



Liberalisation, privatisation and regulation in the Austrian electricity sector

Austrian Country Report

Ines Hofbauer

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The logo for PIQUE, featuring the word 'pique' in a bold, lowercase, sans-serif font. The letter 'i' has a red dot above it, and the word ends with a red square.

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Forschungs- und Beratungsstelle Arbeitswelt
A-1020 WIEN, Aspernbrückengasse 4/5
Tel.: +431 21 24 700
Fax: +431 21 24 700-77
office@forba.at
<http://www.forba.at>

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INTRODUCTION

In this report, the specific re-regulation of the Austrian electricity business under the guidelines of its liberalisation, the accompanying political debates and the remaining challenges are the main subject of research. In Austria, the process of reorganisation started in 1998, in which – under EU directives – there was a gradual liberalisation according to customer groups and individual value-creation chains in electricity provision. Today, the areas of electricity generation and electricity distribution are subject to competition and since 1 October 2001 the market has been opened to all customers. Austria has thereby liberalised faster than called for by the EU. Since 2000, the right-wing conservative government has stood for a particularly rapid implementation of liberalisation. In this report, the implementation process and the organisation of the electricity business is to be described. In this, the starting situation before liberalisation, measures and stages of liberalisation and finally the current situation and remaining challenges all play a role. In the following, with this analytical framework, both the market development, market regulation and the changing of ownership relations (privatisation) as well as the political context (driving forces and main lines of conflict) are to be described.

Like the postal and rail services, electricity belongs to a special sub-group within public services, the *network-based infrastructure systems*. Owing to their importance to economic and social development, the European social and welfare states after the Second World War were interested in the nationwide development and provision of infrastructure systems. Their special characteristic as *natural monopolies*¹ produced a consensus not to organise them in market form and partly to transfer them to the state itself or to a third party under statutory standards. Since the mid-1980s, with the new orientation of European integration on the joint project of the single market and the currency union, not only was the opening up of diverse national markets promoted, but also a general extension of market logics to other social and political areas. The current liberalisation and privatisation of public services that is being decisively promoted by the European Union is taking place in this context.

The terms liberalisation and privatisation are usually closely interlinked, but should nevertheless be distinguished from each other. Liberalisation means primarily the opening of state activities to private competition, that previous state monopolies on the provision of services are abolished and new providers are permitted. Privatisation, on the other hand, means the widespread sale of parts of state companies to private owners. Liberalisation is usually applied synonymously with the term deregulation. Liberalisation, however, also always means a comprehensive political new regulation of the areas concerned with other priorities and ultimately a changed relationship between

¹ These should not be confused with a monopoly, as they are characterised by a particular cost situation in which one provider is able to offer a particular commodity or a particular service more efficiently and more cheaply than others.

the state and the market and changed societal power relationships. The questions of the marketability of public infrastructures and the effects of market-type organisation on the security of supply and the quality of services are a major object of debate in the re-regulation process.

1. MARKET STRUCTURE

1.1. *The situation before liberalisation*

The organisational form of the Austrian electricity business was laid down in the second nationalisation act (Federal Law Gazette No. 81/1947) in 1947. Organisationally, the nationalisation at the time gave rise to one nationwide organisation (*Verbund*) and nine provincial organisations (*provincial provider companies PPCs*), five provincial capital companies and a range of special companies (major power stations) (Haberfellner 2002: 2). The act laid down the division of responsibilities between the nationalised companies, which hardly changed until the liberalisation of the electricity business in Austria and which shapes their structure today. The allocation of area monopolies was also associated with this. Whereas the *Verbund* was responsible for the construction and operation of major power stations, set up the inter-regional high-tension network, assessed the general level of electricity consumption and organised inter-regional electricity transport and electricity trade with foreign countries, the *PPCs* primarily provided the distribution and provision of electricity in areas allocated to them, which corresponded to the Austrian provinces and municipalities. The *PPCs* were permitted to build and operate power stations in their areas if necessary to guarantee regional provision (*ibid.*). The *Verbund*, Austria's biggest electricity company so far, was founded by the 1947 second nationalisation act. Until today the *Verbund* has produced and transported approximately half of the electricity supply in Austria.² The *PPCs* were obliged to buy electricity from the *Verbund* on long-term contracts.

1.2. *The liberalisation process: measures and driving forces*

The liberalisation driven by the EU envisages a gradual and differentiated market opening according to customer groups and value-creation chains (*unbundling*).

The electricity business consists of the following stages of a value-creation chain: generation (transformation of a form of energy into electrical energy), trading (buying and selling of electrical energy at the high-tension level), transmission (transport of electrical energy at high-tension level), distribution (transport of electrical energy at medium- and low-tension level), and supply/sales (sale and billing of energy for end-users). Before liberalisation these were classically united in one company (*vertical*

² www.verbund.at

integration). Alongside vertical integration, the electricity field is also characterised by *horizontal integration*, that is, typical multi-utility companies that provide both water, electricity and gas. A central feature of liberalisation is the separation of these areas (*horizontal* and *vertical unbundling*). In *vertical unbundling* areas in which competition is possible (production and sale of electricity) and those which remain as natural monopolies (transmission and distribution) are separated.

The first stages in the liberalisation process were introduced in Austria on the basis of the EU directive on electricity liberalisation (96/92/EG). The implementation in Austrian law took place in 1998, initially through the Electricity Business and Organisation Act (EIWOG), which came into force on 1 January 1999. As a result of the passing of the new act, on the one hand the implementation of the terms of the EU directive were completed and, on the other, for the first time a standardised law for the regulation and organisation of the Austrian electricity sphere was created (Mayer 2002: 186). In the EIWOG, the government laid down the statutory conditions for the reorganisation of the electricity business, but the precise implementation conditions are the “implementation acts” of the individual provinces (E-Control 2003: 18). The EIWOG applies equally to all market participants (*ibid.*). In 2003 the European Union passed a new directive (2003/54/EG), which obliged the member states to gradually open the electricity market to all customers by 1 July 2007 at the latest and furthermore also contains “public service obligations” (consumer protection, security of supply and environmental protection). The Austrian EIWOG was comprehensively amended in 2000.

