MARKET REPORT 2013
NATIONAL REPORT TO THE EUROPEAN COMMISSION

E-CONTROL

A BETTER DEAL – WHEREVER THE MARKET GENERATES FRESH MOMENTUM.

WORKING FOR YOU – WHEREVER YOU NEED ENERGY.

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KEY MARKET DEVELOPMENTS IN 2012

Electricity and gas market indicators

ELECTRICITY INDUSTRY: KEY INDICATORS
Total domestic electricity consumption rose by 657 GWh or 1.0%, to 68,992 GWh in 2012.

The total output of the run-of-river power stations was 6,159 GWh or 24.3% up year on year, at 31,476 GWh. Generation at pumped storage power stations was 16,095 GWh, for a gain of 3,669 GWh or 29.5%. Large-scale wind farms generated around 2.5 TWh – an increase of about one-fifth. Meanwhile generation at thermal power stations dropped by 3,869 GWh or 14.9%, to 22,064 GWh.

GAS INDUSTRY: KEY INDICATORS
In 2012 total domestic natural gas supplies to consumers fell by 4.6% to 91,204 GWh or 8,151 million (m) normal cubic metres (N cu m). Physical gas imports declined by 36,706 GWh or 7.5%, to 451,493 GWh, while physical exports decreased by 15,785 GWh or 4.1%, to 368,683 GWh, meaning that the physical trade deficit contracted by 20,921 GWh to 82,810 GWh.

A seasonal analysis reveals that Austria became a net exporter in February 2011, as a result of additional exports from the Upper Austrian storage and production systems to Germany.

PRICE TRENDS IN 2012
Gas prices advanced throughout the first half of 2012, and the run-up was in the first quarter particularly strong, at 11% year on year. The upward pressure eased in the second half of the year, giving way to electricity price rises.

THE ELECTRICITY MARKET IN 2012

	GWh (2012)	Change vs. 2011
Gross electricity generation	72,403	+9.9 %
Physical imports	23,264	–6.8 %
Physical exports	20,455	+21.9 %
Consumption from pumped storage	5,563	+10 %
Domestic electricity consumption	68,992	+1 %
Peak demand (MW)	10,113	+4.0 %

Table 1
The electricity market in 2012

Source: E-Control

THE GAS MARKET IN 2012		
	GWh (2012)	Change vs. 2011
Imports	451,493	–7.5 %
Production	20,216	+7.3 %
Withdrawals from storage	46,245	+44.3 %
Exports	368,683	–4.1 %
Injection to storage	53,326	–1.5 %
Own use and losses	4,742	–2.5 %
Final consumption	91,204	–4.6 %
Max. hourly consumption	28.28	+14.0 %
Min. hourly consumption	3.945	+2.9 %

Source: E-Control

Table 2
The gas market in 2012

CHANGE IN OVERALL CPI VS. ELECTRICITY AND GAS PRICE INDEXES, %

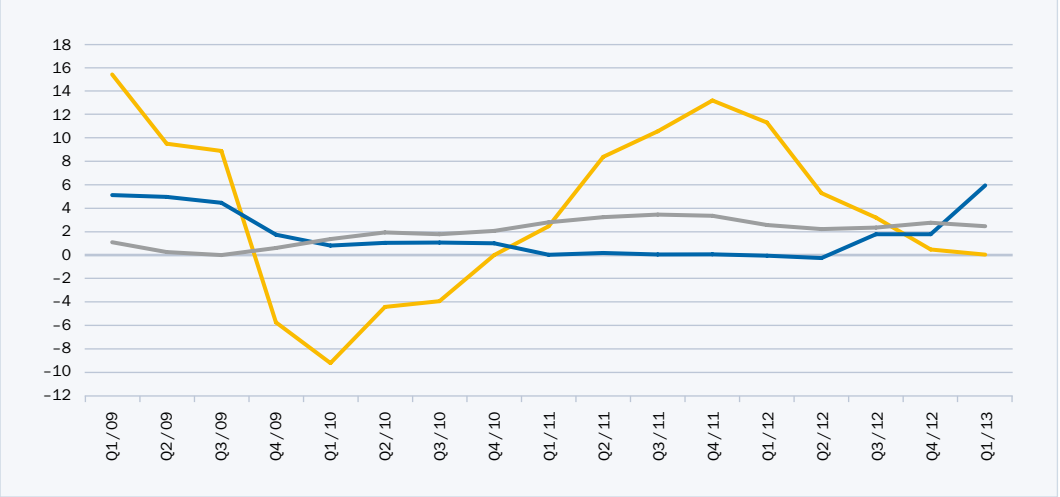


Figure 1
Changes in the Austrian consumer price index (CPI), and the electricity and gas price indexes

Source: Statistics Austria

Key market developments

ELECTRICITY MARKET

2012 brought more gloomy economic forecasts and a decline of around 10% in forward/futures wholesale prices for 2013. The main reasons for weak prices, besides bleak sales expectations, were continued increases in investment in renewable generating technologies, low coal prices and the continued squeezing out of high-price gas-fired power station capacity from the market.

Use of gas-fired plants slid again, from 2,258 full load hours in the previous year to 1,738 hours in 2012; this compared with 2,682 hours back in 2009. The baseload/peakload spread – important for pumped storage stations – narrowed by 10.5% to an average of €11.60/MWh, compared to a high of €29/MWh in 2008.

The trend on the balancing energy market stood out. Balancing costs surged by 122% year on year in 2012. The extreme weather conditions in the first quarter were partly responsible, but balancing costs held at high levels afterwards, reflecting both higher prices and the jump in balancing energy volumes due to rising wind and photovoltaic infeed in Austria and neighbouring countries.

Unfortunately there was little or no change in the prices charged to household consumers.

HOUSEHOLD AND INDUSTRIAL ELECTRICITY PRICES, OVER TIME

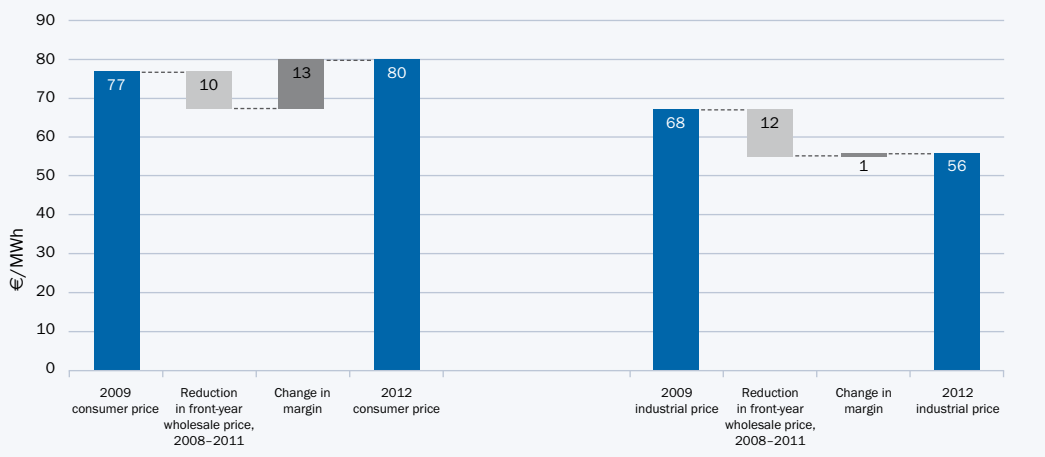


Figure 2
Average household and industrial electricity prices (rounded), 2009–2012[2]

Sources: EXAA, EEX, E-Control and own calculations

The decline in wholesale prices in the past few years has raised average suppliers' margins sharply – by around 16% relative to the current consumer price. This had led to an estimated increase in suppliers' revenue of € 170m [1]. The prices charged to industrial consumers have mirrored the downward trend in wholesale prices, and are now close to wholesale levels.

GAS MARKET

As in previous years, spot prices at Austria's CEGH hub were higher in summer 2012 than those in the NetConnect Germany (NCG) market area in Germany. However, Austrian spot prices dipped below German levels in the final quarter of the year, and the spread widened to around € 3/MWh in March 2013.

Spot prices firmed by 7.6% in 2012, while import prices topped the € 30/MWh mark during the year.

The wide differential between the spot and prices under long-term import agreements was the toughest test facing market players. Given a conventional portfolio this would have led to a major deterioration in margins on supplies to household and industrial consumers. However, with spot prices over € 7/MWh lower than those under take-or-pay (ToP) agreements in 2012, an increase in the proportion of spot deliveries would have resulted in a considerable improvement in margins.

HOUSEHOLD AND INDUSTRIAL GAS PRICES, OVER TIME

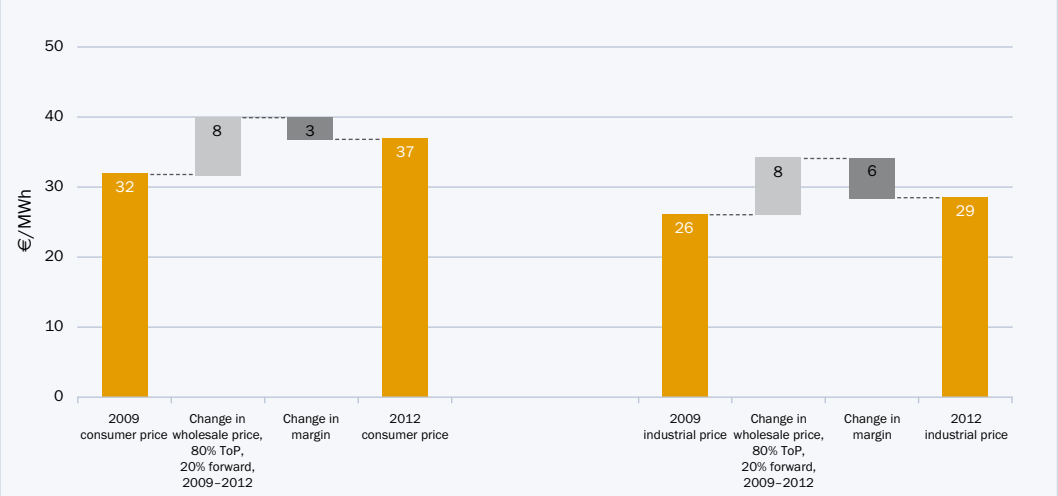


Figure 3
Average household and industrial gas prices (rounded), 2009–2012 [2]

Sources: EXAA, EEX, E-Control and own calculations

[1] Annual household electricity consumption is around 13 TWh.
[2] Based on a two-year procurement portfolio, as purchases tended to be longer term at that time. Wholesale prices for one-year procurement portfolios would have fallen by around € 18/MWh between 2008 and 2011.

COMPETITION TRENDS

There were major changes on the gas market, due to the sharp movements in wholesale prices. A number of new suppliers, some of them from outside Austria, entered the market to capitalise on the relatively high retail prices (including household prices). This led to a significant increase in the number of tariffs on offer in the mass market segment.

Meanwhile some suppliers took steps to adapt their import agreements to prevailing market conditions and align prices more closely with those on the spot market.

Energie-Control Austria (E-Control) made three applications to the cartel court for the prevention of anti-competitive behaviour by a gas importer. We sought to combat high ToP volumes and oil price linkage under such agreements, especially because a dominant importer was concerned.

There were no significant improvements in the degree of competition on the electricity market in 2012. The shift from the procurement of control energy under long-term agreements to ongoing auctions of short-term products did not have the desired effect of boosting competition. Procurement of control energy has since become considerably more expensive. In 2012, after carrying out an investigation of market conditions, E-Control implemented measures designed to stimulate competition and expand the market in 2013.

In wake of the refusal of all the suppliers to provide information in response to an investigation of the household market segment launched in 2011, Austrian suppliers were required to do so by official decision. The companies affected lodged complaints against these decisions with the supreme court. The proceedings are still pending.

Major regulatory developments

Our regulatory activities in 2012 focused on transposing the third energy package into national law, mainly by enacting implementing ordinances.

The gas industry saw the most significant changes, with the creation of new institutions such as the market area manager, the distribution area manager and the operator of the virtual trading point (VTP) as of 1 January

2013. The gas market rules were reviewed to introduce the procedures needed for the new gas market model, which now take the form of an ordinance.

The ordinances on service quality, switching and smart meters will all have a direct impact on gas and electricity consumers.

NEW MARKET RULES UNDER THE GAS MARKET MODEL ORDINANCE 2012

Section 41 *Gaswirtschaftsgesetz* (Natural Gas Act) 2011 empowers the regulator to lay down new market rules by ordinance. E-Control exercised this authority by enacting the *Gas-Marktmodell-Verordnung* (Gas Market Model Ordinance) 2012. The latter governs access to the transmission and distribution grids, and the balancing arrangements in the Austrian market areas. The rules for the Tyrol and Vorarlberg market areas have been designed to facilitate links with the NCG market area in Germany.

SHAKE-UP FOR TRANSMISSION NETWORK ACCESS

The Natural Gas Act 2011 has brought major changes in network access. The previous system of capacity reservations based on contractually agreed transport routes has been replaced by an entry-exit model under which capacity can be booked and traded separately at entry and exit points.

SYSTEM ACCESS

Pursuant to section 6 Gas Market Model Ordinance 2012, the allocation of entry and exit capacity by auction began on 1 April 2013. The explanatory notes to section 6 of the ordinance state that the transmission system operators (TSOs) must auction capacity using the capacity products and lead times specified by the ENTSOG Capacity Allocation Mechanisms (CAM) network code.

Gas Connect Austria, TAG and BOG joined PRISMA, a European capacity auction platform that went live in April 2013.

BALANCING ENERGY REGIME

The market area manager is responsible for performing the balancing operations in the market area on the basis of notified quantities (schedules and nominations). Under section 26(1 and 2) Gas Market Model Ordinance 2012, it must take account of all gas flows affecting the eastern market area in its balancing activities. These are the net balances of trades at the VTP, injections and withdrawals into/from transmission and distribution networks including storage facilities and production, and notified offtake for the supply of consumers.

The market area manager uses the VTP in the performance of its duties.

ORDINANCES ON THE QUALITY OF GAS NETWORK SERVICES

In transposition of Directive 2009/73/EC (Gas Directive), the new Natural Gas Act, which came into force in November 2011, empowers the E-Control Executive Board to enact an ordinance on the quality of the network services rendered to system users. This ordinance was published on 29 May 2012, and entered into effect on 1 January 2013. It establishes uniform standards governing the commercial and technical quality of network services, and responses to supply interruptions. For instance, the standards stipulate that the time taken for system connections and repairs should be monitored.

The lead time for the provision of system admission was not directly monitored in 2011. As the circumstances and needs of parties eligible for system access vary greatly, the *Gasnetzdienstleistungsqualitätsverordnung* (Ordinance on Gas System Service Quality) 2012 does not introduce monitoring of connection lead times. However, it does impose a maximum delay of 14 days in responding to applications for network admission, and requires agreement of a binding deadline for admission. The time taken to perform repairs and maintenance is monitored under an ordinance that entered into effect on 1 January 2013 (pursuant to section 131 Natural Gas Act 2011).

ORDINANCE ON DATA FORMATS AND PRESENTATION OF CONSUMPTION INFORMATION 2012

Directive 2009/72/EC (Electricity Directive) requires EU member states to ensure the implementation of intelligent metering systems that assist the active participation of consumers in the electricity supply market. The *Datenformat- und Verbrauchsinformationsdarstellungsverordnung* (Ordinance on Data Formats and Presentation of Consumption Information) 2012 determines the formats to be used by the system operators when transmitting data to suppliers, and by the system operators and suppliers when providing customers with consumption information.

WHOLESALE MARKET REGULATION

In order to transpose Regulation 1227/2001 (REMIT), E-Control set about purchasing market monitoring software in September 2012. The aim is to monitor the national and regional gas and electricity markets, and to conclude cooperation agreements with other national regulators with a view to taking a coordinated, cross-border approach to combating any abusive practices in wholesale energy trading. The transposition of REMIT into national law has given E-Control additional investigative powers and enabled it to impose sanctions in the event of violations of the regulation. We have also enacted an ordinance on obligations to hold transaction data which specifies in detail the kinds of data that traders are required to store.

THE AUSTRIAN ELECTRICITY MARKET

Network regulation

UNBUNDLING

Certification

By way of official decision V ZER 01/11 dated 12 March 2012, E-Control certified Austrian Power Grid AG pursuant to sections 28–32 *Elektrizitätswirtschafts- und -organisationsgesetz* (Electricity Act) 2010 in conjunction with section 34(1)(3) of that Act. The company remains under the ownership of Verbund, but must meet very strict conditions in terms of its organisational separation from the group. These include the complete separation of personnel, IT and communications, the prohibition of shared services, and regulation of the relationships of senior managers with the integrated undertaking. Decision V ZER 02/11 of 1 June 2012 certified Vorarlberger Übertragungsnetz GmbH as an ownership unbundled TSO.

Communication activities and branding (corporate identity)

Vertically integrated distribution system operators (DSOs) may not, in their corporate identity and overall communications, create confusion in respect of the separate identity of the supply branch of the vertically integrated undertaking (VIU). When assessing the distinctiveness of brands, the factors to be taken into account include the degree of similarity to other signs, and to other goods and services, the differentness or closeness of the sectors of industry concerned, the distinctive character (inherent distinctiveness) of the sign, and any increased protection due to the reputation of the sign. What matters is the likelihood of confusion. The similarity of signs, trademarks, etc., can arise from visual, conceptual or aural similarities.

The overall impression made by a company name, sign, trademark, copyright protected work, colour, meaning, etc. may not lead an average consumer to suppose that the goods or services come from the VIU. Most system operators have already modified their corporate identities to achieve compliance with the law. In 2012 further DSOs made changes to their communication and branding policies, but there was still room for improvement in some cases.

Allocation of resources

Art. 26(2)(c) Electricity Directive and section 42(3)(3) Electricity Act 2010 state that a DSO must have effective decision-making rights, independent from the integrated electricity undertaking, with respect to assets necessary to operate, maintain or develop the network. In order to fulfil those tasks it must have at its disposal the necessary human, technical, physical and financial resources. System operators must prevent the disclosure of information related to their activities in a discriminatory manner, especially where this would be to the benefit of the VIU (section 11 Electricity Act 2010), and the prohibition of discrimination must be complied with (section 9 of the Act). This means that DSOs must avoid all potentially discriminatory processes.

ELECTRICITY SYSTEM OPERATORS' BRANDING

Group logo (retail business)	System operator's new logo (as of 31 July 2013)
Energie Burgenland Vertrieb GmbH & Co KG	Netz Burgenland Strom GmbH
energie BURGENLAND	netz BURGENLAND
Energie AG Oberösterreich	Energie AG Netz GmbH
ENERGIE AG Voller Energie	Approval procedure in progress
EVN AG	EVN Netz GmbH
Energie vernünftig nutzen EVN	Approval procedure in progress
Energie Graz GmbH & Co KG	Stromnetz Graz GmbH & Co KG
ENERGIE GRAZ	STROM NETZ GRAZ
Energie Steiermark AG	Stromnetz Steiermark GmbH
E	ST
TIWAG-Tiroler Wasserkraft AG	TIWAG-Netz AG
tiroler wasser kraft	TI.Netz
Verbund AG	Austrian Power Grid AG
Verbund	APG
Vorarlberger Kraftwerke AG	Vorarlberger Energienetze GmbH
VKW Vorarlberger Kraftwerke AG	Vorarlberg Netz
Wien Energie Vertrieb GmbH & Co KG	Wien Energie Stromnetz GmbH
WIEN ENERGIE VERTRIEB	WIENER NETZE
KELAG-Kärntner Elektrizitäts-Aktiengesellschaft	KNG-Kärnten Netz GmbH
kelag	Kärnten Netz
LINZ AG	LINZ STROM Netz GmbH
LINZ AG	STROM NETZ GMBH LINZ
Salzburg AG	Salzburg Netz GmbH
Salzburg AG	Salzburg Netz GmbH

Figure 4
Electricity system operators' branding

Source: E-Control

An exception to the unbundling rules is the freedom of other parts of VIUs to perform activities on behalf of DSOs that are non-critical in terms of non-discrimination and the confidentiality of commercially sensitive information, in the same way as an independent third party.

However, a DSO wishing to outsource activities that are critical in terms of commercially sensitive information or non-discrimination may only do so to independent third parties bound by confidentiality agreements.

The following may involve commercially sensitive information in the meaning of section 11 Electricity Act 2010, and non-discrimination in the meaning of section 9 of the Act:

- Legal services and the activities of legal departments;
- Internal financial control, bookkeeping and accounting;
- Call centres, billing, receivables management and processing of supply agreement terminations;
- Human resources matters;
- Reading, maintenance and replacement of all metering equipment required for billing and system operation.

This does not preclude the creation of coordination mechanisms to protect the commercial and management supervision rights of the parent company in respect of the profitability of the subsidiary, pursuant to section 42(4) Electricity Act 2010. However, sourcing a large number of processes/services from the vertically integrated undertaking may not, as a whole, make a system operator heavily dependent on the VIU.

In order to assess the actual allocation of resources to legally unbundled distribution system operators, in early 2012 E-Control distributed a questionnaire on the engineering, operational and organisational activities of DSOs. The companies were asked to state which activities were performed by the VIU, the DSO or independent third parties as of 1 April 2012, and whether they had sufficient technical and financial resources to perform these tasks (e.g. adequate non-current assets). All of the DSOs' responses were positive. In cases where the initial answers left doubts as to the adequacy of the resources provided, the regulator was able to clear up most of these concerns by asking follow-up questions.

MARKET MECHANISMS

Balancing market

In Austria, gaps between forecast and actual power generation and electricity consumption are balanced by injecting or withdrawing control and balancing energy. Depending on the duration of these deviations, a variety of plant and products are employed, namely:

- Primary control: used to offset imbalances within the first 30 seconds of their occurrence;
- Secondary control: used where imbalances last for more than 30 seconds, progressively replacing primary control;
- Tertiary control ("minute reserve"): takes over from secondary control where imbalances persist for longer than 15 minutes.
- Unintentional exchanges: occur where it is not possible to adjust to an imbalance sufficiently or at all within the control area concerned, and the balance is therefore restored by inadvertent exchanges with surrounding control areas in the ENTSO-E grid.

