



ANNUAL REPORT 2009

E-CONTROL



A BETTER DEAL - WHEREVER YOU NEED ENERGY.

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> E-CONTROL

Where monopolists were the big fish, competition reigns. And since 2001 E-Control has been holding the line to make sure that it keeps within orderly bounds. So that security of supply, sustainability and fairness are not left behind in the battle for success.



Even players in liberalised
energy markets need to stay
in lane

An electrifying year for E-Control

Although the gas and electricity markets were liberalised some time ago, competition is taking time to get into its stride. As the regulator, E-Control is responsible for supporting this process by setting fair rules, monitoring compliance and pushing for maximum service transparency.

Energie-Control GmbH (E-Control) is wholly owned by the Austrian federal government, and its responsibilities and duties are set out in the Energie-Regulierungsbehördengesetz (Energy Regulatory Authorities Act).

The highest regulatory authority is the Minister of Economy, Family and Youth. The Minister is responsible for establishing E-Control's powers and overseeing its activities. The constituent bodies of E-Control are the E-Control Commission and E-Control GmbH. The arbiter in most disputes concerning the reciprocal rights of market participants is the E-Control Commission, for which E-Control acts as a secretariat. The E-Control Commission hears appeals against decisions made by E-Control. The Commission's members are appointed for five years, and are not bound by ministerial directions in the exercise of their duties.

The provincial governors and governments also have regulatory powers (e.g. unbundling of the electricity retail and system operation functions), as does the Minister of Economy, Family and Youth. The electricity and gas advisory boards, whose membership consists of representatives of the federal and provincial governments, and the social partners, have consultative roles.

We regulate and are regulated

Information duty

The business supervision of E-Control is performed by its supervisory board, whose members are nominated by the Ministers of Economy, Family and Youth, and Finance. It is also subject to scrutiny by the Court of Audit. E-Control has a duty to provide the Minister of Economy, Family and Youth, and parliament with information, and makes detailed reports on its activities. Market participants have a right of appeal to the E-Control Commission against notices issued by E-Control. Complaints against Commission decisions can be lodged with the supreme courts.

All of E-Control's activities are subject to comprehensive oversight.



The E-Control budget for 2009 amounted to around EUR 14 million (m). The budget is funded by the grid utilisation charge and subject to annual approval by the supervisory board.

THE THIRD ENERGY PACKAGE

The third legislative package for the gas and electricity markets (also known as the “Third Energy Package”), proposed by the European Commission in September 2007, was adopted in the first half of 2009. At the beginning of 2009, the chances of agreement seemed slim because the gap between the positions of the Council and the Parliament seemed too wide – particularly on unbundling. However, with the help of mediation by the Commission, agreement on the wording of the Third Energy Package was reached in April. This removed the final obstacle to approval by the Parliament before last year’s European elections. A plenary session of the Parliament accepted the package in April, followed by the Council in June.

Third Energy Package
approved

The Third Energy Package was published in the Official Gazette in August 2009, and the various directives and regulations in the package came into force on 3 September 2009. The gas and electricity directives must be transposed into national law by 3 March 2011, with the exception of the unbundling provisions, for which a longer implementation period was agreed. Although the gas and electricity regulations, and the regulation establishing the Agency for the Cooperation of Energy Regulators (ACER) are already in force, they will only become fully applicable on 3 March 2011.

The first steps towards the establishment of ACER have already been taken. In December 2009 EU energy ministers chose Ljubljana as the Agency’s headquarters from a field of three candidates. The position of the new director of ACER has already been advertised, and a decision on the appointment will probably be made at the start of 2010. The other actions required to get the Agency up and running will be implemented in the course of this year.

The Third Energy Package – a big advance for Austria’s energy markets

The Third Energy Package is an opportunity to benefit Austrian gas and electricity consumers. Its core elements are:

- > Enhanced market integration (simplifying cross-border electricity and gas trading, unbundling and ACER); and
- > Provisions increasing the level of information and protection offered to small consumers (households and businesses).



Improvements for consumers

Implementation of the Third Energy Package in 2010 will mean that many of the problems repeatedly highlighted by E-Control are addressed. These include both the organisation of the gas and electricity sectors, and the regulatory framework. Tightening up monitoring of the independence of transmission system operators (TSOs) will have particularly far-reaching consequences for E-Control's activities, as the goal of cross-border market integration requires oversight of additional business processes. This is designed to safeguard Austrian consumers' access to energy resources. The increased independence of distribution networks will also call for additional monitoring.

Energy regulators across Europe will be given further powers to oversee competition. As a result regulatory authorities' responsibilities will no longer be largely limited to the regulation of network operation, but extended to include the entire energy sector. In future E-Control will be in a position to push through binding measures that stimulate competition. Dissuasive penalties will also be available under EU law for the first time.

BEEFING UP NATIONAL REGULATORS' POWERS

The new EU legal framework is designed to intensify energy market competition and strengthen consumers' hand. It gives national regulators a more independent role, and extends their responsibilities with regard to electricity and gas companies. It will also be necessary to re-structure E-Control if Austria is to meet these requirements: the Third Energy Package limits the number of regulators per country to one. However, Austria effectively has two regulatory authorities in the shape of E-Control itself and the E-Control Commission. Whatever happens, the regulator must continue to be in a position to represent Austria effectively at the European level, and retain its independence from federal and provincial government influence.

Additional responsibilities of the new-look regulator

- > Overseeing prices and competition
- > Ensuring that market participants fulfil their responsibilities
- > Improving monitoring systems
- > Carrying out sector investigations
- > Addressing ad-hoc information needs
- > Stimulating competition
- > Implementing sanctions

Implementing the Third Energy Package

Work on implementing the Third Energy Package has already begun at national and European level. However, much remains to be done, and these efforts will remain a key task for E-Control in 2010 and beyond.

Top marks for energy saving – E-Control schools project

Energy saving, energy efficiency and conservation of natural resources are big global issues, in economic, political and social terms.

As the inhabitants of tomorrow's world, children and young people today are more sensitised than any generation before them to climate change. The E-Control schools project is designed to mobilise schoolchildren's, parents' and teachers' awareness, and spark off a reverse educational effect with children passing on information to their elders.

Schools energy efficiency project

Over the past one and a half years, E-Control and Forum Umweltbildung have been developing a new teaching kit. The attractively presented, modular teaching materials give 10 to 16-year-olds a chance to learn more about electricity, with a focus on how to use power efficiently. The existing QuickCheck energy efficiency calculator is ideal for the project and forms the centrepiece of the teaching kit, with some slight adjustments to meet the target group's needs.

Interactive applications and learning materials in German are available permanently and free of charge on the E-Control website, under www.e-control.at/schule. Contents:

- > Electricity and power generation basics;
- > Austrian electricity market players;
- > What energy efficiency is all about;
- > How to save energy in everyday life;
- > The implications of energy efficiency;
- > What energy saving means to you.

The materials are particularly well suited to science subjects, but they can also be adapted to other courses or used on a cross-subject basis. The project provides a wealth of information and teaching tips on electricity, and the materials include photocopyable worksheets, research tasks for students and online applications.

Thanks to the careful packaging of the information, the kit has been approved by the Minister for Education, Arts and Culture for use in Austrian schools. The materials have been available to all Austrian school teachers since autumn 2009.

ENERGY EFFICIENCY: WALKING THE WALK

In 2009 E-Control took a number of steps to improve energy efficiency at its Rudolfsplatz headquarters.

Checking out our carbon footprint

Professional energy consultancy provided as part of the EcoBusinessPlan Vienna was an important element of these efforts. This involved calculating and categorising E-Control's energy consumption. A second project component was calculating the carbon footprint of every employee. This exercise captured the CO₂ emissions and energy consumption directly attributable to job-related activities, such as travelling to work, electricity and gas consumption at the office, and energy use linked to business travel.

The results showed that energy consumption at E-Control is close to the average for a typical office block. E-Control staff are exemplary in taking public transport to work, and use it significantly more often than the rest of the Austrian (and Viennese) labour force.

The results of the analysis and information on our carbon footprint will be used to take further action aimed at cutting E-Control's energy consumption in 2010.



Working for the future: taking on apprentices and trainees

Training, development and social responsibility have always been taken very seriously at E-Control. In September 2009 we welcomed our first intake of apprentices. We now offer ambitious young people an opportunity to gain a sound training that will give them excellent job prospects, in a modern working environment. There is a choice of three career options: bookkeeper, administrative assistant or IT technician.

The first round of the E-Control trainee programme was successfully completed in 2009, and the second intake followed in the autumn. The 12–18 month programme is aimed at university graduates. Participants rotate between two to four departments and take part in project teams before being given responsibility for their own projects. This on-the-job training provides first-hand experience of the workings of the regulator, insights into the energy market, a chance to build relationships with market participants, and other national and international organisations, and structured professional and personal development activities. The aim is to provide candidates with the qualifications for regular employment at E-Control.

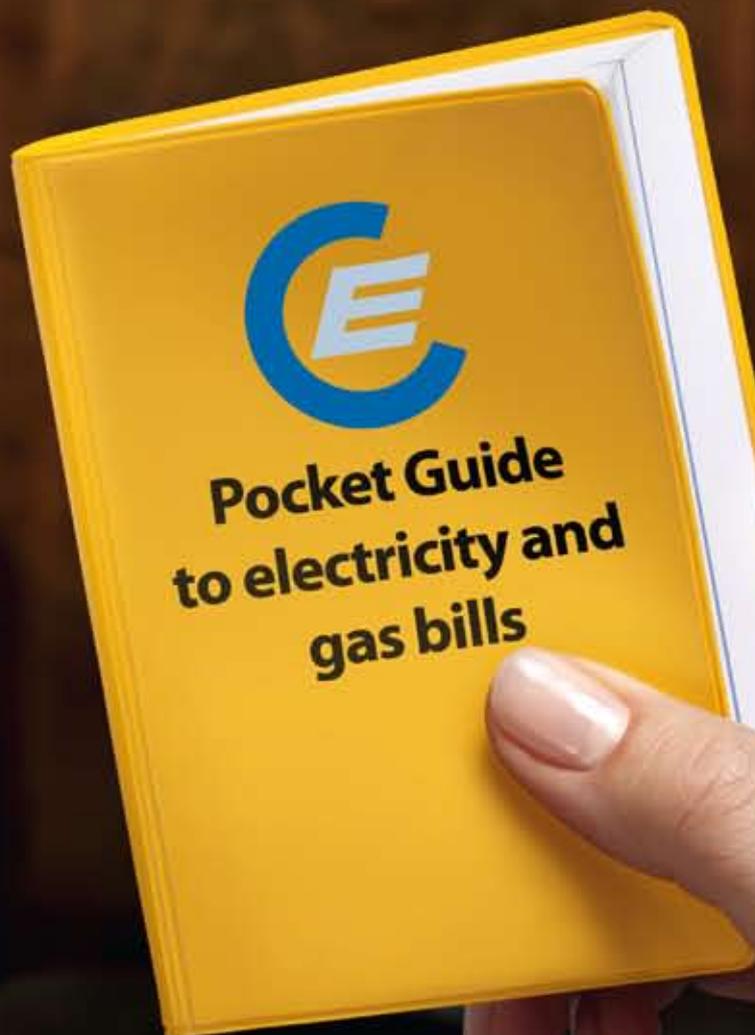
**Trainee programme
extended**

BUILDING A STRONG TEAM

The main idea behind both of these training initiatives is to promote teamwork, interaction and learning between young potentials and experienced staff members. The programmes are also vital components of E-Control's human resources policies, and enjoy the full support of management and employees.



We help you figure
out your bills



> CONSUMER SERVICES

Gas and electricity liberalisation raise a lot of questions. Take, for instance, the energy bills that come through the letterbox. At first sight, they are in German, but in reality they are often hard to understand. E-Control's consumer services explain everything, right down to the small print.

Consumer services that hit the mark

More and more consumers are aware of the benefits of competition, but many more could take advantage of the potential savings on offer. The demand for information has grown steadily in recent years, and differences in the needs of the various consumer groups have also emerged. In response, E-Control has tailored its consumer services to specific target groups.

A MODERN SERVICE PROVIDER – AS OUR NEW WEBSITE SHOWS

Some eight years and four million visitors after the launch of the E-Control website, the two-stage introduction of a completely redesigned web portal took place on 11 May and 19 October 2009, and the English website will follow in early 2010. The relaunch project took about 12 months to complete.

Target group focused design

The new site addresses the contrasting interests of the various user groups. A decision was taken to split it into three main areas, providing content relevant to “Consumers”, “Businesses” and “Market players”. A fourth area provides basic information on E-Control, while four special libraries provide comprehensive archives of press releases, legislation, statistical and other publications.

Well-informed consumers – the key to functioning competition

For competition to function properly, consumers need to be price conscious and well informed. This is why we gave top priority to the area of the new website aimed at household consumers, and this was the first go live, in May 2009. The various departments revised, and in some cases completely rewrote the content for this section of the site, in a bid to make the information on electricity, gas, renewables and energy saving, and the interactions between them, clear and easy to understand. The content includes information on prices, switching, suppliers, bills, electricity and gas consumers’ rights, and hints on energy saving and improving energy efficiency.

Tried-and-tested applications such as the Tariff Calculator and the interactive energy consumption checks are well integrated with the new website, and there are detailed, user-friendly explanations of how to use them.



