



ANNUAL REPORT 2012

E-CONTROL



SPURRING CHANGE IN THE ENERGY MARKET

WORKING FOR YOU – WHEREVER YOU NEED ENERGY

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REGULATION TO GET GAS COMPETITION OFF THE GROUND



CHANGES IN THE LEGAL FRAMEWORK IN 2012:

GIVING GAS MARKET REFORM A LIFT

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 (MAM), the distribution area manager (DAM) and the operator of the virtual trading point (VTP). In the next stage of the market rules review process, the procedures for the new gas market model were established – the first time that a reform like this has been implemented by ordinance. The ordinances on service quality, switching and smart meters will all have a direct impact on gas and electricity consumers.

New gas market model – pushing for more competition

Stimulating competition

The new *Gaswirtschaftsgesetz* (Natural Gas Act), promulgated in November 2011, laid the legal foundations for the changeover to a new Austrian gas market model. The Act is primarily designed to stimulate competition and minimise the cost of gas to the economy by introducing a new network access model, entry-exit system and virtual trading point, as well as a new balancing regime featuring daily balancing for standardised load profile (SLP) customers and additional incentives for system users to balance their own gas supply and demand.

GETTING THINGS DONE – NEW MARKET RULES UNDER THE GAS MARKET MODEL ORDINANCE 2012

Section 41 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 Ordinance governs access to the transmission

and distribution grids, and the arrangements for balancing in the Austrian market areas.

Title 1 of the Ordinance introduces the principles and definitions, while title 4 contains the final provisions, including the transitional provisions and commencement. The substantive legislation for the eastern market area, and for the Tyrol and Vorarlberg market areas is set out in titles 2 and 3, respectively.

As the only physical links of the Tyrol and Vorarlberg market areas are with the German NetConnect Germany (NCG) market area, the provisions in title 3 are designed to facilitate unobstructed links to the virtual trading point (VTP) in the neighbouring, upstream NCG market area. Section 35(3) Gas Market Model Ordinance 2012 states that the provisions of titles 1 and 2 also apply to the Tyrol and Vorarlberg market areas unless otherwise stated in title 3.

CLOSER TO MARKET – SHAKE-UP FOR TRANSMISSION NETWORK ACCESS

The Natural Gas Act 2011 has brought major changes in transmission network access. The previous system of capacity bookings 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 market area’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 network. The VTP is not assigned to any physical entry or exit point; it is a notional point at which market participants can buy and sell gas without booking transport capacity.

New transportation regime opens up gas trading

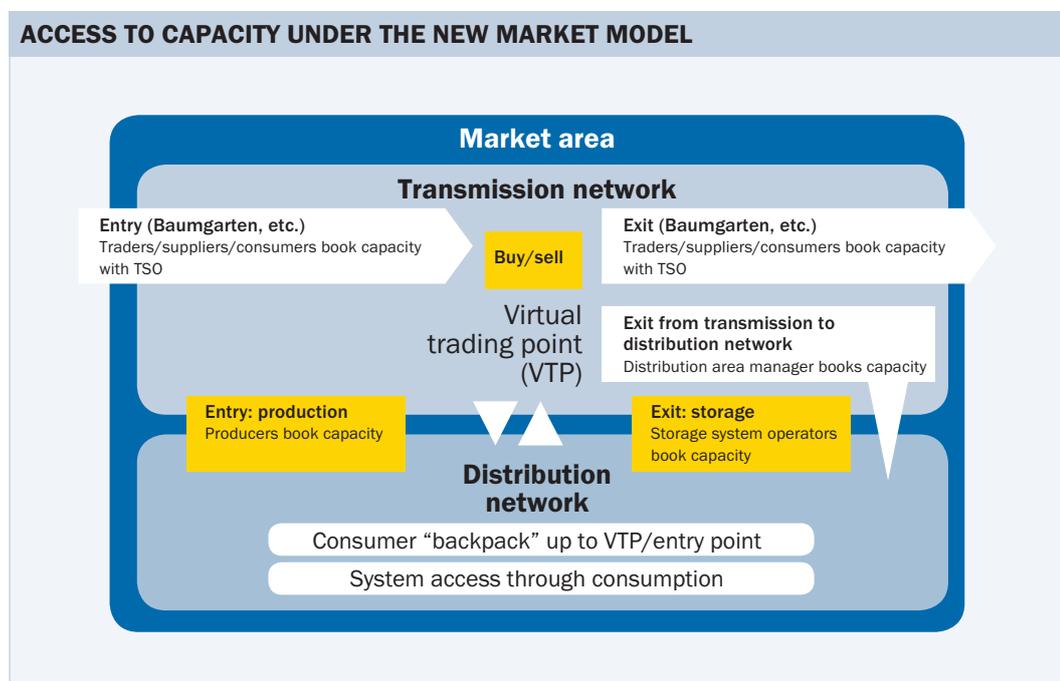


Figure 1
Access to capacity under the new market model

Source: E-Control

LEADING THE WAY – TRANSPARENT REGULATION OF NETWORK ACCESS

Pursuant to section 6 Gas Market Model Ordinance 2012, the allocation of entry and exit capacity by auction will begin on 1 April 2013. The explanatory notes to section 6 Gas Market Model Ordinance 2012 state that the trans-

mission system operators (TSOs) must auction capacity using the capacity products and lead times specified by the ENTSOG Capacity Allocation Mechanisms (CAM) network code.

Table 1 gives an overview of the standard capacity products provided for by the code.

| 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 |
| Daily | daily | 1 |
| Within day | hourly | 1 (rest of day) |

Table 1
CAM network code:
standard capacity products

Source: E-Control

The CAM network code specifies the following auction calendar:

- > Yearly capacity will be auctioned on the first Monday of March each year (exception: yearly capacity for 2013 will be auctioned on the first Monday in May);
- > Quarterly capacity auctions will take place on the first Monday in June each year;
- > Monthly capacity will be auctioned on the third Monday of each month;
- > Daily capacity will be auctioned at 16.30¹ each day;
- > Within-day capacity will be allocated every hour during a given gas day.

CLEARING THE FOG – THE NEW PRISMA PLATFORM

Gas Connect Austria, TAG and BOG have joined newly established PRISMA – a European capacity auction platform that will go live on 1 April 2013.

In accordance with the CAM network code, the 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 price steps – in order to determine the clearing price. There is no limit to the number of bidding rounds. In each round prospective system users submit

¹ Central European Time/Central European Summer Time (CET/CEST)

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 clearing price at which the best possible balance between supply and demand is achieved.

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 submit a list of bids for their company with up to ten combinations of price and capacity to the PRISMA platform, each with a specified minimum quantity.

KEEPING THE MARKET ON AN EVEN KEEL – NEW BALANCING REGIME

Under section 14(1)(2, 3 and 14) Natural Gas Act 2011, the market area manager, in collaboration with the operator of the VTP and the TSOs, is responsible for managing the balance groups, calling off physical balancing energy and organising the settlement of imbalance charges in the transmission network.

As under the previous gas market model, the clearing and settlement agent (CSA) likewise has balancing-related responsibilities. Section 87 of the Act requires the clearing and settlement agent to manage the balance groups in its distribution area, and procure physical balancing energy via the virtual trading point or according to the merit order list.

Consequently, the market area manager and the clearing and settlement agent are the mainstays of balancing in the eastern market area. The manner in which they are to fulfil their responsibilities is established in detail by the Gas Market Model Ordinance 2012.

The MAM 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, the MAM 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 – including domestically produced gas and storage movements – into/from transmission and distribution networks, and notified off-take for the supply of consumers. In contrast to the clearing and settlement agent, and its distribution network and consumer balancing activities, the MAM is not required to take account of actual metered quantities of gas.

Balancing in the market area by the MAM is a two-stage process. First of all, it undertakes daily balancing by netting off the volumes nominated for each balance group, in accordance with section 26(4) Gas Market Model Ordinance 2012. All notified injections and withdrawals should be in balance. If this is not the case and the imbalance between injections and withdrawals amounts to more than 24 megawatts (MW), the balance responsible party (BRP) concerned is informed

Balancing by the market area manager

and is asked to rectify its balance group's imbalance by making renominations. If the BRP does not respond to this request within an hour, the MAM intervenes and squares the imbalance by buying or selling gas on the gas exchange at the VTP on behalf of and for the account of the BRP.

The second stage of the balancing process involves hourly monitoring of the nominations or schedules submitted by each balance group, in accordance with section 26(6) Gas

Market Model Ordinance 2012. Even if the market area is in balance for a given day as a whole, imbalances between injections and withdrawals can occur during certain hours of the day. The balance groups are entitled to report hourly imbalances. However, a balancing incentive markup of up to € 4 per MWh has been introduced in an effort to keep such imbalances to a minimum. The markup is designed to cover the MAM's structuring costs; its level must be reviewed at least once a year.

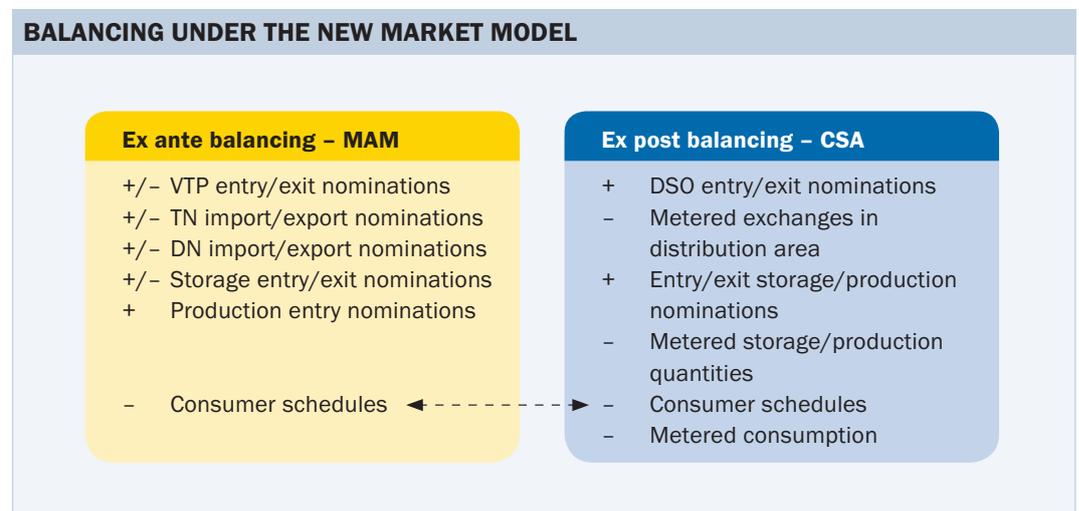


Figure 2
Balancing under the new market model

Source: E-Control

A WHOLE NEW BALL GAME – BALANCING ENERGY PRICING

Balancing and clearing of consumption, distribution network and biogas injection de-

viations by the clearing and settlement agent is governed by section 27 Gas Market Model Ordinance 2012. Consumer balancing is on a daily and an hourly basis. The difference is not

just a matter of the daily and hourly reporting, but also of the market-based price formation mechanism used for imbalances.

Section 32(2) Gas Market Model Ordinance 2012 states that the hourly imbalance price for end users is a volume-weighted average price calculated on the basis of the quantities of gas procured in each hour by the distribution area manager from the gas exchange and bidders on the merit order list. Under the hourly balancing regime, a surcharge of 20% on the volume-weighted average price for each hour was foreseen for positive balancing energy, and an offset of 10% for negative balancing energy, i.e. when actual consumption is lower than the nominated quantity and balancing energy is thus sold. This incentive is designed to maximise the accuracy of the schedules submitted by the balance groups.

As set out in section 32(3) Gas Market Model Ordinance 2012, the daily balancing energy prices for system users are determined on the basis of the balancing energy procured by the distribution area manager on the gas exchange at the VTP and its balancing energy call-offs from the merit order list. Marginal prices are applied, i.e. the highest buy price for purchases and the lowest sell price for sales.

Under the daily balancing system, settlement is only required for the net balance at the end of each day. Within-day imbalances are free of charge. However, the highest price paid by the DAM on the day in question is payable for

balancing energy purchases, and the lowest price it has sold for is applied to the supply of balancing energy.

UPS AND DOWNS – THE SYSTEM USER CONTRIBUTION

Pursuant to section 32(6) Gas Market Model Ordinance 2012, settlement of daily imbalances also involves a contribution by system users. The Ordinance put this as follows: “Should clearing of imbalances by the clearing and settlement agent result in an overhang or shortfall, an amount that corresponds to such discrepancy shall be fixed for six months at a time and passed on to balance responsible parties by way of a contribution reflective of the volumes of network users according to section 18(5) and (7) [i.e. system users with daily balancing periods pursuant to the Ordinance], based on the provisions in the General Terms and Conditions of the Clearing and Settlement Agent. Such contribution shall form a part of the imbalance charges and must be stated in cent/kWh.” In other words, the level of the contribution had not been defined when the new market model was launched, and must first be evaluated and computed on the basis of real values.

The CSA’s balancing and clearing activities take into consideration actual metered consumption by end users, and own use and system losses attributable to the system losses balance groups in the distribution area, as well as injections by the biogas balance groups and cross-border traffic at distribution level.

New balancing energy pricing mechanism

NEW NATURAL GAS ACT – ENTRY-EXIT TARIFFS

Article 13 Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks (Gas Regulation) requires that transmission tariffs be applied in a non-discriminatory manner, and that they be set separately for every entry point into or exit point out of a transmission

network. The need to transpose Union law has brought many changes in the calculation of the system charges, which were previously distance-based.

The new Natural Gas Act 2011 governs the principles according to which the transmission system operators' costs and the system charges are now calculated.

New E-Control ordinances – enhancing distribution system efficiency

ORDINANCES ON THE QUALITY OF GAS AND ELECTRICITY NETWORK SERVICES

In transposition of Directive 2009/73/EC (Gas Directive), section 30 of the Natural Gas Act 2011 empowers E-Control to enact an ordinance on the quality of the network services rendered to connected consumers. The ordinance in question came into force on 1 January 2013. It establishes uniform standards for the commercial and technical quality of gas network services, and for responses to supply interruptions. These standards also stipulate that the time taken for system connections and repairs must be monitored.

The lead time for the provision of system access was not directly monitored in 2011. As the circumstances and needs of parties eligible for system access vary greatly, the new *Gasnetzdienstleistungsqualitätsverordnung* (Ordinance on Gas System Service Quality)

does not introduce monitoring of connection lead times either. However, it does impose a maximum delay of 14 days in responding to applications for system admission, and requires agreement of a binding deadline for the provision of admission.

The *Netzdienstleistungsverordnung Strom* (Ordinance on Electricity System Service Quality) 2012, enacted in transposition of Directive 2009/72/EC (Electricity Directive), was published on 21 December 2012 and commences on 1 July 2013. The standards for the quality of commercial services are identical to those for the gas sector, but the technical standards for electricity are far more wide ranging than those for gas supply. The ordinance introduces limits for the duration (calculated using statistical methods) of supply interruptions at the consumer level. Both the Natural Gas Act 2011 and the *Elektrizitätswirt-*

Tracking network connection delays

schafts- und -organisationsgesetz (Electricity Act) 2010 provide for monitoring of compliance with these standards by means of the submission and publication of the indicators specified in the ordinances.

