitted surplus production at low additional cost, enabling Swiss companies to boost export. Powerful pressure groups, already active in the inter-war period, continued during the war to defend the interests of electricity exporters at federal administration level. These groups opposed the nomination of the socialist Robert Grimm as director of the energy section in the wartime economy. In February 1941, they managed to get electricity set up as a separate section headed by Florian Lusser, who was already Director of the Federal Office for Electric Power (chapter I.5). Between 1895 and 1941, seven electric power stations were constructed along the Rhine (*Rheinkraftwerke*), the operation of which was shared between Germany and Switzerland. These brought about close Germano-Swiss cooperation, both commercially and administratively. Until the beginning of the war Germany was self-sufficient in electricity, but its domestic production, mainly from thermal power stations, was later outstripped by a significant increase in consumption. This fact made the Reich into the biggest customer for Swiss electricity.

The huge capital requirements for the construction of power stations everywhere in Europe led to the setting up of companies specialising in the financing of power stations: the electric power finance companies. Swiss finance companies had always been important; they accounted for some 10% of all Swiss investment abroad (chapter II). Traditionally these companies provided a mix of German and Swiss capital. However, the currency crisis of the 1920s resulted in a declining German influence on Swiss finance companies. The redistribution of risks following the various economic crises led to an increase in holdings in other countries; in addition, various trade restrictions limited capital flows towards Germany. In 1939, the share of the Reich (5.1%) in the assets of the five biggest Swiss finance companies (table 3) was considerably lower than that of France (9.4%) and especially that of Italy (27.4%). Nevertheless, the links between the Swiss finance companies (particularly *Elektrobank* and *Motor-Columbus*) and the power companies of the German border regions remained strong. The *Rheinkraftwerke*, whose capacity was somewhere between 1.7 and 2 billion kWh, were partly financed by these companies; 20% to 25% of the capital of the power companies of Baden remained in Swiss hands. Electricity consumption was therefore very closely linked to Swiss capital or producers.

Up to 1940, total electricity exports increased both as a proportion of production and in actual volume. During the crisis of the 1930s, production increased more rapidly than internal consumption and enabled exports to the Reich to grow from 235 million kWh in 1932 to over 1 billion kWh in 1940. This major increase followed the signing in 1934 of a Germano-Swiss clearing agreement which did not provide for the application of quotas to electricity exports (chapter IV). The Reich became the biggest customer of the Swiss power companies, thus

replacing France, whose imports declined as a result of the joint effects of the crisis and the devaluation of the franc. With the construction of new power stations on the Rhine and the annexation of Alsace in 1940, this trend gathered momentum. From then on and until the end of the war, exports declined while Swiss production continued to rise. The *Rheinkraftwerke* alone provided between 33% and 48% of all Swiss exports to Germany between 1938 and 1944 (table 9). The big private producers such as *Aarewerke* and particularly ATEL (between 19% and 35%) also occupied an important place (table 14). These big private companies, and the finance companies which controlled them, reported good results throughout the whole wartime period (chapter III.3.4).

The main customers for these exports were the subsidiaries of Swiss companies established in southern Germany (chapter III.4). Between 1938 and 1944, Lonza, the electrochemical company in Waldshut, alone consumed 34% of Swiss electricity exports to Germany. The big German electricity supply companies, Badenwerk and RWE, which then supplied this electricity to the Rheinfelden region, particularly to AIAG, the subsidiary of the Swiss aluminium producer, took the rest. The organisational links joining on the one hand Lonza to ATEL through *Motor-Columbus*, and on the other AIAG to *Crédit Suisse* and to the producers *Kraftwerk Laufenburg AG* (KWL) and *Kraftübertragungswerke Rheinfelden AG* (KWR) explain the fact that a large part of these exports were directed to these subsidiaries. Indeed, Lonza in Waldshut and AIAG in Rheinfelden alone took in more than 50% of Swiss electricity exports to Germany. The industrial centres of Waldshut and Rheinfelden, which included firms such as *Degussa* and *IG Farben*, took in between 80% and 90% of Swiss exports.

Swiss supplies of electricity to Germany were integrated into the Germano-Swiss economic negotiations (chapter V); the agreement of August 9, 1940 maintained the volume to be exported at about one billion kWh. These exports were seen as a trade-off in return for German supplies of coal (chapter V.1). Clearly, the entirety of Swiss services to the Reich (clearing credits, arms deliveries, financial services, and transit) «guaranteed» German supplies of coal. But strategic, economic and technical considerations made Swiss electricity a service which was particularly valued by Germany; it was an important motive for the latter failing to declare economic war against Switzerland in 1943. The conclusion of new agreements resulted in the continuation of electricity exports.

From 1933 onwards, the Nazi authorities paid great attention to the subject of electricity and commissioned a study of major projects with significant ideological connotations (chapter VI). The Swiss Max Leo Keller, a notorious Nazi, participated in this. But the priorities of the war led the German authorities to discontinue, preferring to maintain the existing structures, while building new power stations and exploiting those in the recently conquered territories. It was thus that the stagnation in exports and the Swiss refusal to increase their volume in spite of Germany's repeated requests prevented the Reich from integrating Switzerland into its electricity supply system (chapter VI.2). It is therefore excessive to speak of an energy *Anschluss*, as sometimes occurs. Nevertheless Swiss deliveries remained important for certain sectors of the German war industry: about 6% of carbide production (*Lonza*) and 10% of aluminium production (AIAG) depended essentially on Swiss electricity supplies.

This prompted the Allies, as of spring 1944, to demand the interruption of electricity supplies to the Reich (chapter VII). However, it was not until September 1944, at the time when the federal authorities decreed the prohibition of arms exports, that electricity appeared at the centre of the Allies' demands. The Swiss intended to use these supplies to continue importing coal. But in the final months of the war, the electricity-for-coal deal was no longer operative. It even became a problem: the change in the clearing process adopted on September 29, 1944 should theoretically have prevented Switzerland from exporting more electricity than it received in terms of coal. However, coal deliveries to Switzerland decreased very

significantly. But because of the maintenance of the transfer guarantee, Swiss companies continued to export electricity and thus disrupted the clearing system. Taking advantage of the situation, these exporters were then treated as «spoilt children» by the federal authorities and the *Vorort*. Deliveries decreased as of January 1945, to be stopped completely on February 28, 1945, the eve of the Currie negotiations.

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