INFORMATION FOR EVERYONE, FROM CARPENTERS TO GLOBAL PLAYERS

Businesses are a highly varied consumer group, ranging in size from small carpentry shops to major banks with thousands of employees. Providing this group with tailored, relevant information is no easy matter, given the differing interests, requirements and energy consumption involved. Nevertheless, an area of the site is devoted to this target group, and is to be expanded in future.

PUTTING MARKET PLAYERS IN THE PICTURE

The various players on the Austrian gas and electricity markets naturally have the closest links to E-Control, so a well designed, frequently updated website is an important source of information and communication channel for them.

All of the content that was already packaged for this specialist public on the previous website has been thoroughly revamped and expanded. The areas of the site aimed at the different target groups are subdivided into three categories – electricity, gas and renewables – resulting in a clear, intuitive structure.

A WEALTH OF INFORMATION JUST A CLICK AWAY

The tabs at the top of the screen are designed for users looking for particular types of documentation – usually for professional reasons. The “Press”, “Law”, “Publications” and “Statistics” sections of the site enable all the publications available on the site to be searched both by subject and by date – a major convenience for professional users.

Well received

The new site has been very well received by users. More than 200,000 visitors have viewed our website over one million times since the first stage of the relaunch in May 2009.

Content on the Consumers section accounted for about 40% of the hits, Businesses for around 10% and Market players for just under 9%. The remaining users accessed information from the Press, Law, Statistics and Publications sections or viewed content related to E-Control’s international activities. Energy sector professionals visit the E-Control website several times a month on average.



ELECTRICITY AND GAS PRICES TO GO – THE MOBILE TARIFF CALCULATOR FOR SMART PHONES

The launch of the new website was followed in early November by a version of the popular Tariff Calculator specially designed for smart phones.

Consumers often have time on their hands, for example when travelling to work, and the mobile Tariff Calculator enables them to put it to good use by comparing electricity and gas suppliers' prices.

The display of all the key information provided by the Tariff Calculator was optimised for the smart-phone application, giving users clear price comparisons and the key information needed to switch suppliers.

The Tariff Calculator will be revamped again in 2010, in order to offer consumers to use still more detailed search criteria.

Information on call – the Energy Hotline

The E-Control Energy Hotline provides consumers with comprehensive information on all aspects of the liberalised gas and electricity markets. End users with concerns or queries often turn to E-Control first for information.

A hot property

The hotline handled 7,854 calls in 2009, down by 31.8% year on year. The fall was mainly due to the fact that there were few price changes during the year. Virtually all the gas suppliers increased their prices in autumn 2008 – in some cases massively – unleashing a flood of enquiries to the Energy Hotline in the following months. In 2009 calls mainly concerned tariff calculations, switching and energy bills.

The number of consumers sending their bills to E-Control for checking is steadily rising. Last year 679 written inquiries were received, most of them requests to inspect invoices.

On-the-spot advice at trade shows and information events

E-Control's experts not only provide information over the phone, they are also on hand to field questions at trade shows and information events. They provide information on supplier switching, special price offers and bills, as well as pointing consumers with questions and problems in the right direction.

E-Control made appearances at the following events in 2009:

- > Bauen & Energie trade fair, 19 – 22 February, Vienna
- > Energiesparmesse trade fair, 25 February to 1 March, Wels
- > Spring trade fair, 12 – 15 March, Innsbruck
- > Spring trade fair, 2 – 4 April, Dornbirn
- > Information event, 26 May, Graz
- > Renexpo trade fair, 26 – 28 November, Salzburg

WHY INVOICES NEED TO FILL THE BILL

Minimum standards for energy bills came into effect on 1 January 2007, and E-Control is responsible for enforcing compliance. But how energy bills can be made clear and comprehensible for the recipient is another matter.

In response to this problem E-Control developed a sample bill based on expert advice to help energy companies make their formats as consumer-friendly and transparent as possible. The sample bill consists of three sections: an overview, detailed price information, and a page of explanations.

A test with three electricity bills currently in use, conducted by an independent opinion research company, revealed that consumers favour transparent information, and prefer the design of the E-Control sample bill. Two-thirds of those surveyed picked the sample bill because they found it easier to understand.

Sample bill up to standard

A special manual was also compiled in the course of the project to help energy companies ensure that their bills are customer-friendly and comply with the legal requirements. This „toolbook“ outlines the key findings of the independent survey and provides guidelines for handling the most important legal issues and special cases related to billing.

High resolution

In its seventh year of operation the arbitration service again showed its worth as a contact point for consumers. Besides resolving disputes (in particular over electricity and gas bills, and network connections) in accordance with section 10a Energy Regulatory Authorities Act, and handling questions about supplier switches, the arbitration service is increasingly offering support to consumers who feel that their supplier or system operator is not giving them enough information about their rights and duties. The service also fields general inquiries about the liberalised gas and electricity markets.

The growing demand for information is partly due to wider coverage of energy issues by the media. It also reflects the fact that the recession is prompting growing numbers of consumers to look closely at their energy bills for the first time.

Billing is still a perennial issue

Unfortunately, electricity and gas bills did not become any easier to understand last year, and the need for explanations of individual items is still constantly increasing. The arbitration service has found that often the problem is not incorrect bills but the fact that the information supplied by energy companies in writing or over the telephone is not customer-friendly enough. As a result, the job of the arbitration service frequently involves getting energy consumers and suppliers back on speaking terms again, and dealing with customer satisfaction issues. The service is increasingly acting as a consumer advocate and attempting to uphold the consumers' right to transparent, comprehensible information.

All that is needed for the arbitration service to swing into action is an informal written application (by letter, fax or e-mail), briefly outlining the events in question and enclosing the relevant documentation. Complaints about events going back further than four years before the application or charges that were due before then are ineligible. The same applies to disputes concerning pending claims on which courts or administrative tribunals have already ruled, or which are already the subject of an arbitration procedure.



In 2009 the arbitration service received around 2,700 written inquiries, an increase of about 35% on the previous year. The reasons for this sharp rise, included E-Control's high-profile public relations activities and the improved availability of consumer information from sources such as our website. As a result of these efforts E-Control is increasingly seen as a consumer advocate on energy matters. Another cause of the increased demand for the service is the fact that growing numbers of consumers are taking an interest in energy, trying to understand their bills, and enlisting the arbitration service's assistance with this.

After precisely examining inquiries, arbitration service staff decide whether the issues can be resolved by telephone or e-mail, or whether formal arbitration proceedings are required.

Since its establishment the arbitration panel has handled a total of 1,083 cases, including 119 in 2009.



Switching suppliers



~~is such a hassle.~~

No

> COMPETITION

Energy market liberalisation in Austria is a recent development, and competition is still in its infancy. To get it moving, E-Control aims to make switching suppliers as simple as possible for Austrian consumers – with tools such as the Tariff Calculator, which allows customers to find the cheapest supplier in a matter of seconds. Consumers are gradually learning that it's not just your meter reading that decides the size of your electricity and gas bills, but the rates you pay, too.

Economic crisis cranking up competitive pressures

2009 was a volatile year for the wholesale markets. Falling demand as a result of the recession dragged down electricity and gas spot prices, and made near months considerably cheaper. The decoupling of spot gas prices from long-term import contracts was another significant development of 2009.

The contrasting trends in retail gas and electricity prices were a striking feature of the year. While electricity consumers saw price rises across the board in 2009, industrial gas consumers reaped the benefits of declining wholesale prices.

Drop in electricity and gas demand

The impact of the recession on Austrian gas and electricity demand was lagged, but made itself felt in the third quarter of 2008. From then on consumption fell – heavily in some months – with the effect that the growth rate for the year as a whole was below that for the first three quarters. Demand continued to shrink in the first nine months of 2009: domestic electricity consumption contracted by 5.2% and gas consumption by 6.2%.

WHAT GOES UP MUST COME DOWN – LOWER WHOLESALE ELECTRICITY AND GAS PRICES

Wholesale electricity price movements in the year under review extended the decline that set in during the autumn of 2008. This trend was driven by high coal and natural gas prices, as well as the overall economic situation and oil prices. Although there is no direct causal link between oil and electricity prices since oil plays little part in power generation, oil prices are of great importance as an economic bellwether and a benchmark for energy prices.

Electricity spot and futures prices in Austria¹ and Germany peaked at the beginning of 2009 (*Figure 1*). The slide in prices continued until autumn 2009. The annual average base load price for 2008 on the EXAA was EUR 38.92/MWh while the average price of the 2009 futures contract on the EEX over the 2008 – 2009 period was EUR 62.87/MWh. The spread between the spot and futures contracts was EUR 23.95/MWh during the year under review. In other words, it was cheaper for a company to meet its annual electricity needs on the spot markets.

¹The Austrian EXAA electricity exchange does not have a futures market.



WHOLESALE ELECTRICITY PRICES IN 2009 (FUTURES VS. SPOT) (EUR/MWh)

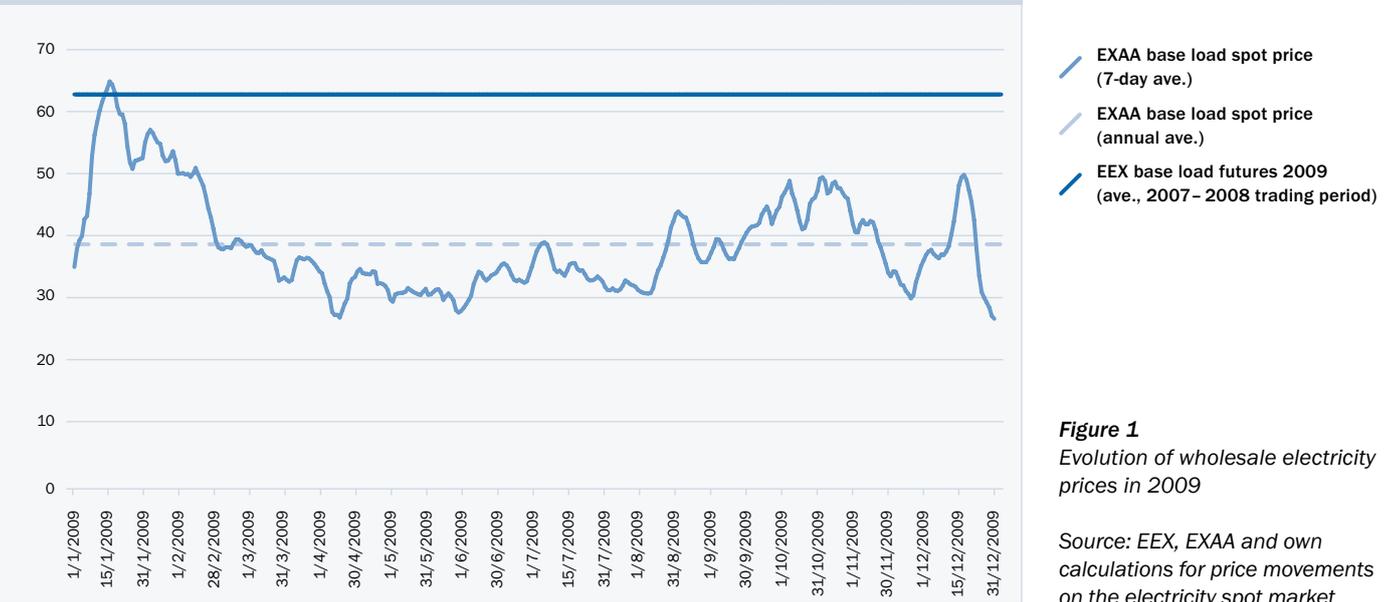


Figure 1
Evolution of wholesale electricity prices in 2009

Source: EEX, EXAA and own calculations for price movements on the electricity spot market

Austrian wholesale gas prices under long-term contracts between gas producers and importers slumped between October 2008 and May 2009. However, wholesale prices have firmed slightly since mid-2009 as a result of the linkage to oil prices.

Spot gas prices continued to trend downwards throughout the year (see Figure 3), depressed by oversupply on the spot markets. The factors behind this were: the economic crisis, which hit demand, diverting volumes from long-term contracts; the increased number of LNG cargoes into Europe due to ample supplies in the USA; and full storage in Europe in the autumn. As a result spot prices were below those for deliveries under long-term contracts in 2009, and spot price movements were decoupled from long-term contract prices (and hence the oil price trend).