The new E-Control quality ordinances for the gas and electricity sectors are designed to ensure that energy consumers receive better service from their system operators. The introduction of defined standards is aimed at further enhancing the already high service quality. The standards include a requirement to correct wrongly made-out invoices within two days. A window of only two hours must now be offered for appointments arranged by system operators, such as for meter readings. Enquiries and complaints must be handled within five working days of receipt. System operators are also obliged to inform dissatisfied customers of the option of initiating proceedings with the E-Control dispute settlement service. The Electricity Act 2010 and Natural Gas Act 2011 also state that in the event of the termination of a contract – for example, as a result of a supplier switch – customers must receive the final invoice within six weeks.

DATA FORMAT AND CONSUMPTION INFORMATION PRESENTATION ORDINANCE 2012

The Electricity Directive requires EU member states to ensure the implementation of intelligent metering systems that support the active participation of consumers in the electricity supply market.

Section 83(2) Electricity Act 2010 charges E-Control with determining by ordinance the minimum functionality that smart meters as defined by section 7(1)(31) of the Act must possess, and that must be applied when establishing the cost base for setting metering charges pursuant to section 59 of the Act (implemented by the *Intelligente Messgeräte-Anforderungsverordnung* [Requirements for Smart Meters Ordinance] 2011). Section 83(1) Electricity Act 2010 states that the conditions that need to be met for the introduction of these devices must be established by ordinance of the Ministry of Economy, Family and Youth. This requirement was fulfilled by the enactment of the *Intelligente Messgeräte-Einführungsverordnung* (Smart Meter Rollout Ordinance).

Section 84(4) Electricity Act 2010 also empowers E-Control to determine by ordinance the format to be used by the system operators when transmitting data to suppliers, and when providing customers with consumption information. This was done by enacting the *Datenformat- und Verbrauchsinformationsdarstellungsverordnung* (Ordinance on Data Formats and Presentation of Consumption Information) 2012.

Near-real-time metering provides electricity customers with detailed information on their consumption and usage pattern. This information would help consumers to optimise and reduce their electricity use, which could play an important role in enabling Austria to

New ordinance on smart electricity meters

meet policy goals such as increasing energy efficiency and reducing greenhouse gas emissions.

It also enables consumers to enlist the assistance of energy advisers and other third parties to analyse the data and point out potential energy savings.

BECAUSE WE DON'T HAVE MONEY TO BURN – HUSBANDING ENERGY BY WATCHING THE CLOCK

System operators and suppliers can play a significant part in boosting energy efficiency by providing customers with information on their consumption patterns. Socio-economic studies carried out in parallel with a number of projects have shown that simple feedback channels such as websites and regular written information on consumption can help cut electricity demand.

The Ordinance on Data Formats and Presentation of Consumption Information only sets out minimum standards for the information provided, giving system operators and suppliers the option of offering additional services and using tools such as modern information and communication technologies. These and other methods of expanding on basic consumption information serve to highlight additional scope for raising energy efficiency.

The clarity and benefits of the consumption information that system operators and suppliers are obliged to provide will be assessed as part of the reporting and

monitoring requirements under section 2 Smart Meter Rollout Ordinance enacted by the Minister of Economy, Family and Youth.

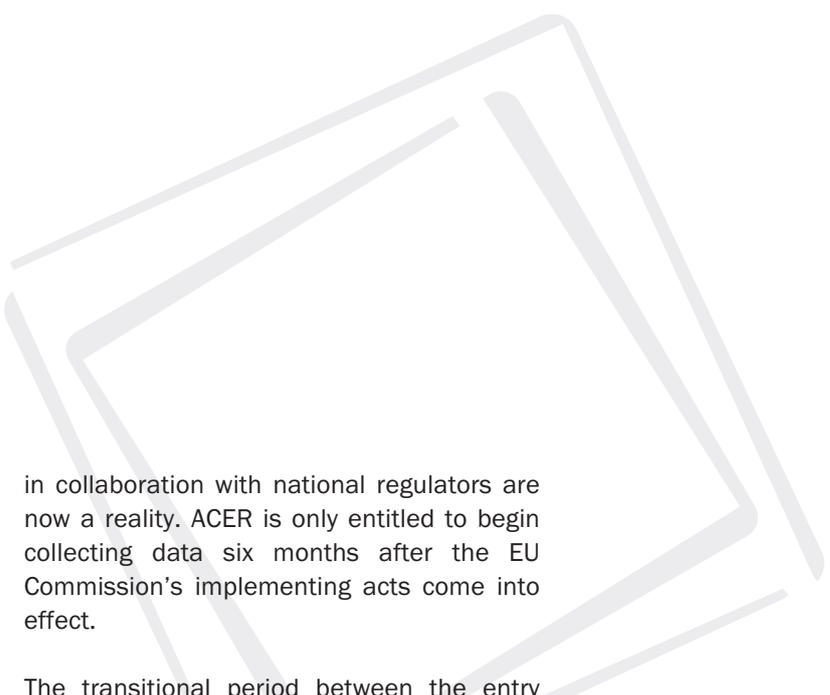
The Ordinance on Data Formats and Presentation of Consumption Information was published in the Federal Law Gazette on 24 September 2012.

MOVING ON – ORDINANCES MAKE SWITCHING EASIER

The current EU Electricity and Gas Directives state that consumers must be able to switch suppliers within three weeks. This requirement was transposed into Austrian law by the Electricity Act 2010 and the Natural Gas Act 2011.

Sections 76 Electricity Act 2010 and 123 Natural Gas Act 2011 establish certain standards which E-Control has now implemented by ordinance. These relate to matters such as switching procedures, enabling and disabling connections, exchange of switching data via a decentralised platform operated by the clearing and settlement agent, and the provision of data on request in a standardised electronic format.

The main elements of the supplier switching process currently in use in Austria (i.e. procedure, data formats and data transfers) have been in place since the liberalisation of the country's electricity market in 2001, and only minor modifications have been made in recent years.



E-Control has now comprehensively reformed the Austrian switching process to meet the requirements imposed by EU and national legislation. The changes are also aimed at reshaping the switching procedures and ITC infrastructure to support increased process transparency, and automation and standardisation aimed at quicker and more efficient communication between companies (suppliers and system operators) and inside them.

E-Control published the *Wechselverordnung Strom* (Electricity Switching Ordinance) 2012 and *Wechselverordnung Gas* (Gas Switching Ordinance) 2012, which regulate supplier switching, enabling and disabling connections in June 2012.

The key changes made by the ordinances include a free choice of switching dates, a three-week time limit for switching, automation of the switching process, and data transfers between suppliers and system operators via secure communication systems operated by the clearing and settlement agent.

KEEPING AN EYE ON THE BIG PICTURE – ORDINANCE ON RECORDS OF ENERGY WHOLESALE TRANSACTION DATA

Following the commencement of the Regulation on Energy Market Integrity and Transparency (REMIT), the prohibitions on insider trading and market manipulation, as well as market monitoring by the Agency for the Cooperation of Energy Regulators (ACER)

in collaboration with national regulators are now a reality. ACER is only entitled to begin collecting data six months after the EU Commission's implementing acts come into effect.

The transitional period between the entry into force of REMIT and the implementing acts empowering ACER to collect data may last several months, or even several years under certain circumstances. In the absence of timely transposition into national law of the national regulators' new REMIT powers, data collection is only possible during the transitional period through the exercise of the regulators' general monitoring and supervisory rights. As a result, much will depend on the quality of the transaction data held by market participants under their data storage obligations.

In order to establish uniform standards for the quality and content of the transaction data stored by market participants, E-Control was charged by section 88(4) Electricity Act 2010 and section 131(3) Natural Gas Act 2011 with enacting detailed data storage duties on the part of electricity and gas traders regarding transactions with other traders and transmission system operators by way of an *Energiegroßhandels-Transaktionsdaten-Aufbewahrungsverordnung* (Ordinance on Records of Energy Wholesale Transaction Data). The data must be made available to E-Control, the Federal Competition Authority and the European Commission, at the request

**Standardised data
needed**

of and in a form prescribed by E-Control, in order to enable these bodies to fulfil their responsibilities. Data must be stored for five years, with the sole purpose of allowing the authorities responsible to investigate gas and electricity traders' compliance with their regulated duties.

DONE BY NUMBERS – GAS STATISTICS ORDINANCE 2012

The amendments to the *Gasstatistik-Verordnung* (Gas Statistics Ordinance) 2005 as amended by the first *Gasstatistik-Verordnung-Novelle 2008* (Gas Statistics [Amendment] Ordinance) were prompted by the need to adapt the reporting duties to the new gas market model. It was also bring the ordinance into line with today's wider market information duties and the changes required by European legislation.

Due to these significant substantive changes we decided to enact a new ordinance as opposed to amending the existing rules. Apart from allowing greater clarity, this decision also made it possible to harmonise the structure with that of the *Elektrizitätsstatistikverordnung* (Electricity Statistics Ordinance).

The main changes in the new ordinance include the requirement for additional market information, as well as clarifications and standardisation of the survey characteristics. The Gas Statistics Ordinance 2012 was published in Federal Law Gazette II no 475 on 21 December 2012 and commences on 1 January 2013. As the Ordinance comes into effect at the turn of the year it was possible to keep the transitional arrangements to a minimum.

New rules required for the new market model

Wholesale market regulation – a remit for transparency

Regulation (EU) No 1227/2011 on Energy Market Integrity and Transparency (REMIT) came into force on 28 December 2011. The Regulation prohibits market manipulation and insider trading on wholesale energy markets, as well as setting out the transparency requirements for these markets. REMIT obliges market participants to disclose inside information. In addition, persons professionally arranging transactions in wholesale energy products are required

to inform the national regulator if they reasonably suspect that a transaction might breach the prohibition of insider trading or market manipulation. They are also obliged to establish and maintain effective arrangements and procedures to identify breaches of these prohibitions.

E-Control has been working at full speed to transpose REMIT since it entered into force, and is collaborating closely with other Austrian

authorities, ACER and market participants to ensure that the Regulation is implemented effectively. E-Control has been involved in efforts to implement REMIT at European level by taking part in the development of ACER's guidance, the REMIT registration format, and the recommendations on fundamental and transaction-related data to the European Commission.

GETTING INSIDE INFORMATION OUT INTO THE OPEN

Effective and timely disclosure of inside information by market participants is one of the key requirements of REMIT. In order to help market participants meet this obligation, Central European Gas Hub (CEGH) launched the CEGH REMIT platform in October 2012. The site enables gas wholesale market participants to disclose inside information "in an effective and timely manner" in accordance with Article 4 of the Regulation. E-Control advocates use of the site (see www.cegh.at/remit) as a centralised solution like this should significantly enhance market transparency and also reflects ACER's preferences.

Further steps towards full implementation of REMIT will be taken in 2013. One of the most important will be the publication – expected to take place in mid-2013 – of the European Commission's implementing acts, which will specify the contracts and derivatives covered by REMIT. Three months after the acts come into effect, wholesale energy

market participants will also be obliged to register with their national regulators in order to take part in wholesale trading. Six months after the acts' entry into force, wholesale market participants will be required to submit records of transactions and fundamental data to ACER.

TRANSPARENCY WITHOUT FRONTIERS – NEW MARKET MONITORING INITIATIVES

In order to effectively transpose the requirements of REMIT, E-Control set about procuring market monitoring software in September 2012. The aim is to watch 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 abusive practices in wholesale energy trading. The transposition of REMIT into national law will give E-Control additional powers to investigate abuse and impose sanctions in the event of non-compliance with the Regulation.

Duty to submit data to ACER



FRUITS OF PROGRESS –
READY TO PICK



VARIETY FOR ALL:

COMPETITION THAT LETS YOU TAKE YOUR PICK

2012 will mainly go down as a year of change for the gas market. While market players readied themselves for the reshaped market model, new suppliers were also setting out their stalls. At the same time switching rates rose and for the first time topped those on the electricity market. The supply overhang on the gas wholesale markets persisted in 2012, and new entrants had a wider choice of procurement options. Meanwhile, the gas producers made concessions to their customers, with oil price indexation clauses in long-term contracts on the way out. By contrast the electricity market saw few new initiatives from suppliers.

Electricity market – a mixed bag

WHOLESALE ELECTRICITY PRICES – MOVING IN A NARROW BAND

2012 was a year of relatively low spot and futures prices. Spot prices were volatile at the start of the year because of the weather conditions and the power station situation, but the lift from these factors was short-lived. Day-ahead baseload prices tumbled to about €40/MWh in the spring – well below their level in the like period of 2011. As in 2011, prices firmed in early autumn, but they again failed to match the previous year's levels. Intermittent wind power injection and wide demand swings resulted in greater volatility than in spring or summer.

Futures prices unravelled in 2012 and the 2013 baseload contract slid from about €52/MWh at the start of the year to end on a low of €45/MWh. As was to be expected, this meant that towards the end of 2012 the spread between the annual baseload futures price and the spot narrowed. Traders' fading price expectations were probably

driven by both demand and supply factors. Downward revisions of 2013 and 2014 EU growth forecasts in the fourth quarter coloured perceptions of the demand outlook. Meanwhile, annual primary energy contracts – notably coal and gas – went sideways at best and traded lower at times.

The historic lows on both the short-term and the long-term CO₂ allowance markets weighed heavily on prices. The contract due mid-December 2012 held below the €10/tonne (t) mark throughout, and was significantly below this for long periods. For example, in May 2012 CO₂ allowances averaged only €6.75/t, compared to €15.58/t and €13.83/t, respectively, in 2010 and 2011. The reason for the price collapse was the surplus of allowances caused by the negative economic trend. Because of the collapse in the carbon price, the EU is discussing whether, and if so how to modify its emissions trading system.

EXAA BASELOAD INDEX, seven-day sliding average, €/MWh



Figure 3
EXAA spot electricity prices, baseload index, seven-day sliding average

Sources: EXAA and E-Control calculations

EEX FUTURES PRICES IN 2012, €/MWh



Figure 4
Price movements on the EEX electricity futures market, annual baseload contracts for delivery in 2013 and 2014

Source: EEX

RETAIL ELECTRICITY PRICES – RIDING HIGH

HOUSEHOLD CONSUMERS

The electricity prices charged to household consumers (energy and system charges, levies and taxes) rose in 2012.

By mid-summer the electricity consumer price index (CPI) was at its highest level since 1999 (Figure 5). There were virtually no more changes for the rest of the year. In November 2012 prices were up by an

average of 1.8% year on year. The renewable electricity settlement price was cut with effect from 1 January 2012, but not all suppliers passed this reduction on to their customers. The changeover of the renewable electricity support system on 1 July 2012 led to price increases, partly as a result of the fact that some suppliers gave their customers none or very little of the benefit from the reduction in the “additional expenses” compensated under section 19 of the old *Ökostromgesetz* (Green Electricity Act).