Since liberalisation, the areas of generation and supply/sales have been opened up to competition. The area of transmission and distribution of electricity remains a regulated area. The transmission-net operators protected from competition are divided into geographical provision areas. 90% of the electricity flows through the *Verbund's* 3,600-km high-tension network. This is the monopolist in eastern Austria; in the west it is the network operators *TIWAG (Tiroler Wasserkraft AG)* in Tyrol and the *VKW (Vorarlberger Kraftwerke AG)* in Vorarlberg (Hollos 2003: 30). The protected network operators in the low-tension area remain the *PPCs* (*ibid.*). First there was a *bookkeeping unbundling* (separation of business costs) which was then supplemented by the *company-law (legal) unbundling*. This effected an organisational restructuring of the existing long-established vertically integrated companies, which were separated in company law and divided horizontally in subsidiary companies (interview 2: 14). Thus holdings with numerous subsidiary and associated companies were created (e.g. network companies with power station subsidiaries and marketing subsidiaries).

In the framework of liberalisation there was a gradual opening up of the market, initially on 19 February 1999 for consumers with an annual consumption of more than 40GWh, on 19 February 2000 for those with more than 20GWh, on 19 February 2003 for those with more than 9GWh and finally, on 1 October 2001, there was the complete opening of the market (Mayer 2002: 185, 189). Austria thereby exceeded the EU minimum requirements and alongside Britain and the Scandinavian states assumed a pioneering role in liberalisation.

Alongside the policy of the European Union there were also national forces driving the liberalisation process – faster than required in the EU directives. Austrian industry in particular, the major electricity users, the heads of the major businesses and the interest-group representatives, the Federation of Austrian Industries and the Chamber of Commerce were the driving forces. The major industries were hoping for falling electricity prices, argued pressure of costs and threatened to re-locate if the liberalisation was not implemented quickly (interview 2: 13). These groups were then supported in particular since 2000 by the new right-wing conservative coalition government between the ÖVP (Austrian People's Party) and the FPÖ (Freedom Party of Austria), in which above all the Minister for Economic Affairs and Labour stood up for rapid liberalisation.

1.2.1. *Current market structure*

Although liberalisation led to the dissolution of the one-time area monopolies, the electricity business in Austria is still characterised by a heavily federal structure of the providers, owners and markets and, as before, is marked by the powerful dominance of the respective companies in their old provider areas. Owing to the smallness of the Austrian market, this is hardly of interest to foreign suppliers. In addition, in electricity generation Austria has a competitive advantage over other countries as a result of the extensive hydro-electric power stations, because electricity can be generated more cheaply and the low power-station costs can only be undercut with difficulty by foreign providers (interview 2: 16).

If one regards the market structures divided according to individual segments (value-creation chains) of the electricity business, then a somewhat more differentiated picture of the market development emerges. Apart from this, a new market in electricity trading has developed.

Generation

Little has changed as far as market participants are concerned in the segment of generation (power stations). The *Verbund*, the nine provincial companies and the provincial-capital electricity companies produced 95% of the energy fed into the public network in 2003 (E-Control 2004: 35). Almost all the power stations belong to the *Verbund*, which owing to the condition of horizontal *unbundling* now operates through two subsidiaries *AHP* (Austria Hydro Power) and *ATP* (Austrian Thermal Power) (Holloš 2003: 30). In 2001, hydropower made up 67.2% of total electricity generation in Austria, thermal power stations made up 32.8% (ibid.). Nuclear power stations are forbidden in Austria by constitutional law. Since the opening of the market, there have been some technical changes in generation in the power-station structure; thus unprofitable power stations have been closed down. Eco-power plants have been developed with subsidies and more has been invested in gas-fired power stations, which are cheaper and more energy efficient (interview 2: 10).

A planned merger (ÖSL) between *Verbund* and *Energie Allianz Austria* (cooperation of some PPCs), and related joint control of the new group's generating capacity by *ATP* would result in a high level of concentration in the generation market. The companies are responsible for about 60% of all Austrian power generation (BWB 2005: 18).

Supply/sales

The biggest change in the market is in the field of the marketing of electricity to end-users, the dynamic however is more between regional traditional providers and less in the sense of new market participants. The end-user market in electricity marketing is divided into households and small businesses using a maximum of 2GWh per year and on the other hand large businesses and industry. Suppliers at regional level have also formed alliances, working through marketing joint ventures. These have reduced the number of suppliers, and have led to a high level of market concentration (BWB 2005: 18). The electricity market share for household consumers is 74.7% in 2001 and before liberalisation it was 62.29%. In the market for large consumers it is today 92.3% and before liberalisation it was 67.6% (ibid.).

Among the small consumers, the household customers and businesses, the provincial companies are still the *main players* following their traditionally allotted provider role (interview 2: 12). In addition the long-term area protection has resulted in a certain popularity of existing firms among customers which favours the existing supply structure. (E-Control 2004: 35). Alternative and interesting domestic offers are largely non-existent; foreign providers play a completely insignificant role (Chamber of Labour 2005: 145). At the start of liberalisation the established *PPCs* partly formed new subsidiaries – “discount subsidiaries” – which then also developed other regional markets and in part now operate nation-wide:

“The activities are limited to showing other providers that one could also be cheaper, that is if someone wants to attack us we can operate at a discount, as long as no one attacks us we do not operate at a discount either.”(interview 1: 1.)