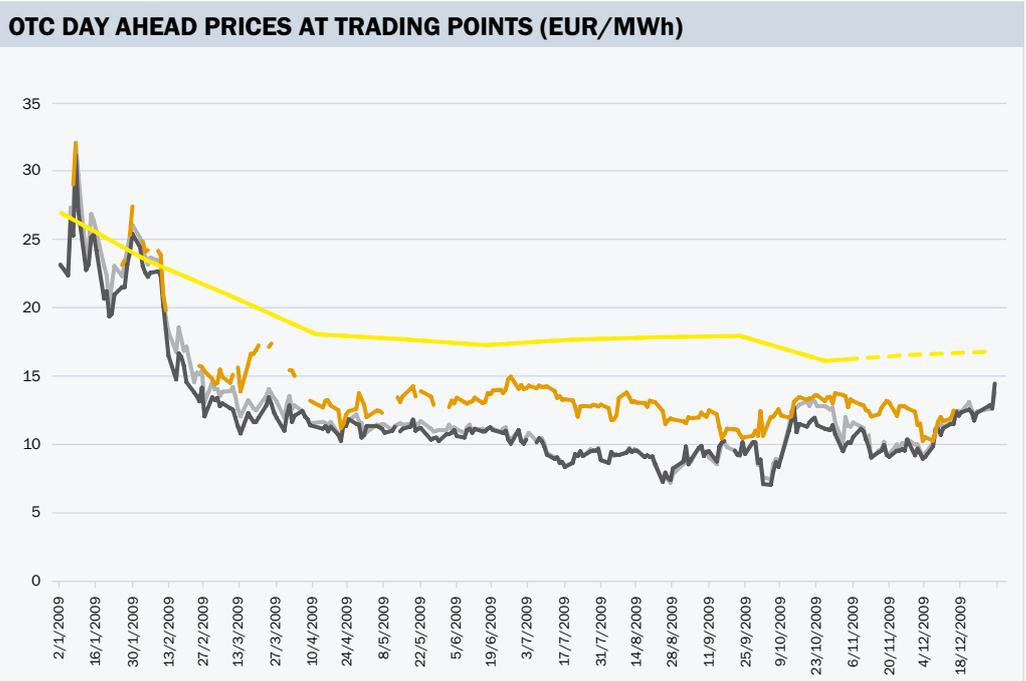


Figure 2
OTC day ahead prices at the NCG, TTF and CEGH (EUR/MWh)

Source: Energate and ICAP

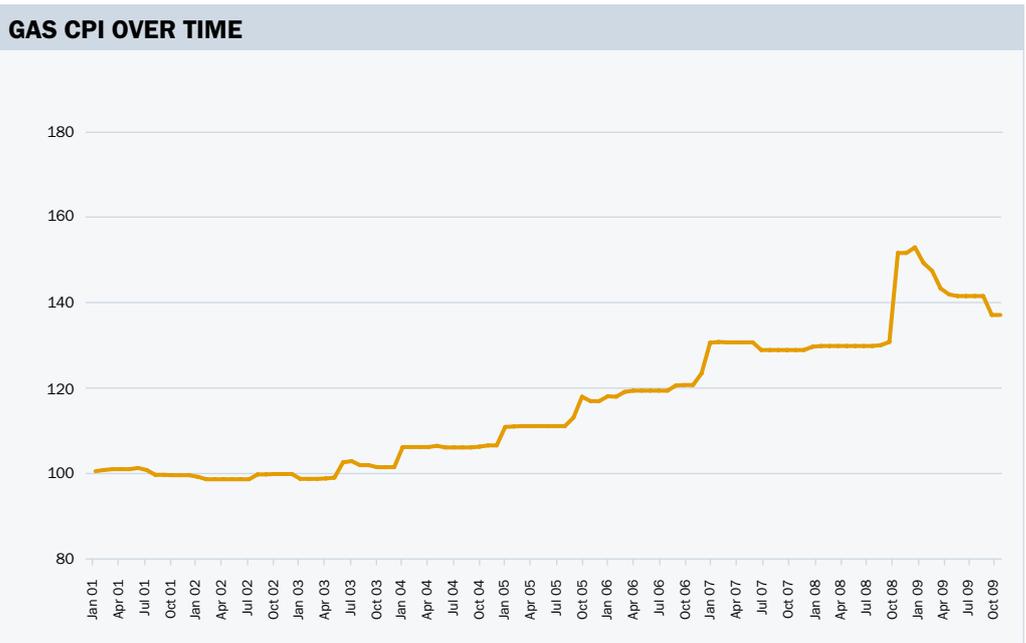


Figure 3
Gas consumer price index (CPI) over time (October 2002 = 100)

Source: Statistik Austria

RETAIL PRICE TRENDS

Electricity price regulation ended with market liberalisation in 2001. The system charges are set by the regulatory authority, and taxes and levies by the federal and provincial governments, and local authorities. With the exception of the metering charges, which are capped, all the system charges are fixed. System operators are free to set lower metering charges, provided that they treat all consumers equally; in other words, they must charge all their customers the same price for a given type of meter.

PRICES FOR SMALL CONSUMERS

Figure 4 shows the evolution of overall electricity prices for household consumers. The index covers not only energy prices but also the system charges, taxes and surcharge paid by end users. Although the system charges were reduced in January, there was another substantial rise in the electricity CPI in 2009. Overall prices have only risen marginally since the cut in the system charges.

Gas prices for household consumers, as measured by the gas CPI (see Figure 3), continued to fall in January 2009, reaching a low in May 2009, after the end of the heating season. Since then the gas CPI has remained steady.

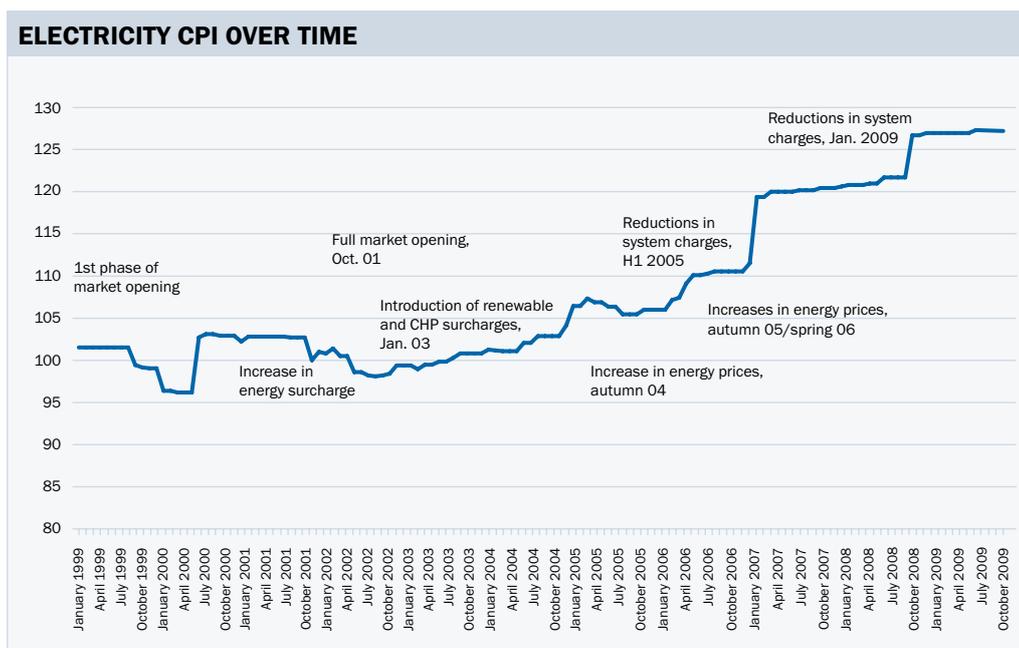


Figure 4
Electricity CPI (Oct. 2001 = 100)

Sources: Statistik Austria and E-Control

PRICES FOR LARGE (INDUSTRIAL) CONSUMERS

E-Control collects and analyses information on industrial consumer prices in January and July. The results of these surveys (Figure 5) are in marked contrast to the trends in the prices charged to other electricity and gas consumers. The increase in industrial electricity prices continued in 2009. The price rises bunched at the turn of the year, as this is when many contracts expire. Industrial electricity prices are mainly driven by wholesale prices, since the latter are generally built into the price formulas in the supply contracts.

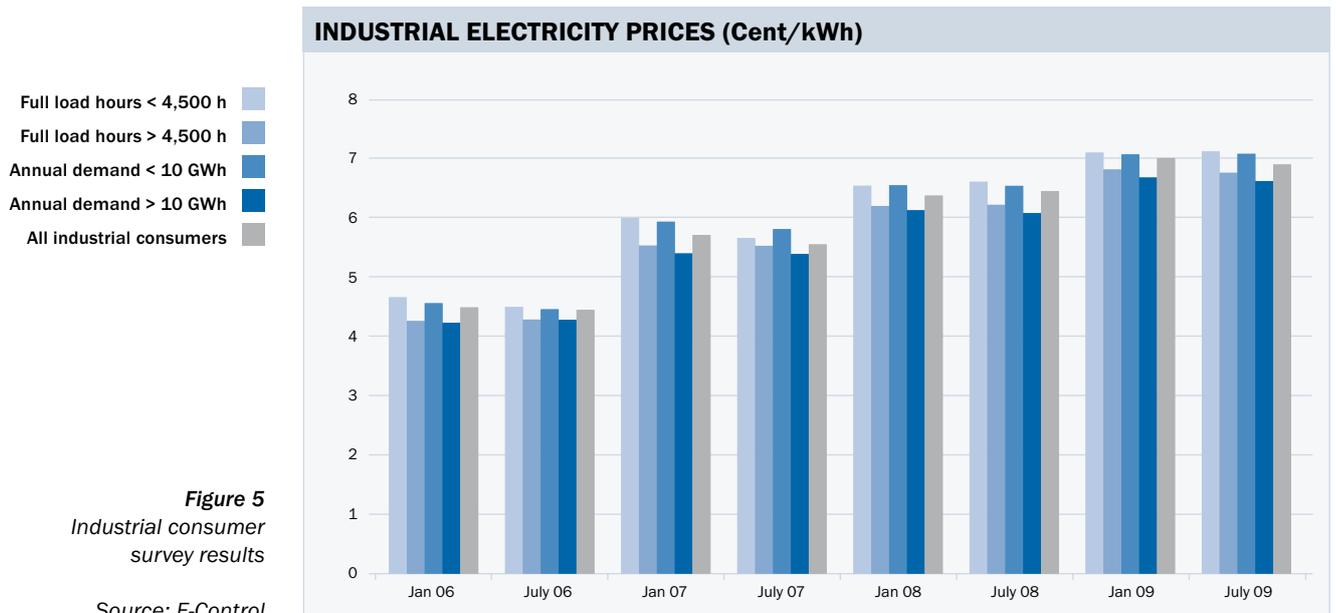


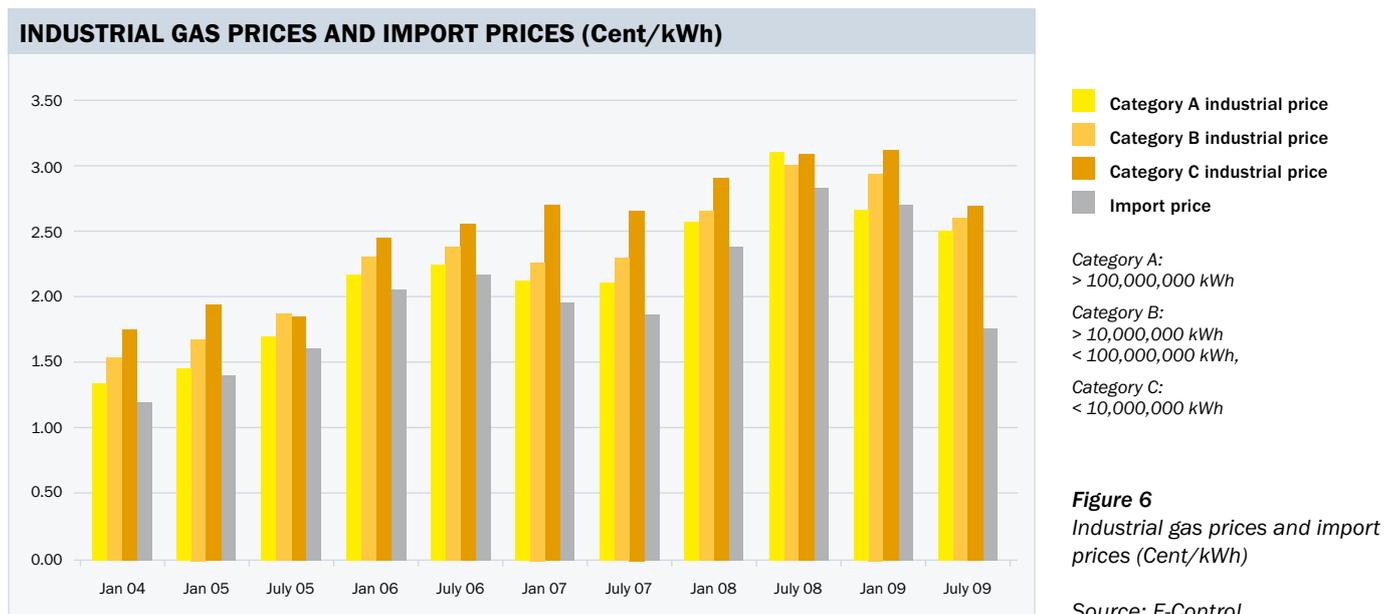
Figure 5
Industrial consumer survey results

Source: E-Control



In contrast to electricity prices, industrial gas prices (net energy price excluding system charges, taxes and surcharges) decreased between the beginning of 2009 and the July 2009 survey (*Figure 6*). Price changes in each consumption category tracked the trend in import prices.

This highlights the sensitivity of pricing to changes in the oil price and points to the widespread use of price escalation clauses. The wide spread between import and industrial prices resulting from fixed-price agreements concluded in late 2008 and early 2009 may reflect the fact that the extent of the price decline was not foreseeable at that time. Pricing was not included in the July 2009 survey.





PRICE TRENDS IN COMPARISON WITH THE REST OF EUROPE

E-Control and VaasaETT compute the Household Electricity Price Index for Europe (HEPI) on the basis of the electricity and gas prices of the incumbent supplier and its main competitor in each of the EU-15 capital cities. This is a weighted index of retail prices that captures overall price trends in Europe.

The HEPI is only the independent European electricity and gas price index that compares prices across the EU-15. The information is collected directly from suppliers and regulators in each country, using a thorough, precise and comparative definition and methodology. The analysis focuses on the utilities' most popular tariffs.