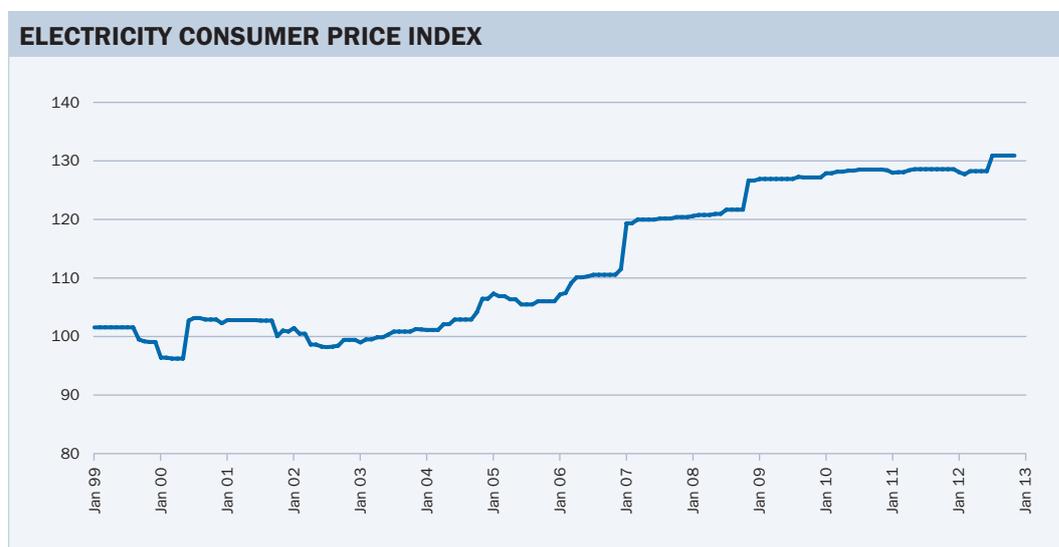


Figure 5
The electricity CPI, over time
(October 2001 = 100)

Sources: Statistics Austria and E-Control

Table 2 gives a detailed overview of the changes in incumbents’ energy prices. While most of the electricity suppliers adjusted their prices in full or at least in part to the dropping of the “additional expenses” compensated under section 19 of the old Green Electricity

Act, the incumbents in Upper Austria and Styria introduced new pricing schemes for both new and existing customers, making it impossible to ascertain whether these expenses were still being charged on to consumers.

| ELECTRICITY PRICE CHANGES IN 2012 | | |
|--|---------------------|---------------------|
| Supplier | Commencement | Energy price |
| Linz Strom | 01/01/2012 | -0.70 % |
| Energie AG | 01/01/2012 | -0.66 % |
| Wien Energie | 01/01/2012 | -3.25 % |
| EVN | 01/01/2012 | -3.26 % |
| BEWAG | 01/01/2012 | -3.39 % |
| Innsbrucker Kommunalbetriebe | 01/02/2012 | -4.57 % |
| TIWAG | 01/02/2012 | -4.24 % |
| Salzburg AG | 01/02/2012 | -2.66 % |
| VKW | 01/03/2012 | -4.90 % |
| Energie Graz *) | 01/03/2012 | 8.53 % |
| Steweag-Steg *) | 01/03/2012 | 8.84 % |
| Energie AG, new customers *) | 01/06/2012 | 0.58 % |
| Energie AG, existing customers (inc. one-time rebate) *) | 01/07/2012 | -4.10 % |
| BEWAG | 01/07/2012 | -4.13 % |
| LINZ STROM *) | 01/07/2012 | -3.85 % |
| Salzburg AG | 01/07/2012 | -4.62 % |
| VKW | 01/07/2012 | -4.42 % |
| TIWAG | 01/07/2012 | -5.50 % |
| EVN | 01/07/2012 | -4.76 % |
| Wien Energie | 01/07/2012 | -4.31 % |
| Energie Graz | 01/07/2012 | -4.65 % |
| Innsbrucker Kommunalbetriebe | 01/07/2012 | -5.28 % |
| Kelag | 01/07/2012 | -3.87 % |
| Verbund | 01/07/2012 | -4.20 % |
| Energie Klagenfurt | 01/07/2012 | -4.11 % |
| Energie Klagenfurt (nationwide) | 01/07/2012 | -5.75 % |
| Steweag-Steg | 01/07/2012 | -4.72 % |

*) Change in pricing scheme or product

Source: E-Control

Table 2
Changes in prices charged to a typical household with a demand of 3,500 kWh/year

LOWER PRICES IN THE BAG

Household electricity prices differ greatly from one network area to another, because of both the widely varying energy prices of the local and regional players – even restricting the comparison to the large suppliers, the gap between the highest and lowest price was 36% in December – and the wide range of system charges. As consumers in urban areas (e.g. in Vienna) pay the community levy

on top, the cost components are not the same throughout the country.

Figure 6 depicts the overall price trends by network areas and incumbents. The chart reveals that the gap between the cheapest and dearest supplier has widened over the past few years. This is explained by the companies' differing sales and procurement strategies, and marketing costs.

- BEWAG
- Energie AG
- Energie Graz
- Energie Klagenfurt
- EVN
- Innsbrucker KB
- Kelag
- Linz Strom
- Salzburg AG
- Steweag-Steg
- TIWAG
- VKW
- Wien Energie

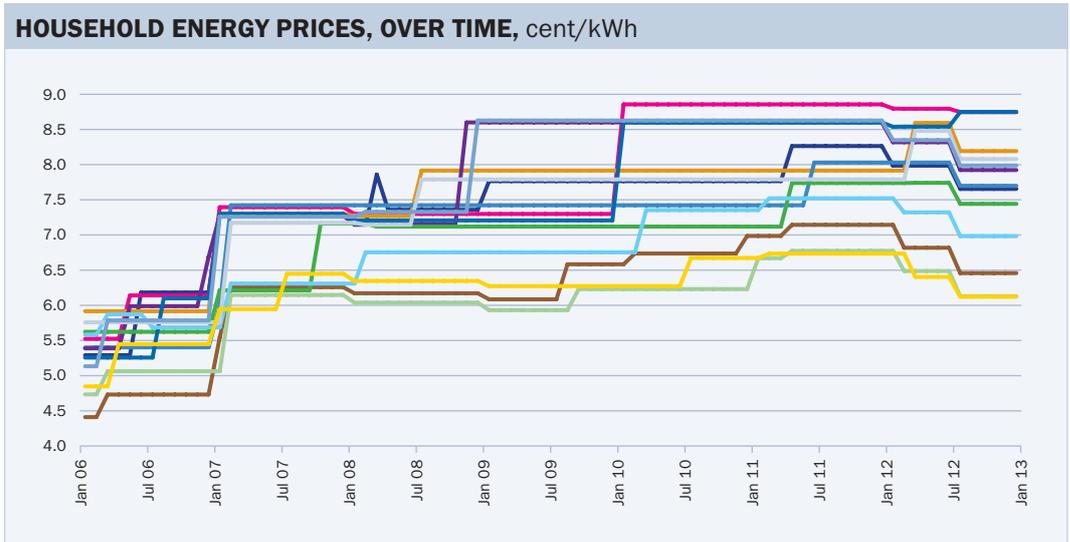


Figure 6
Household electricity prices, over time (energy only, excl. discounts on energy charges, and system charges, taxes and levies) by network areas; standard product offered by the local/regional incumbent, 3,500 kWh/year

Sources: E-Control, tariff calculator

INDUSTRIAL CONSUMERS

The results of E-Control's 2012 survey of industrial consumers (*Figure 7*) show a fall in prices as compared to the previous year. This trend was mainly driven by wholesale prices, which are generally built into price formulas in the supply contracts. Under the new Green Electricity Act, the "additional expenses" occasioned by renewable electricity are no longer charged on by the suppliers, and energy prices consequently declined in the second half of the year.

SWITCHING RATES – BIG WINNER WAS THE STATUS QUO

About 64,500 electricity consumers changed suppliers in 2012 – a rate of 1.1%. Almost

88,000 consumers switched in 2011. Of the 64,500 switchers in 2012, some 40,000 were household and almost 22,000 other small consumers, and somewhat over 2,000 were load metered consumers. In 2011 about 60,000 household and 26,300 other small consumers, and almost 1,600 load metered consumers transferred to new suppliers.

In other words, the switching rate only increased among load metered consumers in 2012. The rate for this consumer group was above the national average in Upper Austria. In the case of the household consumers, switching rates were above average in Lower Austria, Styria, Upper Austria and Vienna.

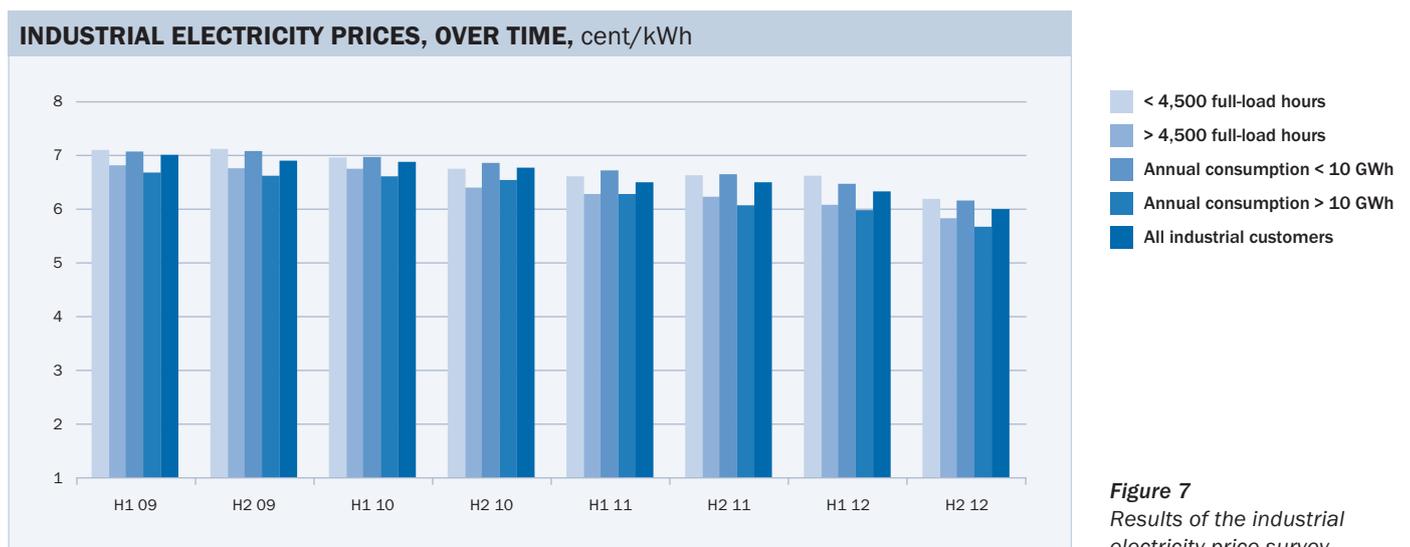


Figure 7
Results of the industrial electricity price survey

Source: E-Control

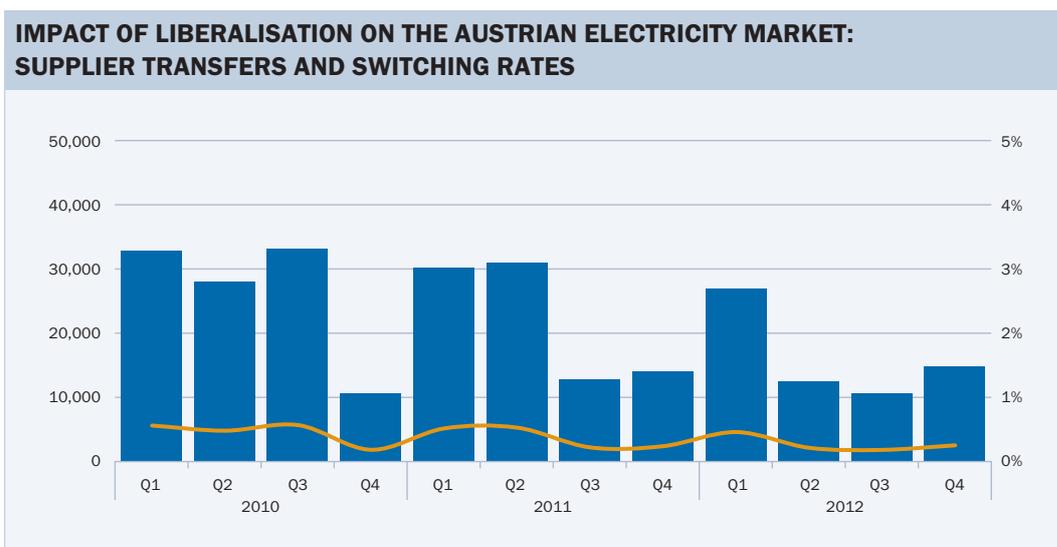


Figure 8
Impact of liberalisation on the Austrian electricity market: number of supplier transfers and switching rates

Source: E-Control

Gas market – prices still climbing

WHOLESALE GAS PRICES – MORE SCOPE FOR RENEGOTIATION

With the exception of a demand spike in February, 2012 was a year of oversupply on the gas market. This was mainly due to developments in the United States. The rapid growth in the development of unconventional natural gas reserves – chiefly shale gas – has recently transformed the USA into a low-price country, and from an importer into an exporter. Due to a lack of demand in the USA, exporters have been rerouting LNG cargoes, and some have gone to Europe, the main taker being the UK. Prices at the American Henry Hub trading point have been well below

European levels since the start of 2010. Due to the price spread, which also extends to Asia, US producers plan to start exporting gas in the form of LNG in 2016, putting still greater pressure on European suppliers' prices. Meanwhile, the increased use of gas for power generation in the USA cut global demand for hard coal, which is a substitute for gas. Carbon prices have also fallen due to the downturn in industrial production during the economic crisis, and the resulting overhang of CO₂ allowances. Sliding coal prices have made the use of coal for power generation cheaper than gas in Europe, and this, too, has sapped gas demand.

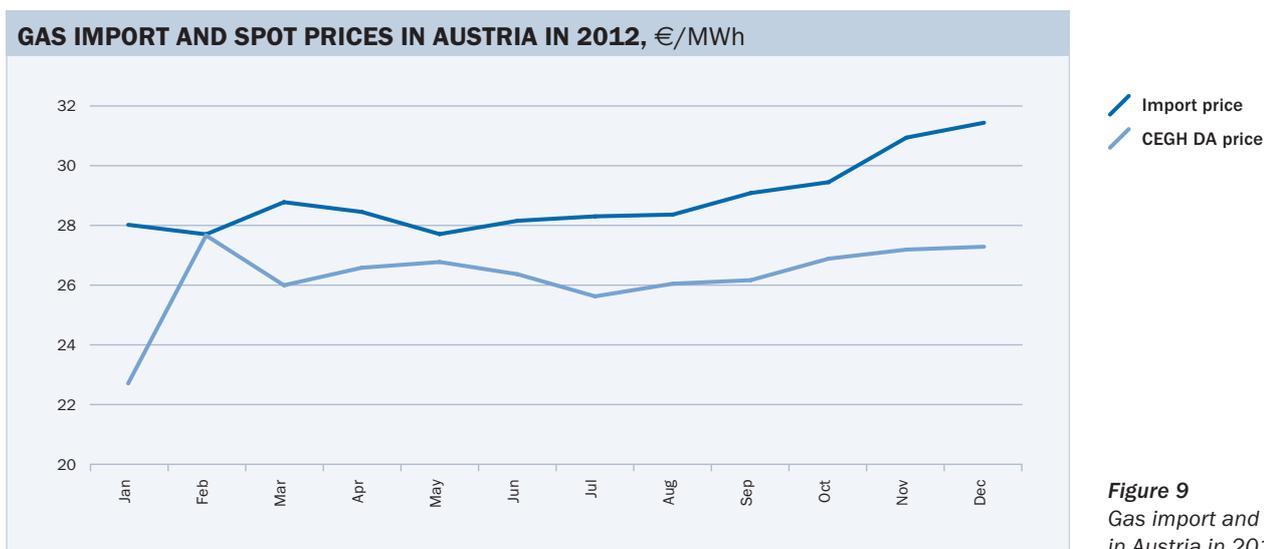


Figure 9
Gas import and spot prices in Austria in 2012

Sources: ICIS Heren, Statistics Austria and E-Control calculations

Austrian gas import prices, which largely amount to the prices established by the long-term import contracts, rose in 2012, and were well above the monthly average spot (OTC) prices on the CEGH market.