Control and balancing energy both have the same function in physical terms, namely balancing generation and consumption. Deviations from forecast generation and consumption in a balance group necessitate balancing energy. The net balancing energy required by all the balance groups in a control area is the control energy demand, which must be met by the control area manager. The balancing energy market is taking on an increasingly important role because of the growing proportion of the power generation that is difficult to predict.

In 2011 the Austrian network comprised the Eastern control area, with TSO Austrian Power Grid (APG) as the control area manager, and the Vorarlberg control area, where this role was performed by Vorarlberger Übertragungsnetz GmbH (VÜN). Under a cooperation agreement between APG and VÜN, on 1 January 2012 the former became the sole control area manager in Austria, and it has since been responsible for the provision of control energy throughout Austria. Unlike in most other EU member states, in Austria financial accounting for balancing energy is performed by an independent clearing and settlement agent appointed by the control area manager. Since the commencement of the cooperation agreement between APG and VÜN, Austrian Power Clearing and Settlement (APCS) has performed this task for the whole of Austria.

The market rules for balancing are laid down in the Electricity Market Code and the clearing and settlement agent's general terms and conditions. The regulator draws up the market rules in consultation with the market participants, and approves APCS's terms and conditions.

The control area manager APG procures control energy by holding competitive tenders. Contracts for primary and tertiary control have been awarded in this way since 2010 and 2001 respectively. Secondary control was procured by way of bilateral contracts with power station operators until 1 January 2012, when the changeover to a competitive tendering mechanism took place. Unintentional deviations on the ENTSO-E interconnected grid are made good by a compensation programme, operated via the EXAA power exchange.

Because of the strict technical requirements that generating stations must meet to take part in the control energy market, the number of potential suppliers in Austria is limited. This is particularly true of the primary and secondary control markets.

The clearing and settlement agent calculates the balancing energy clearing prices on a quarter-hourly basis. The prices consist of the following components:

- The cost of the market maker's services and of calling off tertiary control energy;
- 22% of the cost of providing standby capacity and calling off secondary control energy;
- The cost of unintentional exchanges.

These costs are apportioned to the quarter-hourly balancing energy volumes using a predefined price formula, and invoiced to the balance responsible parties. Suppliers must take account of balancing energy costs and the associated risk when setting their retail prices. Figure 5 shows the evolution of balancing energy costs in 2011 and 2012. As can be seen from the chart, costs rose sharply from February to July 2012. This mainly reflected a significant increase in the cost of providing standby capacity and calling off secondary control energy. Overall, 2012 balancing energy costs climbed to €37.7m (2011: €18m).

To counter this trend, E-Control mounted a high-intensity information campaign designed to attract new players to the Austrian control energy market. We also took other measures, including: an investigation into potential barriers to market entry; steps to promote demand-side participation in the control energy market; amendments to the market rules, made in consultation with the control area manager; and initiatives aimed at integrating the control energy market with neighbouring markets. These efforts have already begun bearing fruit this year.

MONTHLY BALANCING ENERGY COSTS, 2011 AND 2012, €

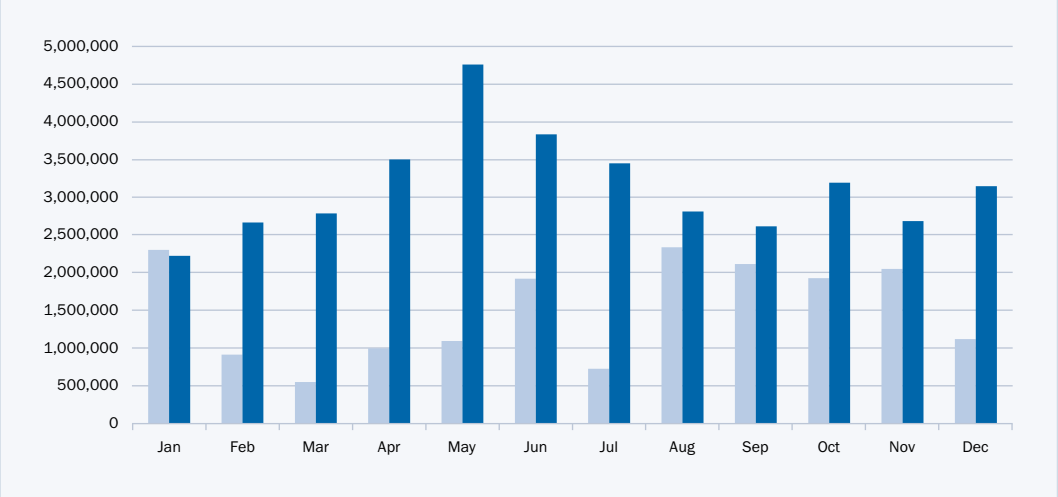


Figure 5
Monthly balancing energy costs, 2011 and 2012

Source: APCS

Supply interruptions

In line with the *Elektrizitätsstatistikverordnung* (Electricity Statistics Ordinance), each year E-Control publishes the results of its analysis of the disturbances (i. e. supply interruptions) recorded in the Austrian grid. Since 2002 the data required for these reports have been collected in collaboration with the country's system operators and the Austrian electricity generators' industry association, Oesterreichs Energie. As all of the country's system operators have participated in these surveys since 2003, they permit comprehensive monitoring of supply reliability. Any worsening of performance in a given year is quickly spotted, triggering a rapid response.

In 2012 Austria experienced total electricity supply interruptions, as measured by the average system interruption duration index (ASIDI), of 54.31 minutes (excluding natural disasters). Of these, planned interruptions amounted to 19.58 minutes, and unplanned interruptions to 34.73 minutes. The reference value for this calculation is the installed nominal apparent capacity of the country's transformers.

Electricity supply interruptions in Austria in 2012 according to the system average interruption duration index (SAIDI) came to 44.51 minutes (excluding natural disasters). By this measure planned interruptions totalled 13.58 minutes, and unplanned interruptions 30.93 minutes. Here, the reference value is the total number of system users.

Comparing SAIDI with the annual total of interruption-free hours of electricity supplies yields 99.99% availability – an excellent performance by international standards.

AVERAGE SYSTEM INTERRUPTION DURATION INDEX (ASIDI), UNPLANNED INTERRUPTIONS, minutes

Figure 6
Average system interruption duration index (ASIDI) for Austria, unplanned interruptions

Source: E-Control

Figure 6 shows the annual unplanned interruptions for the 2004-2012 period. Natural disasters, such as the severe flooding in Austria in 2005 and 2011, the Europe-wide disturbance on the ultra-high voltage grid on 4 November 2006, the Kyrill storm in 2007, the Paula and Emma storms in 2008, the wet snow in Styria in 2009, and the Andrea storm in 2012, are reported separately. The 2012 survey results show little change in non-availability as compared to previous years.

Technical cooperation between TSOs in Austria and third countries

Austria is one of a number of EU member states with transmission grids that are interconnected with that of Switzerland. Negotiations between Switzerland and the EU on the former's adoption of EU internal energy market legislation are currently in progress; it is not possible to predict when they will produce an outcome. These talks are unconnected with the fact that, because of the technical demands of transmission system operation, there are already partnerships between TSOs in Switzerland and EU member states, comparable to those within the EU.

As in 2011, during the reporting period the main channel for cooperation with Switzerland was the Transmission System Operator Security Cooperation (TSC) initiative. During the summer of 2012 the organisation went beyond the existing information exchanges between members when it embarked on trial operation of multilateral remedial actions (MRAs). This enables the TSOs involved to request cross-border power station redispatching. During the test phase the TSO making the request bears the costs. The MRA trial phase has been extended; meanwhile the members are hoping to reach agreement on an improved approach to cost allocation. The liaison between TSOs and regulators is enhancing cooperation at the TSO level.

Quality standards

The EU service quality legislation was transposed into Austrian law by section 19 Electricity Act 2010. The *Netzdienstleistungsverordnung Strom* (Ordinance on Electricity System Service Quality) 2012, based on these provisions, was published in December 2012 and came into force on 1 July 2013.

The ordinance deals with both commercial and technical network service quality standards.

The commercial quality standards relate to:

System admission and access:
- Deadlines for cost estimates
- Deadlines for responses to applications for system admission/access
- The minimum information required for applications

Billing for system services:
- Deadlines for billing and corrections to invoices

Supply disconnections and restoration:
- Supply restoration
- Option of paying outstanding amounts in cash
- No disconnections on grounds of breach of contract ahead of weekends and public holidays

The ordinance also imposes safety, reliability and service quality standards on system operators, including:

- The duration and frequency of supply interruptions
- Deadlines for repairs
- Notice of supply interruptions
- Deadlines for answering enquiries
- Complaints management practices
- Power frequency

Indicators of compliance with the standards established by the ordinance were also included. The system operators concerned must send these figures to the regulator and publish them on an annual basis.

TRANSMISSION AND DISTRIBUTION SYSTEM CHARGES

Transmission tarification involves converting the annual audited costs into system charges, which then come into effect on 1 January of the next year. For the distribution level, the Electricity Act 2010 required that the 2013 tariffs be based on a verification of the cost and volume situation of all electricity distribution system operators that transported over 50 GWh in 2008. Since 2011 tarification has been a two-stage process, which gives the system operators greater legal security. During the first stage E-Control confirms the system operators' cost and volume structures by official decisions. These lay the basis for computation of the system charges, which represents the second step.

The adjustments to the system charges (system utilisation and system losses charges) brought about by the *Systemnutzungsentgelteverordnung* (System Charges Ordinance) 2012 resulted in an average reduction of 0.5% (for the whole of Austria, across all network levels, on the basis of supply volumes in 2011). The System Charges Ordinance 2013 brought an average increase of 1.8% for all network levels. A large part of this rise is accounted for by the Vienna network area, and is chiefly explained by a significant jump in the costs occasioned by the statutory regulations governing the hiving-off of the pension obligations extant at the time of the full liberalisation of the electricity market on 1 October 2001. With Vienna accounting for € 23m of a total year-on-year increase of some € 29m in the system operators' costs in 2013, it can be seen that costs in the other network areas have been largely stable.

Since the start of E-Control's regulatory activities in 2001, consumers' bills have been cut by over € 600m as a result of reductions in the system charges. After contracting because of the financial and economic crisis, sales volumes picked up somewhat last year, easing the upward pressure on tariffs. During the upcoming 2013 review, a new initial cost base will be determined and a revised regulatory framework established for the third regulation period. Continued investment needs and increases in system operators' costs will limit the leeway for reductions in the

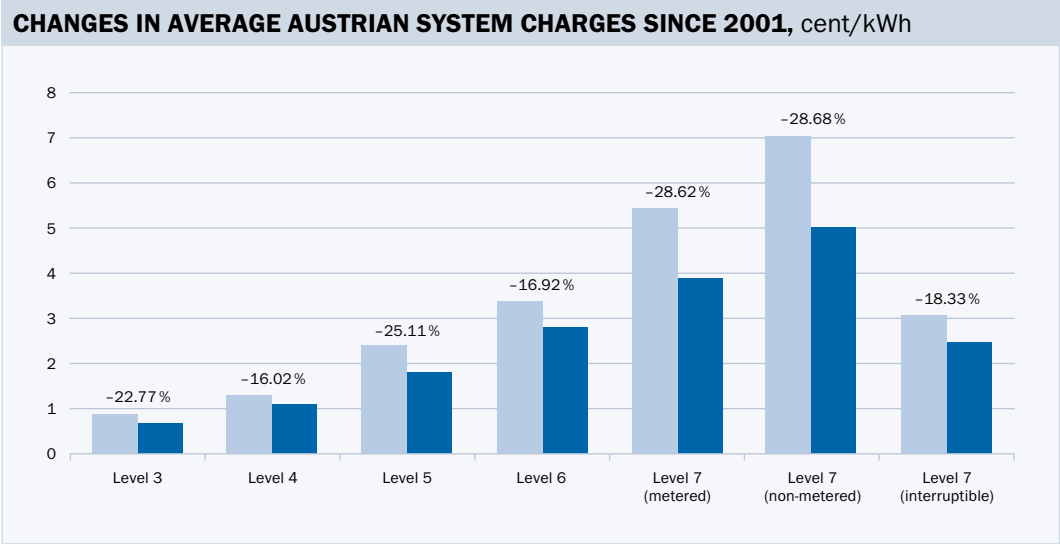


Figure 7
Distribution system charges by grid levels, 2001–2012

Source: E-Control

electricity system charges over the next few years. The lack of growth in supply volumes in recent years means that there is no prospect of a reduction in the volume-related charges.

Preliminary work on the design of the regulation systems for the upcoming regulatory periods from 2014 onwards has been going flat-out since 2012. Although central regulatory goals such as security of supply and efficiency will naturally continue to have pride of place, attention must also be paid to ensuring that energy companies can operate in a stable regulatory framework and a secure investment environment that offers reasonable returns on capital employed.

CONGESTION MANAGEMENT

Art. 37 Electricity Directive confers wide-ranging approval duties and powers on the national regulatory authorities. Paragraphs 6(c) and 9 require regulatory approval of the conditions for access to cross-border infrastructure (transmission systems), including the procedures for capacity allocation and congestion management.

As part of the implementation of the third energy package these provisions were transposed by section 23(2)(23) Electricity Act 2010, which obliges control area managers to apply for clearance by E-Control of their congestion management and capacity allocation rules.

We handled the first such approval procedures in 2012. E-Control approved the rules for the allocation of capacity at Austria's borders with the Czech Republic, Hungary and Slovenia by official decision, as part of a coordinated procedure for Central and Eastern Europe (CEE) as a whole. We also granted approval for the rules for the intraday allocation of cross-border interconnector capacity into Slovenia.

Congestion at the borders with the Czech Republic, Hungary, Italy, Slovenia and Switzerland is still managed by means of coordinated auctions. The scarce capacity there is assigned by the Central Allocation Office (CAO), which is the single point of contact for market participants throughout CEE. The approved rules are more consistent than before. For example, they no longer allow for two parallel capacity calculation methods (NTC and flow-based) but only permit the current NTC method.

As a springboard for further progress towards implementation of the directive in the region, during the spring of 2012 the national regulators and the Agency for the Cooperation of Energy Regulators (ACER) issued a declaration which envisages the introduction of load-flow-based market coupling by the TSOs and power exchanges in the CEE region by the end of 2013. However, differences of opinion among the TSOs on loop flows and the structure of the bidding zones blocked the development, and it did not resume until the spring of 2013. A major focus of these activities will be coordination with the Central Western Europe (CWE) region, with a view to harmonising market conditions across a large part of continental Europe.

In the Central-South region, during the reporting period the CASC-CWE auction office continued to allocate capacity, applying rules that have been harmonised with those of the CWE region. The TSOs, exchanges and regulators concerned have now established structures to permit implicit auctions for daily capacity allocation.

Pursuant to Art. 37(3)(f) Electricity Directive, E-Control reports annually on the proceeds of the allocation of capacity at Austria's borders and the use to which the TSOs put this income. The report for 2012 shows that last year most of the money raised went to network investment.

MONITORING OF TSO INVESTMENT PLANS FOR CONSISTENCY WITH THE TYNDP

In transposition of Art. 31(1)(g) Electricity Directive, section 38 Electricity Act 2010 charges E-Control with approving the Austrian TSOs' network development plans by official decision, and assessing their consistency with the Community-wide ten-year network development plan (TYNDP). In line with the required procedure, APG and VÜN submitted their network development plans in 2012. Consultations were then held with various interest groups and the plans were assessed in terms of their economic viability, technical necessity and compatibility with the TYNDP.

CROSS-BORDER COOPERATION WITH OTHER REGULATORS AND PUBLIC AUTHORITIES

Cooperation between regulators and public authorities takes place at various levels, from bilateral to regional and Europe-wide.

For instance, during the reporting period we discussed and agreed bilateral cooperation on control energy and redispatch arrangements with national regulatory authorities (NRAs) in neighbouring countries. Regional cooperation and interregional coordination continued through the Regional Initiatives framework. The plans for regional market integration are overlain by cross-regional schemes addressing four core issues: long-term, daily and intraday capacity allocation, and capacity calculation. The cross-regional plans provide a framework for implementation of the regional plans. Although the complexity of the issues at stake has led to some delays the cooperation at NRA level has remained in place, and in some cases been intensified. E-Control plays an active role in the CEE region (as the lead regulator), and the CSE and CWE regions, and is also participating in the NWE market coupling initiative as an observer.

Examples of regional cooperation at ministerial level are the Pentalateral Energy Forum (consisting of Austria, Belgium, France, Germany, Luxembourg and the Netherlands) and the CEE Forum (Austria, the Czech Republic, Germany, Hungary, Poland, Slovakia and Slovenia).

At EU-wide level, we are involved in the development of new, binding capacity allocation mechanisms, to be introduced by the relating network code. ACER's reasoned opinion on the ENTSO-E draft code was completed in late 2012. It seeks improvements in a number of areas, including capacity calculation and redispatch coordination.

Competition

ELECTRICITY SUPPLY AND DEMAND

Electricity consumption

Total domestic electricity consumption rose by 657 GWh or 1.0%, to 69,649 GWh in 2012.

Trends were very mixed during the year. Only in June, July and August did consumption move in the same direction, and otherwise ups and downs alternated from month to month.

The sharpest increase – by 474 GWh or 8.0%, in February – is partly explained by an additional working day (29 February 2012, a Wednesday) and by the weather (the average temperature for the month was down on the same month in 2011 and the long-term average). However, economic factors were probably also partly responsible for the rapid consumption growth. Relatively warm

weather was the main factor behind the steepest decline of the year – by 117 GWh or 1.9%, in March.

Even when adjusted for the leap day and the temperatures, domestic electricity consumption was up by about 500 GWh or 0.7% in 2012.

Electricity generation

Unusually high water supply was a major influence on domestic electricity output in 2012. The energy capability factor for large run-of-river power stations over the calendar year as a whole was 1.11, which was 11% above the expected value and 26% up on 2011 (energy capability factor: 0.88).

The total output of the run-of-river power stations was 6,156 GWh or 24.3% up year on year, at 31,476 GWh. Generation at pumped storage power stations was 16,095 GWh – an increase of 3,669 GWh or 29.5%. Output at the larger wind parks, photovoltaic (PV) and geothermal stations, at 2,586 GWh, was up by 30.3%. In all, non-thermal renewable generation (hydro, wind, PV and geothermal) contributed 50.2 TWh, a rise of 26.4%. This represented 69.3% of domestic electricity output, for a gain of almost nine percentage points in the renewable share. Due to the surge in renewable generation, output at thermal power stations shrank by 3,869 GWh or 14.9%, to 22,064 GWh. The use of fossil fuels for power generation fell by 19.6% year on year, whereas that of supported and other biofuels edged up by 1.9% and 2.5% respectively.

Supported renewable electricity generation

Table 3 shows supported renewable electricity output over time. This grew by more than 10% year on year in 2012. Wind power marked up the largest absolute increase, while PV output expanded most rapidly in percentage terms. Infeed of electricity generated from solid biomass and biogas crept up.

Table 4 sets out the maximum capacity of generating stations under contract to the green power settlement agent OeMAG. Here, too, wind power posted the strongest growth. Installed PV capacity more than trebled in the course of 2012. There were only minor changes in the other forms of generating capacity. Three biogas plants with a combined capacity of 1.4 MW came online (see Table 5). By contrast, solid biomass capacity decreased by 5.6 MW.

The number of generating stations attracting legally guaranteed feed-in tariffs (see Table 5) also reflects the increases in PV and wind power capacity. In all 4,954 additional stations were placed under contract during the year, with PV plants accounting for 97% of this increase.

SUPPORTED RENEWABLE ELECTRICITY OUTPUT, GWh											
Energy source	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Wind	203	366	924	1,328	1,738	2,019	1,988	1,915	2,019	1,883	2,386
Solid biomass	95	99	313	553	1,086	1,631	1,900	1,958	1,987	1,969	1,983
Biogas	20	42	102	220	358	440	503	525	539	520	554
Liquid biomass	3	2	18	33	54	71	36	39	30	12	0
PV	3	11	12	13	13	15	17	21	26	39	101
Other supported renewables	88	78	76	65	55	54	52	46	45	41	32
Total "other" renewables	**412**	**598**	**1,445**	**2,212**	**3,304**	**4,230**	**4,496**	**4,503**	**4,647**	**4,464**	**5,057**
Small hydro	4,243	3,386	3,995	3,561	1,806	1,527	945	644	1,258	988	1,095
Total supported renewables	**4,655**	**3,984**	**5,440**	**5,773**	**5,110**	**5,757**	**5,441**	**5,147**	**5,905**	**5,452**	**6,152**

Table 3
Supported renewable electricity output, over time
Sources: E-Control, green power balance group representatives and OeMAG (preliminary statistics, as of February 2013)

EVOLUTION OF THE MAXIMUM CAPACITY OF RENEWABLE GENERATING STATIONS UNDER CONTRACT TO GREEN POWER BALANCE GROUP REPRESENTATIVES OR OEMAG, AND COMPARISON WITH ACCREDITED RENEWABLE GENERATING STATIONS, MW											
	Under contract to a green power balance group at year end			**Under contract to OeMAG [1] at year end**							**Accredited stations [2]**
Energy source	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**31/12/11**
Biogas	15.0	28.4	50.7	62.5	74.9	76.2	77.0	79.2	79.8	81.2	105.4
Solid biomass	41.1	87.5	125.9	257.9	309.1	311.7	313.4	324.9	325.4	319.8	435.5
Liquid biomass	2.0	6.8	12.4	14.7	16.5	14.5	9.6	9.4	9.4	8.7	25.4
Landfill and sewage gas	22.7	20.3	21.2	13.7	21.4	21.2	21.1	21.2	16.0	16.6	30.4
Geothermal	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
PV	14.2	15.1	15.4	15.3	18.8	21.7	26.8	35.0	54.7	172.1	327.2
Wind	395.6	594.6	816.9	953.5	972.0	960.9	984.1	988.2	1,055.8	1,306.8	2,033.1
Total "other" renewables	**491.4**	**753.6**	**1,043.4**	**1,318.5**	**1,413.6**	**1,407.1**	**1,432.9**	**1,458.7**	**1,542.1**	**1,906.2**	**2,957.9**
Small hydro up to 10 MW (supported) [3]	858.1	851.5	709.7	320.9	380.2	124.7	200.9	303.8	242.2	276.0	1,284.2
Total "other" renewables and small hydro	**1,349.5**	**1,605.1**	**1,753.1**	**1,639.3**	**1,793.8**	**1,531.8**	**1,633.8**	**1,762.5**	**1,784.3**	**2,182.2**	**4,242.1**

1) Renewable electricity generating stations under contract to OeMAG that are already in operation.
2) Stations with the required permits, including plants that have not yet been completed or are not yet being built.
3) Excluding small hydro power stations that are not under contract to green power balance groups or OeMAG, and sell their electricity at freely negotiated prices instead of regulated feed-in tariffs.