The index is calculated and published on the E-Control website every month. The prices in the EU-15 capital cities are also ranked in a table, and there is an analysis of recent trends.

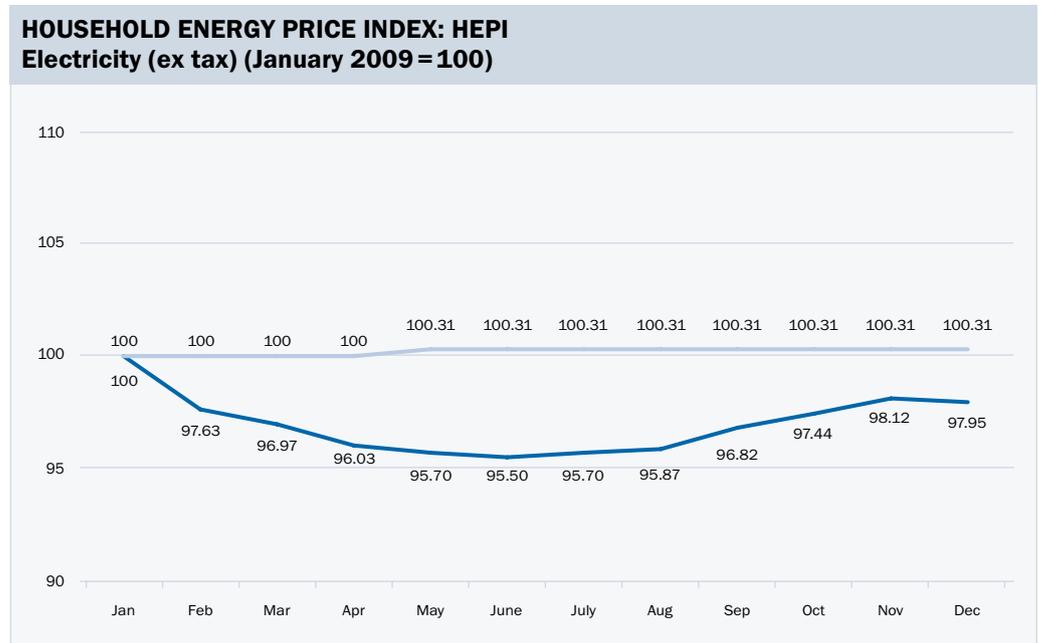


Figure 7
Household Energy Price Index (HEPI): volume-weighted electricity price index for the EU-15 capital cities

Source: E-Control

The electricity HEPI fell until June 2009 before rebounding until November. Prices then dropped slightly in December 2009. In contrast, Austrian household electricity prices (taking Vienna prices as a proxy) have held relatively steady (Figure 7) and are not yet moving in line with the wider European trend.

The downward trend in the gas HEPI continued throughout the year. Austrian household gas prices (Vienna) dropped sharply until February 2009 before levelling off. Another slight fall was recorded in December. However, the reduction in prices in Vienna was below the European average.

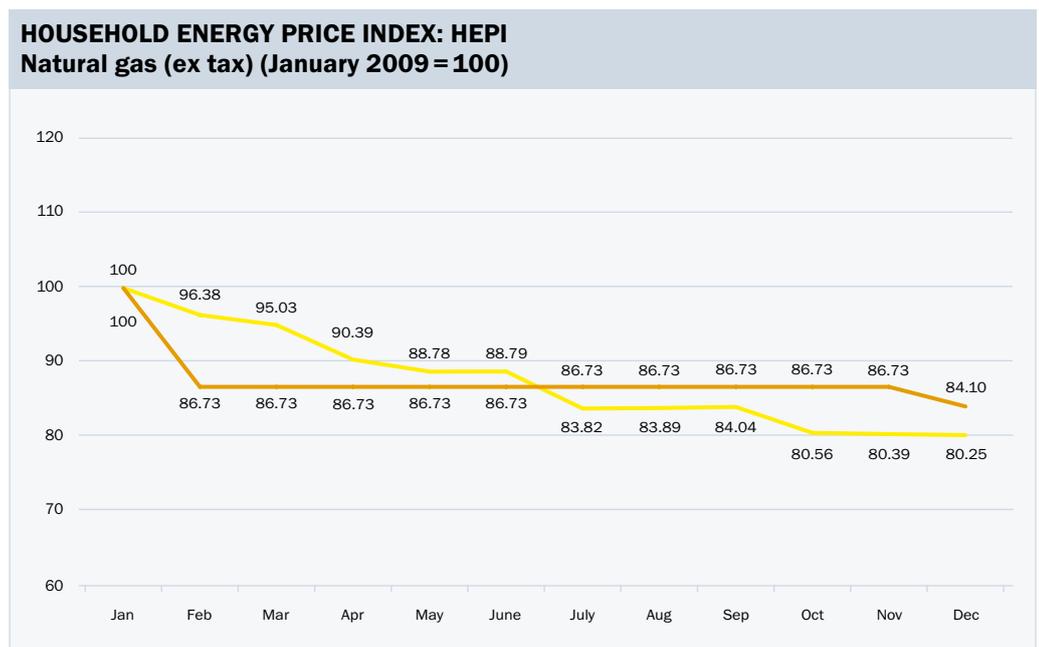


Figure 8
 Household Energy Price Index (HEPI): volume-weighted gas price index for the EU-15 capital cities

Source: E-Control

OPPORTUNITIES FOR SAVINGS GOING BEGGING DUE TO SLUGGISH SWITCHING

The sharp upturn in the churn rates among electricity and gas consumers recorded in the first quarter of 2009 petered out in the remaining nine months of the year. Switching rates have remained low despite the major potential savings on offer.

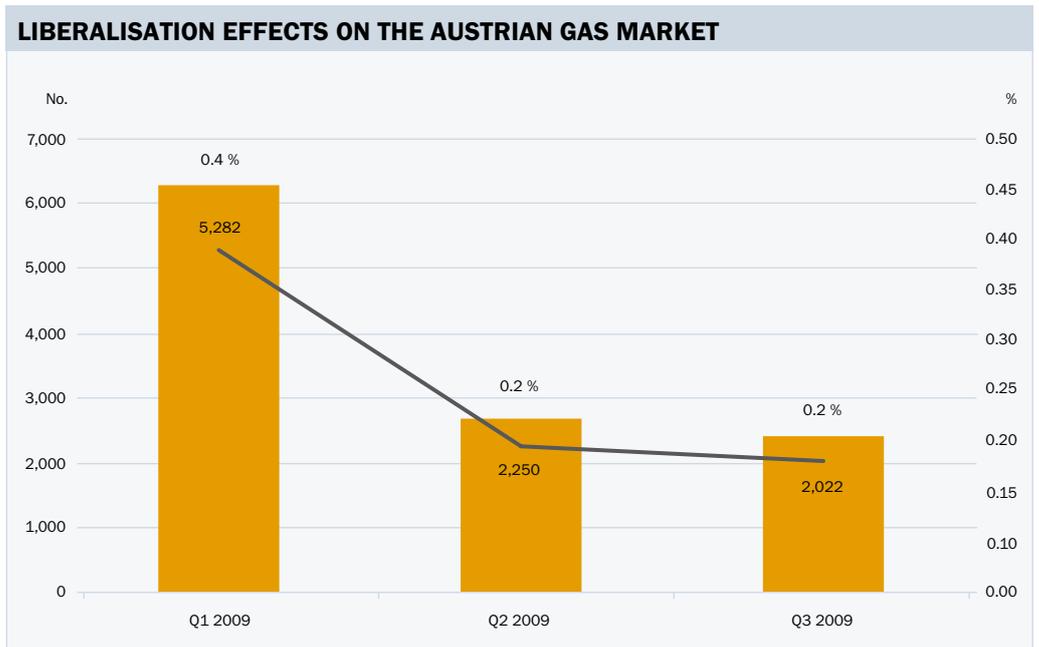


Figure 9
Switching rates among Austrian gas consumers

Source: E-Control

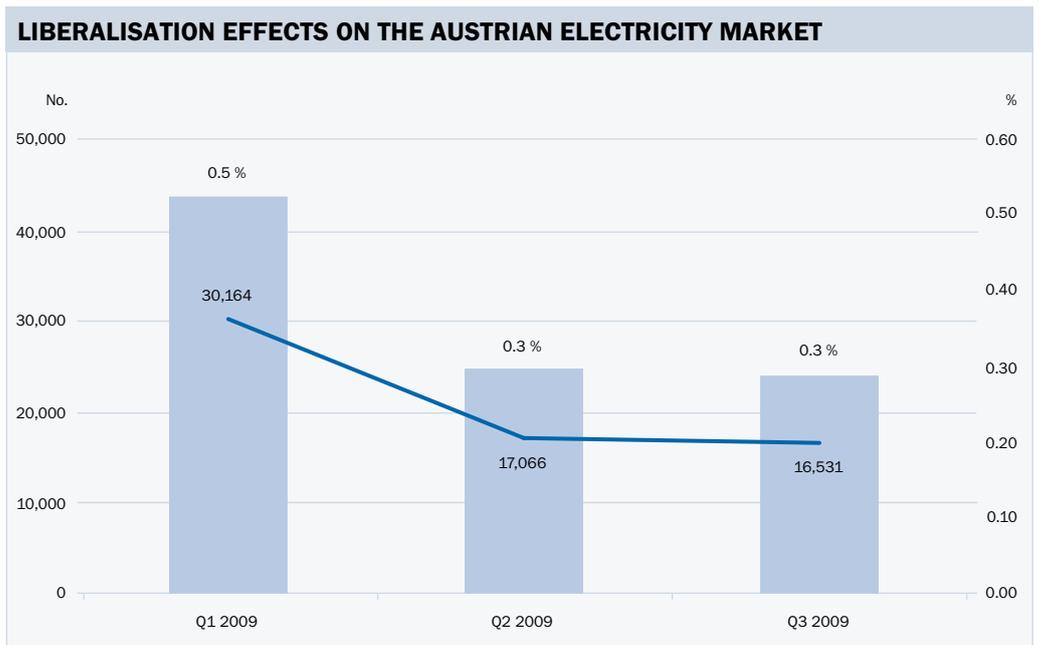


Figure 10
Switching rates among Austrian electricity consumers

Source: E-Control



Gas competition initiative

The gas competition initiative is designed to dismantle barriers to entry to the procurement and retail markets, and to improve information and transparency for consumers.

SUPPLY-SIDE IMPROVEMENTS FAILING TO MAKE THE GRADE

Lack of access to a sufficiently liquid wholesale market is the main barrier to functioning competition on the gas market. Congestion at all interconnection points entering Austria is still a major obstacle for new retailers. This fundamental problem remains unsolved despite the many abuse proceedings initiated to force the allocation of unused pipeline capacity, and the creation of the technical conditions for the establishment of a gas exchange. Access to border interconnection points is mainly blocked by contractual congestion, while physical pipeline capacity often remains unused.

Legislation under the umbrella of the Third Energy Package is required to improve the legal framework for the wholesale market. Without a virtual trading point and more efficient management of transmission system capacity, the Central European Gas Hub (CEGH) gas exchange will find it difficult to forge links with other European exchanges.

The issue of OMV and import contracts is also unresolved. OMV's pledge to withdraw from all its import contracts has still only partly been fulfilled.

IMPROVEMENTS FOR CONSUMERS LONG OVERDUE – ONLY VAGUE PROMISES FROM THE INDUSTRY

There is still little sign of a level playing field in the retail market. With the unbundling of incumbents' operations only fulfilling the letter but not the spirit of the law, dominant suppliers still have plenty of leeway to discriminate in favour of fellow group companies. Although compliance programmes are in place, they have not put a stop to such practices on account of their vague wording.

NO MAJORITY FOR A STRICTER CODE OF CONDUCT

To address this problem, E-Control and the Federal Competition Authority both proposed a code of conduct for gas system operators and suppliers which set out clear rules for the treatment of consumers. Unfortunately, after long negotiations it was not possible to persuade the gas companies to accept such a code for system operators, despite the clear benefits that this would have brought consumers.

Distorted competition still a problem



A BOOST FOR CONSUMERS' RIGHTS – ANNUAL FACTSHEETS FOR GAS CUSTOMERS

However, gas system operators did agree to send consumers annual factsheets informing them of the possibility of switching suppliers.

The authorities also suggested basing the design of gas bills on the sample format developed by E-Control. The Association of Gas and District Heating Supply Companies responded with a proposal based in part on the E-Control sample bill – a move which was welcomed by the Federal Competition Authority and E-Control. Whether this results in actual improvements for gas consumers will depend on how the idea is implemented. It is highly regrettable that the gas companies cannot be persuaded to make more voluntary improvements for Austrian consumers. This shows that changes to the legal environment are the only way to make such progress. The implementation of the Third Energy Package is an opportunity for this.