Among the most important new subsidiary operators in the small-customer segment are the *Estag's Unsere Wasserkraft* [Our Hydropower], *Energie Allianz's Switch*, and *Salzburg AG's MyElectric*. *Kelag* and *VKW* are the only *PPCs* that themselves offer electricity for small customers nationwide (E-Control 2004: 42). Above and beyond this, since a year ago the *Verbund* has been in the supply/sales field in the household customer market. Among the few new independent domestic market participants are the *Ökostrom AG* and *Alpen Adria Energie AG*, both companies offer electrical energy from subsidised renewable energies (E-Control 2006: 42).

In the field of electricity supply and sales at the start of liberalisation foreign providers – in particular in the large-scale-customer area – were interested in entering the Austrian market (E-Control 2006: 39). However, for major customers too there has so far been no satisfactory offer on the market. Mainly due to technical expenses related to an integrated company billing systems which would include numerous subsidies in various parts of Austria, even major customers have still not received a nationwide supply offer,

above all from foreign suppliers but also not from Austrian suppliers either (E-Control 2004: 53).

Foreign providers are increasingly taking the route of indirect investment in Austrian electricity companies to offer independently on the Austrian market (E-Control 2005: 39). These holdings are partly also linked to the hope of gaining indirect access to eastern European markets through Austria (interview 1: 3).

Electricity trading

Since liberalisation, electricity has been traded on the electricity exchange and for some companies represents a new and successful business. In 2001 the Austrian energy exchange, *Energy Exchange Austria (EXAA)*, was founded. However, primarily the European energy exchange in Leipzig (EEX) is decisive for electricity-price formation in Austria: “Austria has exactly the German prices” (interview 1: 2).

Table 1: Market Structure

	Before liberalisation	After liberalisation
Generation	Verbund partly PPCs and provincial-capital companies	Verbund (ATP und AHP) partly: PPCs and provincial-capital companies
Transmission	Verbund partly PPCs and provincial-capital companies	Verbund (Austrian Power Grid) partly PPCs and provincial-capital companies
Distribution	Verbund PPCs	Verbund PPCs
Supply/sales	PPC provincial-capital companies	Verbund PPCs discount subsidiaries, eco-electricity providers

Personnel

According to employment data available, the staff retrenchment in the major electricity companies in the period from 1996-2002 varies from -9 to -30 percent. The largest staff reduction was made by *Verbund* and *STEWEAG*. Since 1996, *Verbund* has reduced its staff by 39 percent which equals an average of 6.5 percent annually (between 2001 and 2002 the staff cut rose to 7.4%). In absolute figures, this corresponds 1817 workers or an average decrease by 302 workers annually (Atzmüller/Hermann 2004: 54). The workforce was reduced by means of a package of measures including early retirement models, higher severance payments and bonuses, which were to motivate above all younger employees to leave the company of their own accord (ibid.). In this, clear links between deregulation of the electricity market, the greater competitive pressure and the requirements laid down by the electricity regulator as well as radical staff retrenchment measures can be identified (ibid.). The number of employees of *STEWEAG* was cut by 30 percent by between 1996 and 2002 that corresponds to an average staff reduction by five percent annually. In absolute figures, 519 jobs were cut back. According to the

works council, there exists an evident link between liberalisation and the dramatic staff retrenchment (ibid: 59-60).

Table 2: Annual staff retrenchment in major electricity companies 1996-2002³

	1996	1997	1998	1999	2000	2001	2002	Change in % 1996-2002	Average annual change in %
Verbund	4644	4435	4162	3747	3387	3053	2827	-39	-6,5
STEWEG	1735	1676	1644	1566	1422	1362	1216	-30	-5
Wienstrom	4221	4198	4144	3981	3820	3686	3281	-12	-2
Salzburg AG					2400	2177	2125	-12	-6
EVN		2416	2276	2221	2204	2199		-9	-2,3

1.2.2. Relations between providers on the market

During liberalisation there were a large number of mergers or mutual investments within the established companies. Thus most of the Austrian electricity companies are on the one hand directly or through holdings involved in all electricity value-creation stages and on the other hand, alongside the electricity and natural-gas field are also active in the fields of water, district heating, waste recycling and the telecommunications field (E-Control 2006: 39). The numerous new holdings thus entail a de facto continuing strong vertical and horizontal integration of the companies (E-Control 2004: 37) Alongside these major companies, particularly in Styria, Upper Austria and Tyrol, there are a large number of smaller electricity companies, and despite some mergers there are currently some 135 network operators in Austria (E-Control 2003: 4-5).

Since 2003 there has been the planned and controversial “Austrian electricity solution” (ÖSL), a cooperation between the *Verbund* and the *Energie Allianz Austria (EVN AG, Wien Energie GmbH, Energie AG OÖ, BEWAG and Linz AG)*. A merger between parts of the companies is planned; the transaction concerns the electricity-trading and major-customer business (E-Control 2004: 40). This project is argued with the objective of making Austrian companies better able to compete on the European market (ibid.). The participating supply companies supply some 4m Austrian households and thereby almost 75% of all Austrian small customers (Hollos 2003: 31). In July 2003, the EU Commission approved this project under certain conditions (ibid.). Originally, the starting date for the merger was planned for 1 January 2004, but owing to disagreements among the participants and the exodus of individual participants it has thus far not been possible to realise the ÖSL.

³ Sources: Annual reports, Chamber of Labour study “Die Wirtschaftliche Lage der EVU-Landesgesellschaften und Sondergesellschaften (2001), company information provided by EVN (Atzmüller/Hermann 2004: 53).

The relations between the old-established companies, in particular also between the *Verbund* and the *PPCs*, are still determined by the historical statutory division of labour, which were and still are marked by conflicts. Whereas the *PPCs* as the traditional suppliers with many customers are more interested in buying cheap electricity, the *Verbund*, which had no customers until liberalisation, is in contrast more interested in new customers (interview 1: 13). This also created differing starting situations in the liberalisation process:

“They [Verbund] are also interested in the competition conditions functioning. With the provinces, poo! I would just say that it is extremely ambivalent, they are certainly not all to the same extent, but rather they have their regular customers and competition is thus not fundamentally seen as positive, partly as a threat to their own margins and so on.” (interview 1: 16).