In 2012 talks on the terms of the long-term contracts began making headway. The largest supplier in Europe, Gazprom Export, made price concessions in negotiations with its customers (partly during arbitration proceedings).² The price formulas in the contracts were also modified to ensure that gas prices would

remain at a given level even if oil prices rose again.³ The price reductions reportedly ranged from 7–10%.⁴

In March 2012 the largest European gas importer, E.ON, agreed a price adjustment with its Norwegian upstream supplier, Statoil, and at the beginning of July E.ON and Gazprom Export announced that they had reached a deal on revised contractual terms.⁵ This agreement, which is retroactive to 1 October 2010, will reputedly improve E.ON's earnings for the first half of 2012 by about €1 billion (bn).⁶

² See: Gazprom senkt Preise für Kunden in Europa (Gazprom cuts prices for customers in Europe), in Die Welt, No. 16, 19 January 2012, p. 11 and ENI to undershoot take-or-pay for 2–3 years, in Argus Gas Connections, 16 May 2012, p. 4.

³ See: PGNiG's pricing dispute with Gazprom reaches courts, in Argus Media, 21 February 2012, www.argusmedia.com

⁴ See: Austrian OMV to renegotiate gas contract with Gazprom, in ICIS European Spot Gas Markets, 22 November 2012, p. 9.

⁵ See: Lieferverträge: E.ON einigt sich mit Gazprom (Supply contracts: E.ON reaches agreement with Gazprom), in energate, 4 July 2012.

⁶ See E.ON press release on 3 July 2012: E.ON reaches settlement with Gazprom on long-term gas supply contracts and raises Group outlook for 2012; <http://www.eon.com/en/media/news/press-releases/2012/7/3/eon-reaches-settlement-and-raises-group-outlook-for-2010.html>

Gas traders looking for price concessions

The revised formulas are rumoured to leave some elements of oil linkage in place, but also to bring prices closer to market levels, thereby largely eliminating E.ON's exposure to the price risk associated with the spread between oil and gas prices. The contracts are said to remain on a long-term basis. The international arbitration proceedings with Gazprom ended with a settlement based on the agreement.

Austrian gas suppliers have also obtained improved terms from Gazprom Export, but are still seeking more flexible long-term contracts.⁷ OMV/EconGas and Gazprom Export are scheduled to hold a review of the prices under their existing contracts in April 2013.⁸

In December 2012 Gazprom Export announced upcoming price reductions in 2013 in a bid to remain competitive with other producers.⁹ These developments suggest that oil price indexation clauses in gas contracts are on the way out, a view shared by the International Energy Agency (IEA).¹⁰

PRICE TRENDS ON THE CEGH MARKET

Italian market developments had a major influence on price movements on the Austrian spot market in 2012. As at other European trading hubs, prices on the CEGH OTC spot market spiked during the first week of February due to a cold spell and Russian supply curtailments.

In March 2012 auctions of day-ahead transportation capacity into Italy on the TAG pipeline system improved availabilities, and this was clearly reflected in spot prices on the CEGH. These initially firmed on stronger demand from Italian traders, while prices at the Italian PSV converged with those at other European hubs. Italian demand has plunged since the start of October, and as a result prices on the CEGH have retreated to the same level as the NCG market or slightly lower.

LONG-TERM CONTRACTS LOSING GROUND

With the exception of January and February, the OTC spot prices on the CEGH market held at between €26 and €27/MWh throughout 2012. In February the average spot price was equal to the prices under the long-term import contracts, and the spot was higher on seven trading days (by 40% on 7 February). However, at €28.80/MWh the average import price in 2012 was 10% above the average spot price on the CEGH OTC market. Month-ahead futures, which influence the prices paid by large consumers, were also lower than the prices under long-term import contracts in 2012. This again points to disadvantages from the long-term contracts for buyers next year, for the fourth year in succession.

⁷ In 2011 STGW brought a declaratory action against its supplier, GWH, alleging that the latter was abusing its market power by means of anti-competitive gas supply contracts. The case was dropped when the parties reached an out-of-court settlement in the summer of 2012. See: Austria Press Agency report on 14 October 2011.

⁸ See Bloomberg: OMV Aims for April 1 Gazprom Talks to Narrow Natural Gas Prices, 21 November 2012; <http://www.bloomberg.com/news/2012-11-21/omv-aims-for-april-1-gazprom-talks-to-narrow-natural-gas-prices.html>

⁹ See energate, 20 December 2012: Gazprom plant Preissenkung (Gazprom plans price reduction); www.energate.de

¹⁰ See Interfax Natural Gas Daily, 30 November 2012, www.interfaxenergy.com

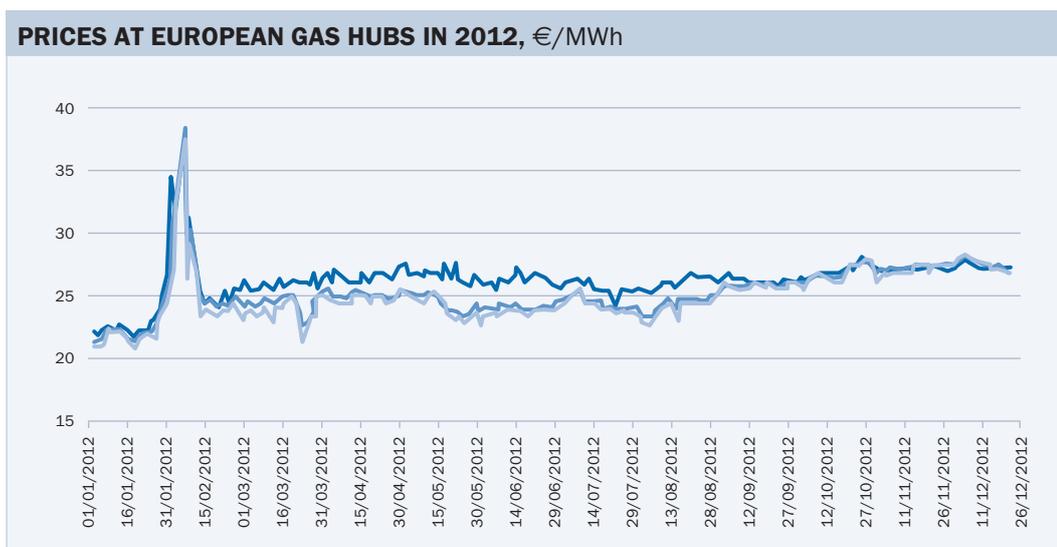


Figure 10
Spot prices at the CEGH, NCG and TTF hubs in 2012, €/MWh

Source: ICIS Heren

RETAIL PRICES – STABLE BUT HIGH

Household consumers

Following a wave of increases in 2011 and at the start of 2012, prices held steady throughout the year. In 2011 scarcely a month went by without a local/regional gas supplier raising its energy prices. This spate of increases came to a halt in February 2012 (see Table 3 and Figure 12), and there were no more changes until the end of the year.

As Figure 11 reveals, household prices reached a new high in February 2012, with the gas CPI at 155.5. The index dropped back to 155.3 in April and then stayed there for the rest of the year.

Figure 12 also shows household gas prices flatlining after February 2012, although the

suppliers' rates vary. The differences between the overall prices in the various network areas have grown ever larger, mainly as a result of the changes in the energy prices. The difference between the highest and lowest overall gas bill of a typical household in December 2012 was €243, compared to €144 a year earlier.

Between the start of 2011 and February 2012 new entrants, new brands launched by local/regional suppliers, and price increases ranging from 1% to 18% transformed the pricing picture on the Austrian small consumer market.

The incumbents announced no more price adjustments up to the end of the year.

INDUSTRIAL GAS PRICES – SLIGHTLY LOWER

The gas prices charged to industrial consumers edged down in 2012. However, the results of E-Control’s biannual industrial price surveys show that prices were still above the very high levels reached in the second half of 2008 and

the first half of 2009. Prices at the European trading hubs, such as NCG futures quotations, are playing an increasingly strong role in industrial price formation. Since NCG futures prices were slightly higher year on year, the fall in industrial rates may be an indication of stiffer competition in this market segment.



Figure 11
The gas CPI, over time
(October 2002 = 100)

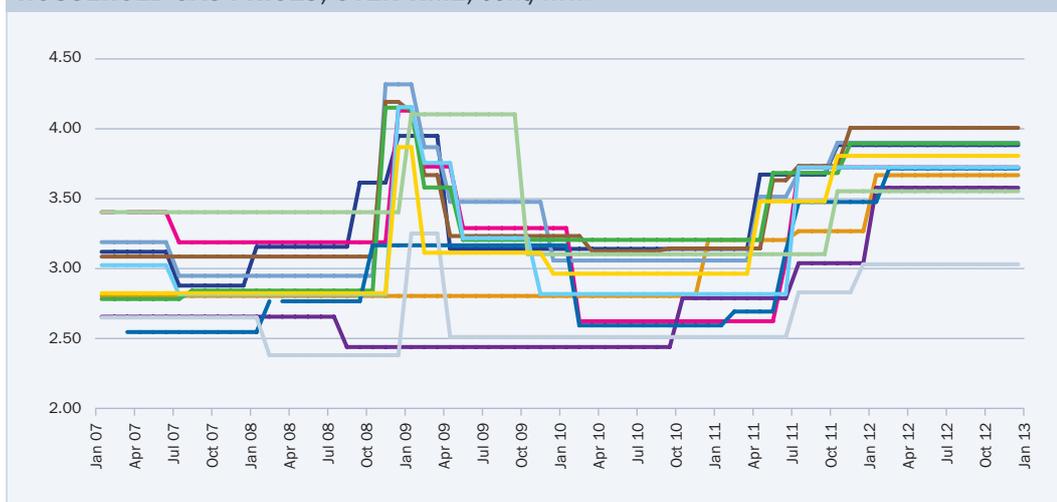
Sources: Statistics Austria and E-Control

| GAS PRICE CHANGES IN 2012 | | |
|--------------------------------------|--------------|--------------|
| Supplier | Commencement | Energy price |
| Energie Klagenfurt GmbH (nationwide) | 01/01/2012 | + 12.20% |
| Energie Klagenfurt GmbH (local) | 01/01/2012 | + 12.20% |
| Kelag (regional) | 01/01/2012 | + 17.80% |
| Kelag (nationwide) | 01/01/2012 | + 16.00% |
| TIGAS Erdgas Tirol | 01/01/2012 | + 7.10% |
| Salzburg AG | 01/02/2012 | + 6.90% |

Table 3
Gas price changes in 2012,
household with a demand
of 3,500 kWh/year

Source: E-Control

HOUSEHOLD GAS PRICES, OVER TIME, cent/kWh



- BEGAS
- Energie Graz
- Energie Klagenfurt
- EVN
- Kelag
- Linz Gas
- OÖ. Gas-Wärme
- Salzburg AG
- Steirische Gas Wärme
- TIGAS Erdgas
- VEG
- Wien Energie

Figure 12
Evolution of household gas prices, energy only, less unconditional discounts on energy charges (excl. new customers, conditional discounts, and system charges, taxes and levies) by network areas; standard product offered by the local/regional incumbent, 15,000 kWh/year

Sources: E-Control tariff calculator

SWITCHING RATES

Over 23,000 gas consumers changed suppliers in 2012, for a churn rate of 1.7%. In contrast to the decline on the electricity market, willingness to switch increased in the gas market during the reporting period. The switching rate exceeded that in the electricity market for the first time. Household consumers recorded more than 21,000 supplier transfers, compared to just 15,000 in 2011. The churn rate for the “other small consumer” category also moved up, from about 1,700 to over 1,800. There was a marked increase in switching by load metered consumers, with the rate rising to 8.2% (2011: 6.1%).

Mid-November saw the arrival of a new gas supplier on the Austrian mass market in the shape of Montana Energie. It will not be possible to gauge the impact of this until the first switching figures for 2013 become available.

EUROPEAN HOUSEHOLD ELECTRICITY PRICE COMPARISON – AUSTRIA IS NO BARGAIN BASEMENT

Average household electricity prices in the EU-27 have been on the up since early 2010. They escalated by 4.5% year on year in the first half of 2012 (H1 2011: 7%). In a comparison of 33 European countries for the first half of 2012, Austrian household electricity prices landed in the top third, in ninth place, and above the averages for both the EU-17 and the EU-27 (Figure 15). Prices were only significantly higher in Belgium, Cyprus, Denmark, Germany, Ireland and Italy. The picture is somewhat different if taxes and levies are excluded. The energy and system charges are considerably higher in Belgium, Ireland and the UK, and roughly equal in Germany.