Table 4
Maximum capacity of supported renewable generating stations, over time
Sources: E-Control, green power balance groups and OeMAG (preliminary statistics, as of February 2013)

EVOLUTION OF THE NUMBER OF RENEWABLE GENERATING STATIONS UNDER CONTRACT TO GREEN POWER BALANCE GROUP REPRESENTATIVES OR OEMAG, AND COMPARISON WITH ACCREDITED RENEWABLE GENERATING STATIONS

	Under contract to a green power balance group at year end			Under contract to OeMAG [1] at year end							Accredited stations [2]
Energy source	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**31/12/11**
Biogas	119	159	231	253	294	293	291	289	288	291	363
Solid biomass	27	39	68	93	115	113	118	120	121	127	203
Liquid biomass	21	34	49	45	51	47	46	46	45	41	95
Landfill and sewage gas	43	42	46	38	45	45	43	45	44	46	70
Geothermal	2	2	2	2	2	2	2	2	2	2	2
PV	1,793	1,852	1,975	2,065	2,515	3,112	4,150	5,028	6,253	11,056	30,903
Wind power	97	116	133 *)	127	139	134	136	138	147	234	280
Total "other" renewables	**2,102**	**2,244**	**2,371**	**2,623**	**3,161**	**3,746**	**4,786**	**5,668**	**6,900**	**11,797**	**31,916**
Small hydro up to 10 MW (supported) [3]	2,044	2,063	2,195	1,900	2,023	1,305	1,488	1,697	1,658	1,715	2,790
Total "other" renewables and small hydro	**4,146**	**4,307**	**4,566**	**4,523**	**5,184**	**5,051**	**6,274**	**7,365**	**8,558**	**13,512**	**34,706**

*) Chart derived from the guarantee of origin database; generating stations supplying power to green power balance groups as of Dec. 2005
1) Renewable electricity generating stations under contract to OeMAG that are already in operation.
2) Stations with the required permits, including plants that have not yet been completed or are not yet being built.
3) Excluding small hydro power stations that are not under contract to green power balance groups or OeMAG, and sell their electricity at freely negotiated prices instead of regulated feed-in tariffs.

Table 5
Number of generating stations under contract to OeMAG, over time
Sources: E-Control, green power balance groups and OeMAG (preliminary statistics, as of February 2013)

Imports and exports

The high level of hydro generation also had a significant impact on electricity imports and exports. Exports were up by 3,677 GWh or 21.9% to 20,455 GWh, while imports declined by 1,713 GWh or 6.9% to 23,264 GWh. As a result the electricity trade deficit narrowed to 2,809 GWh (2011: 8,199 GWh). Total exchanges of electricity (imports plus exports) expanded from 41,754 GWh to 43,719 GWh.

The lion's share of the physical trade in electricity was with Germany, although a 9.8% drop in imports combined with a relatively modest increase in exports cut the volume of cross-border exchanges from

17,686 GWh (42.4% of total trade by volume) to 16,491 GWh (37.7%). The second-largest trading partner was the Czech Republic, with a share of about 24% last year; imports at 10,308 GWh far exceeded exports at 51 GWh. The third-ranking partner was Switzerland with a share of almost 20%. In 2012 exports to the country were 7,775 GWh compared with a mere 127 GWh in imports. The overall volume of electricity trade with the Czech Republic edged up by 2.2%, and that of trade with Switzerland advanced by 5.9%. Physical exports to Slovenia leapt by 93.2% to reach 4,609 GWh, lifting this market's share of total cross-border electricity exchanges by volume to 10.8%. Exports to Hungary also surged, rising by 49.0% to 2,428 GWh, while exports to Italy climbed by 6.7% and those to Liechtenstein by 20.3%.

COMPETITION ON THE WHOLESALE MARKET

Legal basis of monitoring

Art. 37(1)(j) of the Electricity Directive tasks the regulatory authorities with monitoring the level and effectiveness of market opening and competition at wholesale and retail levels, including on electricity exchanges, prices for household customers including prepayment systems, switching rates, disconnection rates, charges for and the execution of maintenance services, and complaints by household customers, as well as any distortion or restriction of competition, including providing any relevant information. This provision was transposed into national law by section 88 Electricity Act 2010.

The enabling provisions of this section of the Act charge the provincial governments with determining in detail the information required, including the persons obliged to provide information, reporting frequency and units of measurement, by passing provincial implementing legislation. Some additional powers, enabling the information concerned to be specified, have been included in this implementing legislation.

In cooperation with the provincial governments, we have developed a general questionnaire, based on an Excel spreadsheet, that provides a standard reporting format.

This monitoring system was ineffective in 2012 as some of the provincial governments failed to request the electricity companies in their jurisdictions to submit reports. Even if all the provinces did implement local market monitoring, the differences in the data collected would make nationwide observation and analysis extremely difficult, if not impossible.

Monitoring results

In 2012 the Austrian and German spot and futures/forward wholesale markets were slightly out of step. While spot prices firmed towards the end of 2012 due to the cold winter weather, futures and forwards lost

ground in the course of the year. Priced at €52/MWh in January 2012, baseload futures for delivery in 2013 fell steadily to drop below €46/MWh. The main reasons for unravelling prices were the economic situation, low coal futures and forward prices, and the major uncertainties surrounding the future of the EU Emissions Trading System.

Gas-fired power stations were hit by plunging clean spark spreads (generators' margins less the cost of CO_2 allowances) (see Figure 10). This trend was driven by gas prices, which firmed from about €25/MWh to over €27/MWh at times, and a simultaneous collapse in peakload electricity prices from over €65/MWh to lows of less than €55/MWh. By contrast coal-fired power stations benefited from persistently low carbon allowance prices (well under €10/MWh in 2012) and attractive world coal prices.

Efforts to achieve greater transparency on the wholesale market continue to focus on exchange trading. Although a growing range of transparency platforms (e.g. sites operated by ENTSO-E and the EEX) have already helped bring fundamental data out into the open, OTC data such as volume and pricing information are only available from charging price assessment services.

PRICES ON THE EXAA DAY-AHEAD MARKET (seven-day sliding average), €/MWh

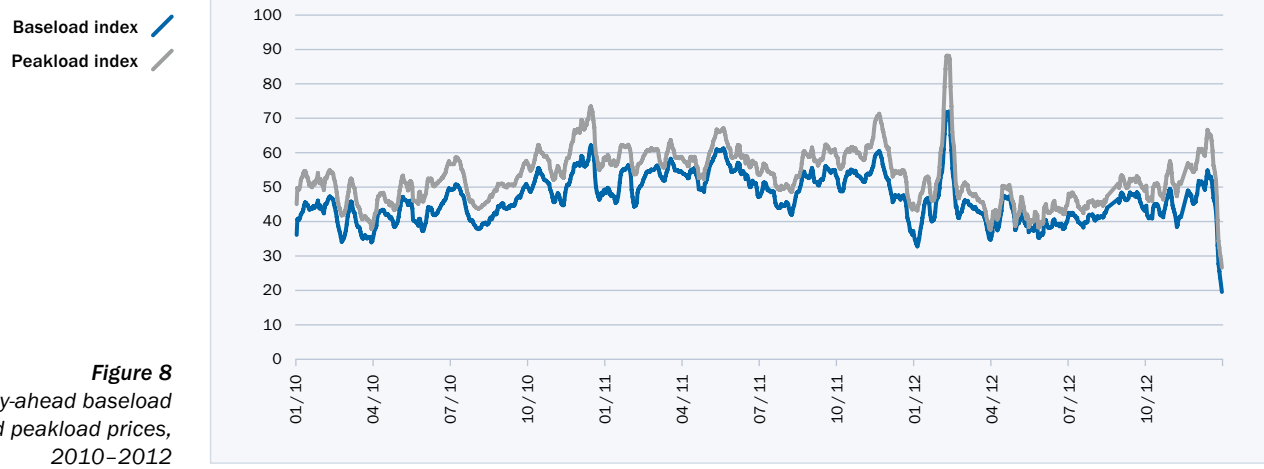


Figure 8
Day-ahead baseload and peakload prices, 2010–2012

Source: EXAA

EEX BASELOAD FUTURES PRICES, €/MWh

Figure 9
Baseload futures prices, delivery in 2013 and 2014

Source: EEX

YEAR-AHEAD CLEAN SPARK AND CLEAN DARK SPREADS IN 2012, €/MWh

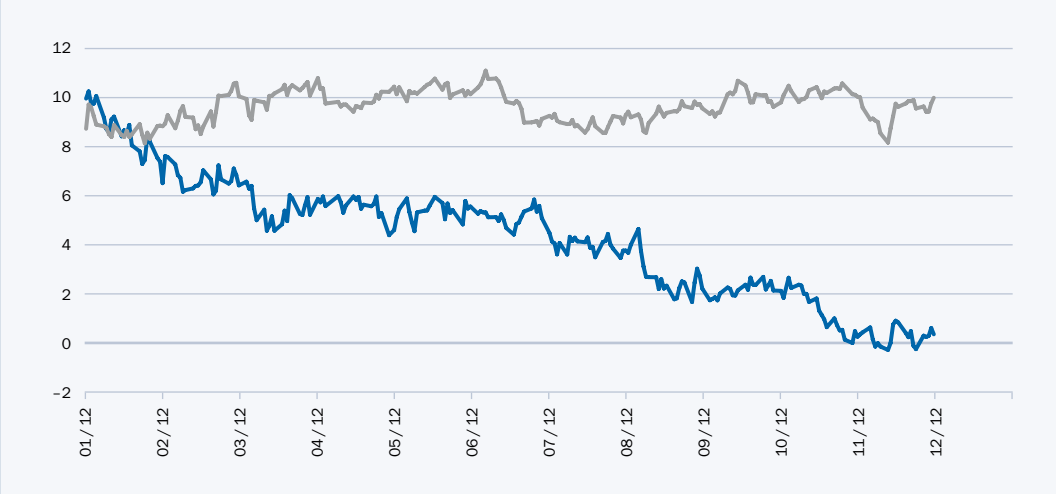


Figure 10
Movements in the clean dark and clean spark spreads, 2012

Sources: EEX and E-Control calculations

COMPETITION ON THE RETAIL MARKET

The electricity retail market can broadly be broken down into two segments:

1. **Mass market:** households, small and medium-sized enterprises (SMEs), farms and other small consumers with an annual electricity demand of less than 100,000 kWh. Standardised load profiles are assigned to these consumers. The suppliers are legally obliged to publish their prices for this consumer segment.
2. **Individual contract consumer market:** SMEs, large-scale industrial enterprises and service businesses with an annual consumption of over 100,000 kWh and load metering. These consumers have individually negotiated supply agreements.

Retail market structure

Supply side

The structure of the supply side of the retail market was almost unchanged in 2012. The only new entrant was a renewable electricity supplier, Solar Graz, which is a subsidiary of Energie Graz. At the same time some small regional suppliers were acquired by larger players, and a green power supplier, Linz Ökoenergievertriebs GmbH, closed down, meaning that the number of retailers serving household consumers fell from 145 to 140. There were no changes in the structure of the individual contract consumer market.

The supply side market structure differs according to the target segment:

> There are a total of 15 nationwide suppliers serving the mass market. This means that there are up to 17 suppliers[3] per region, if local incumbents are included. There are no foreign suppliers in this market segment. The number of products on offer increased significantly in 2012. For example, the number of products available to household consumers in Vienna and Styria rose from 25 to 35, and that offered in Vorarlberg from 15 to 27.

> In theory, customers in the individual contract segment can choose between up to 12 suppliers, but information from consumers indicates that in reality six quotations are the norm. The number of quotations depends on the suppliers' interest in serving a given customer. The presence of foreign suppliers is very limited, and they only serve consumers with an annual demand upwards of 10–20 GWh. Moreover, this is generally on a site-specific basis.

Demand-side structure

In 2012 electricity was supplied to 5.93m metering points in Austria – a year-on-year increase of 0.87%. Households accounted for around 71.4% of the total, other small consumers (small and medium-sized businesses, farms and interruptible consumers) 28%, and large-scale industrial enterprises 0.6% of the metering points. Household consumers were responsible for 24%, and other small consumers for 19% of overall electricity consumption. Industrial consumers made up the largest market segment in consumption terms, with a share of 57%.

[3] See E-Control tariff calculator, www.e-control.at

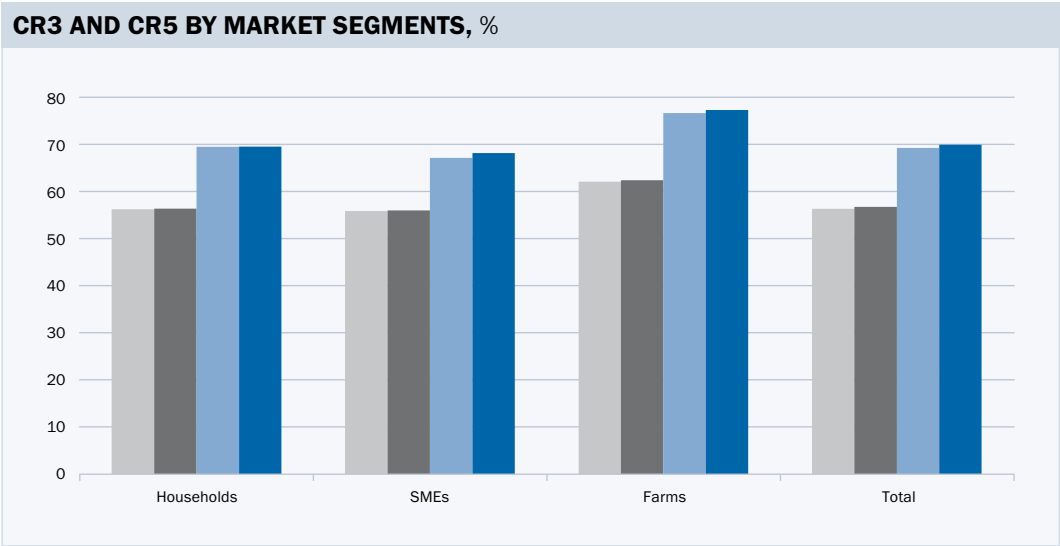


Figure 11
CR3 and CR5 by market segments

Sources: Market statistics and E-Control calculations

Market concentration in the Austrian electricity market[4]

The market shares for suppliers of non load metered customers have been included in the market statistics since 2008.[5]

The data show that the market shares and HH index (HHI)[6] scores of the three largest suppliers are above the threshold values in some segments, indicating a highly concentrated market.[7] Concentration in the household and SME consumer segments was barely changed in 2012, at 1,769 and 1,685 respectively (2011: 1,764 and 1696 respectively) – below the HHI threshold of 1,800.

The cumulative market share of the three largest suppliers (CR3) of household and SME consumers remained at 56% (Figure 11), and that of the five largest suppliers of household consumers (CR5) also held steady at 70%. The only shift was in the SME segment, where CR5 rose from 67% to 68%. In other words, over two-thirds of all demand was met by the five largest suppliers.[8]

There was a slight shift in market shares in the year under review. The local players still exercise strong market power, but alternative suppliers have been gaining shares by making attractive offers aimed at specific provinces and new customers.

[4] The data refer to non load metered small consumers. As there is no information on the shares of the load metered consumer market it is not possible to calculate the concentration for this segment.
[5] The legal basis for this is the Electricity Statistics Order, FLG II no 284/2007.
[6] Herfindahl-Hirschmann Index (HHI): aggregate squared market shares of all firms; CR3: aggregate market shares of the three largest market participants; CR5: aggregate market shares of the five largest market participants.
[7] 50% for CR3 and 66.7% for CR5; 1,800 for the HHI.
[8] In the case of household consumers the regional market is assumed to be confined to the network area concerned. On this measure the lowest market shares enjoyed by the local players are about 89%.

Suppliers' product policies: mass market

Product differentiation in the household consumer segment is according to the following features:

- Form of communication: e.g. online, which implies that the customer must have internet access and an e-mail address; access to online products is often also tied to payment by direct debit; the number of online products rose sharply in 2012
- Energy mix: e.g. products drawn from renewable sources such as hydro, wind or solar
- Pricing scheme: fixed prices, price guarantees for periods of 12–24 months or floating prices with or without caps.

Most of the tariffs on offer are standardised. However, many suppliers are now marketing alternative products, and these are frequently considerably cheaper than the standard ones. The discounts offered help make the price differentials apparent to consumers. In many cases the alternative suppliers award new customers rebates that are tied to time limits for signing contracts. For example, there are special spring, Whitsun and Christmas offers.

Switching behaviour

The switching rate fell to 1.1% from 1.5% in 2011. This reflects a large decline – by some 24,000 – in the number of supplier transfers by households and other small consumers. The reasons for this were the scarcity of

POTENTIAL ANNUAL SAVINGS FROM SWITCHING, €

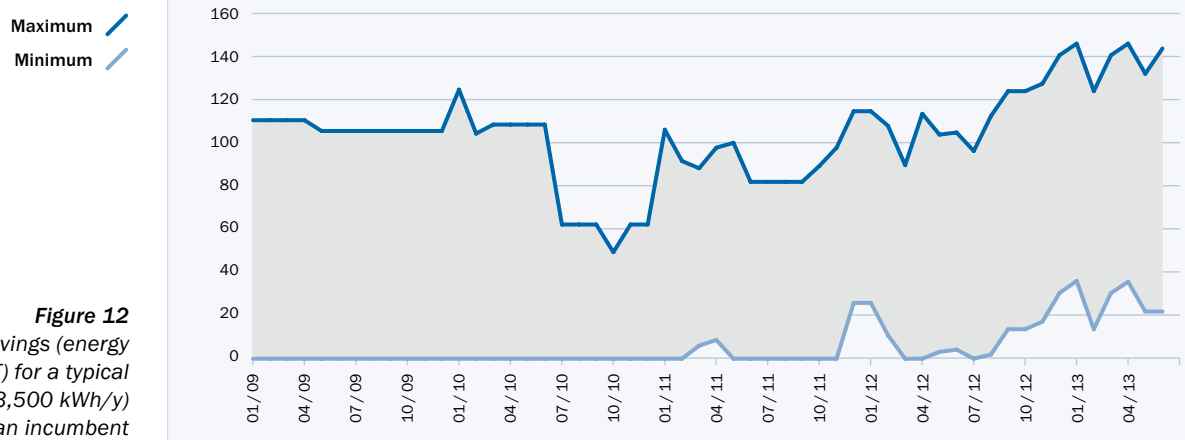


Figure 12
Potential savings (energy costs inc. VAT) for a typical household (3,500 kWh/y) switching from an incumbent to the cheapest supplier

Sources: Tariff calculator and E-Control

price changes in this segment, as well as the suppliers' low-key marketing efforts, especially during the first three quarters.

The potential savings for a household switching from an incumbent to the cheapest supplier were on the increase throughout the second half of the year, eventually resulting in a plus of 40% in the savings potential. The effects did not show until the fourth quarter of the year. The first quarter of 2013 saw the highest churn rate since 2009 (see Figures 12 and 13).

In the case of load metered (individual contract) consumers the overall switching rate rose from 4.6% to 6.8%. As these consumers tend to stay in close touch with market developments it can safely be assumed that they used the reductions on the wholesale market either to renegotiate their prices with their existing suppliers or to obtain lower rates by switching.

Retail price trends

Mass market

Most of the suppliers cut their energy prices at the start of 2012 in response to the reduction in the cost to retailers of their mandatory offtake of renewable electricity, which they charge on to their customers. Steweag-Steg and Energie Graz were alone in raising their energy prices, with effect from 1 March 2012. The changes to the renewable electricity

SUPPLIER SWITCHES AND SWITCHING RATES, 2009–2012

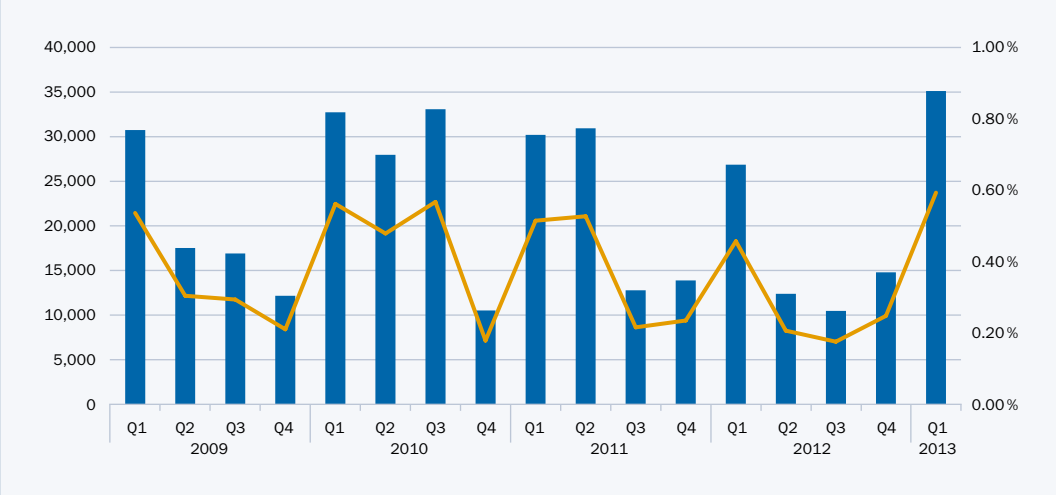


Figure 13
Supplier switches and switching rates, 2009–2012

Sources: Tariff calculator and E-Control

support scheme that came into force on 1 July 2012 triggered price reductions by almost all the suppliers between then and 1 September. However, sliding wholesale prices did not prompt any adjustments to energy prices, either in 2012 or in the first half of 2013, so households have yet to benefit.