Traded volume (left) ■
 Physical throughput ■
 Number of traders (right) —

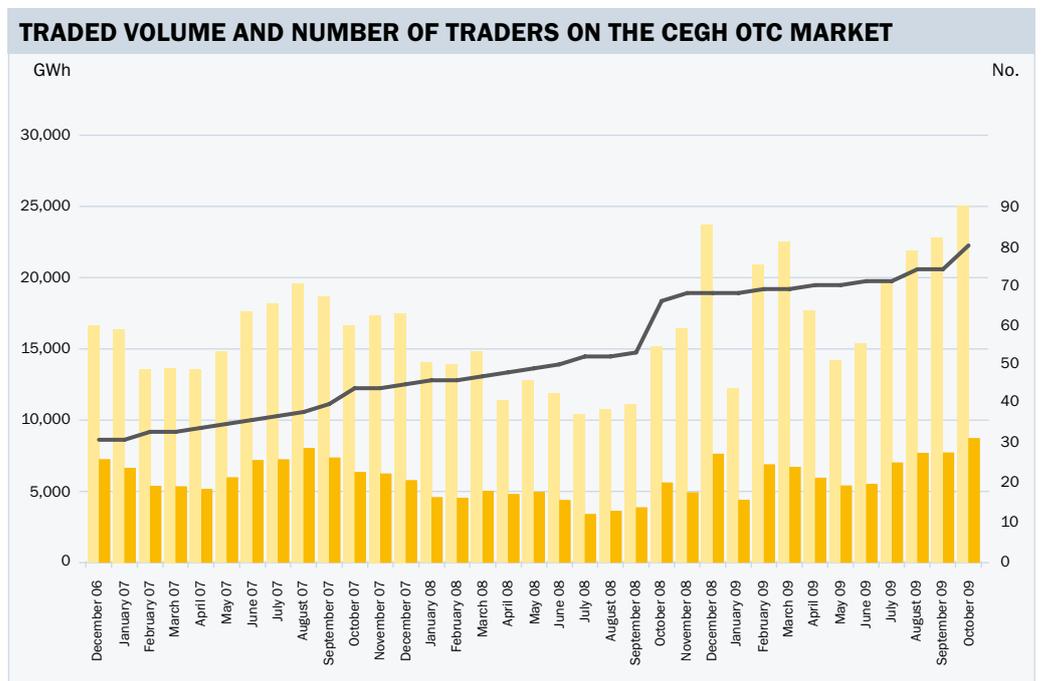


Figure 11
 Trading volumes on the CEGH market

Source: CEGH AG

DEVELOPMENT OF THE BAUMGARTEN TRADING POINT

The quantities of gas traded on the CEGH market rose once again in 2009, despite the suspension of trading in January as a result of the gas crisis. Meanwhile a start to the publication of daily price data by market information services increased price transparency.

AUSTRIAN GAS EXCHANGE LAUNCHED

Spot trading on the new CEGH gas exchange began on 11 December. The start of futures trading is planned for spring 2010. The exchange runs on the Vienna Stock Exchange's electronic trading platform. Stock exchange operator Wiener Börse AG is partnering CEGH AG and Leipzig EEX clearing subsidiary European Commodity Clearing AG (ECC) in the venture. ECC will be in charge of clearing, acting as a central counterparty.

Gas exchange launched

CEGH is responsible for physical settlement; at present this is only possible at the Baumgarten and Oberkappel interconnection points. CEGH AG is to be converted into a joint venture between OMV Gas & Power GmbH (30%), Gazprom Germania GmbH (30%), Centrex Europe Energy & Gas (20%) and Wiener Börse AG (20%), subject to clearance from the European Commission.

Companies wishing to take part in spot trading must apply in writing to CEGH AG for membership of the market. Participation is open to energy companies, business consumers, members of foreign energy exchanges, settlement agents as defined in the Gaswirtschaftsgesetz (Natural Gas Act) and banks.

To join, a member must meet at least one of the following conditions:

- > Membership of the Vienna Stock Exchange;
- > A licence entitling it to trade on a spot market (e.g. a business trading or banking licence);
- > A contract with a clearing and settlement agent;
- > Evidence that securities have been furnished in accordance with the ECC clearing rules;
- > A contract with ECC;
- > A hub contract with CEGH AG for physical settlement.

E-Control has no regulatory responsibilities in this matter beyond its general gas market oversight duties. We are still holding talks with the owners of CEGH AG on the formulation of a code of conduct for the spot market.

In the interests of increased price transparency, towards the end of 2009 CEGH began publishing three reference prices. The Baumgarten day ahead reference price (BDARP), for the over the counter (OTC) market, is the arithmetic mean of the daily OTC price assessments by the ICIS Heren und Argus Mediamarket information services and the London Energy Brokers' Association. The CEGH Gas Exchange of Wiener Börse posts current and historic spot prices at the Baumgarten and Oberkappel trading points – the Baumgarten Natural Gas Index (BGX) und Oberkappel Natural Gas Index (OGX) – on its website (www.ceghex.com). These prices are volume weighted, and are updated every 15 minutes.

COORDINATED GAS FLOW CONTROL CRUCIAL

Operational balancing accounts are crucial to the continued development of the gas trading point at the Baumgarten interconnection point.

After several years of talks and the initiation of market abuse proceedings by E-Control on 10 February 2009, the operators of the transmission systems adjacent to the Baumgarten interconnection point – OMV Gas GmbH, TAG GmbH, BOG GmbH and eustream a.s. – concluded an Interconnection Agreement for the Interconnection Point Baumgarten. This commits them to reaching bilateral technical IP agreements (IPAs), laying down the joint specifications needed for coordinated gas flow control, and implementing them by the end of August 2009.



Since these agreements had not been signed by October 2009, E-Control initiated further abuse proceedings against the TSOs concerned. Since the conclusion and implementation of technical IPAs is crucial to the physical settlement of exchange trades at the Baumgarten interconnection point, the failure to reach them threatened to delay the launch of the CEGH gas exchange. The agreements were signed at the end of October and implementation took place on 1 December 2009, opening the way for the launch of the exchange on 11 December 2009.





Using existing net

A hand is shown in the foreground, holding a white marker with a blue cap and drawing the words "works efficiently" in white, cursive script on the blue surface of a water slide. The background shows a crowd of people on a boat or pier, looking towards the slide. The scene is bright and sunny, with water splashing at the bottom of the slide.

works efficiently

> NETWORK REGULATION

E-Control is working on the right lines when it comes to efficient use of existing networks. The best example of this was the way that network regulation pushed down system operators' charges – to the benefit of all consumers, large and small.

The key to efficiency – network regulation

One of our main tasks is regulating the energy networks, which are a natural monopoly. Building on the results of cost audits, a stable long-term regulation system – known as incentive regulation – was introduced in the electricity sector in 2006, and the gas sector in 2008. A regulator of a natural monopoly should always seek to strike a balance between its objectives that will maintain political support and stability throughout a regulatory period. Under the incentive regulation system, annual adjustments are made to the system charges on 1 January of each year.

Adjustments to system charges bring cost reductions for consumers

The incentive regulation system for the electricity industry was introduced by the SNT-VO 2006 (System Charges Order 2006) on 1 January 2006; the order is amended on an annual basis. The first regulatory period expires on 31 December 2009.

Adjustments to the system charges entered into effect on 1 January 2009. The changes to the system charges (grid utilisation and grid loss charges) resulted in an overall reduction of EUR 6.8m in costs for end users. The total savings for consumers from liberalisation have now reached about EUR 500m.

The revised incentive regulation system that comes into effect on 1 January 2010 takes account of overall industry trends, and firms' efficiency performance, output and non-influenceable costs by applying a frontier shift of 1.95%, productivity offsets, an investment and operating cost factor, and the change in the system operator price index.

Agreement on second regulatory period

A "carry-over" mechanism has been developed to make the transition in the cost base from the first regulatory period to the second. This reflects current market conditions such as interest rates and current valuations of assets. In principle, the benefits of the efficiency gains achieved by system operators up to the end of the second regulatory period are to be split 50:50 between themselves and their customers. However, the January 2010 tariff determination has already assigned 25% of the efficiency increases identifiable on the basis of costs in the 2008 financial year to system users.



GOOD NEWS FOR EVERYONE – MORE INVESTMENT SECURITY

The most important new refinement of the regulation system is the investment and operating cost factor, which is now calculated on the basis of the actual evolution of capital costs. In order to ensure that only investments that are genuinely necessary are promoted and create appropriate investment incentives, the investment factor may also be negative. This eliminates any vagueness caused by the volume-cost factor and maximises investment certainty for system operators. The latter are rewarded for making necessary and sensible investments, but network users also benefit since they only have to bear the cost of investments that are actually made.

**Necessary investments
promoted**

Electricity transmission system operators are still subject to a cost-plus regulatory regime with annual cost audits and tariff reviews.

Future cost audits and tariff reviews are likely to be strongly influenced by heavy investment in the transmission grid and the decline in supply volumes in 2009.

Gas incentive regulation

The GSNT-VO 2008 Novelle 2010 (2008 Gas System Charges [Amendment] Order 2010) introduces adjustments to the system charges with effect from 1 January 2010. In 2009 market conditions (e.g. higher inflation and fuel gas costs) created an unfavourable calculation basis for the gas system charges. Moreover, the regulatory authority had to contend with a 2.1% volume decline. In spite of these factors, and the investment and operating cost factor, the E-Control Commission kept the tariff increase down to 5.1%.

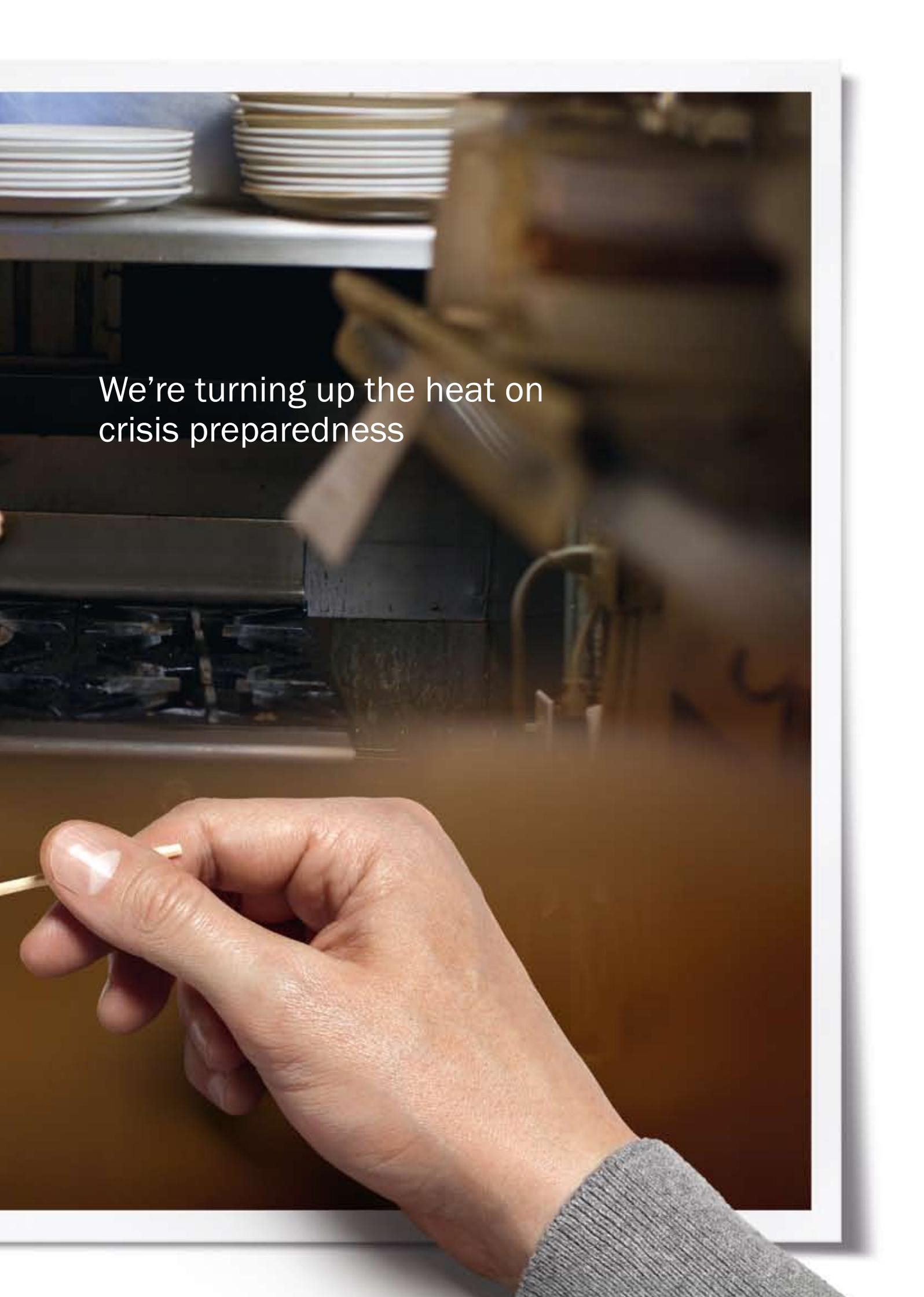
It is worth remembering that since the full liberalisation of the Austrian gas market in October 2002 the system charges have been reduced by an average of over 9% or EUR 50m.

Discussions are currently taking place on the transposition of the Third Energy Package. This legislation requires the introduction of an entry/exit model for the transmission system, which may in turn require changes in the tariff determination system.



> SECURITY OF SUPPLY

The 2009 gas row between Russia and Ukraine boiled up into a crisis. The fact that Austrian consumers' gas flames did not go out had a lot to do with E-Control's emergency planning. Austria is well prepared for worst case scenarios.

A close-up photograph of a person's hand holding a lit matchstick. The hand is in the foreground, with a grey sweater cuff visible at the bottom. The background is a kitchen, showing a metal shelf with stacks of white plates and a blurred stove area. The lighting is warm and focused on the hand and the matchstick.