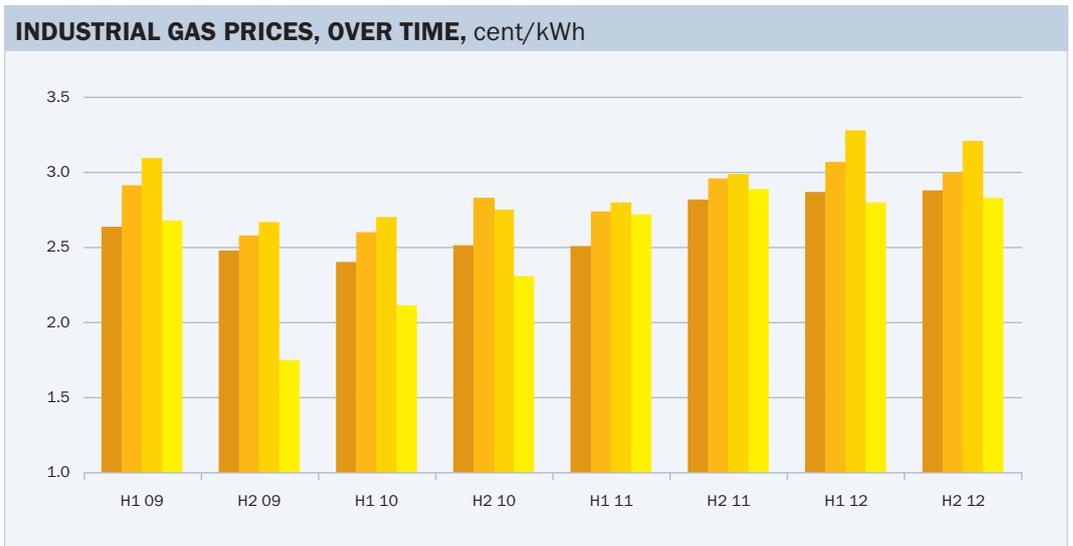


Figure 13
Industrial gas prices, over time

Source: E-Control

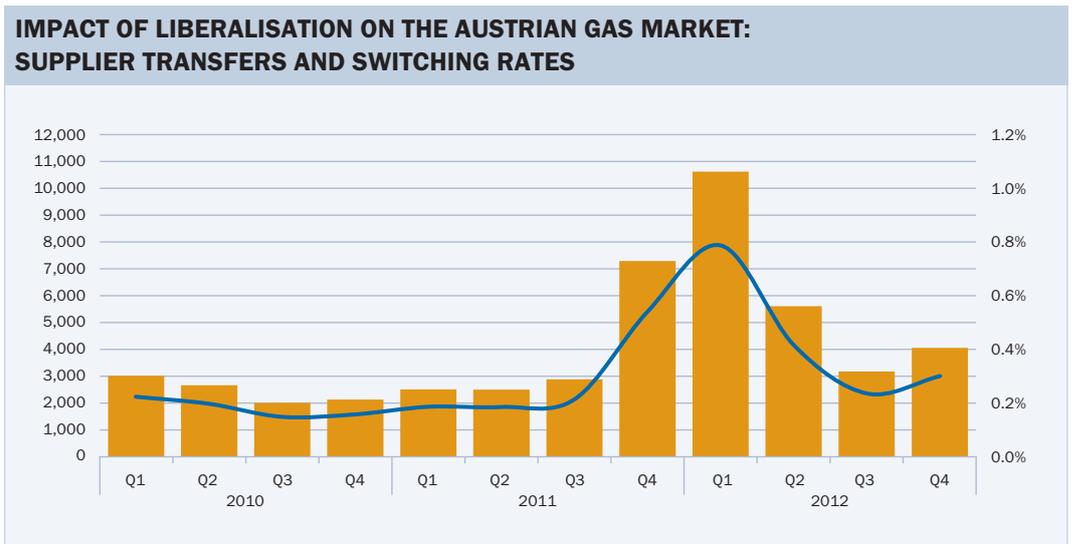


Figure 14
Impact of liberalisation on the Austrian gas market: supplier transfers and switching rates

Source: E-Control

EUROPEAN HOUSEHOLD ELECTRICITY PRICE COMPARISON, cent/kWh

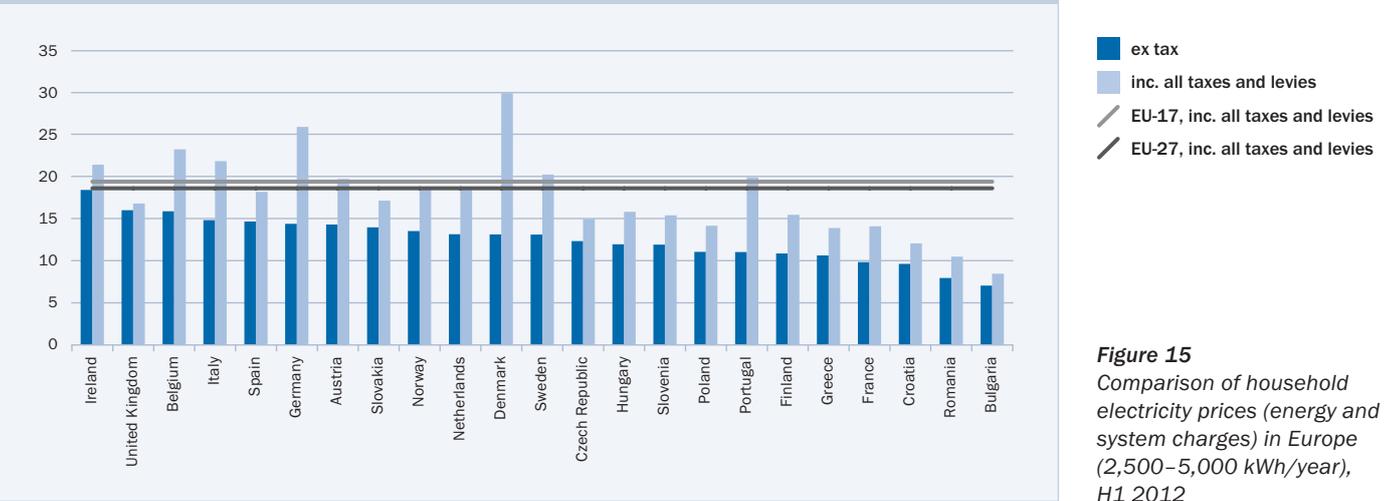


Figure 15
 Comparison of household electricity prices (energy and system charges) in Europe (2,500–5,000 kWh/year), H1 2012

Source: Eurostat

EU HOUSEHOLD ELECTRICITY PRICE COMPARISON, %

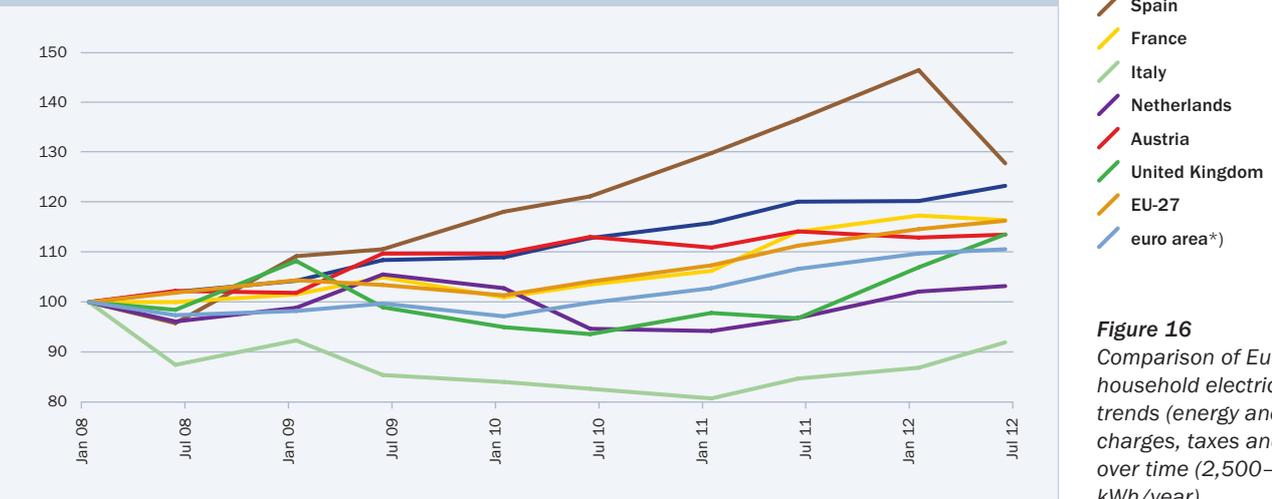


Figure 16
 Comparison of European household electricity price trends (energy and system charges, taxes and levies), over time (2,500–5,000 kWh/year)

*) euro area (EA-11, 2000; EA-12, 2006; EA-13, 2007; EA-15, 2008; EA-16, 2010; EA-17)

Source: Eurostat

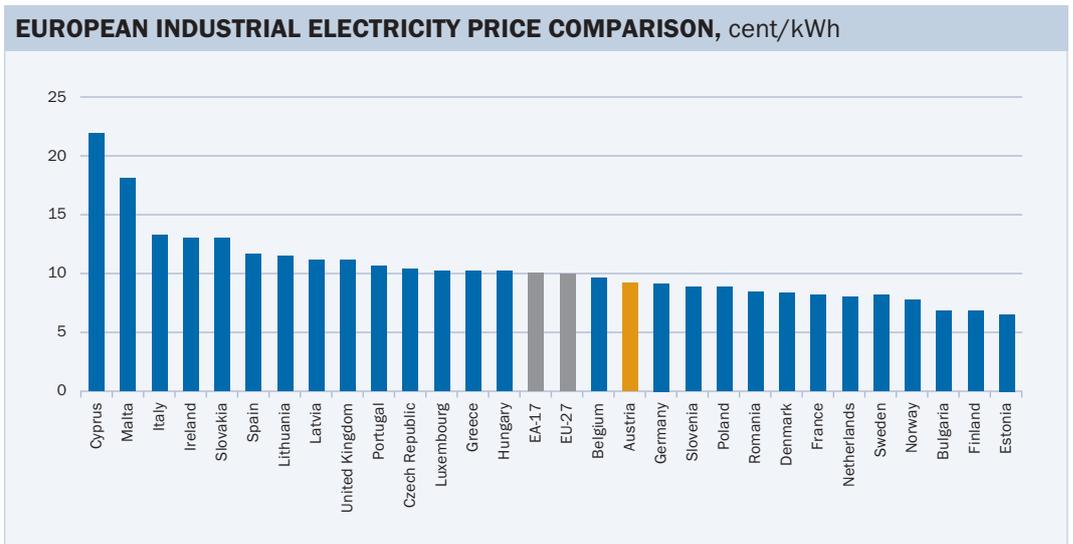


Figure 17
Comparison of industrial electricity prices (energy and system charges) in Europe (500–2,000 MWh/year), H1 2012

Source: Eurostat

- EU-27
- EA-17
- Belgium
- Germany
- Spain
- France
- Italy
- Netherlands
- Austria
- Sweden

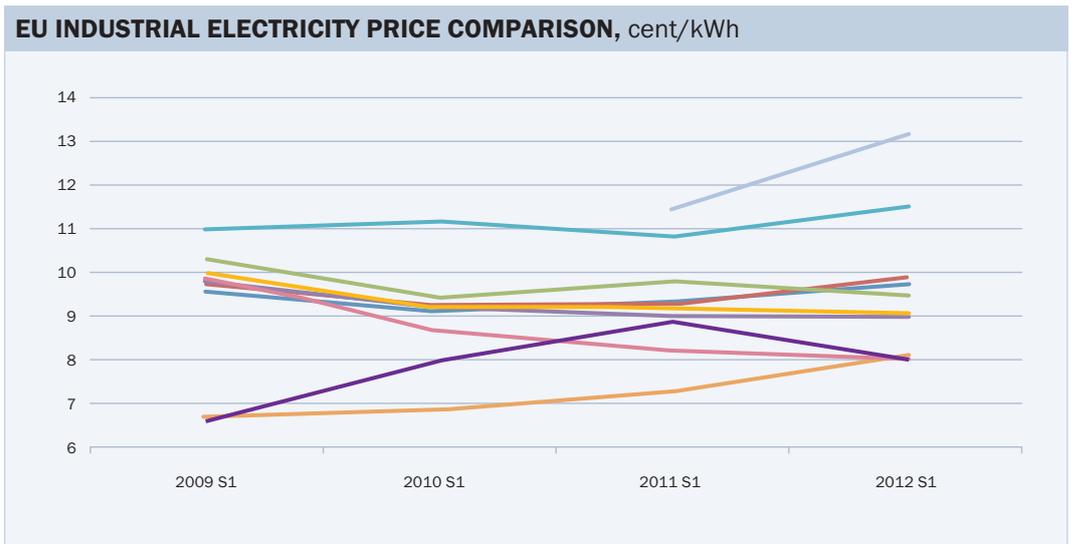


Figure 18
Comparison of industrial electricity prices (energy and system charges) in Europe (500–2,000 MWh/year), H1 2012

Source: Eurostat

ELECTRICITY PRICES FOR INDUSTRIAL CUSTOMERS

Austrian industrial electricity prices were below EU average in the first half of 2012, but were higher than those in France, Germany and the Netherlands (Figure 17). Since 2010 they have fallen relative to average EU prices (Figure 18).

AUSTRIAN HOUSEHOLD GAS PRICES AMONG THE HIGHEST IN EUROPE

In a comparison of EU countries for the first half of 2012, Austrian household gas prices (energy and system charges, and taxes and levies) were in the top third, in fifth place,

and well above the averages for both the EU-17 and the EU-27 (Figure 20). The only countries with significantly dearer gas were Denmark, Italy, Slovenia and Sweden. Dutch households pay about the same, and private consumers in France, Germany, Spain and the UK considerably less. A typical German household pays € 180 per year less for its gas.

The situation is different when taxes and levies are excluded. The energy and system charges are markedly higher in Portugal and Spain, for example, but are much lower in Germany, Italy, the Netherlands and the UK.

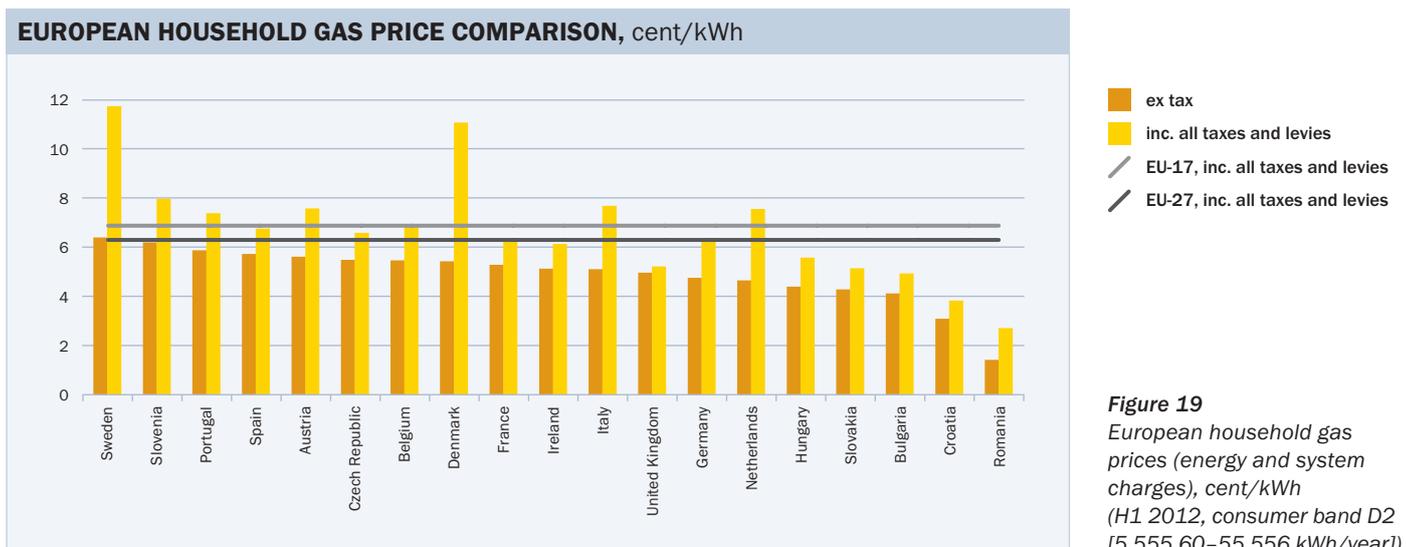


Figure 19
 European household gas prices (energy and system charges), cent/kWh (H1 2012, consumer band D2 [5,555.60–55,556 kWh/year])

Source: Eurostat

Household gas prices were up 26% in Spain, and 23% higher in the UK, year on year, in the first half of 2012. The British price rises were bunched in the second half of 2011, and the Spanish increases in the first half of 2012. Austria, France, Germany and Italy experienced year-on-year price increases ranging from 8 to 11%, whereas prices fell in France and Italy in the first half of 2012. Prices went sideways in Germany in the first six months of 2012, but continued to rise in Austria, the Netherlands and Spain during the period (Figure 20).