Changes to the system charges at the start of 2012 ranged from a 4.28% reduction in Graz to a 2.68% increase in Carinthia[9] (typical household); there was a national average decrease of 0.45%. Revisions at the start of 2013 varied from a cut of 2.83% in Linz to a rise of 7.6% in Vienna, for an average increase of 1.92%.

The cost of renewable electricity to households changed only slightly in the course of 2012. However, there was a change in the financing mechanism. In 2011 about 44% of the renewable electricity charges took the form of a levy (the flat rate renewables charge) and the rest formed part of the energy price, whereas from the second half of 2012 onwards the levy accounted for almost all of the green power charges. A small proportion of the latter, to pay for the guarantees of origin, is still included in the energy price. By the beginning of 2013 the renewable electricity cost borne by a typical household had risen by 64%, from an annual € 33 to € 54 ex VAT.

> *Green power charges no longer part of electricity prices*
The transfer price for renewable electricity was reduced on 1 January 2012, and some retailers passed this cut on to their customers.

ELECTRICITY CPI, % and cent/kWh

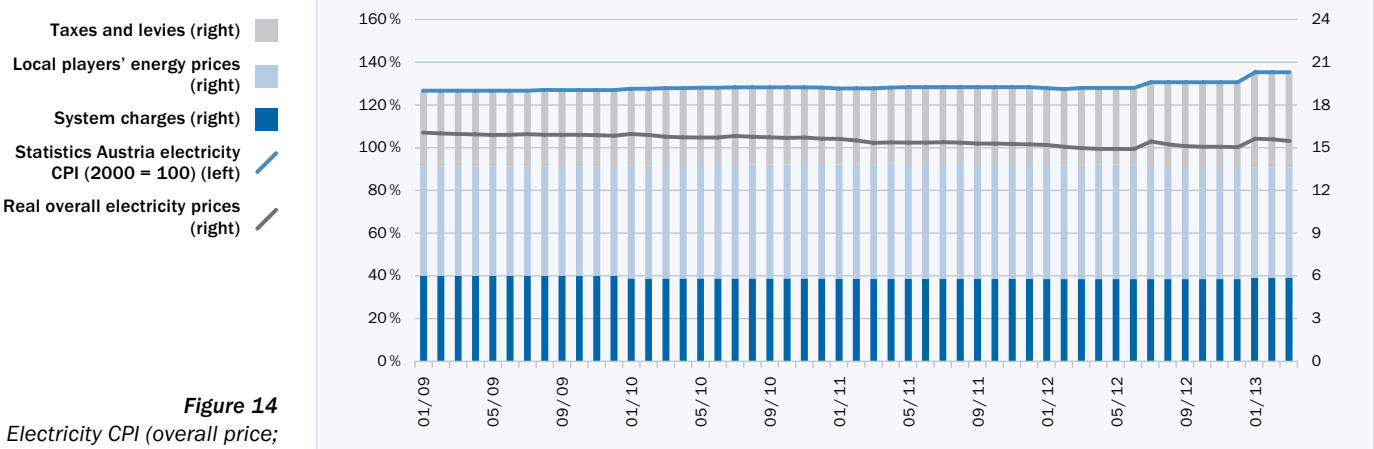


Figure 14
Electricity CPI (overall price; October 2001 = 100)

Sources: Statistics Austria and E-Control

[9] Calculation base: typical household (3,500 kWh/year).

The *Ökostromgesetz* (Green Electricity Act) 2012 brought a complete overhaul of the support system, with effect as of 1 July 2012. Thanks to the new act Austrian electricity consumers now know exactly what they are paying for renewable electricity. The revamped financing mechanism features a renewables contribution per kWh consumed and a flat renewables charge, collected by system operators. There are also the expenses incurred as a result of the guarantees of origin, which retailers are entitled to pass on to consumers. All these charges are determined by statute, meaning that for the first time they are now clear and transparent for consumers. The amended act abolished the "additional expenses" due to renewable electricity, previously charged on under section 19, with effect from 1 July 2012.

> *European price comparison*
In the second half of 2012 Austrian household electricity prices including all taxes rose by 3% year on year, to average 20.24 cent/kWh. This placed Austria ninth in the EU-27 ranking, with lower prices than Germany and Italy, but higher rates than France and the United Kingdom, and just below the euro area average of 20.61 cent/kWh (see Figure 15).

Energy and network charges represented a lower, and taxes a considerably higher (34%) proportion of overall prices in Austria than the EU average (Figure 16). Taxes made up 57% of overall electricity prices in Copenhagen and 44% in Berlin, whereas in Dublin they were 15%, and in Luxembourg only 13% of the total. In Vienna the unregulated component (energy price) accounted for a below-average 41%.

EUROPEAN HOUSEHOLD ELECTRICITY PRICE COMPARISON, cent/kWh

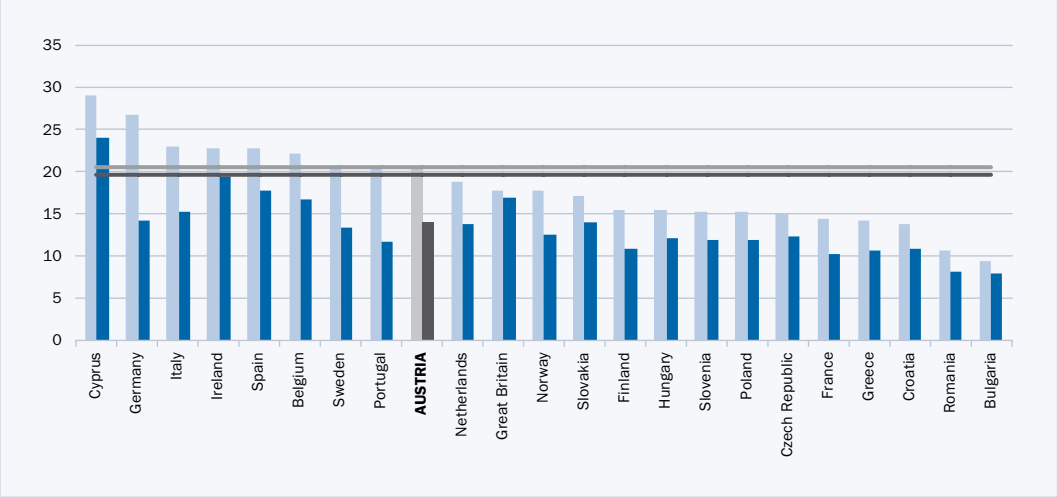


Figure 15
Household electricity prices (energy and network charges) in Europe (2,500–5,000 kWh), inc. taxes, H2 2012

Source: Eurostat

COMPOSITION OF ELECTRICITY COSTS IN SELECTED EUROPEAN CITIES, %

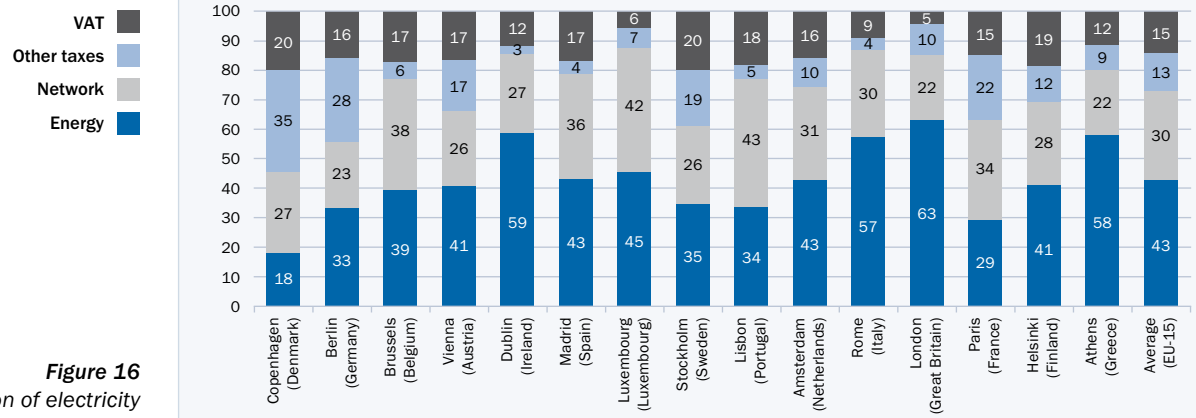


Figure 16
Composition of electricity costs in selected European cities

Sources: HEPI[10], November 2012, and E-Control

INDUSTRIAL ELECTRICITY PRICE TRENDS, cent/kWh

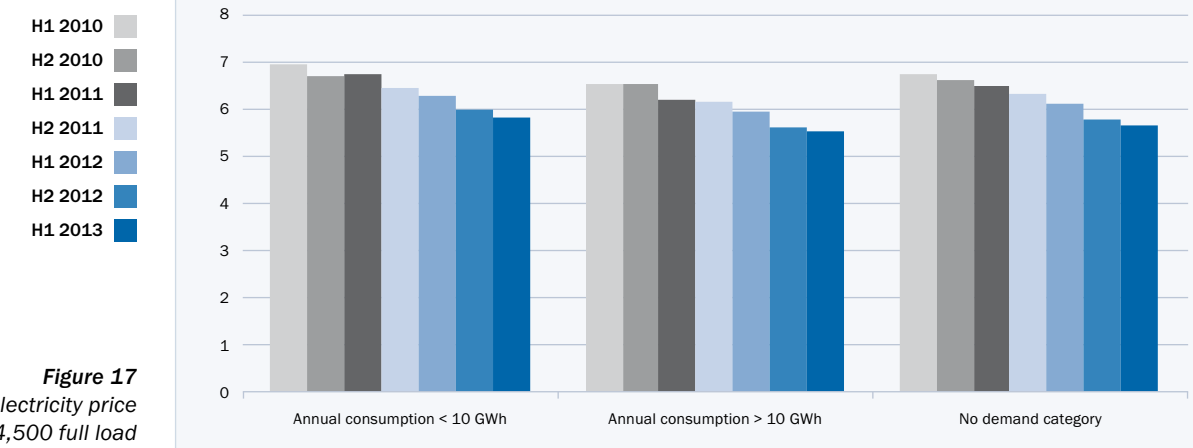


Figure 17
Industrial electricity price trends: over 4,500 full load hours, H2 2009–H2 2012

Source: E-Control

[10] The European Household Energy Price Index (HEPI) is compiled by E-Control in cooperation with VaasaETT Global Energy Think Tank. This weighted index tracks price trends throughout Europe. It is calculated on the basis of the electricity and gas prices of the incumbents and their leading competitors in each of the EU-15 capitals. The analysis takes the tariffs most widely used by consumers in each city.

Individual contract consumer market
The findings of our industrial price surveys[11] show steady falls in all demand categories since 2010 (see Figure 17). Large industrial consumers enjoyed the heftiest price reductions in 2012. Prices ranged from 5.61 cent/kWh for those with consumption of more than 4,500 full load hours and to 6.25 cent/kWh for those with demand below that level – decreases of 4% and 6.6% respectively.

Austrian industrial electricity prices (energy and network charges, ex tax) were somewhat below the European average (Figure 18). Industrial consumers were being charged less in Germany, the Netherlands and Sweden, but were paying considerably more in Belgium, Ireland, Italy and the UK.

Margins on the electricity market
As in the previous year, in 2012 electricity retailers' procurement costs were between € 40 and € 60/MWh, depending on the buying strategy adopted; the costs resulting from spot market procurement were at the bottom end of this range.

As Figure 19 demonstrates, a well balanced procurement strategy could achieve a margin of as much as € 40/MWh. This would represent a mark-up of over 40% in the case of the relatively expensive suppliers.

EUROPEAN INDUSTRIAL ELECTRICITY PRICE COMPARISON, cent/kWh

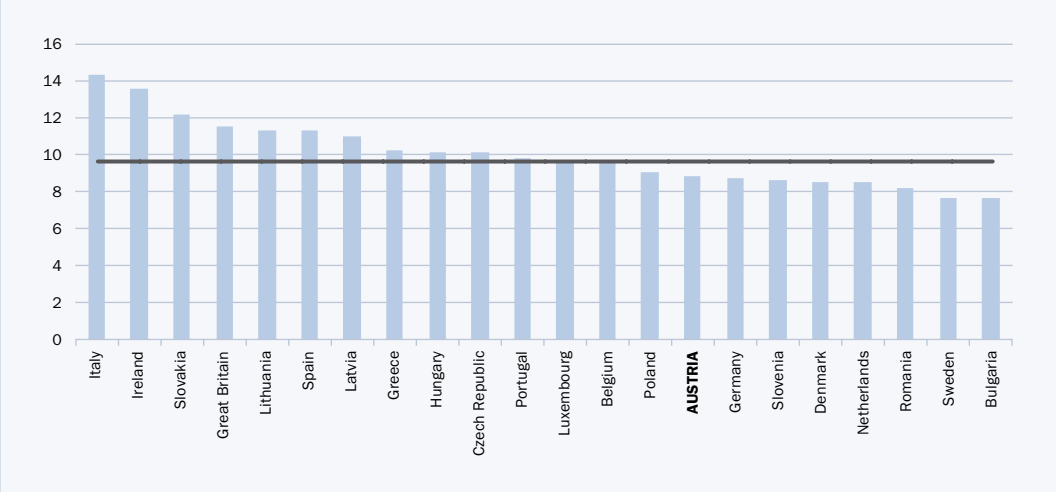


Figure 18
European comparison of industrial electricity prices (energy and network charges) (500–2,000 MWh), ex tax, H2 2012

Source: Eurostat

[11] Since the second half of 2003 E-Control has surveyed the energy prices paid by Austrian industrial consumers directly, on a biannual basis (January and July), using an online form. The results are available on our website (www.e-control.at).

MARGINS IN THE HOUSEHOLD CONSUMER SEGMENT, €/MWh

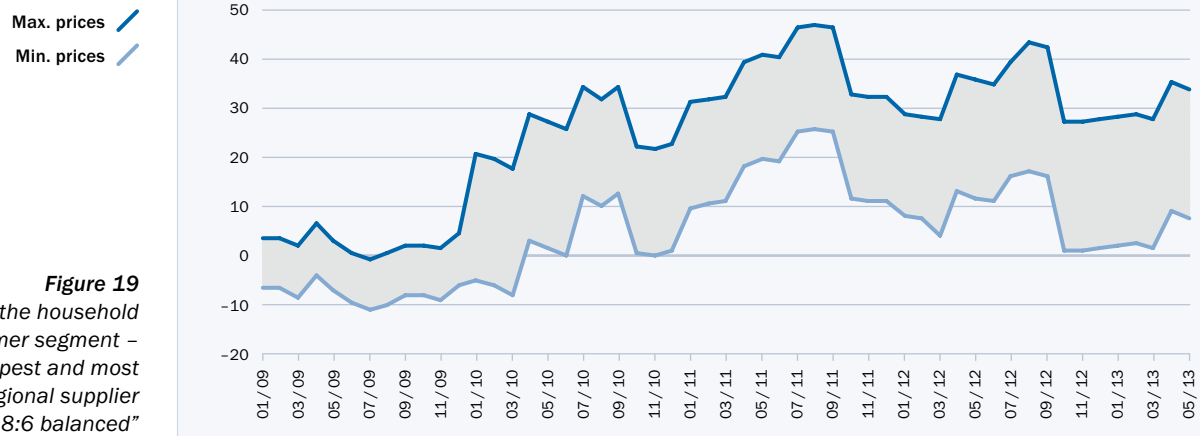


Figure 19
Margins in the household consumer segment – cheapest and most expensive regional supplier ("18:6 balanced" procurement strategy)

Sources: E-Control calculations, EPEX Spot, EEX and APCS

NB: Based on typical household consumption (the APCS standard household load profile) and various procurement strategies, i.e. quarterly and yearly futures, and spot, with different weightings and procurement lead times. The gross margins were calculated by comparing the procurement costs of selected, typical Austrian suppliers with retail prices. The curves represent the minimum and maximum gross margins. The bottom line is the gross margin of a relatively cheap supplier that employs a comparatively unfavourable, i.e. expensive, procurement strategy.

INVESTMENT BY ENERGY COMPANIES

Investment in electricity networks

Information from the 17 largest system operators was used to survey investment activity in the Austrian electricity industry. Net investment was analysed according to the asset classes reported by the companies in 2012. Besides network-based assets (overhead lines, underground cables, transformers and meters), these comprise other property, plant and equipment, including land, as well as software.

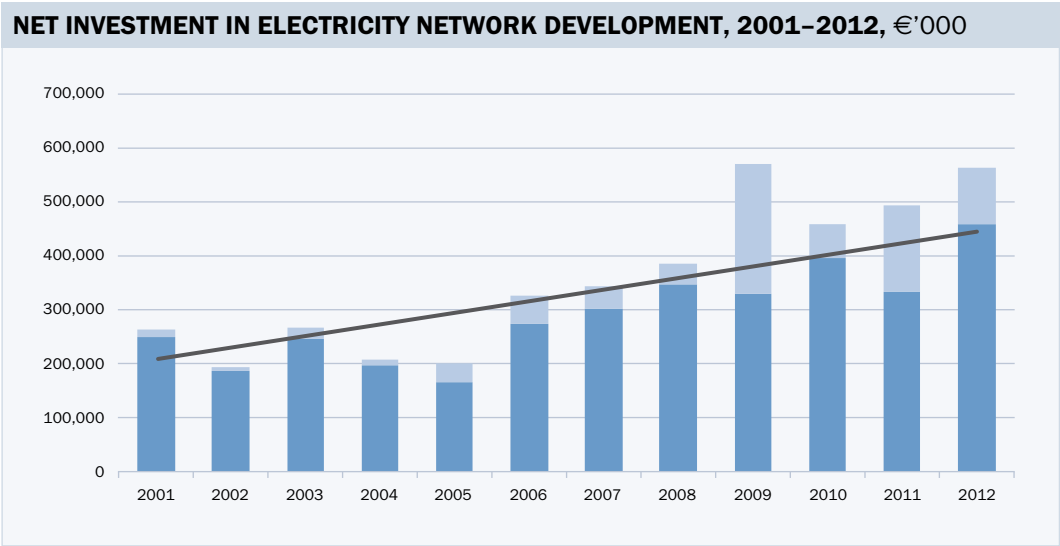


Figure 20
Net investment in electricity network development, 2001–2012

Source: E-Control

Investment is continuing to run at high levels. Until recently much of this spending was going to the ultra-high and high voltage grids, but in 2012 the focus switched to expanding and modernising the electricity distribution grid. Investment in this area is mainly being fuelled by the need to adapt to the constantly changing feed-in conditions caused by growing renewable generation (wind and PV), and by smart meters and smart grids. Wien Energie Netz, EVN Netz, Stromnetz Steiermark and Salzburg Netz stepped up their investment in network infrastructure particularly rapidly in 2012.

We expect investment in both the transmission and the distribution grid to remain high for some time to come. Spending will probably continue to be driven by network expansion and modernisation, aimed at meeting the challenges posed by the growth of decentralised feed-in and the demands placed by Germany's *Energiewende* on the Austrian grid. The upcoming roll-out of smart metering will also call for heavy investment. The current regulation model generates reasonable returns on existing assets and – through the investment and operating cost factor – adequate payback on future

investments; its successor will do likewise. By designing the system in this way E-Control ensures that the electricity companies will be able to invest enough in network development and Austrian system users' security of supply.

INVESTIGATIONS AND MEASURES AIMED AT PROMOTING EFFECTIVE COMPETITION

To promote effective competition and protect consumers, E-Control must ensure that consumers enjoy the benefits of a properly functioning domestic market. Consumers' interests must be central to future changes in market design. To this end section 21(2) *Energie-Control-Gesetz* (E-Control Act) empowers us to investigate, report on and issue opinions on market and competitive conditions in the electricity and gas sectors.

Our market monitoring activities have revealed a picture of rising energy prices, and of an increasing decoupling of exchange and wholesale from retail prices. International comparisons show that in the past few years Austrian retail price rises in some consumer segments have outpaced the upwards movement in a number of comparable EU member states.

With the highly divergent price behaviour of the industrial, SME and household consumer segments pointing to a need to investigate the competitive situation, in August 2011 we sent questionnaires to 19 companies in order to probe their margins and procurement strategies. When none responded we sent official decisions to three representative companies requiring them to provide the information in question. All three firms then applied to the constitutional court, invoking their data protection rights. In its verdict of 29 September 2012, reference B 54/12 ua, the court ruled that the relevant provisions of the E-Control Act met the data protection requirements, and that the E-Control executive board was entitled to order the transmission of the information. The court took the view that the contested decisions ordered the transfer of the information in a legal manner, were directly connected with E-Control's duty as a regulatory authority to monitor and supervise the electricity market, and did not go beyond what was necessary to fulfil this duty. Consequently the official decisions had not violated the fundamental right of the petitioning companies to protection of their data.

These proceedings are currently pending with the administrative court of appeal as the constitutional court has granted the petitioners' application for the appeals to be transferred to the former in accordance with Art. 144 *Bundes-Verfassungsgesetz* (Federal Constitutional Act).

THE AUSTRIAN GAS MARKET

Network regulation

UNBUNDLING

Certification

Official decision V ZER G 01/12 of 6 July 2012 certified Gas Connect Austria GmbH as an independent transmission system operator (ITO) pursuant to sections 112–116 Natural Gas Act 2011 in conjunction with section 119(1)(3) of that Act. The application from Trans Austria Gasleitung GmbH (TAG) for certification as an independent system operator (ISO) (V ZER G 03/12) and that from Baumgarten-Oberkappel Gasleitungsgesellschaft mbH (BOG) for certification as an ITO (V ZER G 02/12) were rejected owing to their failure to meet the requirements under the respective unbundling models. Both TAG and BOG will now be required to resubmit their applications. Certification was also granted to NABUCCO Gas Pipeline GmbH (V ZER G 04/12).