We're turning up the heat on
crisis preparedness

Security of supply – in the heat of the kitchen

The two-week halt to Russian gas imports into Baumgarten demonstrated that Austria can cope with such a situation without resorting to emergency intervention measures and curtailing supplies to consumers in the Eastern control area, provided that full use is made of all the available market mechanisms. In 2009 E-Control continued to prepare for potential energy emergencies and monitor the supply situation closely. The gas supply cutbacks in January 2009 showed the importance of these activities.

Our supply security responsibilities include annual status reviews and involvement in crisis management mechanisms. We take account of the long-term dimension of security of supply by building investment incentives into the tariff determination process, and backing new infrastructure projects designed to ensure that power and gas will keep flowing in future.

Crisis test

Soft control

On 6 January 2009 imports of Russian gas arriving in Baumgarten fell sharply, and only about 10% of the usual quantity was received. This affected supplies to the Eastern control area and all downstream transit systems running through Austria (e.g. the TAG pipeline to Italy, the WAG and Penta West to Germany and the HAG to Hungary).

From 7–20 January 2009 there were no Russian exports to Baumgarten. The entire 60–70 million cubic metres (m³) per day of natural gas that travel via Baumgarten to Germany, Hungary, Italy and Slovenia was hit by the shutdown, and all of these deliveries were also suspended.

Deliveries returned to normal at about 7pm on 20 January 2009. Imports from Germany to Tyrol and Vorarlberg via the Oberkappel entry point were not affected by the supply cut.

Throughout the critical period demand in the Eastern control area was met by market-based measures. Peak demand was almost 2.1m cu m/hour on 13 January 2009.



SUPPLY CURTAILMENT AT ENTRY POINTS AND DAILY PEAK DEMAND IN THE EASTERN CONTROL AREA DURING THE SUPPLY CUT-OFF			
	% import curtailment, Oberkappel/Baumgarten	Peak demand in m cu m/h	Emergency response measures
6. 1., 16.00 h	0/33		Activation of crisis management system
7. 1.	0/100	1.85	Market based measures: > Mobilisation of additional balancing energy and storage capacity at Haidach > Increase in imports from Germany
8. 1.	0/100	1.90	
9. 1.	0/100	1.93	
10. 1.	0/100	1.74	
11. 1.	0/100	1.74	
12. 1.	0/100	2.03	
13. 1.	0/100	2.06	
14. 1.	0/100	2.01	
15. 1.	0/100	1.85	
16. 1.	0/100	1.77	
17. 1.	0/100	1.58	
18. 1.	0/100	1.47	
19. 1.	0/100	1.74	
20. 1.	0/0	1.66	

Figure 12
 Reductions in supplies to entry points and peak daily demand in the Eastern control area during the crisis

Source: OMV Gas and AGGM

SUPPLY INTERRUPTION BUT NO SHORTAGES

Austrian consumers' supplies were not cut off at any time. Demand in Austria was fully met by taking the following market-based measures:

- > **Importation of gas from the Haidach storage facility:** Unused storage capacity held by Gazprom Export at the Haidach gas storage facility – which is located in Austria but is not connected to the domestic gas grid – was made available at short notice to supply the Eastern control area, and supplies were imported via the German grid. The storage capacity was provided as a replacement for the deliveries from Gazprom Export that were held up by the supply disruption.
- > **Increased imports from Germany via Oberkappel:** All the suppliers imported increased quantities of gas via the Oberkappel interconnection point. These supplies were procured on the German gas markets. The imports via Oberkappel were handled using feed-in capacity reserved before the crisis.



The following demand-side measures helped manage the supply outage:

- > **Switching to substitute fuels by gas-fired power stations:** Power station operators made preparations to enable them to switch gas-fired generating units to substitute fuels (oil and coal) wherever possible.
- > **District heating fuel substitution:** The Vienna district heating system took broad-based voluntary action to substitute gas by other fuels.
- > **Coordination of domestic gas flows by the control area manager:** The control area manager of the Eastern control area, AGGM, played a key role in coordinating domestic gas flows, and in maintaining network stability by calling off balancing energy. AGGM based its activities on the survey data collected and analysed under the Erdgas-Energielenkungsdaten-Verordnung 2006 (Natural Gas Intervention Data Order 2006). Additional information exchanges were carried out at short notice, in close cooperation between government bodies, the regulator, market participants and AGGM.

The Austrian balancing group system and balancing energy market remained fully operational throughout the crisis. Some balancing groups faced difficulties in procuring gas supplies as a result of the import constraints, but these were solved by mobilising additional balancing energy.

IMPROVING EMERGENCY PREPAREDNESS BY LEARNING FROM EXPERIENCE

In 2009 E-Control continued to prepare for potential energy emergencies and monitor the supply situation closely.

The experience gained in January 2009 revealed a need to expand our forecasting and market monitoring activities, and E-Control therefore amended the Natural Gas Intervention Data Order 2006 on 1 July 2009. The main purpose of the amendments was to permit the imposition of extended reporting duties as soon as a significant gas import curtailment is identified; previously, the prior enactment of an emergency intervention order had been required. In the event of an import cutback of over 40% E-Control can now impose extended reporting duties on transmission companies, large consumers, operators of gas-fired power stations and balancing group representatives. Trial data transfers were successfully carried out on 18 November 2009.

**Electricity Intervention Data
Order amended**

In the interests of increased transparency, a gas industry emergency response manual has been prepared. It outlines the principles and organisational procedures to be observed by the government authorities and market participants entrusted with the formulation, coordination and operational implementation of intervention measures under the *Energie- lenkungsgesetz* (Energy Intervention Powers Act). The procedures for curtailing gas use by large consumers (power stations and industrial consumers) in the event of an outright gas crisis were discussed with the companies concerned. The subsequent revisions to the procedures take account of the experience picked up in January 2009 and improved monitoring by E-Control.

We carried out another emergency response exercise on 1 December 2009. The exercise focused on simulating reductions in gas use by large consumers (two industrial companies and three power station operators) in a crisis scenario; AGGM and the system operators concerned took part.

Thanks to the extensive preparations that have been made, and the refinements to the system, Austria will be still better placed to cope with future gas shortages.

Blueprint for the future – electricity and gas grid development planning

By law control area managers are responsible for load frequency (electricity) and pressure (gas) control in their control areas, and hence for maintaining network stability; the latter duty also involves drawing up long-term infrastructure development plans. These are aimed at ensuring that network capacity is sufficient to meet the demand for transport capacity to supply consumers, even in emergency situations, and maintain a high level of system availability (adequate infrastructure to maintain security of supply). All market participants have a legal duty to participate in the preparation of long-term plans. The execution of electricity and gas transmission network development projects based on the long-term plans approved by the regulator is the responsibility of the system operators.

Under section 22a EIWOG (Electricity Act) the responsibility for approving the control area managers' long-term plans lies with the Ministry of Economy, Family and Youth. E-Control is required to provide expert opinions on the plans. So far our assessments of all of the control area managers' long-term infrastructure projects have been positive.

Planning ahead for
infrastructure development

Millions for infrastructure projects

NEW CAPACITY IN THE PIPELINE

The E-Control Commission is responsible for approving long-term plans for the gas sector. Following a multi-year planning phase during which various options were investigated, and the conclusion of multilateral contracts, a supraregional development programme based on the long-term plan prepared by the control area manager for the Eastern control area, AGGM, is now in place. In all, some 44 km of new pipelines will be laid in 2010. The three system operators concerned will be investing some EUR 34m in these infrastructure projects. The expansion schemes will eliminate the main bottlenecks in Lower Austria and Styria, and meet the long-term growth in demand for transmission capacity. The development projects on the southward route, scheduled for completion in September 2011, will mean that the recently approved Mellach gas-fired power station is assured of adequate supplies.

There when you need it

E-Control has been collecting electricity supply interruption statistics (outages and disturbances) from all Austrian system operators since 2002, under the Elektrizitätsstatistikverordnung (Electricity Statistics Order). The data makes it possible to assess supply reliability in Austria.

Precise international comparisons are difficult because in many cases the classifications of exceptional events differ from country to country (see 4th Benchmarking Report²). Nevertheless, it is safe to say that Austria comes out very well in international comparisons. *Figure 13* gives an impression of the wide variations in the results of reliability surveys in Europe.

² CEER, 4th Benchmarking Report on Quality of Electricity Supply, 2008; http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_ERGEG_PAPERS/Electricity/2008/C08-EQS-24-04_4th%20Benchmarking%20Report%20EQS_10-Dec-2008_co.pdf



**EUROPEAN COMPARISON OF ELECTRICITY SUPPLY NON-AVAILABILITY
(non-availability in minutes)**



(1), (2) SAIDI unplanned including exceptional events
(3) ASIDI

(4), (5), (6), (7) SAIDI; interruptions on MV networks not attributable to exceptional events

Sources: NMA (NL), Bundesnetzagentur (D)
Source: Energie-Control GmbH, 2008

Sources: AEEG (I), HEO (HU), Ofgem (UK), ERSE (PL)

Figure 13
Annual non-availability of electricity supplies on medium-voltage networks in selected European countries (Austria: excluding disturbances caused by hurricanes Paula and Emma in January and March 2008, respectively).

Source: E-Control

The chart shows that supply reliability in Austria was once again excellent, as in preceding years. The result of the supply reliability survey for 2008 shows that average system interruption duration has fallen further in recent years, to reach 43.69 minutes (2007: 45.47 minutes). Non-availability is chiefly influenced by weather conditions. Two natural disasters – hurricanes Paula (26 – 28 January 2008) and Emma (1 March 2008) – were eliminated from the analysis. The calculation for duration of the interruptions attributable to these two events alone yields 42.014 minutes.



In 2008 unplanned supply interruptions averaged 43.69 minutes. Planned supply interruptions were 19.58 minutes. Recorded supply interruptions thus averaged a total of 63.27 minutes. Comparing interruptions with annual hours of power supply yields a continuity ratio of 99.99% for Austria in 2008 – further confirmation of the country's good performance. In 2008 the average number of interruptions (planned and unplanned) in Austria was 0.938 per customer.



So the lights stay on – E-Control long-term forecast

In 2009 we used our proprietary MEDA.09 demand model to forecast the balance of electricity supply and demand up to and including 2018.

Final electricity consumption is projected at 67,272 GWh in 2018. This corresponds to average annual demand growth of 1.4% or 855 GWh. A key parameter of demand forecasts is estimated GDP growth. The E-Control forecast applied an average growth rate of 2.4%, but this was reduced for the 2009 – 2011 period because of the current economic situation.

Forecast electricity consumption in 2018 corresponds to a peak load of about 12,015 MW.

To assess whether the current very comfortable safety margin provided by domestic generating capacity will persist until the end of the forecast time horizon, E-Control compiled information on planned investment in power stations and closures. According to this data, installed capacity should total 27,246 MW in 2018. This figure reflects the rating of projects according to the probability of their implementation. The result indicates that the capacity safety margin is likely to increase. There are considerable differences from the previous forecast, particularly with regard to projected peak load. In 2007 annual growth up to 2018 was put at an average of 206 MW, whereas in 2009 growth of only 168 MW was predicted. The reason for the revision is the lower GDP growth rate assumed on the basis of recent economic forecasts.

Figure 14 shows the forecast breakdown of generating capacity by power station type.

Forecast power generation capacity in Austria in 2018

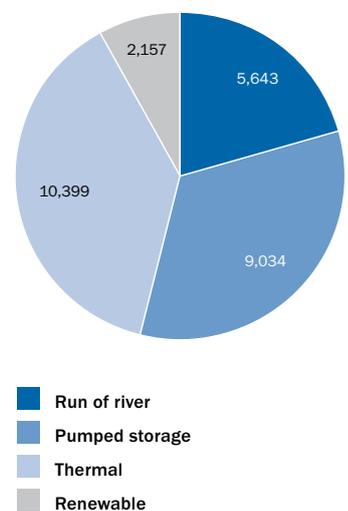


Figure 14
Austrian generating capacity in 2018 (MW)

Source: E-Control

Little things often make more of a difference than we think



A hand holding a blue marker is writing '22°' on a whiteboard. A blue arrow points from '22°' to '21°' on the left. In the background, a person's feet are visible on a light-colored sofa, and a bookshelf with books is partially visible.

21° 22°

> SUSTAINABILITY

If your heart tells you sustainability is the way to go, you need to use your head too. If we keep energy use within sensible bounds there will be more for everyone – more resources, more for future generations, and more money in our pockets. And that doesn't mean sacrificing any comfort.

Thinking ahead and rethinking – for true sustainability

Sustainable energy supplies depend on reduced energy consumption and increased use of new technologies. Pumping money into green power is pointless if the output gains are eaten up by runaway energy demand growth. Cutting energy demand will be a much tougher challenge than handing out subsidies for renewables, since energy is the lifeblood of every sector of the economy. That is why action on energy efficiency needs to be stepped up. E-Control is supporting these efforts.