A classic subject of contention between the old-established companies are the hydro-power stations, the question of the availability of low-cost energy production. This repeatedly plays a role, also in the discussion around the “Austrian electricity solution” (ÖSL): *“It’s just a question of who gets the profits from hydropower”* (interview 1: 3).

1.2.3. Remaining challenges and difficulties

An electricity market is developing in Austria only with difficulty. It is marked by quasi-regional monopolies, the low degree of switching to alternative providers and relatively high electricity prices.

In autumn 2004 the announced and partly already introduced increases in the electricity price both for mass customers as well as major customers led to a massive public discussion of the competition situation on the Austrian electricity market. The issues here, alongside the price trend itself, were in particular the de facto orientation of the suppliers on the quotations on the electricity exchange and the difficulty of receiving (attractive) alternative offers. In July 2003, a study by *A.T. Kearney*⁴ found that the exchequer was the main beneficiary of the liberalisation of the Austrian electricity market, followed by industry, whereas there were only limited savings for business users, and households got almost nothing. Against this background, in 2004 the minister for economic affairs and employment ordered a sectoral study of the electricity business⁵ by the Federal Competition Authority (BWB) and the Austrian electricity regulator (E-Control).

The result of the sectoral survey is a price rise for all customer groups as well as the practically continuous reference of the suppliers to the exchange quotations; end-user markets are still nationally and possibly regionally structured – this is true in particular for households (BWB 2005). As in most European states, in Austria the number of

⁴ APA0388 of 29.9.2003 quoted in Hollos (2003: 33).

⁵ In the framework of the survey a total of almost 800 questionnaires were sent to small-business and industrial electricity users and to electricity-business companies. The aim of the survey was to gain a comprehensive picture of the supply and price structure in the market (Chamber of Labour 2005: 145).

customers who switch suppliers is very low: change of supplier is estimated at 20-30% for industrial users and at 5-10% for small businesses and households; as a whole, according to this approximately 8% change suppliers (KOM 2003: 8). The low readiness of households to change suppliers is ascribable to uncertainty of the customers, satisfaction with the previous suppliers and the limited savings that result from a change of supplier (E-Control 2004: 53). In addition, the complicated non-transparent tariff structures complicate a comparison between the offers (Chamber of Labour 2005: 145). The levels of taxes, duties and surcharges are heavily criticised – customers also see the network tariffs as too high and they are described as a disadvantage for new providers compared to established provider companies (ibid.: 146).

It is true that in Austria there is not a market dominance by one major player – as is the case in some other European countries – but market concentration is continuing to increase, above all as a result of the restructuring of the old companies and the numerous new cross-holding structures (E-Control 2004: 3). What is controversial here is the ÖSL (Austrian electricity solution), which has been approved by the European Commission because of the expectation of a rapid realisation of the EU single market. From the present-day perspective, the current competition developments on the European electricity market, however, make the doubts concerning the competition-policy sense of the ÖSL appear justified (E-Control 2006: 21).

A further problem is the limited interest of foreign suppliers in the Austrian market. This is characterised by diverse entry barriers. In order to enter the generating market, new companies must make high investments which have to be completely financed on the liberalised market, which represents a competitive disadvantage in comparison to the companies that had financed their generating plants before liberalisation (E-Control 2004: 51). The barriers to supply/sales are indeed lower, but in the small-customer sector the relationship between the marketing costs and the size of the potential market is a further obstacle (ibid. 52). The Austrian regulatory authority sees the decisive hindrance to competition in the low energy prices⁶, as new marketing companies, which do not participate in the other stages of energy-business value creation via parent companies, are necessarily dependent on the margins to be earned in the marketing business. As these are minimal to negative in Austria, hardly anyone has entered the market (ibid. 2004: 53). As a network operator, one is in the position to easily impede other market participants, through information policy and discounts within the (subsidiary) system (interview 1: 14).

The to some extent politically determined electricity prices – resulting as before from the close interweaving between provincial authorities and the PPCs – are somewhat discouraging for foreign or new providers. Thus, right at the start of liberalisation, in 2000, there was a wave of price reductions owing to the then parliamentary elections:

⁶ Electricity can be generated relatively cheaply by many hydro-electric power stations.

“Down to one level, that is where liberalisation does not reach at all; there they all fell, but it is actually not market-driven, but politically driven. There only needs to be an election and all the prices go somewhere again.” (interview 1: 4)

2. REGULATION

2.1. Regulatory instruments

2.1.1. Regulation before liberalisation

The main emphasis of regulation before liberalisation was the nation-wide, secure and cheap provision of electricity, hence general economic, technological and social considerations. Important regulatory aims, in particular after the Second World War, were to rebuild the infrastructure, to expand generating capacity in order to meet the rising demand, to increase the stability of the electricity-supply system and to achieve extensive national independence in electricity supply by the development of hydroelectric power stations (Mayer 2002: 194). The *Verbund* company had the task of guaranteeing electricity generation, in particular from hydropower and the reserve supply with thermal power stations. The provincial companies were responsible for the regional supply throughout the province. Investment preconditions were guaranteed for the long term through legal regulations (Brauner 2002: 153). Until 1998 there was nationwide planning for power stations and lines and financing was through prices laid down by the authorities (Skyba/Grüneis 2002: 204). Apart from this, Austrian electricity companies were given a range of communal tasks, from supply obligations to the fulfilment of environmental and technology promoting tasks (Haberfellner 2002: 2-3). As in many other European countries, yield or rate-of-return regulations were applied, a traditional monopoly regulation. The regulated companies were compensated for operating and capital expenditure and additionally granted suitable interest on capital invested (Groni/Haberfellner 2002: 3).