Communication activities and branding (corporate identity)

In their communication and branding, vertically integrated distribution system operators may not create confusion in respect of the separate identity of the supply branch of the VIU. When assessing the distinctiveness of brands, the factors to be taken into account include the degree of similarity to other signs, and to other goods and services, the differentness or closeness of the sectors of industry concerned, the distinctive character (inherent distinctiveness) of the sign, and any increased protection due to the reputation of the sign. The key consideration is the likelihood of confusion. The similarity of signs, trademarks, etc., can arise from visual, conceptual or aural similarities.

The overall impression made by a company name, sign, trademark, copyright protected work, colour, meaning, etc. may not lead an average consumer to suppose that the goods or services come from the VIU. Most system operators have already modified their corporate identities to achieve compliance with the law.

Allocation of resources

Art. 26(2)(c) of Directive 2009/73/EC (Gas Directive) and section 106(2)(3) Natural Gas Act 2011 specify that distribution system operators must have at their disposal the human, technical, physical and financial resources required to fulfil their functions (network operation, maintenance and development) efficiently, and have real decision-making powers, independent from the vertically integrated undertaking (VIU). The discriminatory disclosure of information related to system operators' activities, in particular to the benefit of the VIU, must be avoided (section 11 Natural Gas Act 2011), and the principle of non-discrimination observed pursuant to section 9 Natural Gas Act 2011. This means that DSOs must avoid all potentially discriminatory processes. Detailed information on E-Control's monitoring of compliance with these requirements can be found on page 57f.

GAS SYSTEM OPERATORS' BRANDING

Group logo (retail business)	System operator's new logo (as of 31 July 2013)
Energie Burgenland Vertrieb Erdgas GmbH & Co KG	Netz Burgenland Erdgas GmbH
Wien Energie Vertrieb GmbH & Co KG	Wien Energie Gasnetz GmbH
LINZ AG	Linz Gasnetz GmbH
Salzburg AG	Salzburg Netz GmbH
EVN Energievertrieb GmbH & Co KG	EVN Netz GmbH
KELAG-Kärntner Elektrizitäts-Aktiengesellschaft	KELAG-Netz GmbH
OÖ. Gas-Wärme GmbH	OÖ. Ferngas Netz GmbH
OMV Gas & Power GmbH	OMV Gas GmbH (Gas Connect Azstria)
Eni International B.V. OMV Gas GmbH	Trans Austria Gasleitung GmbH
EON Ruhrgas AG, GDF SUEZ S.A., OMV Gas GmbH	Baumgartner Oberkappel Gasleitungs GmbH

Figure 21
Gas system operators' branding

Source: E-Control

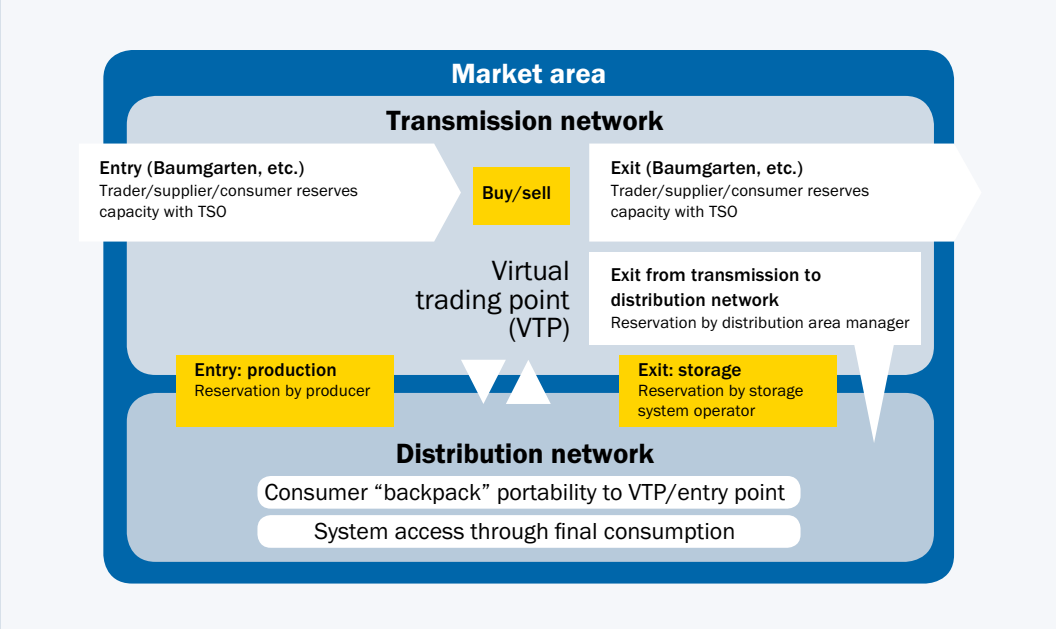
MARKET MECHANISMS

New market model

Transposition of the third energy package by the Natural Gas Act 2011 has brought major changes in transmission network access. The previous system of capacity reservations based on contractually agreed transport routes has been replaced by an entry-exit model under which capacity can be separately booked and traded at entry and exit points. Traders and suppliers that reserve capacity at entry points are entitled to inject gas into the transmission grid of a market area and transport it to the latter's virtual trading point. Capacity reservations at exit points entitle them to convey gas from the VTP to an exit point and withdraw it from the transmission grid. The VTP is not assigned to any physical entry or exit point, and market participants can buy and sell gas there without making transport capacity reservations.

The Natural Gas Act 2011 requires every system user to join a balance group. The well-tried balance group system in place in distribution now also applies at the

SCHEMATIC REPRESENTATION OF THE NEW MARKET MODEL



Source: E-Control

Figure 22
Schematic representation of the new market model

transmission system level, and covers the entire market area. The market area manager acts as a one-stop shop responsible for registering balance responsible parties and managing balance groups, and is also the initial point of contact for new market participants. Under the new market model, balancing for the balance groups operating in the distribution area remains the task of the clearing and settlement agent.

Separate rules apply in the Tyrol and Vorarlberg market areas, although wherever possible they are identical to the rules in force in the eastern market area. As the two market areas in western Austria are not physically connected to their eastern counterpart, but to the NCG market area in Germany, the market rules for the two provinces are designed to simplify access to the virtual trading point in the NCG area.

Transfers of gas destined for the Tyrol and Vorarlberg market areas take place by way of nominations at the NCG virtual trading point. The distribution area manager accepts the gas at the the NCG VTP and organises its transportation to the Tyrol and Vorarlberg market areas. In line with the "allocated as nominated" rule, gas transferred at the NCG VTP is deemed to be directly delivered to Tyrol or Vorarlberg. From the perspective of the German balance groups there are no other rules for shipments to the Tyrol and Vorarlberg market areas.

Gas transferred by German balance groups at the NCG virtual trading point is allocated to the corresponding balance groups in Austria. The latters' schedules for the purpose of supplying consumers (or for injection/withdrawal at other entry/exit points in the Austrian market areas) are offset against the quantities of gas transferred by the corresponding German balance groups at the NCG VTP. Under the Austrian market rules, this gas is treated in accordance with the imbalance settlement mechanisms in place. Clearing and settlement is carried out by the clearing and settlement agent.

It is hoped that the new market model will stimulate competition by implementing an entry/exit system and introducing daily balancing, and as a result minimise the total cost of the system access and balancing regime.

Balancing energy

In 2012 the monthly physical balancing energy requirements (buy and sell) of the eastern control area manager remained at the low level witnessed since 2005 (Figure 23), with the exception of February 2012, when cold weather across Europe and resulting delivery cutbacks caused a demand spike similar to that seen during the January 2009 gas crisis.

The tendency for the balancing energy called off by the distribution area manager to run at 1–2% of total monthly gas consumption persisted in 2012 (Figure 24), although the

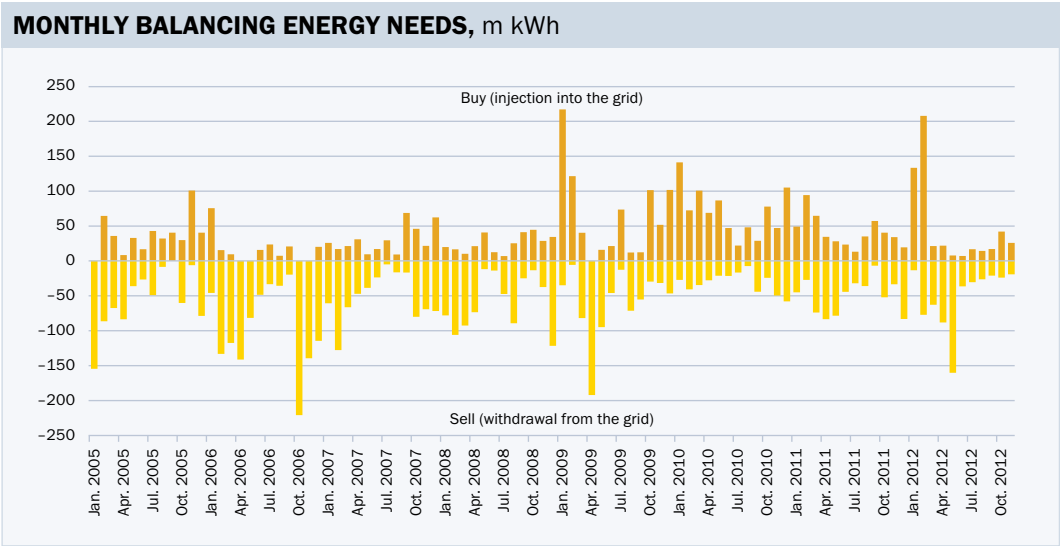


Figure 23
Balancing energy, 2012

Source: AGCS

figure dropped to well below 1% in the last few months of the year.

In 2012 there were again signs that the balancing market is to some extent taking on the role of a spot market, with some balance groups using it to buy or sell gas by making over- or under-deliveries. Total accrued balancing energy (the aggregate absolute quantities by which commercial balance groups were long or short) was equal to 5.75% of total gas consumption in the eastern control area in 2012 – up from 4.9% in 2011.

After spiking in February 2012, balancing energy prices fell back to 2011 levels and remained there for the rest of the year (Figure 25).

Storage market

Austrian storage capacity was unchanged in 2012, and working gas volume (WGV) remained at 7.4 billion (bn) cu m. The LAB storage facility in Slovakia is linked to the Austrian market by the MAB pipeline. This facility has a WGV of 652m cu m and a maximum withdrawal rate of 285,416 cu m/h.[12]

The percentage full rate at Austrian gas storage facilities rose year on year to reach 91% at the start of the 2012/13 gas year (Figure 26).

Heavy use was made of the gas in storage during the cold spell in February 2012 (Figure 27). Injections into storage peaked in August and September 2012.

[12] See http://pozagas.sk/en/ungsf-lab-4/

PHYSICAL BALANCING ENERGY AS A PERCENTAGE OF TOTAL GAS CONSUMPTION, %

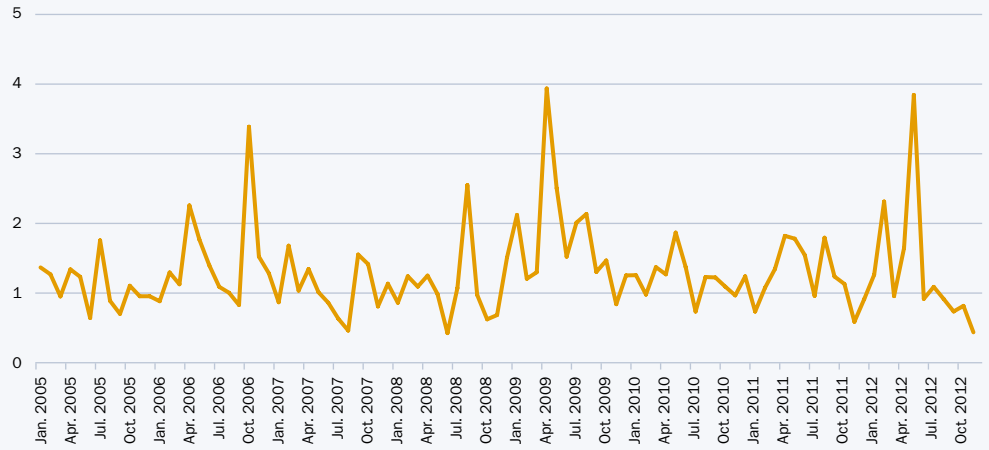


Figure 24
Balancing energy as a percentage of total gas consumption, 2012

Source: AGCS

BALANCING GAS PRICE TRENDS, cent/kWh

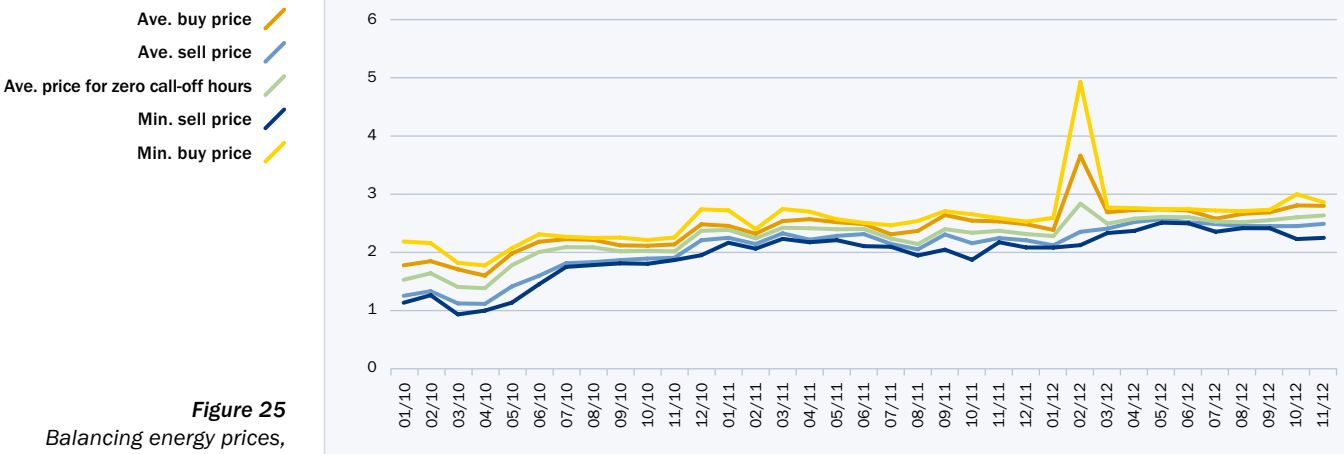


Figure 25
Balancing energy prices, 2012

Source: AGCS

STORAGE CAPACITY IN AUSTRIA						
Storage system operator/storage facility	**Injection rate, cu m/h**	**Share of total injection capacity**	**Withdrawal rate, cu m/h**	**Share of total withdrawal capacity**	**Working gas volume, m cu m**	**Share of total working gas volume**
OMV Schönkirchen	650,000		960,000		1,780	
OMV Tallesbrunn	125,000		160,000		400	
OMV Thann	115,000		130,000		250	
Total OMV storage capacity	**890,000**	**34.9%**	**1,250,000**	**35.2%**	**2,430**	**32.9%**
RAG Puchkirchen	520,000		520,000		1,080	
RAG Haidach 5	20,000		20,000		16	
RAG Aigelsbrunn	50,000		50,000		100	
Total RAG storage capacity	**590,000**	**23.1%**	**590,000**	**16.6%**	**1,196**	**16.2%**
Astoria Haidach	333,333	13.1%	366,667	10.3%	867	11.7%
Gazprom Haidach	666,667	26.1%	733,333	20.7%	1,733	23.5%
E.ON Gas Storage 7fields	405,000	15.9%	607,000	17.1%	1,165	15.8%
Total	**2,551,667**	**100.0%**	**3,547,000**	**100.0%**	**7,391**	**100.0%**

Sources: Corporate websites – www.omv.com; http://www.rag-energy-storage.at; http://www.astora.de/speicher.html; www.eon-gas-storage.de; http://www.gazpromexport.ru/en/haidach/

Table 6
Storage capacity in Austria, June 2013

The HHI on the supply side was unchanged from 2011 (2,279 excluding and 1,989 including the LAB 4 facility in Slovakia).

Allocation of storage capacity

The Austrian storage system operators offer capacity through online booking systems and by means of application forms on their websites, and increasingly via the Store-X platform. In October 2012 E.ON Gas Storage auctioned a 2,000 MWh (approx. 180 m cu m) index product on Store-X, but met with no interest from Austrian storage customers.[13] Capacity was offered for periods of three, four and five years, beginning in April 2013. Prices were calculated on the basis of the summer-winter price spread at the NCG VTP, with a floor of €2/MWh and a ceiling of €8.30/MWh. The poor response to the auction was blamed on the falling summer-winter spread, which had reached €2/MWh by the time of the auction, and the high cost of transporting gas on the German grid.[14]

[13] See energate press release, Kein Interesse an Index-Produkt für Speicher 7 Fields (German only), 22 October 2012.
[14] See energate press release, Kein Interesse an Index-Produkt für Speicher 7 Fields (German only), 22 October 2012.

NATURAL GAS IN AUSTRIA – MONTH-END STORAGE LEVELS, %

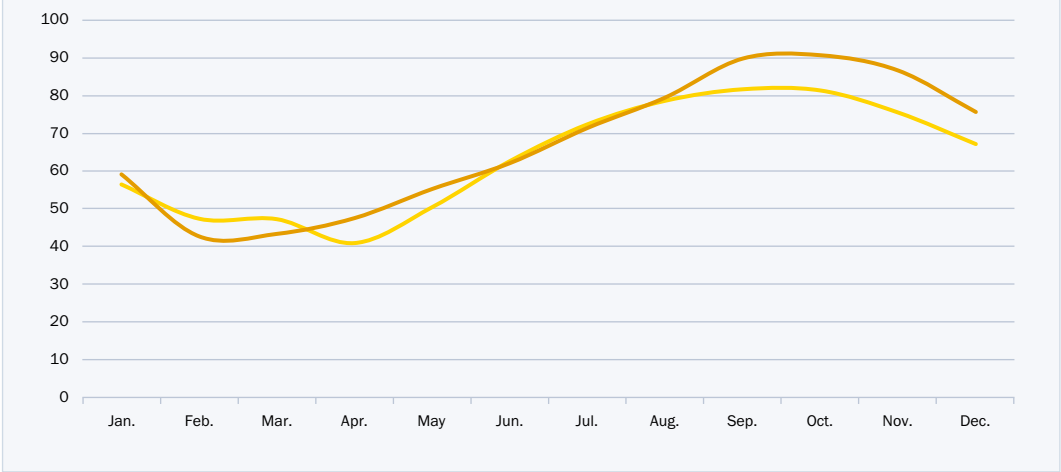


Figure 26
Austrian storage facilities, percentage full, 2011 and 2012

Source: E-Control

INJECTIONS TO AND WITHDRAWALS FROM AUSTRIAN STORAGE, GWh

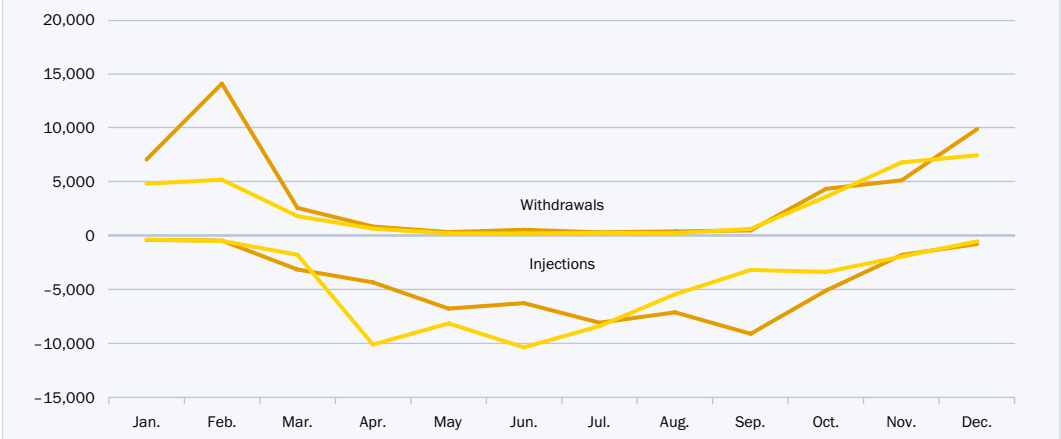


Figure 27
Injections to and withdrawals from Austrian storage, 2011 and 2012

Source: E-Control

Monitoring of implementation of the third package

Secondary market

As part of its oversight mandate, E-Control monitored the status of compliance with the obligations created by section 104(1) Natural Gas Act 2011 by writing to the storage system operators active in Austria to stress the urgency of creating a central platform for trading secondary storage capacity or joining an existing platform. Most of the storage system operators market unused capacity via the Store-X platform.

Transparency requirements

In 2012 some storage system operators again failed to satisfy the transparency requirements as defined by E-Control's legal interpretation principles, which are based on Regulation (EC) No 715/2009 (Gas Regulation).

Quality standards

Since 2006 the recommended general terms and conditions of distribution system operators have included network service quality standards. As the regulator approves the DSOs' general terms and conditions, it is also in a position to ascertain whether they include the standards. Monitoring of compliance is by means of the reporting of performance indicators by the DSOs. In addition, DSOs were required to survey customer satisfaction with network service quality and report the results to the regulator.

In 2012 we again monitored network reliability, and in particular supply interruptions due to technical disturbances and faults. We surveyed the duration, frequency and causes of supply outages.

In transposition of the Gas Directive, section 30 of the Natural Gas Act 2011 empowers the E-Control Executive Board to enact an ordinance on the quality of the network services rendered to system users. An ordinance of this kind was published on 29 May 2012 and commenced on 1 January 2013. It establishes uniform standards governing the commercial and technical quality of network services, and responses to supply interruptions.

The lead time for the provision of system admission was not directly monitored in 2012. As the circumstances and needs of parties eligible for system access vary greatly, the new Ordinance on Gas System Service Quality does not introduce monitoring of connection lead times. The relevant performance indicator must be reported annually, starting from 2013.

The ordinance imposes a maximum delay of 14 days in responding to applications for network admission, and requires agreement of a binding deadline for admission. The time taken to perform repairs and maintenance is monitored under the *Gas-Monitoring-Verordnung* (Gas Monitoring Ordinance) that entered

into effect on 1 January 2013 (pursuant to section 131 Natural Gas Act 2011).