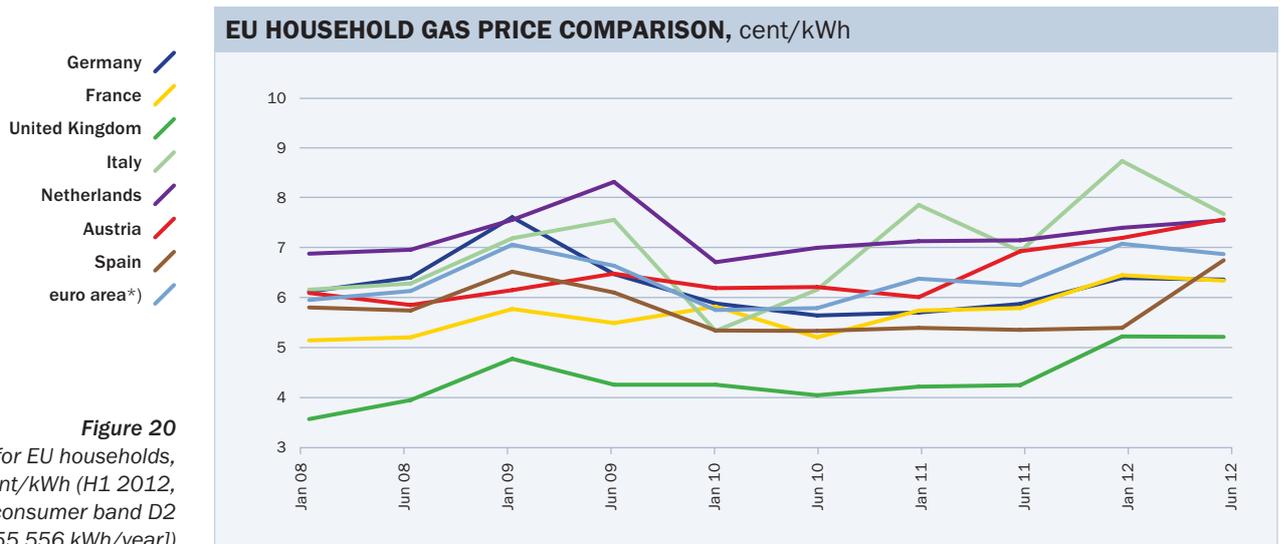


Figure 20
Gas prices for EU households, cent/kWh (H1 2012, consumer band D2 [5,555.60–55,556 kWh/year])

*) euro area (EA-11, 2000; EA-12, 2006; EA-13, 2007; EA-15, 2008; EA-16, 2010; EA-17)

Source: Eurostat

AUSTRIAN INDUSTRIAL GAS PRICES CLOSE TO THE EUROPEAN AVERAGE

Austrian industrial gas prices were marginally below average for the EU in the first half of

2012, but were higher than in the Netherlands and the UK. They have risen slightly relative to the EU averages since 2010.

EUROPEAN INDUSTRIAL GAS PRICE COMPARISON, cent/kWh

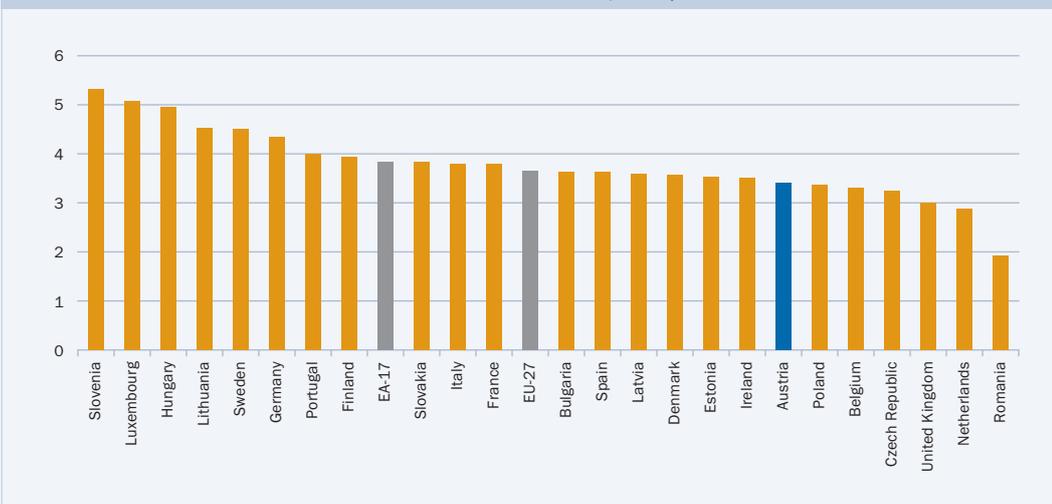


Figure 21
Comparison of industrial gas prices (energy and system charges) in Europe, cent/kWh (demand 10,000–100,000 GJ/year), H1 2012

Source: Eurostat

EU INDUSTRIAL GAS PRICE COMPARISON, cent/kWh



Figure 22
Comparison of industrial gas prices (energy and system charges) in Europe, cent/kWh (500–2,000 MWh/year), H1 2012

Source: Eurostat

HOUSEHOLD ENERGY PRICE INDEX (HEPI) – VIENNESE CONSUMERS UNDER THE COSH

Electricity prices

Over the survey period up to and including February 2012, the average price in the other capital cities of the EU-15 was lower than that billed to consumers in Vienna. The Vienna price has been below the average for the 15 capitals since March 2012, and by December the difference was 0.8 cent/kWh.

In most of the 15 cities, electricity prices including taxes and levies rose sharply between January 2009 and December 2012. This was mainly due to increases in taxes and levies, many of which fund heavy renewable energy subsidies. The overall price fell by 13% in Copenhagen, but reductions in the energy and system charges were at least partly offset by increases in levies. There is no end in sight to the upward trend in electricity prices.

Average for the EU-15 capitals
Vienna

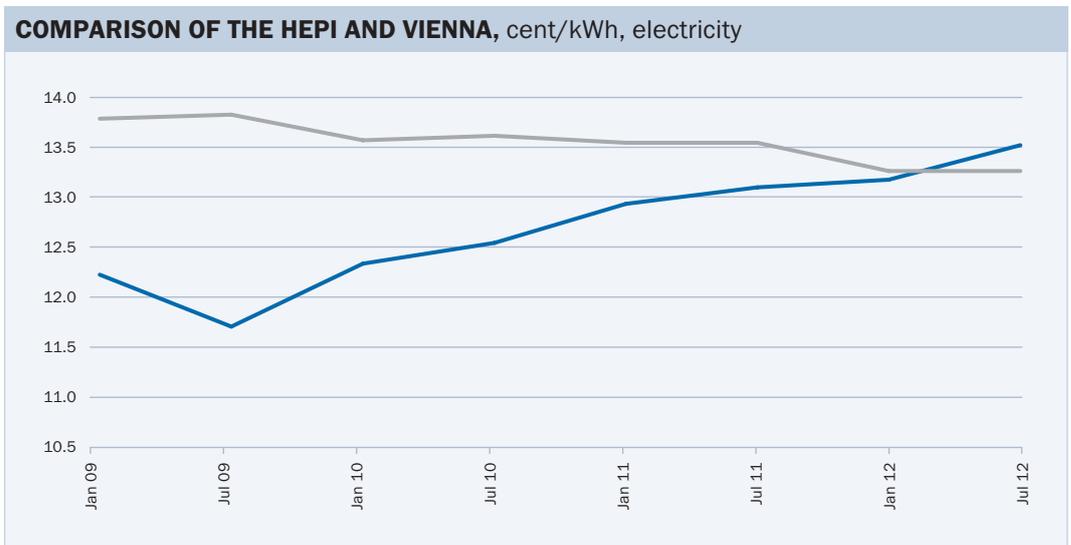


Figure 23
Comparison of the HEPI and Vienna (ex taxes and levies)

Sources: E-Control and VaasaETT

ELECTRICITY PRICES IN THE EU-15 CAPITALS, cent/kWh

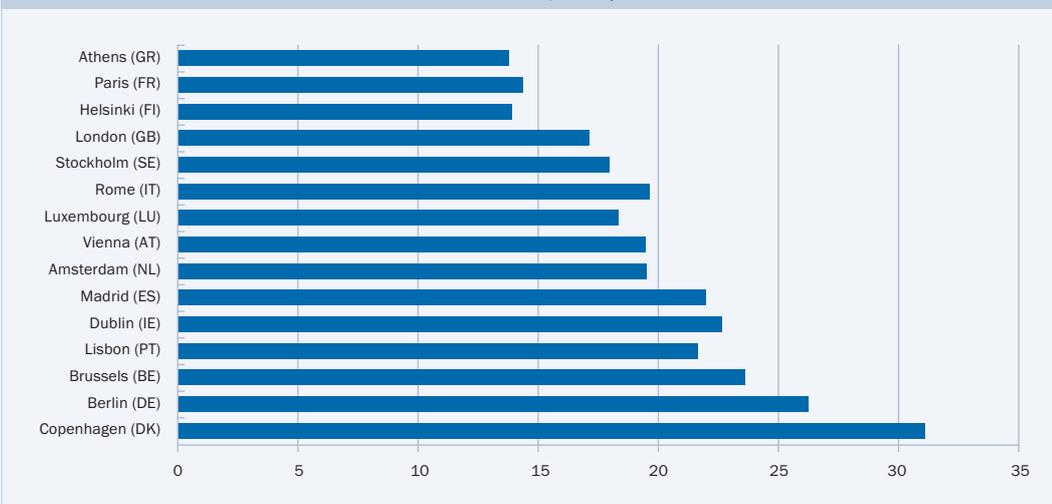


Figure 24
Electricity prices (energy and system charges, taxes and levies) in the EU-15 capitals, cent/kWh, December 2012

Sources: E-Control and VaasaETT

The EU member states' regulators are extremely concerned about the steady rise in prices, and have intervened in a number of ways. For instance, the British regulator Ofgem has prompted suppliers to revise their tariffs so as to facilitate price comparisons and promote competition. As a result of the shake-up suppliers will only be permitted to offer four tariffs. In Belgium the price components that follow international wholesale market trends were frozen for several months to protect consumers against further price increases and prevent unethical behaviour by suppliers. In other countries attempts are being made to intervene in markets and prevent high prices by introducing price regulation. In some cases

the regulated prices are being pitched so low that they do not cover costs, and therefore rule out any competition. This would be harmful to consumers in the long run, as only markets with completely unregulated price formation are in their interests.

An indication that retailers have been setting prices far too high for consumers – with the result that they are often no longer affordable – is the fact that in many countries, including Belgium, France, Greece, Italy and Portugal, the number of consumers being supplied under “social tariffs” has grown significantly over the years.

Vienna was mid-table both in 2009 (19.66 cent/kWh) and 2012 (19.5 cent/kWh). However, it should be remembered that the retail suppliers generally have mark-ups of 3–4 cent/kWh. This suggests that the overall prices charged could be considerably lower, despite increased taxes and levies. The lowest total price in an EU-15 capital city is in Athens (2009: 11.43 cent/kWh; 2012: 13.74 cent/kWh). Even where the overall price appears very low at first sight, this does not mean that power is affordable for consumers in the cities concerned.

The proportion of the overall price represented by the energy price has decreased in all the

capitals except Berlin, where it has remained constant. This trend is related to big increases in taxes and levies, which have mainly been driven by the introduction of subsidies for renewables in 2011. In Copenhagen taxes and levies made up 57% of the total price in December 2012.

HARD ON THE POCKET – STOCKHOLM THE PRICIEST PLACE

Gas prices

Over the four years of the survey, Vienna has mostly been above average for the EU-15 capitals in terms of the gas price excluding taxes and levies; in January 2011 and December 2012 the Vienna price was equal to the average.

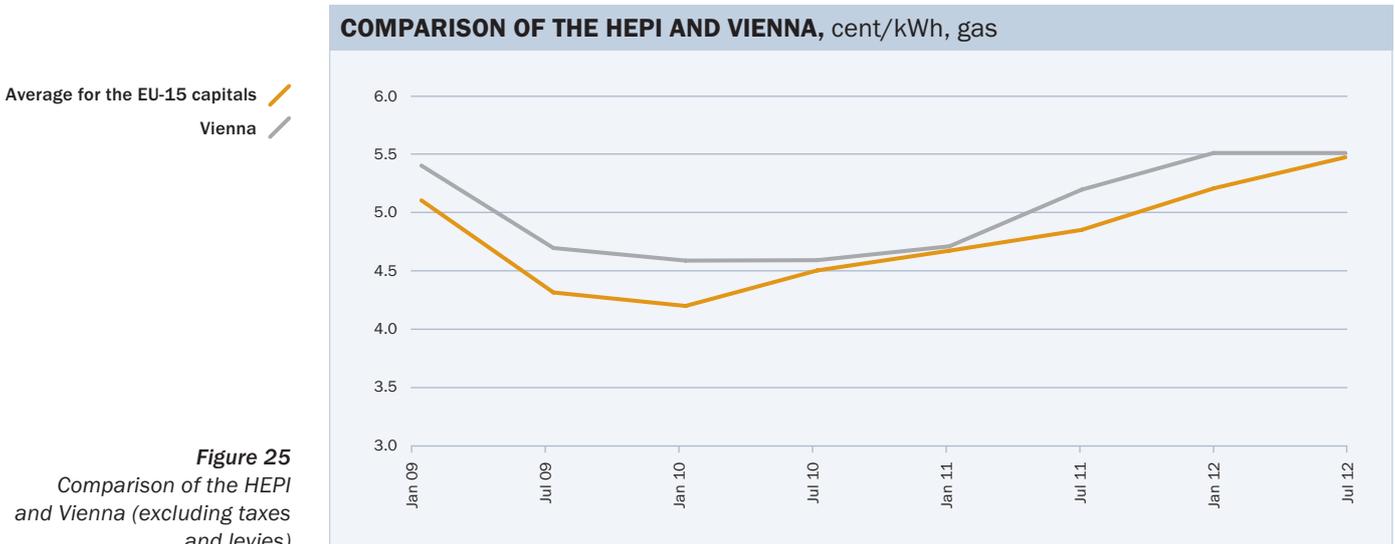


Figure 25
Comparison of the HEPI and Vienna (excluding taxes and levies)

Sources: E-Control and VaasaETT

GAS PRICES IN THE EU-15 CAPITALS, cent/kWh

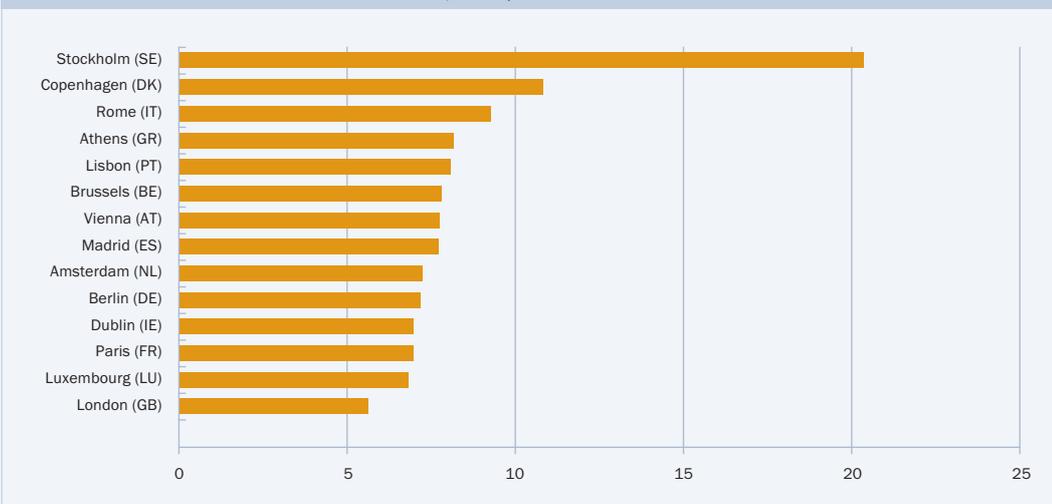


Figure 26
Gas prices (energy and system charges, taxes and levies) in the EU-15 capitals, cent/kWh, December 2012

Sources: E-Control and VaasaETT

Stockholm continues to have the highest total price. The Swedish market is not comparable to those of the other countries surveyed, because it does not have the same size and influence. Like the power prices, Viennese gas prices are mid-table for Europe. Similarly to the electricity market, the regulators have been trying to relieve the cost burden on consumers, e.g. by freezing price components that take their lead from international markets or simplifying the price structure and limiting the

number of products. In Belgium linkage of consumer prices to oil will be outlawed, although the gas companies have been given a grace period until the contracts with the importers have been renegotiated. It is unsure whether these attempts to cut prices will work at all, and if so how fast. To date, they have only resulted in short-lived price reductions. In some countries, such as Belgium, Hungary and Italy, the number of consumers on “social tariffs” has risen sharply over time.