The prices the electricity companies were permitted to charge their customers were regulated by the pricing authority – the ministry. A price commission composed of the social partners⁷ operated as a committee in the price-setting process (Haberfellner 2002: 2). The price law defined “economically justified” prices that took the situation of the producer as well as that of the end user into account (ibid.). The electricity prices thereby not only covered the costs of electricity supply itself, but also those of the fulfilment of tasks in the public interest (ibid.). With the economic and social policy fixing of prices taking circulation considerations into account, household and agricultural prices were kept relatively low (Mayer 2002: 195). In industry, only certain sectors, such as aluminium production for example, were subsidised with very low

⁷ The three big statutory social-partner organisations in Austria are the Presidents’ Conference of the Chambers of Agriculture, the Chamber of Labour (AK) and the Chamber of Commerce (WKO).

electricity prices. Others, on the other hand, had to accept relatively high costs. Small and medium-sized businesses were burdened with relatively high costs (ibid.).

2.1.2. *Regulatory measures and instruments during the liberalisation process*

The opening of the Austrian electricity market has been accompanied by a deregulation or re-regulation that differs from the former regulatory structures. Thus it is no longer the sector as a whole that is regulated but only specific value-creation chains. The object of regulation is the monopoly area (transmission and distribution). Here, free access to the network for supplier companies and new suppliers is to be guaranteed on the same conditions and at a fair network tariff. On the other hand, in the liberalised areas (production and marketing), competition, price formation and supply security are to be overseen (Hujber 2002: 165). The main instruments and activities of the new regulation are laid down in the EIWOG. These are essentially, unbundling, regulation of network access and fixing of network tariffs, market monitoring of the competitive areas, subsidies (eco-electricity), consumer protection and supply security.

Regulation of access to the network and fixing of network tariffs

The regulator's main task is to ensure equal treatment for all market participants by the network operators – in particular in markets with long-established vertically integrated companies. The regulatory authority works out technical and organisational rules for the network operators in the monopoly field and for the network users. The core task of the regulatory authority is to lay down the network tariff (fixed price and network-use charges), that is the costs of electricity transmission, which the distribution monopolist charges and which form an element of the total electricity price made up of several components.⁸ The network charges are laid down by the E-Control commission (regulator), the various surcharges, taxes and duties by the provincial governments or by the minister responsible⁹ (Haberfellner 2002: 11).

Like many other European countries, Austria has changed from RoR regulation, a practically pure cost compensation, to an incentive-oriented regulatory model (ex-ante) (Gronli/Haberfellner 2002:4). With the introduction of this upper-price-limit regulation with a regulatory period laid down in advance, an inflation adjustment and efficiency factors, the aim is to provide an incentive for cost reductions (ibid.: 8).

⁸ The total electricity price is made up of several components: energy price, system-use fee, taxes, surcharges and duties. Of these components, only the energy price is influenced by competition. For household customers, the pure energy price makes up little more than a fifth of the electricity bill (Haberfellner 2002: 11).

⁹ In Austria there is support for the generation of electrical energy on a broad basis. With the exception of a small area, in Austria all electricity production whose generation costs are above the current market prices seems to be subsidised (E-Control 2004: 49-50).

Competition oversight

The regulatory authority has very limited competence here. Oversight takes place primarily by control of market access. The building and operation of power stations requires various permits independent of the operator, for which the provinces are responsible (E-Control 2004: 49). The barriers to going into supply/sales are lower, because there are hardly any regulatory limits. The suppliers only have to join an existing balancing group¹⁰ or set up one of their own (ibid. 52). One important task of E-Control is the so-called “balance group administration”, which is a kind of monitoring the guarantee of supply. Every company that is operating in the Austrian market has to apply for a balancing group which E-control is approving and dismissing in case of problems. For the company this means to name the amount of its costumers and guaranties of supply.

Market observation and superintendence of possible misuse takes place in particular through oversight of the equal treatment of market participants by the monopolist and the superintendence of unbundling (E-Control 2006: 21). Further concerns and tasks of the regulator are the simplification of the process of changing suppliers, improved information and greater transparency for customers, a code of behaviour for market participants and measures for the reduction of the effects of the segmentation of the Austrian market resulting from the regulatory zones (ibid.).

Consumer interests and security of supply

This area is hardly regulated in Austria yet and the regulator has extremely limited powers. A foundation stone was laid with the demand for the establishment of quality criteria in the electricity business in the 2000 EIWOG. Exactly what these might look like is currently still the subject of tough negotiations (interview 2: 17). On the suggestion of the social partners, in cooperation with the Austrian Chamber of Labour a tariff calculator for the comparison of electricity and gas prices has been set up on the internet, which gives consumers an easy overview of the untransparent price models. Further, a non-bureaucratic disputes office was set up by the electricity regulator, which deals with extra-judicial disputes processes between companies and customers. Above and beyond this, the disputes processes give important indications of weak points of the liberalised market (Kirchner 2005: 116). The technical security of supply is supervised, but no longer planned on a long-term basis. Supervision in Austria consists of measures to guarantee peak capacity and is market-based. Environmental questions are reduced to subsidies for eco-electricity plants, energy-saving guidelines for consumers and the drawing up of specialist studies and reports as to whether the system can be improved.

¹⁰ Balancing groups are bookkeeping accounts for electricity that is fed into the network and flows out again. These movements are overseen by the regulatory authority.

Table 3: Regulatory instruments

	Before liberalisation	During liberalisation	After liberalisation
Generation	Investment plants, guaranteeing of reserves	Legal unbundling and Market opening	Market access and competition monitoring
Transmission	Setting tariffs	Legal unbundling	Free access to networks and setting of network tariffs
Distribution	Setting tariffs	Legal unbundling	Free access to networks and setting of network tariffs
Supply/sales	Price regulation, supply obligations, environmental and technology-promoting tasks	Legal unbundling and Market opening	Competition monitoring, balance-group administration (supervision of technical supply), consumer information (tariff calculator), dispute office, code of behaviour for market participants, subsidies for eco-electricity.