IMPLEMENTATION OF THE STATUTORY REQUIREMENTS BY THE TARIFF REVIEW

The final cost determination procedure for the gas distribution industry to be carried out in accordance with the system employed during the first regulation period took place in 2012. The regulatory framework was slightly modified for the second regulation period (running from 1 January 2013 to 31 December 2017), and the charges for 2013 were set using the adjusted system. The efficiency target for the end of 2017 remains in place, but the cost trajectory for the second period has been "reset" on the basis of the 2011 audited cost base and target attainment. Both the system expansion factors (operating cost and investment factors) and the weighted average cost of capital have been revised. In addition, a quality element has been included in the regulation formula; however, this will have no impact for some time to come.

Section 79 Natural Gas Act 2011 requires the allowed cost from which the system charges are derived to be reflective of actual costs and to be determined separately for each network level. Only costs that are reasonable in terms of their origins and amount are to be allowed. Reasonable investment costs must be allowed, taking account of both historical costs and the cost of capital. The cost calculations must be based on targets aligned to the potential efficiencies achievable by the companies, i.e. the costs determined must be adjusted for general targets reflecting productivity trends, and for changes in the system operator price index. Individual targets may be set on the basis of the efficiency of each system operator. In its allowed cost decisions, the regulatory authority can divide the time allotted (target attainment period) to meet the targets into one or more regulatory periods. If amounts charged on by a vertically integrated gas undertaking influence the costs of a system operator, the latter must furnish adequate evidence that the parent's charges are justified. To prevent cross-subsidisation between transmission, distribution and retail activities, the vertically integrated undertaking must submit documentation evidencing the basis of calculation underlying the invoices in question at the request of the regulatory authority.

Determination of transmission and distribution tariffs

As in the previous periods, investment totalling over € 600m in the Südschiene and Westschiene transmission pipelines up to the end of 2013 had a major impact on the *Gas-Systemnutzungsentgelte-Verordnung* (Gas System Charges [Amendment] Ordinance) 2013. Some € 402m has already been spent, giving rise to additional capital costs (depreciation and finance costs) of over € 30m that must be covered by the system charges. The Südschiene and Westschiene

have a significant bearing on the cost determination exercise, as the compensation for investments represents almost 32% of the costs of the transmission systems and 6.4% of the total network costs in the eastern market area.

To cover investment in distribution networks and additional operating expenses during the regulation period, there are an investment and an operating cost factor. These are aimed at creating additional investment incentives for distribution system operators. they are mainly designed to promote increased network penetration, resulting in better use of existing networks. The investment and operating cost factors ensure that distribution system operators are able to run their systems safely and reliably, and that they can extend their networks to win new customers. In contrast to the previous year, the reference supply volume for tariff determination fell. The reference volume is the average for the latest three years for which figures are available. In the case of the 2012 charges, these are the quantities supplied between 2008 and 2010, and in that of the charges for 2013 it is the average volume in the 2009–2011 period. Due to limited power station use, the reference supply volume fell by around 3%.

The audit of gas distribution system operators' costs carried out last year to determine the cost base for 2013, which was adjusted to the regulation parameters for the second incentive regulation period, went a long way towards mitigating the effects of the reference volume and investment activity on costs and tariffs. The new methodology applied for the first time to the cost cascading under the Gas System Charges Ordinance 2013 has resulted in significant changes in the differentials between the tariffs in the various provinces. In the Burgenland, Carinthia, Lower Austria and Salzburg network areas the factors are largely unaltered, and the new methodology has therefore had little impact on the system charges. The Styria network area sees bigger changes, which are largely driven by the investment in the Südschiene pipeline; due to the unfavourable market situation for gas-fired power plants this was not offset by rising reference volumes. There was a considerable increase in the system charges in the Vienna network area, mainly as a result of a massive rise in the uncontrollable costs referred to by section 79(6)(4) Natural Gas Act 2011. The reduction in the system charges in the Upper Austria network area was due partly to the new cost cascading method, and partly to volume growth.

The Tyrol and Vorarlberg network areas are unaffected by the new methodology because they constitute separate distribution areas. The changes in the system charges result both from cost and volume movements, and from the new market model. It is also worth noting that the system charges for a typical household consumer with an annual demand

of 15,000 kWh have been cut by over 3% since full liberalisation of the Austrian gas market in October 2002.

The current system charges are those established by the Gas System Charges Ordinance 2013, which commenced on 1 January 2013. As had already been the case with the electricity sector since 2011, in 2012 the gas system charges were imposed for the first time by way an official decision procedure. Like their counterparts in the electricity industry, the system operators have received official decisions informing them of the cost and volume calculation basis of the 2013 system charges.

Approval of calculation methods

From January 2007 on, all gas transits were subject to general terms and conditions and tariff calculation methods approved by the Energie-Control Commission. Section 70(1) Natural Gas Act 2011 states that the Regulation Commission shall enact the transmission system charges by ordinance. Section 82 of the Act prescribes that the relevant ordinance shall be based on a methodology to be approved by an official decision of the E-Control Executive Board, and that the same official decision shall also specify the cost and volume parameters applied.

The methodology must meet the requirements of Art. 13 Gas Regulation. Under the provisions of the regulation, the tariffs must take into account the need for system integrity and improvement, and reflect the actual costs incurred, insofar as such costs correspond to those of an efficient and structurally comparable network operator, as well as including an appropriate return on investments. Incentives should be in place for transmission system operators to enhance efficiency and to make essential investments at reasonable and proportionate costs. The methodology should also take into consideration income from market-based capacity allocation procedures. Section 82(1) Natural Gas Act 2011 specifies that section 80 of the Act applies *mutatis mutandis*. This means that the cost of capital must include the reasonable cost of equity and debt, taking capital market conditions and income tax expense into account. Subsidised finance must also be given due consideration.

The transmission system operators must report to the regulator and evidence the level of costs and the cost structure arrived at using the methodology. Approval is granted if the conditions specified under section 82(1 and 2) Natural Gas Act 2011 are met and if the tariffs calculated using the methodology are not significantly higher than the average published transmission charges for comparable transport services on comparable pipeline networks in the European Union. These comparable transmission charges must be submitted to the regulator for approval together with the tariff calculation methodology.

During consultations with the three transmission system operators concerned, the costs and revenue predicted by the methods introduced in 2007 were compared with the actual figures, and retroactive adjustments made for the differences. The companies' projected costs, investment and committed capacity over the next few years were reviewed, and after a number of rounds of adjustments the methodologies submitted by them were approved by the E-Control Executive Board. This laid the groundwork for the Regulation Commission to set the entry-exit charges.

GAS TRANSPORTATION

Pursuant to section 6 Gas Market Model Ordinance 2012, the allocation of entry and exit capacity by auction began on 1 April 2013. The explanatory notes to section 6 of the ordinance state that the transmission system operators must auction capacity using the capacity products and lead times specified by the ENTSOG Capacity Allocation Mechanisms (CAM) network code.

The CAM network code specifies the following auction calendar:

- Annual yearly capacity auctions on the first Monday in March (exception: yearly capacity for 2013 was auctioned on the first Monday in May);
- Annual quarterly capacity auctions on the first Monday in June;
- Monthly capacity auctions on the third Monday of each month;
- Day ahead capacity auctions at 16.30;[15]
- Within-day capacity allocation every hour during a given gas day.

CAM NETWORK CODE: STANDARD CAPACITY PRODUCTS

Product	Frequency of auctions	Number of products per auction and cross-border interconnection point
Yearly	annually	15
Quarterly	annually	4
Monthly	monthly	1
Day ahead	daily	1
Within-day	hourly	1 (rest of day)

Source: E-Control

Table 7
CAM network code: standard capacity products

[15] Central European Time/Central European Summer Time (CET/CEST).

Gas Connect Austria, TAG and BOG joined PRISMA – a European capacity auction platform that went live on 1 April 2013. Since then the three TSOs have been auctioning all of their capacity on the platform.

In accordance with the CAM network code, an ascending clock algorithm applies to yearly, quarterly and monthly capacity auctions. In the various bidding rounds, prices are increased – initially by large and finally by small steps – in order to arrive at the clearing price. There is no limit to the number of bidding rounds. In each round, prospective system users submit bids for the required amount of capacity at the specified price via the PRISMA platform. If the demand for capacity exceeds supply, escalating prices are applied to determine the market clearing price at which supply and demand are in equilibrium.

Due to the short-term nature of day-ahead and within-day auctions, a simplified procedure based on a uniform price auction algorithm with a single bidding round is applied. Prospective system users can use the PRISMA platform to generate a list of bids by submitting up to ten combinations of price and capacity, each with a specified minimum quantity.

Congestion management

The Gas Market Model Ordinance 2012 transposed into Austrian law some of the congestion management provisions contained in the Commission decision of 24 August 2012 on amending Annex I to the Gas Regulation. Besides the "use it or lose it" mechanism for firm day ahead capacity, which comes into effect on 1 October 2013, a similar mechanism for long-term capacity was introduced with effect from 1 January 2013 already.

From 1 October 2013 it will also be possible for transmission system operators to return contracted capacity. The TSOs are currently looking into the potential introduction of an overbooking and buy-back regime, and the regulator will reach a view on the basis of the findings they submit to it.

COMPLIANCE

Art. 41(1)(d) Gas Directive, under which regulatory authorities are obliged to comply with and implement any relevant legally binding decisions of ACER and the Commission, was transposed by section 21(6) E-Control Act. Under the provisions on certification (section 119 Natural Gas Act 2011 and Art. 3 Gas Regulation) and exemptions for new infrastructure (section 42 Natural Gas Act 2011), the regulator is obliged to take into account as far as possible the opinions of bodies such as the European Commission and to implement the decisions of such bodies.

To date E-Control has considered four applications for certification. On the basis of opinions submitted by the Commission, which E-Control was obliged to follow as far as possible, certification was granted to two TSOs while the other two applications were rejected.

E-Control also ruled on the extension of an exemption under section 42(13) Natural Gas Act 2011, and was again obliged to act in accordance with the Commission's decision.

CROSS-BORDER COOPERATION WITH OTHER PUBLIC AUTHORITIES

Following the completion of the initial phase of the establishment of the Central Eastern European Trading Region (CEETR) – a project set up by Austria, the Czech Republic and Slovakia – the run-up to phase two is now under way. The first stage involved drafting the capacity allocation, tariff determination and balancing principles. The second will see the development of a detailed model that will serve as the basis for the decision to proceed with implementation. Phase two will focus on finalising the details of the tariff scheme and the design of the institutional structures. Various factors – notably the failure of the Slovakian regulator to give its go-ahead – have delayed the start of phase two.

Competition

GAS SUPPLY AND DEMAND

Gas consumption

In 2012 total natural gas supplies to domestic consumers decreased by 4.6% to 91,204 GWh (8,151m N cu m). Weather conditions played a key role in the fall. Although heating demand was up in February and December, this was more than offset by milder temperatures and resultant low demand in the other winter months. The other major factor behind the decline was the excellent water flow in Austrian rivers, which was reflected in a 16.0% drop in thermal generation. Output from gas-fired power stations was down by 21.8% in 2012 due to the impact of weather conditions on district heating demand.

Gas consumption varied sharply from month to month in 2012, ranging from a decline of 1,776 GWh or 16.9% in March to an increase of 2,347 GWh or 20.3% in February.

Imports and exports

Physical gas imports totalled 451,493 GWh, a decline of 36,706 GWh or 7.5%, while physical exports fell by 15,785 GWh or 4.1%, to 368,683 GWh, meaning that the physical trade deficit contracted by 20,921 GWh to 82,810 GWh.

A seasonal analysis reveals that Austria became a net exporter in February 2012, as a result of additional exports from the Upper Austrian storage and production systems to Germany.

COMPETITION ON THE WHOLESALE MARKET

Legal basis of monitoring

Art. 41(1)(j) of the Gas Directive tasks the regulatory authorities with monitoring the level and effectiveness of market opening and competition at wholesale and retail levels, including on gas exchanges, prices for household customers including prepayment systems, switching rates, disconnection rates, charges for and the execution of maintenance services, and complaints by household customers, as well as any distortion or restriction of competition, including providing any relevant information. This provision was transposed into national law by section 131 Natural Gas Act 2011.

Pursuant to section 131(2) Natural Gas Act 2011, E-Control issued the Gas Monitoring Ordinance, which specifies the data to be collected under these provisions, including the group of persons required to provide information, the frequency of data collection and the units of measurement.

Competition for customers is heavily influenced by the competitive conditions on upstream markets. Consequently, any assessment of the competitive situation must take account of all of the sub-markets that make up the gas supply chain, namely gas procurement (wholesale), transportation, storage, balancing energy, distribution and retail.

Gas wholesaling is based on long-term agreements, and increasingly also on the spot and futures markets. The latter are playing an increasingly important role in the procurement of swing capacity, and spot and futures prices are now also built into the formulas of the price adjustment clauses in long-term supply agreements.

Access to fundamental data such as daily transportation and storage movements is vital for gas trading. This is reflected in the stricter transparency requirements introduced by the Gas Regulation and by REMIT. It is impossible to analyse price movements without information on market fundamentals.

Retail prices reflect wholesalers' and retailers' gas and balancing energy costs, and payments for the use of transportation and storage capacity.

E-Control collects the data specified by the Gas Monitoring Ordinance in fulfilment of its duties under section 21(2) E-Control Act (investigating, reporting on and issuing opinions on market and competitive conditions in the gas sector), and its duty to produce monitoring reports pursuant to section 28(1–2) E-Control Act and Art. 41(1)(e) Gas Directive.

Monitoring results

Monitoring in 2012 was based on publicly available and statistical data only, as the Gas Monitoring Ordinance was still to come into effect.

The average CEGH day ahead price stood at €26/MWh in 2012, compared with around €24/MWh in the previous year. Prices ranged from €25–27/MWh for a large part of 2012, only breaking out of this band in late January and early February when prices peaked at €39.50/MWh – the all-time high for the CEGH market. The reasons for the price spike lie on both the demand and the supply side. The 30% reduction in Russian gas deliveries during this period impacted supply, while freezing temperatures in Austria pushed up consumer demand.

CEGH DAY AHEAD SPOT MARKET, €/MWh

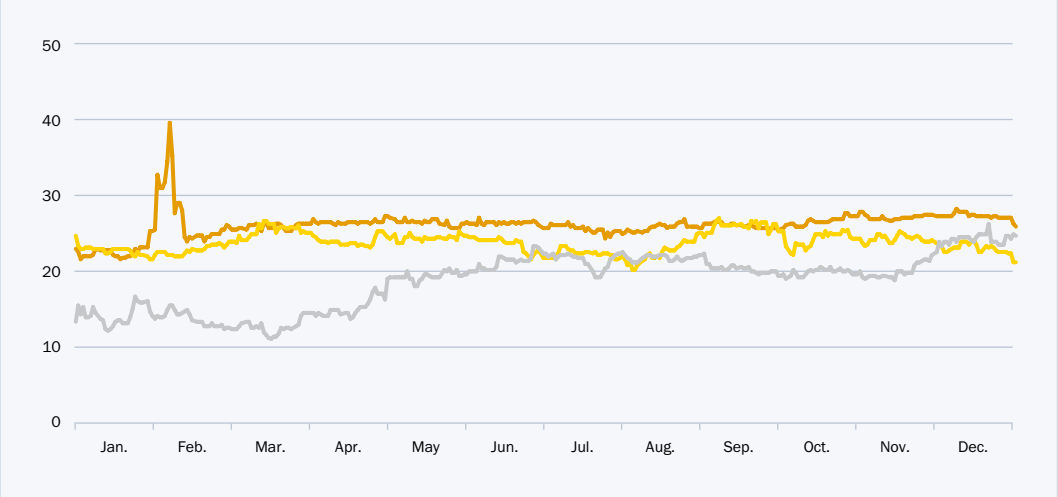


Figure 28
Day-ahead prices, over time

Source: CEGH

Table 8
CEGH and NCG spot prices

AVERAGE DAY AHEAD PRICE, €				
	CEGH	NCG	Spread	Market with highest price
Q1 2012	25.23	24.40	0.83	CEGH
Q2 2012	26.40	24.45	1.95	CEGH
Q3 2012	25.77	24.81	0.97	CEGH
Q4 2012	26.98	27.15	0.17	NCG
Q1 2013	26.77	28.11	1.34	NCG

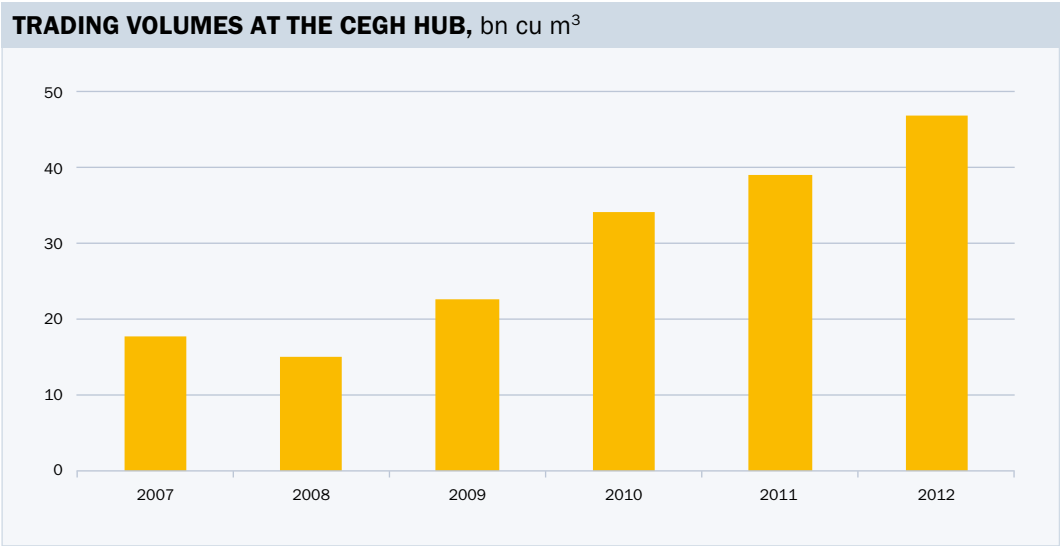
Sources: CEGH, NCG and own calculations

Over 2012 as a whole the average CEGH day ahead price was € 0.90/MWh higher than the equivalent NCG price. In 2011 the average CEGH day ahead price was € 0.80/MWh above its NCG counterpart. However, the situation was reversed in the final quarter of 2012 and the first quarter of 2013, as Table 8 shows. According to market reports, a decline in gas demand in Italy owing to the country's economic troubles meant that CEGH saw a fall in demand from Italian wholesalers. This pushed CEGH prices below NCG levels – by some € 0.20/MWh in fourth quarter of 2012. Since early April 2013 CEGH prices have again exceeded those quoted on the NCG.

OTC volumes reached 46.8bn cu m in 2012, compared to 38.9bn cu m in the previous year. The changeover to the new market model at the turn of 2012 led to a brief decline in trading volumes. The average churn rate was 3.53 in 2012 – up from 3.38 in 2011. A total of 3.06 TWh was traded on the Vienna Stock Exchange's CEGH Gas Exchange.

In 2012 preparations were made to change over from a physical to a virtual trading point on 1 January 2013, pursuant to the Natural Gas Act 2011. The Act is designed to simplify market entry, with a view to attracting new market participants, thereby boosting liquidity and enhancing competition. It is also intended to drive progress towards the harmonisation of the transmission and distribution grids.

The launch of the VTP on 1 January 2013 was accompanied by the introduction of the within-day gas exchange. This enabled to the market area manager, Gas Connect Austria, and the distribution area manager, Austrian Gas Grid Management (AGGM), to start trading balancing energy. Meanwhile CEGH Gas Exchange members took advantage of the within-day market to optimise their trading positions.



Source: CEGH

Figure 29
Trading volumes at the CEGH hub

Since April it has been mandatory for transmission system operators to bundle cross-border transportation capacity. Austrian system operators have been auctioning available capacity on the PRISMA platform since 1 April 2013 – an approach that gives market entrants a more level playing field than the previous "first come, first served" method.

The Tyrol and Vorarlberg market areas will be linked to the NCG market area in Germany from October 2013. These two market areas already have closer connections to the NCG area than to Austria's eastern market area. In its role as the distribution area manager, AGGM will reserve cross-border capacity on behalf of all market participants and procure balancing energy in the NCG market area.

The new gas market model introduced a "use it or lose it" regime for day-ahead capacity. System operators are required to set aside at least 10% of their annual technical cross-border transmission capacity for contracts with terms of less than four months.

COMPETITION ON THE RETAIL MARKET

The gas retail market can broadly be broken down into two segments:

1. Mass market consumers (small consumer market): households, SMEs, farms and other small consumers with an annual gas demand of less than 400,000 kWh. Standardised load profiles are assigned to these consumers. The suppliers are legally obliged to publish their rates for this consumer segment.
2. Individual contract consumer market: SMEs, large-scale industrial enterprises and service businesses with an annual consumption of over 400,000 kWh and load metering. These consumers have individually negotiated supply agreements.

Supply

Mass market

Household and other small consumers normally have short-term contracts without minimum offtake obligations, and without explicit escalation clauses tied to oil product prices. Instead, there is step-fixed pricing, i.e. the gas price is adjusted at irregular intervals determined by the supplier. This means that the impact of a fall or rise in fuel oil prices – and hence in the gas companies' purchasing prices – on the prices paid by consumers is generally lagged.

In mid-November 2012 Montana Energie, a German company, entered the Austrian market as a supplier to household consumers and SMEs in the eastern market area. This continued the increase in the range of products on offer which had begun in 2011. In mid-2011 household consumers had a choice of seven or eight products, depending on their region, but by the end of 2012 the number had risen to 13–15 products, from between ten and 13 suppliers. In contrast, customers in the Tyrol and Vorarlberg market areas were still only able to choose from two or three products. The sole alternative supplier was goldgas.

Market concentration

Concentration in the small consumer market fell by eight percentage points, from an HHI of 4,047 to 3,726. However, this score is still very high, and far above the critical level of 1,800.[16] In 2012 the combined market share of the three largest suppliers was 72%, and that of the five largest suppliers 81%. The top ten suppliers were serving 94% of all consumers.