Increased priority for renewable energy

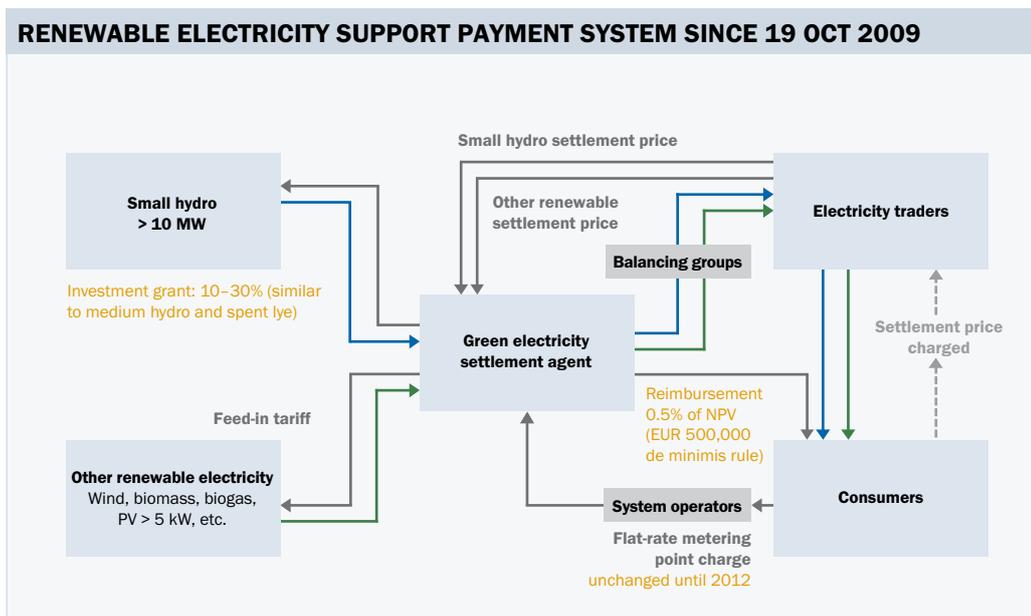
The Ökostromnovelle³ (Green Electricity [Amendment] Act) has shifted the balance of renewable electricity subsidies in favour of new hydropower stations and wind farms. The development targets of the amended act are: 700 MW of additional hydropower (350 MW of small and medium hydro capacity, attracting 20% and 10% investment grants, respectively, and 350 MW of unsupported large hydro capacity, resulting in 3.5 TWh of additional power output); 700 MW of additional wind power (additional power output of approx. 1.5 TWh); as well as 100 MW of biomass capacity, provided that sufficient feedstock is available (additional power output of approx. 0.6 TWh). By way of comparison, in 2008 gross domestic energy consumption was 1,428 PJ (396.9 TWh), and gross domestic electricity consumption was 70.9 TWh⁴.

The Green Electricity (Amendment) Act also makes other changes. These include a new target of a contribution by supported renewable generating stations of 15% of total supply from the public grid by 2015. The act also introduces new feed-in tariffs for all technologies and changed guarantee periods for the tariffs (15 years for feedstock-dependent technologies and 13 years for all other renewable electricity technologies). In future support for photovoltaic (PV) arrays smaller than 5 kWp and for small hydro stations is to come from investment grants. The feed-in tariffs payable to existing biogas plants will continue to be subject to feedstock surcharges of up to 4 cent/kWh if this is necessary for them to cover their operating costs due to increases in feedstock prices. There will also be an additional EUR 21m annual budget for subsidies to new renewable generating stations (10% earmarked for PV arrays with capacities of more than 5 kW). These support payments are to take the form of appropriate feed-in tariffs over the entire guarantee period of 13 or 15 years from commissioning.

Figure 15 depicts the support system under the Green Electricity (Amendment) Act.

³ BGBl (Federal Law Gazette) I no 104/2009

⁴ Source: Statistics Austria



- Green line: Renewable electricity flow
- Blue line: Small hydro flow
- Black line: Financial flow
- Grey line: Financial flow from trader to consumer
- Yellow line: Changes since Green Electricity (Amendment) Act 2009

Figure 15
Renewable electricity support payment system under the Green Electricity (Amendment) Act, BGBl I no 104/2009

Source: E-Control, July 2009

The output of all the forms of renewable electricity supported under the Green Electricity Act expanded rapidly between 2002 and 2008. However growth tailed off somewhat in 2008, when a total of 46.8 TWh of renewable electricity was generated.

“Other” renewable electricity (wind, solid biomass, biogas, liquid biomass and PV) rose particularly sharply, to reach 4,496 GWh (2002: 412 GWh). Meanwhile offtake of small hydropower by the green power clearing and settlement agent OeMAG was highly volatile. Volumes have been falling since 2004, as with market prices buoyant, many small hydropower plant operators have decided to leave the OeMAG feed-in tariff system and sell power on the open market.

Subsidies to renewables, measured by the difference between supported feed-in tariffs and market prices plus balancing power for schedule deviations and administrative expenses, amounted to EUR 252m in 2008.



**Still room for improvement
in renewable technologies**

Targeting energy saving

The new renewable technologies did not make any significant progress towards commercial maturity in 2008. For example, at 7.8 cent/kWh the feed-in tariff for wind farms was 22 % higher than the average market price of 6.4 cent/kWh. The rate for electricity generated from solid biomass was 110% higher at 13.6 cent/kWh, and that for PV 840% above the market price at 60 cent/kWh.

Support payments to biogas plants – which attracted a feedstock surcharge of 3.91 cent/kWh in 2008, raising the average feed-in tariff to 17.7 cent/kWh (180 % of the market price) – surged in 2008.

Subsidies under the Green Electricity Act currently add an annual EUR 35 to the average household's electricity bills. By 2015 another EUR 10 – 12 could be added to green power costs per household. The extra cost burden due to the higher prices of household products caused by the increased cost of the power used to make them is roughly the same again.

IF WE MAY MAKE A SUGGESTION

Section 25 Green Electricity Act requires E-Control to draw up annual reports reviewing attainment of the objectives of the act and changes that have taken place as compared to previous years. These reports may include recommendations for improving or adjusting the support mechanisms and other arrangements provided for by the act. Since the renewables share (which the act aims to increase) is influenced by overall demand, the reports now devote increased attention to electricity consumption trends.

The recommendations of the 2009 green electricity report include:

- > An energy consumption reduction target to attain the climate goals. The green paper on energy efficiency published by E-Control in 2008 proposes a package of measures that would cut overall energy consumption if they were energetically and transparently implemented. The current economic crisis calls for a review of the energy consumption forecasts and policy options. Efforts should be made to leverage the restructuring programmes prompted by the economic crisis to reduce energy use. Energy consumption is likely to decline in 2009 and 2010.
- > Accelerated development of hydro and wind power, as they do not depend on the availability of biomass and there is no risk of their draining raw materials from other sectors.
- > Integration of wind power in the overall electricity supply system. Wind power is set to continue to grow across Europe.
- > Efficient use of biomass, primarily for district heating (higher efficiency), with electricity only generated as a by-product.
- > Efforts to prevent feedstock shortages and resultant inflationary spirals (higher prices leading to higher support payments, worsening supply tightness, and so on) which would affect not just energy prices but the entire biomass and agricultural commodity markets – especially food prices.

Because efficiency counts – smart meters

Smart meters are digital devices that record energy consumption at frequent intervals and can be remotely read. They also have new features that conventional meters lack. They support additional services, which are inexpensive because they can be remotely controlled and fully automated. Smart meters are intended for blanket installation across large supply areas, and therefore generally differ from other, more specialised meter types, such as load profile meters, in their design, installation and data transmission technology.

Intelligent metering systems record power use at frequent intervals.

If Austria is to adopt a transparent, supportive and pro-competitive approach to smart metering that brings equal benefits to all consumers and market players, it will be vital to create a regulatory framework for nationwide standardisation of system specifications and functionality.

THE SMART APPROACH TO SMART METERING

The European Commission's Third Energy Package requires EU member states to equip energy consumers with "intelligent metering systems". It states that at least 80% of all electricity consumers are to be equipped with smart meters, in the event of a positive assessment of the roll-out of such devices.

Member states are also called upon to ensure that the intelligent metering systems implemented are interoperable. In addition, they must ensure that consumers are given access to their consumption data free of charge.

A BIG FUTURE IN AUSTRIA

E-Control began discussing the nationwide introduction of standardised smart metering systems in Austria in 2006.

Due to the fact that Austrian system operators have already launched a number of smart metering projects, and in light of the above provisions of the Third Energy Package, during the summer of 2009 we decided to press for an agreement with the Austrian electricity and gas industries on the implementation of the technology in Austria. Because of this E-Control drafted a uniform list of minimum requirements, designed to protect the rights and benefits of all system users in Austria in a transparent manner. We are hoping to conclude an agreement with the industry associations in the course of 2010.



E-Control currently regards rapid, almost nationwide roll-out of electricity and gas smart metering as realistic. To achieve this, the following issues need to be kept in mind:

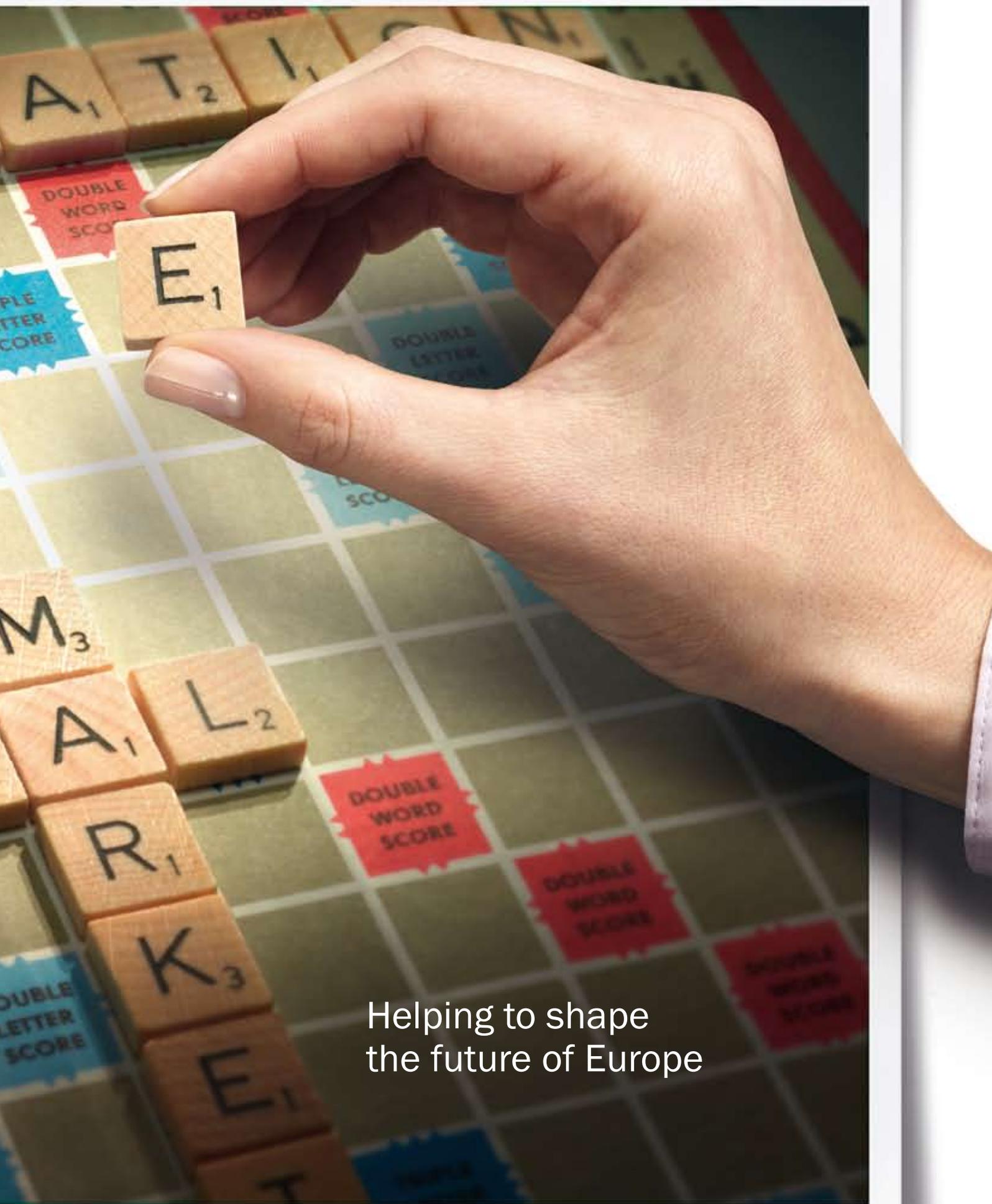
- > Near-nationwide introduction in the electricity and gas industries should be based on a common platform for consumer data communication and information (access to own data), conforming to uniform standards.
- > Use of the data collected by smart metering systems should be open to a wide range of purposes, provided that the legal data protection requirements are observed.
- > Smart metering will not benefit consumers unless the energy consumption data is interpreted in a customer-friendly and holistic fashion. In particular, consumers need to be aware of their total energy consumption over time, and the potential cost savings open to them.
- > A common approach to, and integration of other energy forms (e.g. oil and pellets) and ambient conditions (e.g. room and outside temperatures) is important.





> MARKET INTEGRATION

Energy has to keep flowing – across borders, too. That’s why European energy market integration is one of our top priorities. We are working today to shape the future of Europe’s energy sector.



Helping to shape
the future of Europe

We take market integration seriously

Market integration is one of E-Control's key strategic goals because it is crucial to increased competition. E-Control is supporting efforts to knit markets closer together, and to leverage the potential benefits for Austrian gas and electricity consumers by playing an active role in developments at European level.

Our statutory duties include taking part in cooperation aimed at further progress towards a European internal energy market. E-Control assists the European Commission in its efforts to create the conditions for increased market integration. This responsibility is principally fulfilled by playing an active part in the work of the Council of European Energy Regulators (CEER) and the European Regulators' Group for Electricity and Gas (ERGEG). The main task of CEER is to prepare work for ERGEG – an advisory body set up by the Commission.