CREATING AN INVESTMENT FRIENDLY CLIMATE





NETWORK REGULATION:

KEEPING IT SIMPLE

Regulating the Austrian electricity and gas networks – natural monopolies – is one of E-Control's key tasks. The electricity and gas distribution systems have been subject to long-term incentive regulation regimes since 2006 and 2008, respectively. In this form of regulation, the link between system operators' actual costs and their allowed revenue is broken for the duration of the regulation period.

The audited cost base is adjusted annually, using escalation and offset factors which reflect price increases in the industry, as well as industry and company-specific productivity trends. The adjusted cost base is translated into annually redetermined tariffs, taking account of factors that influence capital and operating costs during the regulation period. While in the electricity sector companies are given two four-year regulation periods to overcome their inefficiencies, they are allowed ten years in the gas sector (divided into two five-year regulation periods).

In 2012 the costs of the gas distribution system operators were carried out in accordance with the system adopted for the first regulation period for the last time. Minor adjustments have been made to the regulatory framework for the second regulation period (1 January 2013 to 31 December 2017). 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. Work on the design of the system for the electricity distribution networks in the third regulation period is currently in progress. A difference to the approach taken to gas network regulation is the fact that here a new efficiency benchmarking exercise with a broader sample (companies that supplied more than 50 GWh in 2008) is being undertaken. Some of the existing regulation parameters are being evaluated and may be adjusted. The third incentive regulation period for electricity distribution networks will commence on 1 January 2014. The system charges for use of the electricity and gas transmission networks are still determined on the basis of annual cost audits and approval of system operators' tariff-setting methods. The methods for the gas transmission systems were reviewed and modified in 2012.

Under the regulatory regime outlined above, the system charges for the 15 electricity network areas and 20 gas distribution systems are adjusted annually, with effect from 1 January of each year, and the new rates announced in amended ordinances.

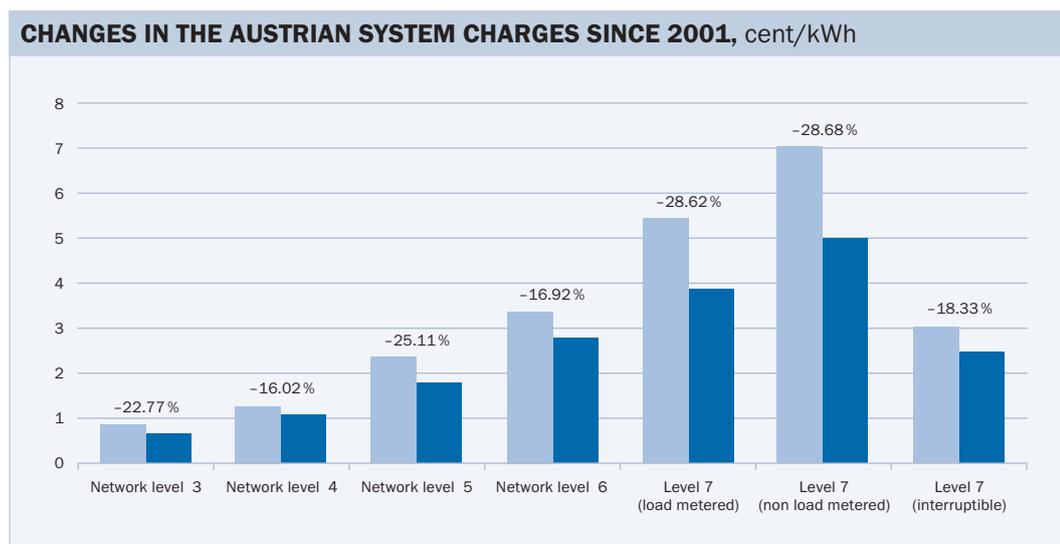
KEEPING THE POWER FLOWING – SLIGHT INCREASES IN SYSTEM CHARGES

The adjustments to the system charges (system utilisation and system losses charges) brought about by the *Systemnutzungsentgelte-Verordnung* (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 largely due to a big jump in the costs associated with the statutory regulations governing the hiving-off of pension obligations that existed at the time of the

full liberalisation of the electricity market on 1 October 2001. In all, the system operators' costs in 2013 are up by about €29m year on year. Since €23m of this amount is attributable to Vienna 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, electricity consumers' bills have been cut by over €600m as a result of reductions in the system charges. After sliding in recent years because of the economic and financial crisis, sales volumes picked up somewhat last year, easing the upward pressure on tariffs. During the upcoming review procedure in 2013, a new initial cost base will be determined and a new regulatory framework established for the third regulation period.



System charges on 30 Sep. 2001
System charges on 1 Jan. 2013

Figure 27
Changes in the Austrian system charges since 2001

Source: E-Control

Continued investment needs and increases in system operators' costs will limit the leeway for reductions in the 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.

PURSE STRINGS LOOSENED FOR GAS DISTRIBUTION NETWORK INVESTMENT

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 40% of the costs of the transmission systems and some 6.5% of the total network costs in the eastern control area.

To cover investment in distribution networks and additional operating expenses during the incentive regulation period, there are investment and operating cost factors. These are aimed at creating additional investment incentives for distribution system operators. They are mainly designed to promote increased network density, 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 2008 Gas System Charges (Amendment) Ordinance 2012, these are the quantities supplied between 2008 and 2010, and in that of the Gas System Charges Ordinance 2013 it is the average volume in the 2009–2011 period. Lower power generation use reduced the reference supply volume by about 3%.

MORE COST TRANSPARENCY THANKS TO AUDIT

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 gas incentive regulation period, went a long way towards mitigating the effects of the tariff determination reference volume and investment activity on costs and tariffs. Due to the new cost cascading methodology applied for the first time to the calculations for the Gas System Charges Ordinance 2013, the spread between the tariffs in the various provinces is significantly different.

Gas network investment

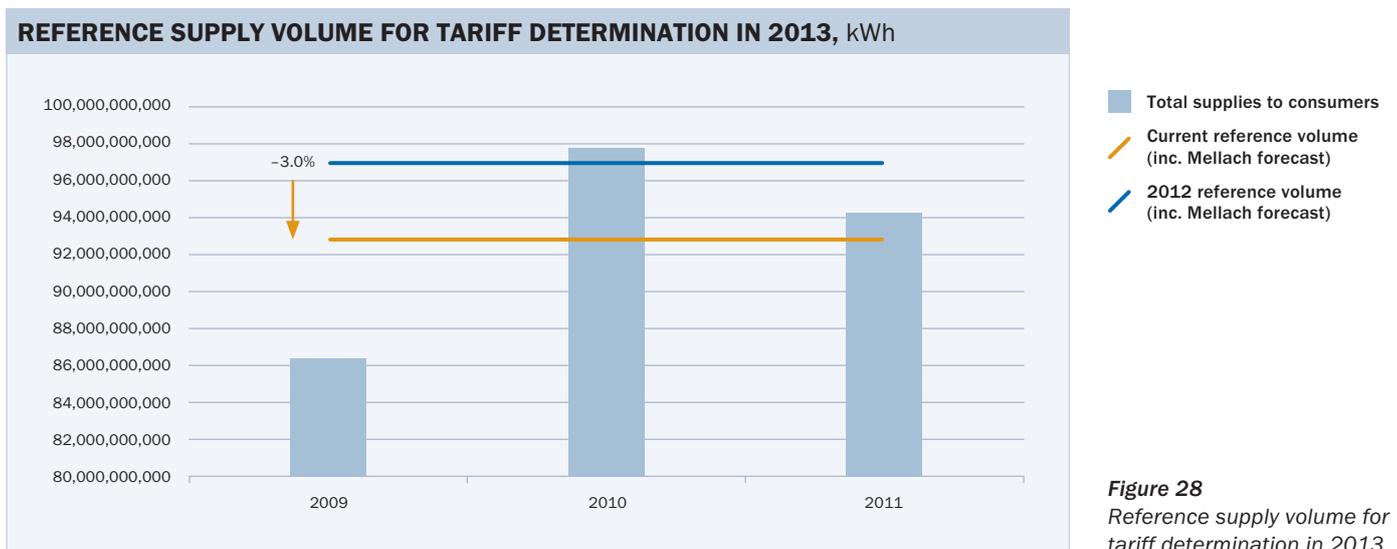


Figure 28
Reference supply volume for tariff determination in 2013

Source: E-Control

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 this was not offset by rising sales. There was a significant increase in the system charges in the Vienna network area, mainly as a result of a massive rise in the costs beyond the operator's control referred to by section 79(6)(4) Natural Gas Act 2011. The reduction in the system charges in the Upper Austria network area was partly due 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 (Amendment) 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 began being imposed by way an official decision procedure. Like their counterparts in the electricity industry, the gas system operators have received official decisions informing them of the cost and volume calculation basis of the 2013 system charges.

MORE COMPETITION IN THE PIPELINE – NEW-LOOK TRANSMISSION TARIFF DETERMINATION

If competition is to be promoted by liquid wholesale markets, it is vital for trading to be independent of the location of the gas in the network. As early as the sixth meeting of the Madrid Forum, on 30–31 October 2002, most of the stakeholders present expressed a preference for entry-exit systems because of their positive effects on competition.

Article 13 of the Gas Regulation requires that transmission tariffs be applied in a non-discriminatory manner, and that they be set separately for every entry point into or exit point out of a transmission system. In other words, it introduces an entry-exit tariff regime for the transmission grid.

The entry into force of the Natural Gas Act 2011 marked a major advance towards implementation of the EU's third energy package. The Act provided for a move from point-to-point to entry-exit transmission sys-

tem charges with the launch of the new gas market model on 1 January 2013. This means that instead of booking a transport route, system users merely reserve entry capacity to inject gas into a market area and exit capacity to withdraw it from the latter (entry-exit system). The Act has transformed the business processes in the Austrian gas industry, and has led to the establishment of a virtual trading point (VTP) in the eastern market area. The VTP is aimed at increasing liquidity, resulting in greater competition.

RUN-UP TO THE NEW NATURAL GAS ACT

From January 2007 on, all gas transits were subject to general terms and conditions, and set according to tariff calculation methods approved by the E-Control Commission. Since then, the need to transpose Union law has brought many changes in the calculation of the system charges, which were previously distance-based.

New legislation (i.e. the Natural Gas Act 2011) now governs the principles according to which the transmission system operators' costs and the system charges are calculated. The last sentence of section 70(1) Natural Gas Act 2011 states that the Regulation Commission shall enact the system charges for the transmission system by ordinance. Section 82 of the Act prescribes that the ordinance shall be based on a methodology to be approved by the E-Control Executive Board, and that the

same official decision shall also specify the cost and volume parameters applied.

During a procedure in which the three transmission system operators concerned took part the costs and revenue predicted by the methods introduced in 2007 were compared with the actual costs and revenue, and 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.

In October 2011 E-Control commissioned energy consultants KEMA to develop a range of tariff design options. The consultants' report was completed and published in 2012. Pursuant to section 72 Natural Gas Act 2011, the TSOs submitted proposals for the entry-exit tariffs based on the costs arrived at during the methodology review. We assessed the proposals according to a variety of criteria. The main yardstick was the distance from the VTP in Austria.

Another consideration was the need to avoid excessive increases in the charges when migrating from the former distance-related tariffs to entry-exit based contracts, as there

would otherwise have been a risk of the shippers terminating their contracts. A condition made by the TSOs was that – despite the existence of a single market area – they should be in control of generating their own revenue, and that there should be no equalisation payments between them.

ENTRY-EXIT TARIFFS

Following an intensive consultation process involving numerous position papers and hearings, the entry-exit tariffs were adopted by the Regulation Commission at a meeting held on 19 September 2012. The date was chosen to give the TSOs enough time to revise the existing contracts.



**NO NEED FOR ALARM
ON ENERGY SUPPLIES**



SECURITY OF SUPPLY:

ENERGY YOU CAN RELY ON

E-Control's responsibilities in this area include annual reviews of the supply security situation, duties under the electricity and gas *Energielenkungsdaten-Verordnung* (Energy Intervention Powers Data Ordinance), approving new infrastructure projects – also in connection with the long-term gas and electricity plans – and setting tariffs that provide investment incentives.

Long-term planning – for satisfied customers

ELECTRICITY – NETWORK DEVELOPMENT PLANS ON TRACK

Section 39(1) Electricity Act charges E-Control with monitoring the transmission system operators' network development plans. APG and VÜN submitted their second network development plans pursuant to section 37 Electricity Act, and the E-Control Executive Board approved these by official decision at the end of November 2012.

The TSOs are obliged to draw up ten-year network development plans on an annual basis. The plans are based on scenarios for projects of national and international interest, cost estimates, risk analyses and detailed project descriptions.

Both the TSOs and E-Control hold consultations on the network development plans, after which we assess the technical and economic feasibility of the projects.

The projects that receive positive assessments are approved. For the first time, this year projects are being included in the

plans that do not require the construction of complete new power lines and instead involve modifications to existing networks. We welcome this in principle, but were unable to examine all the projects closely enough due to lack of information, meaning that some could not be approved this year.

In 2012 the network development plan preparation and approval process was considerably improved as compared to the first year, 2011, and it will continue to be fine-tuned.