EnergieAllianz has the highest market share in this segment, at around 60%, through its Wien Energie, EVN and Energie Burgenland sales companies.[17]

[16] Sources: market statistics survey questionnaire and E-Control calculations.
[17] See information posted on the EnergieAllianz website, www.energieallianz.at

Product design and marketing
The main differentiators are the facts that many products are offered as online products or with price guarantees. Online tariffs tend to be cheaper than other products. Many suppliers offer local premium products, which again might feature rebates for online communication and/or payment by direct debit.

Rebates are mostly awarded to new customers for the first year of their contracts.

Some retailers also offer so-called "unconditional discounts", enjoyed by all of their customers. This form of discount played a major role in western Austria for some time, but progressive reductions in the price cuts have meant it has lost much of its appeal. Some suppliers raised their energy prices at the start of 2012, but there were virtually no more changes for the rest of the year.

Large consumer market
No data is collected on the market shares held by suppliers of load metered consumers. There is a wide selection of pricing models in the large consumer market.

Demand
Market structure
Total retail gas sales fell again in 2012, dropping by 4.6% year on year to 91,200 GWh. Industrial demand was entirely responsible for the decrease, and household consumption actually rose by 2.6%. The number of metering points edged down to 1.35m, mainly as a result of consumers' switching from gas to district heating.

SUPPLIER SWITCHES AND SWITCHING RATES, 2010–2012

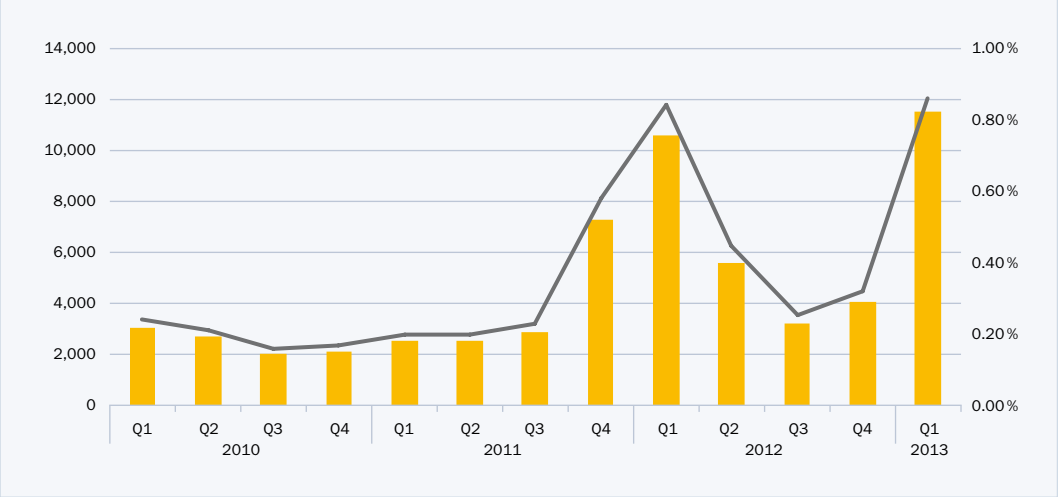


Figure 30
Supplier switches and switching rates in terms of metering points, 2010–2012

Source: E-Control

POTENTIAL SAVINGS FROM SWITCHING, €/year

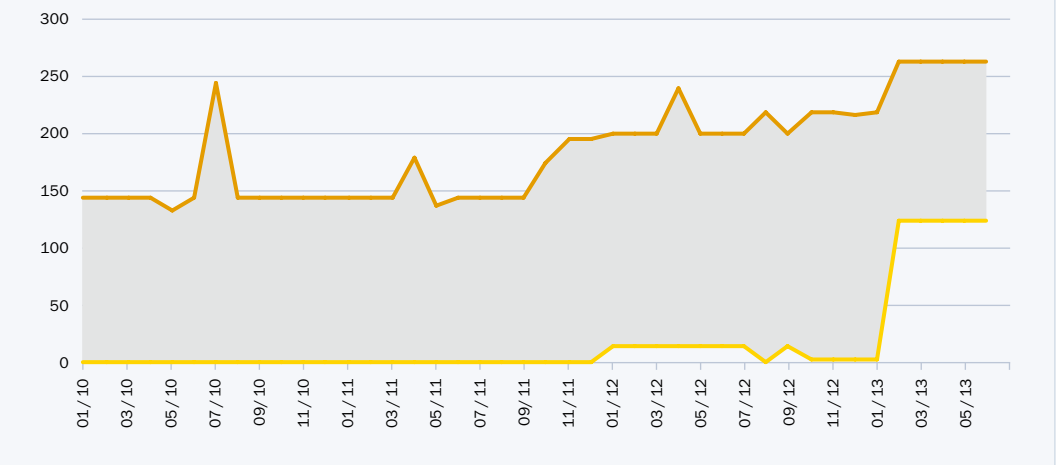


Figure 31
Potential savings (energy costs inc. VAT) for a typical household (15,000 kWh/y) switching from an incumbent to the cheapest supplier

Source: E-Control

TOTAL GAS PRICE, OVER TIME, cent/kWh

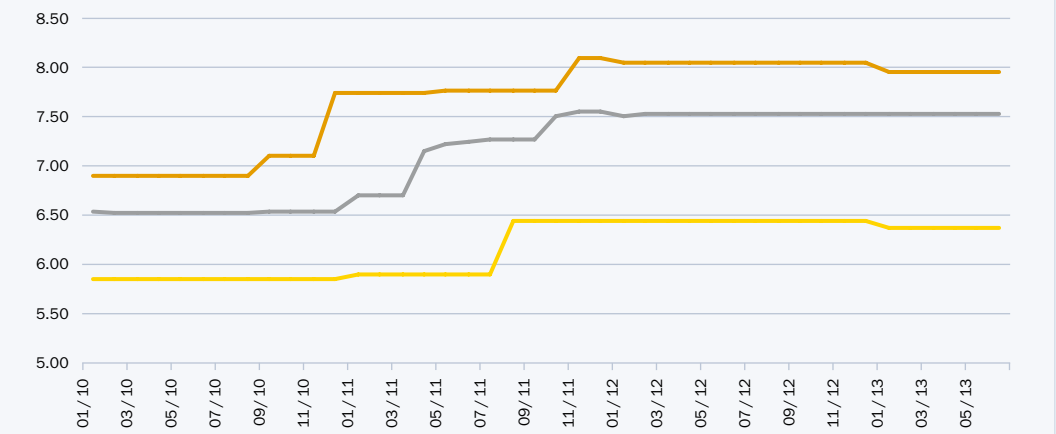


Figure 32
Total gas price (energy and network charges, taxes and levies) for a typical household (15,000 kWh/y), over time: weighted average, and maximum and minimum prices of regional suppliers' standard products

Sources: Tariff calculator and E-Control

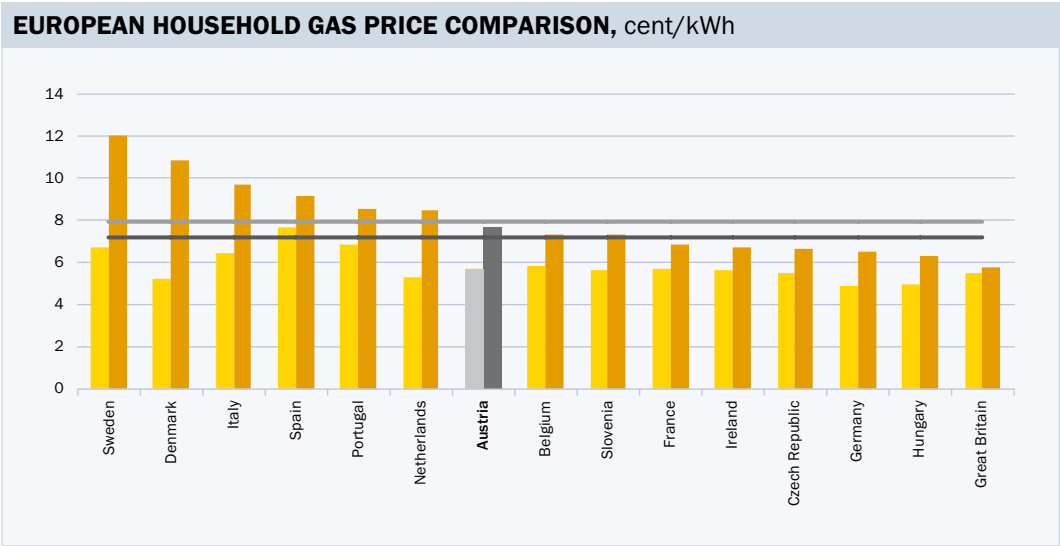


Figure 33
European comparison of household gas prices (energy and system charges, taxes and levies), consumers with annual demand of 5,555–55,555 kWh, H2 2012

Source: Eurostat

Switching rates
Due to the protracted wave of price increases by incumbents in 2011 and the arrival of new suppliers, the switching rate rose sharply in the fourth quarter of 2011. This trend persisted in the first quarter of 2012 (Figure 30). Switching rates were also well up year on year in subsequent quarters. The relatively high level of potential savings also played an important part. A typical household could cut its bills by over €200/year by switching from the regional incumbent to the cheapest supplier (Figure 31).

Some 23,400 or 1.7% of all Austrian gas consumers changed suppliers in 2012 – the highest overall switching rate since market opening. A cumulative total of about 8.6% of all consumers have switched since liberalisation.

Price trends
Household consumers
Total gas costs fell slightly at the start of 2013 due to the change in the system charges, which was largely offset by small increases in energy prices (Figure 34). Prices have risen by 12% since 2011.

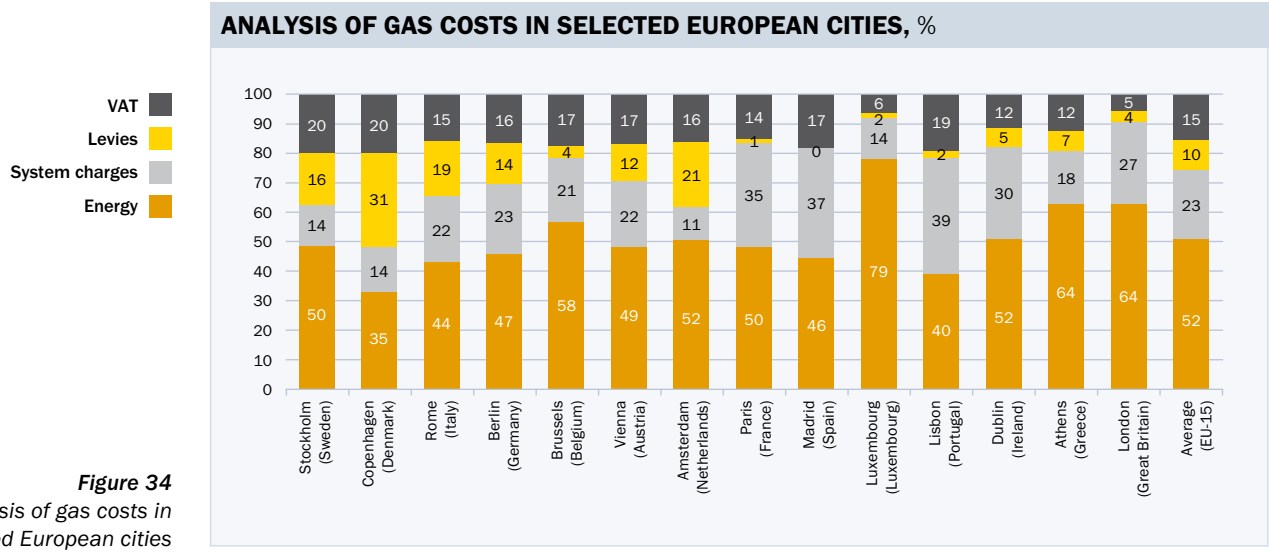


Figure 34
Analysis of gas costs in selected European cities

Sources: HEPI December 2012 and E-Control

International comparison of household prices
A European comparison reveals that overall Austrian prices including taxes and levies are in the upper mid-table bracket (Figure 33). Overall household prices in Austria were 7.63 cent/kWh in the second half of 2012 – 0.48 cent/kWh above the EU-27 average and 0.26 cent/kWh below the EU-17 mean. Depending on consumption, total costs were between five and six percentage points higher than in the same period of 2011.

Taxes and levies accounted for 29% of total costs, which was higher than the HEPI[18] average (Figure 34). They made up 51% of overall electricity prices in Copenhagen and 37% in Amsterdam, whereas in Luxembourg they were only 8% and in London 9% of the total. In Vienna the unregulated component (energy) accounted for 49% of the overall cost of gas – below the HEPI average of 52%.

[18] The European Household Energy Price Index (HEPI) is compiled by E-Control in cooperation with VaasaETT Global Energy Think Tank. This weighted index tracks price trends throughout Europe. It is calculated on the basis of the electricity and gas prices of the incumbents and their leading competitors in each of the EU-15 capitals. The analysis takes the tariffs most widely used by consumers in each city.

INDUSTRIAL GAS PRICES, OVER TIME, cent/kWh

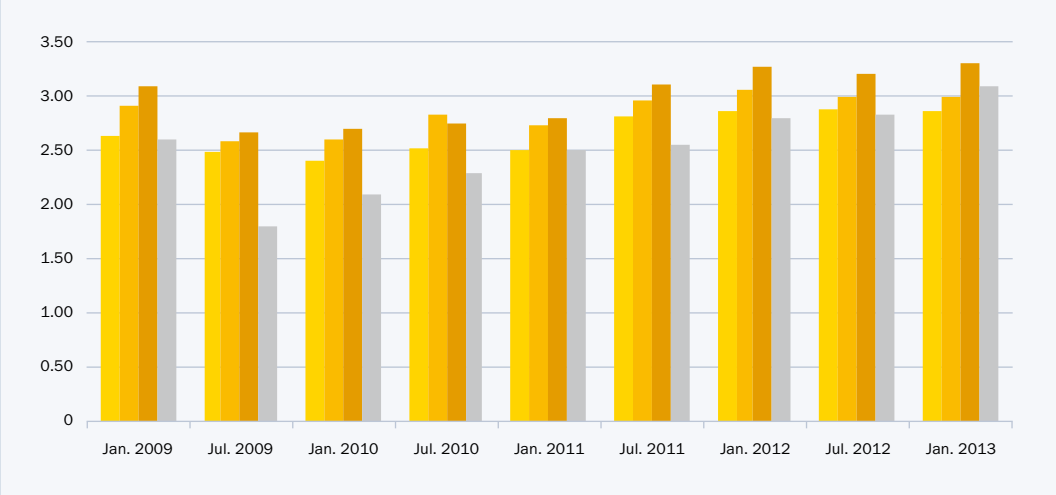


Figure 35
Industrial gas prices, over time

Source: E-Control

EUROPEAN INDUSTRIAL GAS PRICE COMPARISON, cent/kWh

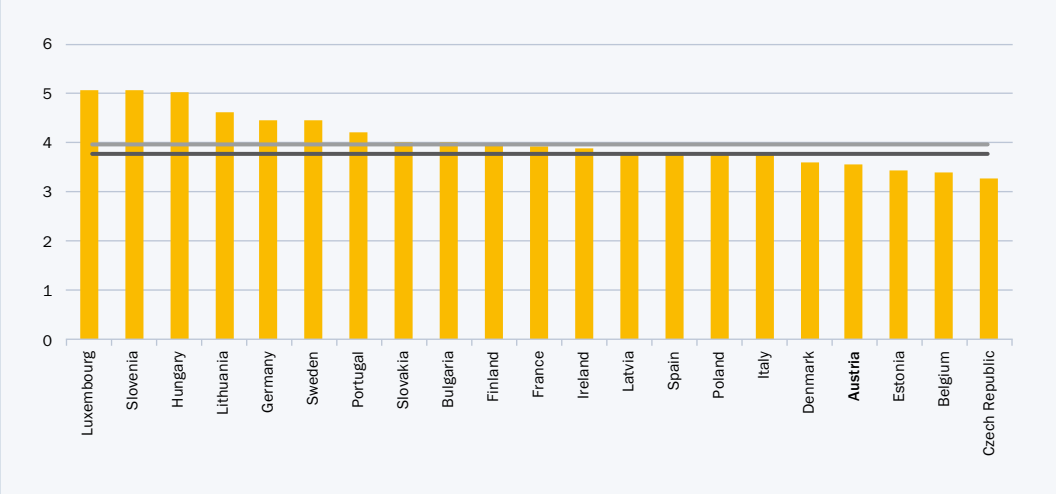


Figure 36
Comparison of industrial gas prices in EU member states, H2 2012, consumption of 2.8–27.8 GWh

Source: Eurostat

Gas prices charged to load metered consumers

Since the second half of 2003 E-Control has surveyed the energy prices paid by Austrian industrial consumers directly, on a biannual basis (January and July), using an online form.[19] The survey results (Figure 35) show a small increase in gas prices (energy prices) in categories[20] A (0.92%) and C (2.2%), and a modest 0.6% fall in category B. In contrast, average import prices surged by almost 11 percentage points. This could indicate weaker oil price linkage and the increased use by suppliers of alternative pricing mechanisms related to hub, spot and futures prices.

A survey of large consumers with an annual demand of over 2 GWh[21] conducted by E-Control in November 2012 revealed that industrial customers felt that competition between suppliers was still weak. In this regard, perceptions of the gas market were more negative than those of the electricity market.

Industrial consumers continued to feel that market prices unjustifiably high. Every second company polled had seen its energy prices increase since 2011. This was mainly due to some sharp increases in gas and oil prices.

AUSTRIAN GAS COMPANIES' MARGINS, €/MWh

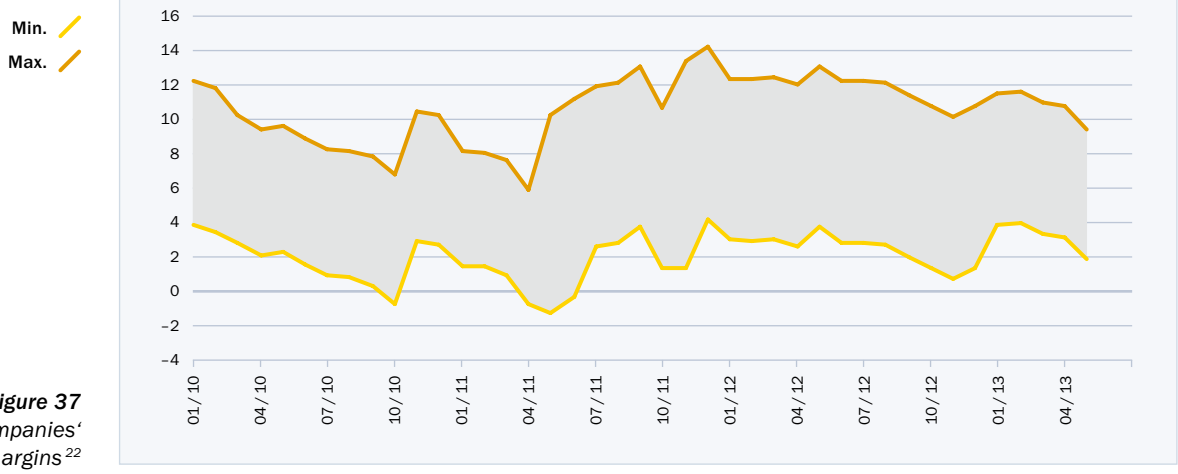


Figure 37
Austrian gas companies' margins[22]

Sources: Tariff calculator, EEX, CEGH, Statistics Austria and own calculations

[19] The results are posted on our website (www.e-control.at).
[20] Categories: A > 100 GWh; B: > 10 GWh and ≤ 100 GWh; C: ≤ 10 GWh.
[21] See http://www.e-control.at/de/industrie/news/aktuellemeldungen, Industriebefragung 2011 (2011 industrial survey) (German only), p. 34.
[22] Difference between procurement costs ("18:6 balanced" procurement strategy: 80% ToP, 20% futures) and the local incumbent's maximum or minimum energy price for a typical household.

European comparisons
Industrial gas prices (energy prices and system charges, ex tax) in Austria are below the EU-27 and EU-17 averages (Figure 36).

Austrian gas companies' estimated margins
To assess the gas suppliers' retail margins, E-Control and Frontier Economics[23] have developed a margin calculation model that simulates a variety of procurement strategies.

The analysis for 2012 shows that the gross margins were up year on year, and were between €2 and €12/MWh, depending on the prices charged to consumers (Figure 37). The margins are lowest with conventional procurement under oil-indexed long-term contracts, and highest with pure-play spot market procurement. However, in reality the latter is still not a feasible option. A stronger focus on short-term procurement, by incorporating spot and futures prices in the gas price formula used in oil-indexed long-term contracts and increasing the volumes procured on the spot and futures markets, would create leeway for price reductions (see Figure 38).

GAS COMPANIES' PROCUREMENT COSTS, €/MWh

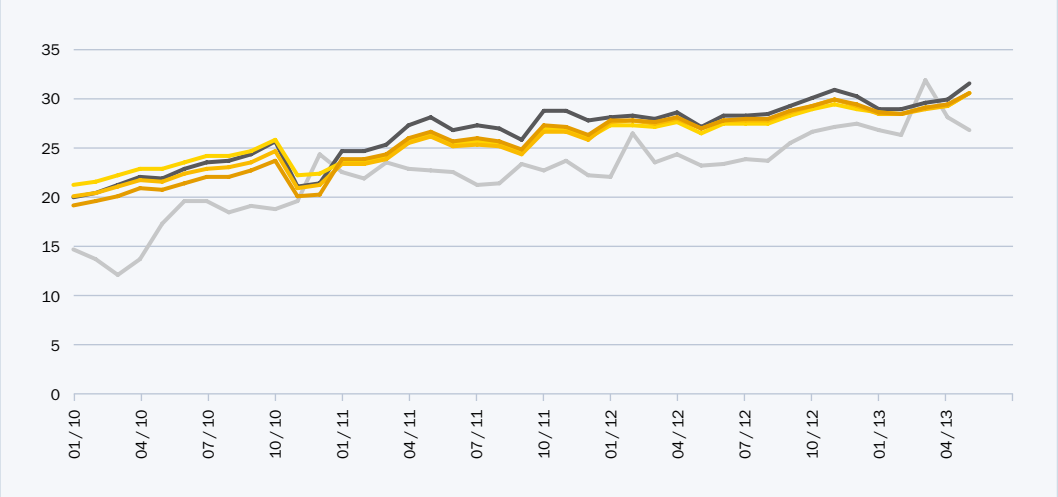


Figure 38
Gas companies' procurement costs under various strategies

Sources: EEX, CEGH, Statistics Austria and own calculations

[23] See Marktbroschüre (Market Brochure) 2010 (German only), p. 17, www.e-control.at/publikationen.