The central aim of cooperation between European regulators through CEER and ERGEG is to create compatible, cross-border codes to facilitate market integration at all levels. The task forces and working groups devote much of their time to drawing up position papers and guidelines of good practice (GGPs). The latter are usually not directly legally binding, but compliance with the GGPs can be monitored, and it is relatively easy to convert elements of them into binding regulations.

EVERY MARKET IS DIFFERENT – AND THERE IS A LOT WE CAN LEARN FROM THAT

E-Control also cooperates with other regulators at regional level, through the electricity and gas Regional Initiatives.

By participating in these initiatives, and the related working groups, E-Control has a seat at the table in European decision-making processes, meaning that market conditions in Austria that differ from those elsewhere are taken into account.

Collaboration at EU level – CEER and ERGEG laying the groundwork for the future European regulatory framework

In 2009 the joint activities of the European regulators conducted through CEER/ERGEG largely concerned the entry into force of the Third Energy Package. The legislation provides for



the establishment of an Agency for the Cooperation of Energy Regulators (ACER). The agency is to develop framework guidelines on a number of issues including third-party network access, cross-border congestion management, the exchange of balancing energy, and network security and reliability, including rules for technical transmission reserve capacity for operational network security. The regulators are currently preparing the work of the Agency in order to ensure that they are in a position to comply rapidly with the requirements of the Third Package. Due to the wide range of topics, priorities have been agreed with the European Commission.

**Framework guidelines on
a wide range of topics**

ERGEG has drawn up a framework guideline on capacity allocation and recommendations for congestion management for the gas industry. The European Commission can make the recommendations on congestion management legally binding by the comitology procedure established by Article 9 Gas Transmission Regulation (Regulation [EC] 1775/2005). The new code is designed to simplify the reservation of capacity at interconnection points at borders and market boundaries.

The main focus of work for the electricity market has been on the formulation of GGPs for balancing market integration and grid connection, and consultations on these. E-Control has participated in drawing up recommendations for the future coordination of European TSOs' ten-year investment plans, and the regulators' position on smart grids. The GGPs, or parts of them, can subsequently be transformed into binding codes, and compliance monitored.

We are also involved in international activities related to consumers. The ERGEG Customer Working Group (CWG) is dealing with consumer issues. The work of the CWG is largely subdivided into that of the Customer Empowerment Task Force and the Retail Market Functioning Task Force. The Customer Empowerment Task Force is chiefly devoted to the protection of energy consumers and improving information supply to end users, while the Retail Market Functioning Task Force is concerned with the analysis and design of the retail market as such.

ERGEG has also drawn up recommendations on the European ten-year network development plan, and consulted market participants about it. The Third Energy Package requires TSOs to prepare ten-year network development plans every two years. There are similar requirements for regional and European ten-year plans. The regulators see these plans as a valuable instrument for stimulating competition in Europe and maintaining security of supply.



Think global, act regional

EREG has launched the Regional Initiatives in order to drive progress towards the single European energy market via the interim step of regional markets, and to tackle practical impediments to market integration.

The legal foundations of these activities are: (i) the duty to maintain security of supply under the Gas Security of Supply Directive (2004/67/EC); and (ii) the duty to create cross-border competition under Directive 2003/55/EC. Directive 2009/73/EC, which is due to enter into effect in March 2011, also provides for enhanced regional cooperation – particularly in Article 7(1).

ELECTRICITY REGIONAL INITIATIVE (ERI)

The ERI is divided into eight regional electricity markets. E-Control acts as the coordinator of the Central-East European (CEE) region, which comprises Austria, the Czech Republic, Germany, Hungary, Poland, Slovakia and Slovenia. Austria also belongs to the Central-South region, along with France, Germany, Greece, Italy and Slovenia.

Due to the high level of integration with Germany, Austria is inherently linked with the Central Western Europe region, consisting of Belgium, France, Germany, Luxembourg and the Netherlands. Since 2007 the Austrian Ministry of Economy, Family and Youth, control area managers, the EXAA electricity exchange and E-Control have had observer status at meetings of the Pentalateral Energy Forum – an initiative of the ministries concerned.

The pivotal issues involved in enhancing market integration are congestion management, market transparency, and the establishment of and cooperation between wholesale markets. The CEE region also focuses on overcoming barriers to market entry and harmonising regulatory powers.

In 2008 an auction office was set up in Freising, near Munich, as a joint subsidiary of the control area managers concerned, to coordinate cross-border congestion management by means of load flow-based capacity allocation at all the interconnection points in the CEE region. Last year the CEE control area managers continued with preparations for implementation of the new system, and held a number of workshops for market participants.

The conditions have now been created for all concerned to take part. Adaptations to market participants' IT systems are particularly important in this respect. Extended dry-runs, involving market participants, were carried out during the second half of 2009, and these will continue in 2010.

New allocation method to bring efficiency gains

The new capacity allocation method should bring benefits for consumers across the entire CEE region due to its increased efficiency, and reflect physical grid conditions in the region more accurately. Due to the adjustments and trials required, the launch of the system has been put back to 2010.

Discussions of capacity allocation in the Central-South European (CSE) region, in which the European Commission took part, led to the conclusion that the auctions should be conducted by the Capacity Allocation Service Company (CASC) auction office set up for the Central-West region. The CSE regulators are currently preparing an implementation plan and will consult stakeholders on it. A reporting structure has been devised to assist in objective assessment of the efficiency of existing capacity allocation methods. This should yield reliable information on the status quo.

The Electricity Regional Initiative process is continuing in 2010. The Third Energy Package may result in some organisational changes. The ERI will again concentrate on implementation and high-level coordination.

MOVING IN THE RIGHT DIRECTION – SSE GRI REGION

The Gas Regional Initiative (GRI) has three regional gas markets – North-West, South and South-South East. E-Control co-chairs the GRI South-South East (SSE) region with the Italian regulator AEEG. The membership of the SSE region consists of: Austria, Bulgaria, the Czech Republic, Greece, Hungary, Italy, Poland, Romania, Slovakia and Slovenia.

GRI PROMOTES COOPERATION AND SOLIDARITY

Cooperation and solidarity were the big issues for the SSE region in 2009. Following the halt to transits of Russian gas via Ukraine in January 2009, which hit the region particularly hard, SSE decided to make security of supply one of its priorities.

Besides the expanded cooperation between national regulators and TSOs, initiated in 2008, it was regional solidarity, such as the mutual aid between Bulgaria and Greece, that enabled the worst affected countries to receive immediate assistance in the form of replacement deliveries. In the run-up to the Sofia and Budapest meetings, SSE members circulated a “lessons learnt” study and a list of potential short and medium-term actions to stakeholders. In addition, the region together with GTE+ drew up a report on potential short-term investments in flexibility mechanisms for gas flow control in the case of supply cuts in the SSE region.

ENTRY BARRIERS IN THE SSE REGION

A study on technical and operational harmonisation needs in the region was published in 2009. This showed, among other things, that differences in nomination periods, standard contract durations and allocation rules were impediments to cross-border gas transportation. The findings of the study will serve as the basis for the TSOs’ 2010 work programme.

In 2009 E-Control commissioned an update of this study, which investigated entry barriers in cross-border gas trade in Austria, the Czech Republic, Germany, Greece, Hungary, Poland, Slovakia and Slovenia. The European Federation of Energy Traders (EFET) provided assistance in obtaining survey responses from traders in the region. It emerged from this study that traders throughout the region face massive daily difficulties. Lack of non-discriminatory access to storage and transport infrastructure remains the chief obstacle to short-term cross-border gas trading. Many of the difficulties are self-inflicted, and could be overcome at no additional expense with a measure of good will.

The trader survey revealed that 89% of all respondents would welcome an independent operator that coordinated cross-border access to transport capacity. Giving shippers a strong partner for cross-border transportation would require close cooperation between TSOs. At present system users must negotiate with each TSO separately to transport gas across borders.



Another means of simplifying cross-border trade in gas would be the introduction of standardised transportation contracts. Harmonisation of cross-border transportation contracts was favoured by 87% of respondents. Traders also named differences in nomination rules, technical definitions such as that of the gas day, capacity allocation procedures, congestion rules and contract durations as barriers to trade.

Data confidentiality is a highly sensitive issue for traders. They are suspicious of trading hubs owned by dominant wholesalers that are also involved in providing transportation and storage services related to gas trading. In the absence of appropriate unbundling rules, action needs to be taken to ensure that information is not abused to strengthen the market position of the owner of a gas exchange.

Austrian market stepping on the gas

The survey results show that strengthening Austria's Baumgarten trading hub would have a positive impact on competition and security of supply. However, market access needs to be simplified, and market independence improved. If liquidity is to be improved it will be vital to ensure that information on the use of physical hub services by gas traders remains confidential. CEGH's services have already been steadily developed in consultation with the traders, despite the complexity of an environment made up of a number of system operators.

NEW LOOK CEGH – SYSTEMATIC IMPROVEMENTS

A major success for Baumgarten-based Central European Gas Hub came in two stages. The SSE region helped broker a deal between TSOs OMV Gas GmbH, BOG GmbH, TAG GmbH und eustream a.s., whose transmission pipelines meet in Baumgarten, that led to the signature of an interconnection point agreement (IPA). Among other things, this agreement provides for CEGH to assume responsibility for the central matching activities under the new system.



The next step was a service level agreement and operational balancing agreements establishing the technical details of system management – chiefly gas flow monitoring and capacity allocation. This meant that the main regulatory hurdles to the launch of a gas exchange in mid-December 2009 had been overcome. The new exchange is intended to provide traders in the region and beyond with a liquid and reliable market, and act as a regional balancing point in future.

As part of the SSE region's transparency work, in 2009 seven of the ten regulators published guidelines for importing and supplying natural gas to customers in their respective markets in order to facilitate market access for potential suppliers and shippers.

Implementing the Third Energy Package – binding rules to promote market integration

The 2010 CEER/ERGEG work programme will centre on moving towards the future European regulatory framework. Close cooperation with the European association of gas TSOs (GTE+/ENTSOG) will be crucial to progress on this front.

The Third Energy Package requires electricity and gas TSOs, working through the European Network of Transmission System Operators (ENTSO), to develop binding network codes for integrated markets. These will lay down rules for transparency, third-party access, operational procedures in emergencies, energy efficiency, investment coordination and other areas.

This depends on the TSOs acting in a disinterested manner. It also requires integrated groups that still combine network operation, production and trading to unbundle network operation from the rest of their business. The Third Energy Package offers three options for this. Austria has chosen the ITO option⁵.

⁵ The ITO option maintains the usual integrated group structure, with network operation, production and supply functions, but obliges the undertaking to observe different rules which ensure that the two parts of the undertaking operate independently from each other in practice. This involves:

- > A supervisory body composed of members representing the vertically integrated undertaking, members representing third-party shareholders and the transmission system operator, responsible for "decisions which may have a significant impact on the value of the assets of the shareholders";
- > A compliance programme which sets out the measures taken "in order to ensure that discriminatory conduct is excluded, and ensure that the compliance with that programme is adequately monitored";
- > A compliance officer who monitors compliance with the programme;
- > "Cooling-off periods" during which managers may not be employed by the energy supplier for three years (or six months) before and for four years after the termination of their office with the transmission system operator;
- > Safeguards for investment through intervention powers granted to the regulator.

E-Control has two central goals with regard to the implementation of unbundling:

- > Liquid gas trading – Austria’s function as a gas trading hub (the current situation with a large number of TSOs is unsatisfactory). Unbundling must therefore be implemented in such a way that traders meet with a single tariff scheme and the ability to use the transportation networks efficiently.
- > Lower costs and overall benefits for consumers. Austrian consumers should not be burdened with additional costs by a structure with a large number of ITOs.

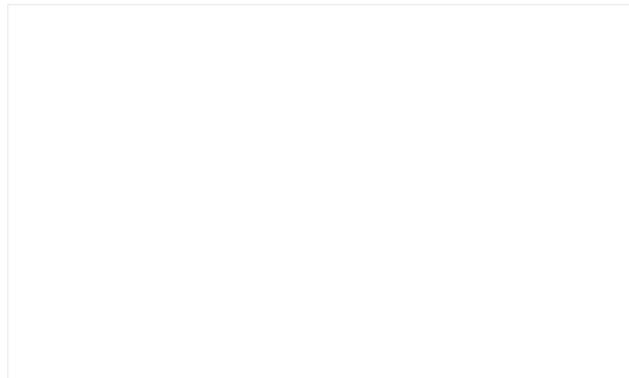
BENEFITS WITHOUT FRONTIERS – COORDINATION VIA ACER

The new Agency for the Cooperation of Energy Regulators provided for by the Third Energy Package will play a central role in market integration. It will be heavily involved in developing the ENTSO codes and will also have the following functions:

Oversight and monitoring of the ENTSOs;

- > Monitoring duties, including oversight of competitive conditions in the electricity and natural gas sectors – especially retail prices, network access and compliance with consumer rights.
- > Closer coordination of national energy regulators.
- > Filling the “regulatory gap” by establishing a decision-making body if the national regulators are unable to agree.

In December 2009 it was decided that ACER will be headquartered in Ljubljana. The influence of small member states in ACER will be no less than that of the large ones like France and Germany, as decisions will be taken on the basis of one member state, one vote.



Editorial

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