2.2. Regulatory players

An independent regulator, which started activity on 1 March 2001, was set up in Austria on the basis of the 2000 ElWOG. The independent regulator consists of two units: the E-Control Ltd, with 65 employees, and the three-person Energy Control Commission. In addition, an electricity and natural-gas council¹¹ was set up to advise the Ministry for Economic Affairs and Labour (BWMA) on electricity and gas issues and the regulatory authority on electricity questions. It meets whenever a new regulation is passed and otherwise as required. Its opinions are not binding, however.

Whereas the Energy Control Commission can act independently, E-Control Ltd is subject to the direction of the BMWA. Apart from this, the ministry is involved as the owner of the company. The role of E-Control primarily consists in the preparation of the foundations for all important decisions taken by the Energy Control Commission. E-Control is obliged to cooperate with the Federal Competition Authority (BWB) and the BWB must involve E-Control in electricity-business issues (interview 1: 8). The cartel law is concerned with cases connected with discrimination through the exploitation of a dominant market position and with other competition aspects (Hollos 2003: 31-32). The Energy Control Commission is independent of the companies and the government. The ministry, however, has the final say concerning access to the network and the network tariffs and the provinces and the provincial authorities are responsible for enacting legislation, although in practice their room for manoeuvre is now only very limited (ibid.).

¹¹ The committees are composed of representatives of the social partners, of the BMWA and other ministries, the provinces, the association of cities and municipalities, and the Federation of Austrian Industry. The representatives of the social partners and ministries are responsible for pricing issues and as the “small committee” effectively form the pricing commission for electricity and gas (Chamber of Labour 2005: 162).

Table 4: Regulatory players

	Before liberalisation	After liberalisation
National level	Minister, price commission	E-Control Ltd, Energy Control Commission, Electricity Committee, BWB, Cartel Court, minister
Provinces	Minister, provincial government, price commission	E-Control Ltd, Energy Control Commission, Electricity Committee, Cartel Court, minister, provincial governments

2.2.1. Current problems and outstanding challenges

The regulator has too few competences and sanction possibilities in the area of market oversight and unbundling:

“That is an open wound. That, then, is what we can say, and then go home again.”
(interview 1: 8)

In the monitoring area, E-Control has only a few statistical competences. The regulator is dependent on voluntary information from the companies. The Federal Competition Authority has more competences here, but it can only act in relation to specific cases (interview 1: 9). If companies are breaking competition law, then the regulatory authorities can take a case to the Cartel Court or report them to the authorities. If the companies infringe the EIWOG, the regulator can impose a penalty.

“The implementation of decisions of the regulatory authority is a problem. With the usual administrative penalties which I also get as a car driver, I cannot force a company to behave in conformity with the law.” (interview 1: 10)

Today, the regulatory emphasis is on cost reduction and oversight of the monopoly spheres in relation to price setting, discrimination-free access to the infrastructure and measures to limit misuse if companies are in market-dominating position. In future, owing to the special characteristics of infrastructure companies, it may well be necessary to find a regulatory solution to the not unproblematic tense relationship between the on the one hand, short-term profit or value-raising interests of shareholder value and on the other hand the long-term financing of infrastructure investment and the customers’ interest in cheap and continuously available services. The supplier companies’ greater profit-orientation can lead to the neglect of investment, not only in weak marginal areas, as became evident in the supplier crises in New Zealand and California. According to article 16 of the EEC Treaty,¹² it is the task of European states to guarantee “services of general economic interest” in the sense of providing for existence and it is the states themselves who are responsible for their re-construction in the case of a breakdown of the systems. The security and quality of supply was also

¹² Art 16 of the EC Treaty acknowledges the place of services of general interest among the shared values of the European Union and recognises their place in promoting economic and social cohesion, contributing to the competitiveness of the European economy. In 1996 the Commission presented its first notice on services of general interest, followed in 2001 by a new notice designed to clarify the scope and criteria of application of Community rules to services of general interest.

made an issue in the EU European directive (2003/54/EG) and measures for this were recommended. In some countries these concerns have already been adopted in legal framework conditions, but not in Austria.

Neither the social nor technological security of supply have currently been sufficiently solved. Thus Austria has not adopted any precautionary measures for low-income consumers and also the possibility – under the EU-directive – of naming a “last-instance provider” was not utilised (Kirchner 2005: 115). Until 2000 the EIWOG prescribed the obligation for both connection and supply; since then, the network operators have only been obliged to provide a connection to the grid (ibid.). Long-term, guaranteed general conditions are necessary to safeguard investments and facilitate the continual renewal of existing systems (Brauner 2002: 152). It is interesting that before liberalisation the value of investments was decisive for the importance of a supplier company and for the prices permitted. Since deregulation and in the transformation of the state monopoly into limited companies, the companies’ annual dividends have been considered to be the market value of a company (shareholder value) (Brauner 2002: 154f.). In the long term, the Chamber of Labour fears, a deterioration of technical supply security is to be expected, because with constantly rising energy requirements non-profitable power stations are being closed, the network operators’ investment in maintenance is declining and there has been a massive cut in personnel (Kirchner 2005: 114). The policy of sharp reductions in network tariffs has also been criticised by the Chamber of Labour for similar reasons:

“In the medium to long term one must consider only reducing tariffs (...) whether there the networks are not also in a condition that they are being starved (...) the companies are also always threatening that (...). In the first years the investment figures have declined, now they are rising again. One needs to see whether this is a trend or just a once-off story.” (interview 2: 17)

3. OWNERSHIP RELATIONS AND PRIVATISATION PROCESSES

Under the second nationalisation act, all electricity companies were 100% in public ownership. Since 1986, with the grand coalition between the ÖVP (Austrian People’s Party) and the SPÖ (Social Democratic Party of Austria), there was a general political change of course towards privatisation. Many publicly owned companies were removed from state administration and parts of them were sold. In 1987 the second nationalisation act was amended, according to which the companies it regulated now only had to remain at least 51% public property (Haberfellner 2002: 2). As early as 1988, the *Verbund* was part-privatised and 49% of the company was floated on the stock exchange.