NET INVESTMENT IN GAS NETWORK DEVELOPMENT, €'000

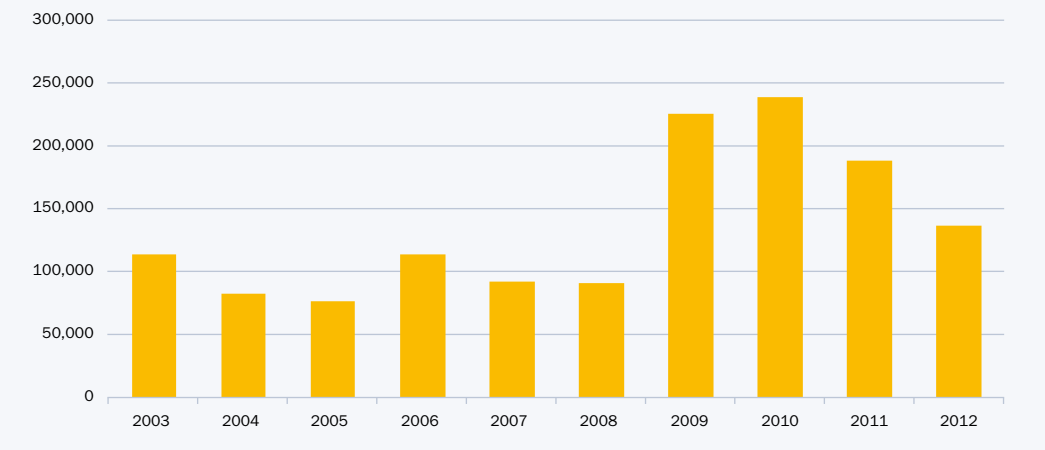


Figure 39
Evolution of net investment in gas network development, 2003–2012

Sources: company data and E-Control

INVESTMENT BY ENERGY COMPANIES

Gas network investment

Our study of gas network investment was restricted to the net expenditure of the 20 largest gas system operators in Austria. In contrast to the asset classes used in the electricity sector, the gas survey only covers grid-related assets such as pipelines, control stations and metering equipment. This can lead to differences in the treatment of various kinds of data (e.g. net gas industry investment based on data from Statistics Austria).

Network investment cycles in the gas industry are assumed to be longer than those in the electricity industry. As a result, and owing to the wide range of investment needs and projects, the level of capital expenditure may vary widely from year to year.

Investment in the gas network has been relatively stable since market liberalisation in 2002. The heavy investment seen in the 2009–2011 period, and to a lesser extent in 2012, was primarily associated with the

Südschiene and Westschiene transmission pipeline developments. The decline in investment in 2012 reflects reduced spending on the two pipelines in that year. Gas distribution network modernisation and expansions account for the lion's share of the rest of the investment expenditure. EVN Netz, TIGAS and Netz Burgenland recorded the largest increases in these forms of spending. As in the electricity sector, the regulation formula for the gas grid includes investment and operating cost factors aimed at creating incentives for network modernisation and expansion. This ensures that the gas companies will continue to be able to invest enough in network development and security of supply.

PROMOTING EFFECTIVE COMPETITION

E-Control made three applications to the cartel court for the termination (and possible subsequent finding) of anti-competitive behaviour (in the meaning of section 26 *Kartellgesetz* [Cartel Act] 2005) regarding long-term gas supply agreements.

In each case E-Control accused a wholesaler of adopting restrictive clauses, of market foreclosure (section 1 Cartel Act 2005 and Art. 101 Treaty on the Functioning of the European Union [TFEU], and section 5 Cartel Act 2005 and Art. 102 TFEU), and of exclusionary and exploitative abuse of a dominant market position (section 5 Cartel Act 2005 and Art. 102 TFEU). The wholesaler had concluded agreements with terms of around 20 years with major Austrian traders. These agreements included offtake obligations of up to 83% of the contractually agreed annual quantities. If the trader undershot the off-take obligation a penalty would be imposed, meaning that payment was required although no gas was purchased (take-or-pay clause). Long-term take-or-pay agreements are also oil-indexed, and as a result gas prices are not determined by the interplay of supply and demand. Oil price linkage has the effect of nullifying price competition. In E-Control's view, this imposition of unreasonable terms and conditions of business represents exclusionary and exploitative abuse of the wholesaler's dominant market position. ToP clauses in combination with oil price linkage have the effect that buyers operating in an increasingly competitive sales market are unable to procure additional quantities of gas from cheaper wholesalers, or to offer attractive prices to their customers, which in turn constitutes market foreclosure (and exclusion). The applications were submitted in February and April 2012, and the cartel court proceedings are still pending.

CONSUMERS

A number of new consumer protection provisions were established by law or entered into force in 2012.

REGULATIONS FOR THE PROTECTION OF CONSUMERS, INCLUDING VULNERABLE CONSUMERS, IN AUSTRIAN ENERGY LEGISLATION IN 2012

Qualified reminder procedure (section 82(3) Electricity Act 2010 and section 127(3) Natural Gas Act 2011)

In the event of breach of contract (usually payment default), system operators are only entitled to disable a customer's connection after sending two reminders. Reminders must be issued in writing and allow a grace period of at least two weeks for payment. The second reminder must also include a warning that the customer connection will be disabled and provide information on the resulting costs. The final reminder must be sent by recorded delivery.

Universal service (section 77 Electricity Act 2010 and section 124 Natural Gas Act 2011)

Consumers in the meaning of the *Konsumentenschutzgesetz* (Consumer Protection Act) and small businesses can invoke their right to a universal service from energy suppliers. The suppliers are then obliged to provide energy at a tariff not higher than that paid by the majority of their customers (the general tariff). If the supplier demands a deposit or prepayment, this may not exceed one monthly instalment, and this must be repaid if the customer does not default on payment within the first six months of receiving universal service. All outstanding debts relating to previous contracts remain unaffected.

Maximum charges for specific services provided by system operators

The System Charges Ordinances for Electricity and Gas (the latter since 2013) stipulate maximum charges that may not be exceeded for certain services provided by the system operator. They specify the metering charges, reminder fees (e.g. no fee may be charged for the first reminder), disabling fees (max. €30) and fees for reading or inspecting metering equipment at the request of the system user.

Exemption from renewable electricity charges

In accordance with sections 46 and 49 *Ökostromgesetz* (Green Electricity Act) 2012, persons who are entitled to an exemption under section 3 *Fernsprechentgeltzuschussgesetz* (Telephone Charges Subsidies Act) (otherwise known as persons exempt from paying GIS radio and television licence fees) are entitled to exemption from payment of the flat renewables charge, and of a renewables contribution in excess of €20.

QUALITY ORDINANCES

The E-Control Executive Board Ordinance on Electricity System Service Quality (published on 21 December 2012) and the Ordinance on Gas System Service Quality (published on 29 May 2012) amend the requirements related to the quality of service provided by system operators. They also prohibit disconnection of customers before weekends and public holidays. Distribution system operators must implement appropriate structures that allow them to respond to enquiries and complaints from system users within five working days. If an enquiry or complaint cannot be resolved within this time, the system operator must at the least inform the user of further action to be taken, and how long resolution of the issue is likely to take, as well as providing details of a contact person. If complaints have not been resolved to the system users' satisfaction, they must at least be informed about the option to address the E-Control dispute settlement service. Additionally, system users must have the option of submitting a self-read meter reading via the internet.

MONITORING ORDINANCES

From 2013, network operators are required to submit a number of indicators to the regulator. This is designed to support monitoring of compliance with consumer protection standards and their effectiveness. Section 88 Electricity Act 2010 and section 131 Natural Gas Act 2011 oblige distribution system operators to provide the regulator with statistics on system admission, system utilisation, timely invoicing, supplier switching, disconnections, the number of prepayment meters installed, and customer enquiries and complaints for 2012 onwards. In the gas sector, the Gas Monitoring Ordinance specifies the requirements in detail; for electricity, this is done by means of provincial implementing legislation.

CHARGES

The gas and electricity System Charges Ordinances stipulate the maximum prices for metering services and other services provided by the system operator. Reminder fees, and the charges for installing and uninstalling prepayment meters, and disabling and enabling connections may not exceed these maximum prices.

EFFECTIVENESS OF CONSUMER PROTECTION MEASURES (SECTION 28(2 AND 4) E-CONTROL ACT)

In order to monitor the effectiveness of consumer protection measures, especially those aimed at vulnerable consumers; disconnections and the qualified reminder procedure; and the number of consumers accessing a supplier of last resort (section 28(2) E-Control Act), in 2013 E-Control set up a database to store all of the information that the system operators and energy suppliers are obliged to submit pursuant to section 88 Electricity Act and section 131 Natural Gas Act. The energy suppliers first submitted data on 31 March 2013 and in future this information should shed light on the effectiveness of consumer protection measures (see also text box on monitoring).

MONITORING ACTIVITIES IN 2012: ELECTRICITY

Section 88 Electricity Act 2010 obliges system operators and energy suppliers to provide data for 2012 by 31 March 2013. The reporting requirements are specified in greater detail in the provincial implementing legislation, and the Act stipulates the main aspects of the provincial governments' monitoring activities.

E-Control worked in conjunction with representatives of the provincial governments to create a survey form for fulfilment of this obligation. The form was put into use in a variety of ways by the provincial governments and distributed to the power utilities.

By mid-2013, sufficient reports* had only been submitted to provide an initial impression and indication of possible distortions in the Styrian electricity market. These related to some 470,000 metering points assigned to households, to which approximately 1.7 TWh of electricity was supplied. The following preliminary findings for Styria are of general interest to consumers:

- Only a small number of suppliers and system operators submitted information on enquiries and complaints. However, in general the number of complaints appears to be very low. For example, one relatively large company reported about 200,000 enquiries but only 1,300 complaints in 2012. Around one third of all complaints are related to bills or billing amounts, according to the data submitted.
- The reports received indicate that 493 prepayment meters were installed and 754 uninstalled in 2012. System operators reported that 1,131 prepayment meters were in use as at year-end.
- No suppliers were supplying customers on the basis of the provisions for supply of last resort.
- System operators disabled a total of 5,875 connections. This was in response to payment default in 1,839 cases, which corresponds to a disconnection rate on these grounds of around 0.4%. The majority of these (approx. 97%) were carried out by just two system operators.

* The analysis was based on reports from 41 suppliers and 22 system operators.

DISPUTE SETTLEMENT

In accordance with section 26 E-Control Act, and in addition to the Regulation Commission's responsibility for arbitration in disputes between system operators and users (under which official decisions are issued), E-Control has established a dispute settlement service. All electricity and gas customers, suppliers, system operators, other electricity and gas enterprises and stakeholder organisations can submit complaints or disputes to E-Control for arbitration, in particular those concerning gas and electricity bills. E-Control is required to seek a mutually acceptable solution within six weeks. Electricity and gas companies are legally obliged to cooperate in the arbitration proceedings. After obtaining position statements, E-Control issues a non-binding recommendation for resolution of the dispute to the companies. The dispute settlement service is also increasingly acting as an information service for consumers who wish to exercise their right to switch supplier afforded by the liberalised electricity and gas markets.

In 2012, 2,490 electricity and gas customers (and only small numbers of system operators, suppliers and stakeholder organisations) contacted the dispute settlement service – roughly the same number as in 2011. The subject of enquiries and complaints ranged from switching supplier to general questions about billing (especially with regard to price increases), problems with the establishment of network connections, and enquiries about payment difficulties, disconnection and possible solutions in such cases.

SWITCHING ORDINANCE

The *Wechselverordnung Strom* (Electricity Switching Ordinance) 2012 should help to ensure that from 2 January 2013 supplier switches are completed within three weeks. Since that date it has also been possible to switch on any day of the week. In order to change supplier, the consumer informs the desired future supplier of their desire to switch by submitting a declaration of intent granting full authorisation for the change. The future supplier then sets the switching procedure in motion. Information is exchanged between the current and future supplier and the system operator via an online communication system known as the switching platform.

ORDINANCE ON DATA FORMATS AND PRESENTATION OF CONSUMPTION INFORMATION 2012

By the end of 2019, 95% of Austrian households should be fitted with smart meters. The Ordinance on Data Formats and Presentation of Consumption Information 2012 is designed to ensure that consumers can receive information on their electricity use and costs quickly and securely. It regulates the format to be used when presenting consumption information and the way in which such information must be made available by system operators and energy suppliers. State-of-the-art data encryption and the security this provides for data transfers are the most important requirements of these provisions, which aim to make sure that consumers benefit from the installation of smart meters. In particular, end users' consumption should provide insights into energy efficiency and the potential for saving energy.

PARTIAL EXEMPTION FROM RENEWABLE ELECTRICITY CHARGES UNDER THE GREEN ELECTRICITY COST EXEMPTION ORDINANCE 2012: INITIAL FINDINGS

The *Befreiungsverordnung Ökostrom* (Green Electricity Cost Exemption Ordinance) 2012 commenced on 1 July 2012. Persons are exempt from payment of the flat rate renewables charge of € 11 (excluding VAT) and from a renewables contribution (based on consumption) exceeding € 20, if they are entitled to a telephone charge exemption under the Telephone Charge Subsidies Act. According to GIS, which grants the exemption and reports to E-Control in relation to it, this applied to 245,084 people in Austria as at 1 July 2012. GIS wrote to these people between 9 July and 17 July 2012, to inform them that they could apply for an exemption. By the end of 2012, 84,733 exemptions had been granted, and 21,370 applications were declined for various reasons, mainly due to the failure to provide all of the required documents, to missing or incorrect metering point reference numbers or to the applicant's ineligibility. This corresponds to an overall response rate of 43.3%. The response rate to the initial letter on exemptions was 30.7%.

THE E-CONTROL ENERGY HOTLINE

The E-Control hotline is the primary source of information for gas and electricity customers. The hotline is easily reached by dialling 0810 102554 (Austria only; calls cost € 0.044/minute). It provides consumers with comprehensive information on the liberalised gas and electricity markets. The hotline is often the first port of call for energy-related queries which can either be answered directly, or passed on to one of our in-house experts or the dispute settlement service.

In 2012 the hotline handled 6,373 calls, 39.4% fewer than in 2011 (excluding December), when the introduction of the petrol price database (*www.spritpreisrechner.at*, German only) led to a jump in the number of calls handled by the hotline to 9,566. If the number of calls handled in 2009 (7,854) and 2010 (7,715) are also taken into consideration, 2012 was a fairly quiet year for the hotline.

In 2012 calls to the energy hotline mainly concerned tariff calculations, supplier switching and energy bills.

The hotline can be reached from 8.30–17.30 from Monday to Thursday, and from 8.30–15.30 on Fridays. Consumers who call outside these times can leave a message and their telephone number, and one of our staff returns their call on the following working day.

THE E-CONTROL WEBSITE

The target group-based design of our website was further enhanced in 2012 and continued to prove its worth. The number of visitors to the site held steady at around 900,000, even though the impact of the introduction of the petrol price calculator had faded. A total of around 5.5 million pages of content were viewed.

The Consumers section remained the most frequently visited part of the site, accounting for 3.6 million of the total number of pages accessed, followed by the Businesses and Market Players sections, with the latter accessed very frequently by a relatively small group of visitors. The remaining page hits were fairly evenly spread between other areas of the E-Control website, such as Press, Statistics and Publications.

A section added to the site in 2012 containing consumer information in Turkish and Croatian – aimed at the two largest minority groups in Austria – has been well received. E-Control plans to consult representatives of both communities with the aim of tailoring the services and information more precisely to these target groups' needs.

ONLINE TOOLS

Our functional online applications remain the primary reason for visiting the E-Control website. The number of consumers using the tariff calculator to identify the most affordable gas and electricity prices again stood at half a million in 2012. Around three quarters of these used the calculator to compare electricity prices, and roughly a third made a gas price comparison. About a quarter of the users made calculations for both gas and electricity.

In 2012 over 60,000 visitors made use of the energy saving check (German only), which was introduced in 2010, to pinpoint ways of reducing household energy consumption.

NEW RECOMMENDED BILL FORMAT

The annual invoice is one of the most important sources of information for gas and electricity customers. It informs them of their consumption for the year and the related costs, gives notice of the instalments to be paid in the next billing period, and contains tips for saving energy as well as details of energy-saving advisers based near the consumer.

The experience gained from the E-Control dispute settlement service and the energy hotline shows that gas and electricity consumers often find bills opaque and difficult to understand – not least because of the many statutory disclosure requirements. The E-Control hotline and the dispute settlement service carry out more than 1,000 invoice checks a year on behalf of consumers. E-Control has now published a new suggested bill format, designed to help consumers understand their energy bills.

It gives consumers an overview of the information that must be clearly presented on the bill from their gas or electricity supplier. The many technical terms related to the energy and system charges are explained in layman's terms so that consumers can find their way around their bills more easily.

A redesign of the previous suggested bill format was made necessary by the provisions of the Electricity Act 2010, the Natural Gas Act 2011 and the Green Electricity Act 2012. These include the requirement for suppliers to

enclose an information sheet providing details of the contract term, notice periods and the right to universal service with their bills for energy and system charges. Under the Green Electricity Act 2012, as of 1 July 2012 bills must also include details of the flat renewables charge and the renewables contribution.

From 1 January 2012, all energy suppliers in Austria must also disclose the origin and the composition of the electricity they supply in a table and a diagram, in compliance with the *Stromkennzeichnungsverordnung* (Power Labelling Ordinance) issued by E-Control in September 2011. The suggested bill format is made up of the following individual pages:

Overview page

The overview page contains the following information:

- Billing and contact details
- Total charges for supply of electricity and gas (energy supplied, electricity and gas system charges, and the applicable taxes and levies)
- Summary of the customer's consumption in kWh and in euro
- Payment dates and the amounts of future instalments

The new E-Control suggested bill format now includes an estimate of annual consumption in kWh for the next billing period, which forms the basis for calculating the instalments payable by the customer. This main purpose of this is to ensure clearer presentation of the level of instalments and easier verification by the consumer.

Power labelling and energy saving (electricity bills only)

The power labelling and saving energy page of the bill contains the following information:

- Power labelling – this gives the customer an overview of the sources of their electricity supply in the respective period. The Austrian labelling system is certificate-based: electricity providers that supply end users must evidence their mix of primary energy sources in the manner required by law. If it is not possible to provide proof of the origin of a given quantity of electricity then this must be reported as electricity of unknown origin and thus as a statistical value.
- Energy advisers in the vicinity of the customer and tips for saving energy
- The electricity consumption of a typical Austrian household

Details page

The reading taken from the gas or electricity meter, and a precise breakdown of the energy and system charges, taxes and levies are provided on the details page. The meter reading information enables customers to check whether the meter was actually read by the system operator, whether the consumption information was submitted by the customer using a self-reading card, or whether consumption was calculated by means of statistical methods. Information on the energy price for the specified period, expressed in cent/kWh, and any standing charges is particularly important for consumers. Awareness of the prices charged by the current energy supplier is a key factor in any decision to switch supplier.

Customer information page

The customer information sheet gives details of where and how consumers can find out more about the latest energy and system charges, how the consumer can lodge a complaint with the company in the event of problems, and how to initiate dispute settlement proceedings with E-Control. Consumers are given important information such as the conditions for universal service, and how and when it is advisable to report meter readings. Explanations of the technical terms used on gas and electricity bills are also provided.

SUGGESTED BILL FORMAT

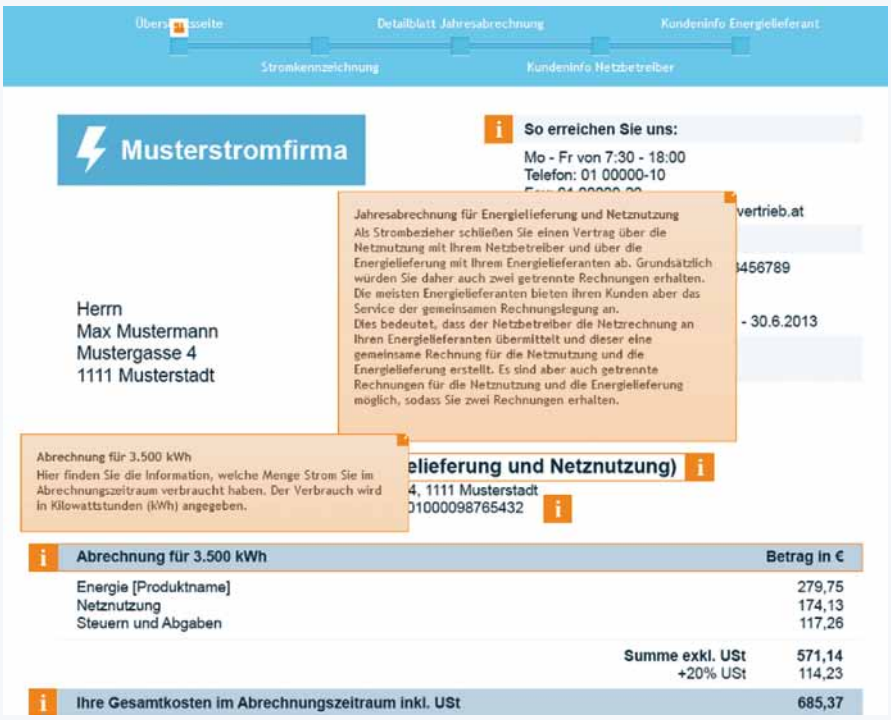


Figure 40
Suggested bill format on the E-Control website

Source: E-Control

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