True, there was consensus between the parties from the mid 1980s, but there are differences until today above all with regard to the extent and speed of privatisation as well as in relation to the strategic role of the state as a key shareholder (Obinger 2006: 167). These differences have deepened since the government reshuffle in 2000, as the

ÖVP-FPÖ government has pursued particularly rapid rate of privatisation, to which, however, in the electricity sphere there are limits as a result of the constitutional regulation of ownership relations. A change in the law requires a two-thirds majority in parliament, which in the medium term is unlikely. The attitude of the provinces and provincial companies to privatisation varies greatly. While after liberalisation some, such as Lower Austria and Carinthia, part-privatised and floated on the stock exchange relatively rapidly, others categorically reject privatisation:

“The Tyroleans say never, it’s out of the question. In Upper Austria, well, you don’t know, Salzburg, too, that naturally depends on the provincial budget.”
(interview 1: 5.)

Thus the current Austrian situation continues to be characterised by a majority public holding in the electricity companies. As a result of the liberalisation a few companies – such as *Verbund* and *EVN* – floated on the stock exchange; others were divided up into limited companies with dispersed ownership but not on the stock exchange.

Table 5: Ownership relations¹³

Company	Owner
Verbund	51% Republic of Austria
	24% dispersed ownership
	10% Wienstrom
	10% EVN
	5% TIWAG
BEWAG (Burgenland)	51% Province of Burgenland
	49% Burgenland Holding
EVN (Lower Austria)	51% Province of Lower Austria
	31.2% EnBW
	17.8% dispersed ownership on the stock exchange
ESTAG (Styria)	75% Province of Styria
	25% EdF/Gaz de France
Energie AG (Upper Austria)	93.75% Province of Upper Austria
	6.25% Linz AG
KELAG (Carinthia)	51% Province of Carinthia
	49 % RWE
	35.12% Verbund
	1% dispersed ownership
	0.03% municipalities
SAFE (Salzburg)	42.56% Province of Salzburg
	31.31% City of Salzburg
	26.13% Energie Oberösterreich Service- und Beteiligungsverwaltungs-GmbH
TIWAG (Tyrol)	100% Province of Tyrol
VKW (Vorarlberg)	76.4% Province of Vorarlberg
	20.4% private dispersed ownership
	3.2% municipalities
WIENSTROM (Vienna)	100% City of Vienna

Additionally, as already mentioned, since liberalisation there have been numerous mutual cross-holdings between the established companies which have given rise to a complex and interwoven ownership structure in the Austrian energy business (E-Control 2003: 5). Even in the run-up to liberalisation of the energy market, in the electricity

¹³ Source: company homepages.

sphere various alliances and strategic cooperation had formed which divided up the market. The *Energie Allianz* (*EVN*, *Wien Energie*, *Linz AG* and *BEWAG* and *BEGAS*) dominates eastern Austria. They supply more than half of the domestic electricity customers (Hollos 2003: 30). In the west, on the other hand, the Tyrolean *TIWAG* and the Vorarlberg *Illwerke/ VKW* are dominant. Their area of activity extends to Italy, South Germany and Switzerland (ibid.).

The usual limited company sizes, the loss of liquidity owing to mutual holdings and the low profitability of the financial assets weaken the international competitiveness of the Austrian companies. Conversely, the cross-holdings provide relatively good protection against takeovers by third companies from abroad if there should be further privatisations (E-Control 2004: 39-40). Austrian companies' foreign holdings are especially in South-east and Eastern Europe. Thus *EVN* is active in Romania and the *Verbund* in all neighbouring markets.

4. THE ROLE OF THE GOVERNMENT AND OTHER STAKEHOLDERS

4.1.1. Organisation of the various roles of the government and other stakeholders

In principle the government is the main promoter and policy-shaper of liberalisation. However, in some points its role is also contradictory. Where it concerns national interests or the interests of national industry, the attempt is made to control the market, by for example favouring an "Austrian electricity solution" (ÖSL) even though this leads to considerable concentration processes in the market (Kirchner 2005: 110). Since 1995, the Ministry of Economic Affairs has organised so-called *round tables*, that is working groups with sectoral representatives and representatives of the social partners, in order to work out a common Austrian position on the EU directive; the tradition of including the social partners has become more limited since the formation of the coalition government in 2000 (interview 2: 4).

Owing to their role as majority owners of the PPCs, the provinces on the other hand are considered rather as brakes on liberalisation. The majority of the permits and official notifications for new market participants take place through the provinces. This identity on the one hand as owners of PPCs and on the other hand as authorities responsible for approving projects of potential competitors makes conflicts of objectives very likely (E-Control 2004: 49). In addition, the provinces or the owners of the PPCs attempt to influence the policy of the regulator:

"Among the provincial companies it is the case that they have the opportunity to exercise relatively strong political pressure." (interview 1: 7)

The social partnership employees' organisations – the trade unions and the Chamber of Labour – are and were somewhat critical of liberalisation and believe that the liberalised market brings fewer advantages than disadvantages for small customers. In particular,

the Chamber of Labour is actively involved in the process and over recent years has developed expertise in relation to the liberalisation/privatisation of public services. It campaigns for consumer protection and regulatory reform and calls for more economic responsibility – for cushioning social weak points and the maintenance of a sufficient infrastructure – and for more democratic control of the regulator (Kirchner 2005: 117). Institutionally, the strengthening of the Electricity and Natural Gas Advisory Board is called for, as previously the regulatory authority has not been bound by the recommendations of the advisory board composed of the social partners (*ibid.*).

Consumer's organisations

The Austrian Chamber of Labour is the most influencing political force concerning consumer information and rights. It is through the Chamber of Labour that Austrian employees and consumers participate in the legislative process. The Chamber evaluates draft legislation from the point of view of employees' interests, makes proposals for amendments and is subsequently involved in the implementation of these laws. Often impulses for legislative initiatives emanate from the Chambers of Labour and their experts, whose research continually underlines the need for legislative action. The Chamber of Labour offers a wide range of services to their members. The Chamber's experts provide information and advice on different issues such as labour law, social insurance, tax law, women's and family policy, worker protection, the protection of apprentices and young workers, unemployment insurance, and consumer protection.

Additionally when it comes to consumer's rights the private independent organisation for general consumer information, the "Association of Consumer Information" (VKI) plays a certain role in providing information, providing legal advice and in the representation in court. Members of the VKI are the Social Partners. The VKI is publishing a magazine which is providing a lot of information and comparism in quality and prices of products (www.konsument.at).

4.1.2. Main conflicts between the stakeholders

Rising energy and electricity prices are repeatedly an issue in the media and in public debates. Before liberalisation, Austria was considered a country of high prices by EU comparison, particularly in productive trades but also in industry (Haberfellner 2002: 2-3). The change from old to new price-setting criteria led to a relatively comprehensive unburdening and burdening of individual customer groups. There were price rises for household customers and agriculture (*ibid.*: 10).

The feeding of nuclear-generated electricity into the Austrian grid met with political protest, in particular from the Green Party and environmental NGOs in Austria. Since a referendum in 1978 against the opening of "Zwentendorf", the country's first nuclear power station, Austria has pursued an anti-nuclear-energy policy, and there is even an atomic restriction law in the constitution. The Greens have also repeatedly criticised the neglect of the question of conversion to renewables.

Although there have been massive personnel reductions in the electricity sector in recent years, this has hardly been an issue in public debate. This can be ascribed to the fact that the restructuring has so far taken place in a “socially acceptable” way with the assistance of early retirement and natural losses (Hollo 2003: 13-14; Atzmüller/Hermann 2004:53-61). Most of the costs of reducing the workforce were thus borne by the state (ibid.). Apart from this, the cuts in the workforce have led to significantly reduced maintenance and control activity and the lack of experienced personnel for intersection management between generation, transmission and marketing (Haas et al. 2004: 82).

CONCLUSIONS

The newly created market in the electricity sector in Austria is marked both by dynamism and resistance, though the resistance of old structures may predominate. As a result of the ending of the previous area monopolies in supply and the legally allocated roles in the electricity value-creation chains, a certain dynamic has developed primarily between the long-established electricity companies. Some companies are now offering on a nationwide basis, have founded discount subsidiaries and the electricity generator *Verbund* has gone into the marketing business. The market, it is true, is not dominated by one electricity giant – as is the case in some other European countries – but it still consists of more or less regional monopolies, which go back to the former federalist organisational structure of the electricity business before liberalisation. The market is and always was characterised by relatively high electricity prices and low rates of switching providers by the customers. Apart from a few eco-electricity suppliers there have hardly been any new entrants. Foreign or new suppliers were initially particularly interested in the market for major customers. However, because it is relatively difficult to get a foothold in the Austrian market, owing to the relatively small size of the market, the competitive advantage of established suppliers and the cheap, competition-free Austrian hydropower, they increasingly took the route of indirect investment in Austrian companies. In view of their investment in eastern-European neighbouring markets this is interesting.

Even before liberalisation there was a dynamic of mutual cross-holdings and interweaving of established electricity companies in order to divide up the market and be able to protect themselves against foreign takeovers. As ever, the authorities played an essential role here. The largest of these cross-holding projects is the “Austrian electricity solution”, since 2003 promoted by the government and approved by the EU, which would mean a considerable increase in market concentration. However, owing to conflicts among the companies involved this has not yet come to pass.

An independent regulator has existed since 2001. This has only very limited competences concerning competition oversight and possible sanctions and the technological and social questions of security of supply have not been sufficiently solved.

The government, the state, has always been the driving force of liberalisation in Austria. However, since the right-wing-conservative change in 2000 this has somewhat accelerated. The resolute and rapid market liberalisation comes up against barriers, however, when it concerns the national interests of Austrian industry. The provinces are already considered rather as brakes on liberalisation owing to their role as owners of the provincial supply companies. Workers' organisations doubt the positive effects of liberalisation for small consumers and raise numerous demands for the improvement of regulation. Environmental-policy NGOs and the Greens criticise the feeding of nuclear-generated electricity into the Austrian grid.

The promised benefits of liberalisation, such as the falling prices and greater choice of supplier have remained limited. Some electricity suppliers and the major customers may have profited, whereas the latter, however, expected more. After liberalisation there was only a limited fall in prices for household users, most of which was more than compensated by new taxes and surcharges. Economy measures by the companies led to a massive loss of jobs. If security of supply is now threatened by the economy measures, then, from the point of view of the employees and the users, liberalisation even represents a change for the worse.

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ANNEX

Regulation of quality: instruments

- Supervision of technical security (measures to guarantee peak capacity, market-based, incentive-oriented regulatory model (ex-ante))
- Environmental questions: reduced to subsidies for eco-electricity plants, energy-saving guidelines for consumers and the drawing up of specialist studies and reports as to whether the system can be improved.

The regulation of quality is rather underdeveloped in Austria. A foundation stone was laid with the demand for the establishment of quality criteria in the electricity business in the 2000 ElWOG. Exactly what these might look like is currently still the subject of tough negotiations.