GAS PLANNING – LTP AND CNDP

The Natural Gas Act 2011 makes the distribution area manager responsible for drawing up a long-term plan (LTP) with a planning horizon of at least ten years on an annual basis. The Act also requires the market area manager to prepare a coordinated network development plan (CNDP) in consultation with the transmission system operators, having regard to the LTP. Both planning instruments must take account of technical and economic expediency, the interests of all

market participants and consistency with the Community-wide network development plan, as well as compliance with the infrastructure standard laid down by Article 6 Regulation (EU) No 994/2010.

Section 22 Natural Gas Act 2011 tasks the distribution area manager with drawing up an LTP for the eastern market area that meets the objectives set out in section 22(1) of the Act at least once a year. The objectives of the CNDP are laid down by section 63 Natural Gas Act 2011. These stipulations state that the plans shall be aimed at: meeting the demand for capacity to supply consumers while considering emergency scenarios; maintaining a high degree of availability of line capacity (security of supply of the infrastructure); meeting transport needs, and the capacity requirements at network and storage facility entry-exit points; and complying with the infrastructure standard established by the EU Security of Supply Regulation.

The objectives set out in section 22 Natural Gas Act 2011 require the sales forecast (*Figure 29*) and the measures planned under the LTP to be based on the assumption that full supplies to connected customers and applicants for connections will be maintained.

Since the 2011 LTP it has been standard practice to consult the market participants concerned on the development projects

before submitting the plan for approval. In the case of the CNDP this is a statutory duty. A consultation of this sort was held during the 2012 network development planning process, in order to ensure that all the needs of the market participants affected and the impact on the infrastructure affected were taken into consideration.

The first CNDP was submitted to us for approval in autumn 2012. Due to the close connection between the issues addressed by the two plans, we have suggested drawing them up at the same time. E-Control consulted system users on both plans, and has posted the responses on its website.

Due to the feedback from system users it was necessary to direct additional enquiries to the distribution and market area managers, and TSOs involved, and as a result it was not possible to approve the plans in 2012.

Development projects under the 2012 LTP

The future capacity situation, and the gas sales and supply forecasts indicate that the existing gas infrastructure development strategy, mapped out for the 2007 feasibility study, should be retained for the ten-year planning horizon. Current forecasts indicate that the projects developed for the previous (2011) LTP are sufficient to meet capacity requirements up to 2022.

Coordinating role

The centrepiece of the 2012 LTP is the project for the construction of a link between the Haidach storage facility and the eastern market area. The distribution area manager has developed such a project on the basis of binding utilisation commitments from the storage operators, and submitted it for approval. In E-Control’s view a direct link like this would make a significant contribution to competition in Austria, and to security of supply.

kappel interconnection point. The transmission system operator concerned has submitted a project aimed at overcoming this critical obstacle to competition in Austria. In E-Control’s opinion this problem should be treated as a top priority, and action to solve it needs to be speeded up. When establishing the CNEP, closer cooperation and coordination between the four Austrian TSOs involved in the project planning, the market area manager and the distribution area manager responsible for drawing up the LTP would be desirable.

UNBLOCKING OBERKAPPEL – ACTION UNDER THE CNDP

The main problem addressed by the first CNDP is the physical congestion at the Ober-

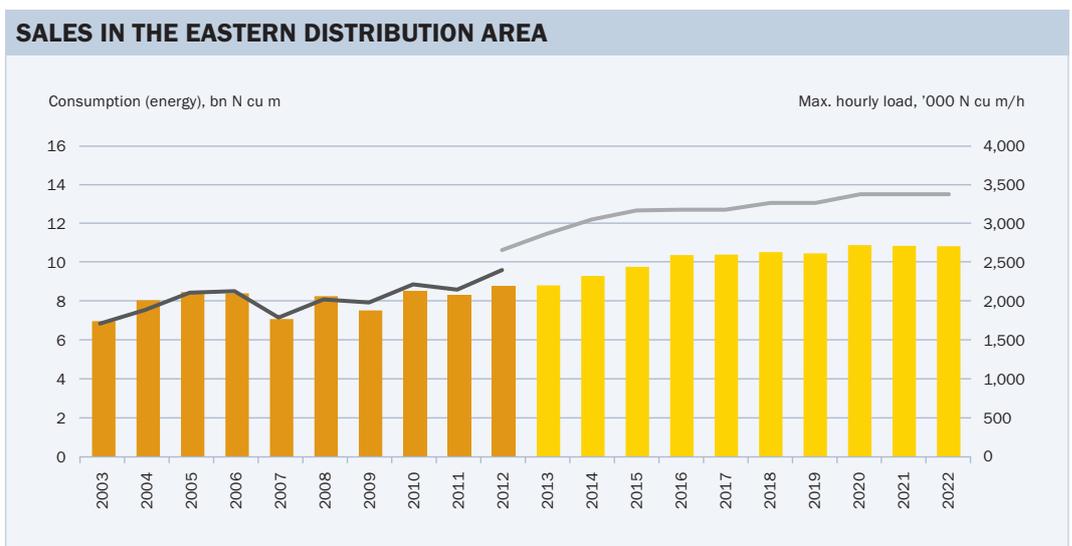


Figure 29
Maximum hourly load and demand in the eastern control area: actual figures for the 2003–2012 gas years and estimates for the “NB_Max” sales scenario (2013–2022 gas years)

Source: AGGM, 2012

Current supply security position – more than enough

THE LONG CLIMB – NO WAY DOWN FOR AUSTRIAN ELECTRICITY DEMAND

Demand for electricity in Austria has grown steadily for almost all of the past 30 years. The main exception was 2009, when consumption dropped by 3.57% owing to the economic and financial crisis, and the resulting fall in industrial production. A smaller decrease in demand was also recorded in 2008. Otherwise, the only year of negative growth after 1977 was 1992. After the 2009 drop electricity demand rebounded in 2010, and according to Statistics Austria final consumption is likely to have held steady in 2011, as gross domestic electricity consumption

(according to E-Control's data) was virtually unchanged. This would represent a return to near pre-crisis consumption levels. Statistics for 2012 are not yet available, and the position could change again in 2013, depending on average temperatures and the economic situation. The analyses contained in this report are based on Statistics Austria's final energy consumption figures, due to the breakdown into industrial and household demand required by our model. Gross domestic electricity consumption is the sum of final energy consumption, electricity consumption by the non-electrical energy sector, system losses and own use.

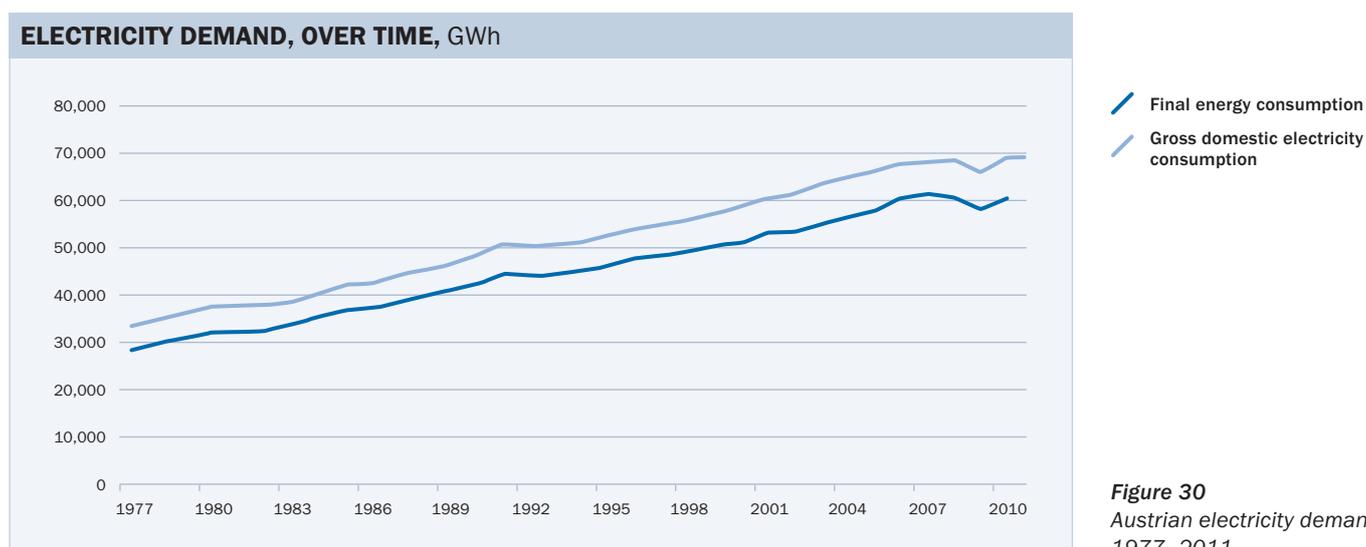


Figure 30
Austrian electricity demand,
1977–2011

Sources: E-Control and Statistics Austria

LONG-TERM FORECASTS – MORE GROWTH SEEN AHEAD

Projected electricity demand in Austria

E-Control used the latest version of its detailed empirical Model of Electricity Demand in Austria (MEDA) to monitor supply security. MEDA can generate detailed forecasts of electricity demand trends based on exogenous parameters such as economic and income growth, inflation and global warming. Descriptions of the model and the parameters applied can be found in past E-Control monitoring reports; the 2006 and 2007 reports (posted on www.e-control.at) give particularly detailed accounts.

With the input parameters and underlying assumptions chosen, the MEDA demand model yields final energy consumption of 70,189 GWh in 2020 – equivalent to an average annual increase in electricity consumption of 1.52%. This compares with an average growth forecast of around 1.3% per annum made last year. Two years ago the average annual increase was put at 1.4% up to 2018. These shifts mainly reflect the sharp declines in consumption in 2008 and 2009, which slowed the growth predicted by the model, and the jump in demand in 2010, which had the opposite effect.

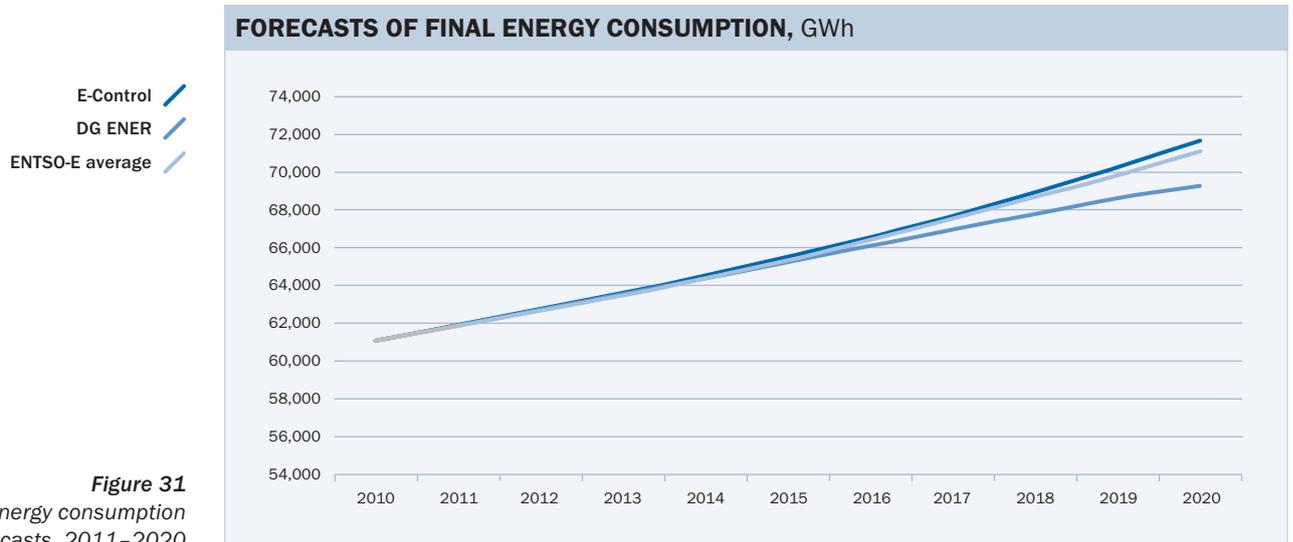
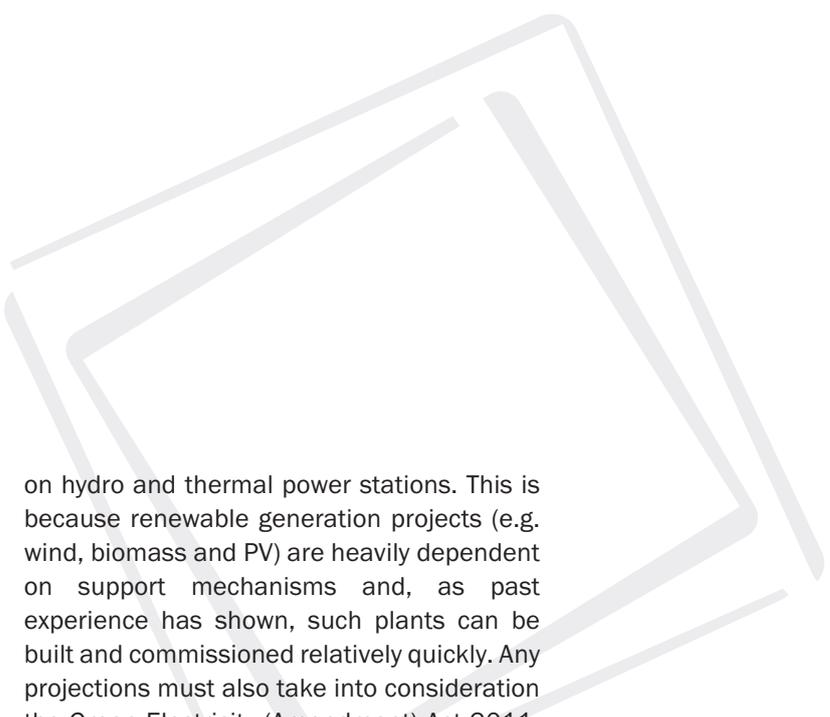


Figure 31
Final energy consumption forecasts, 2011–2020

Sources: E-Control, ENTSO-E and DG ENER



Like E-Control's demand forecast, those of the European Commission's Directorate-General for Energy (DG ENER) and ENTSO-E also point to a slowdown in the growth of electricity demand. DG ENER's PRIMES model¹² puts average growth at 1.7% between 2000 and 2010, and projects it at 1.4% from 2010 to 2020. The ENTSO-E¹³ System Adequacy Forecast 2010–2025, on the other hand, projects an average increase in European consumption (up to 2020) of 1.47%, with growth in Austria close to that rate. *Figure 31* provides an overview of these scenarios. The figures for consumption in 2020 are strikingly close to each other.

MANY FACTORS DRIVING ELECTRICITY OUTPUT – INCLUDING RAIN

Electricity generation is influenced by a variety of factors. For instance, the amount of precipitation and water supply have an impact on fill levels at pumped storage and run of river power stations. Forecasts also need to take account of available generating capacity, which is lower than installed capacity due to factors such as maintenance turnarounds, shutdowns, faults, storage levels and water flow. Pursuant to section 20i(1) *Energielenkungsgesetz* (Energy Intervention Powers Act) 1982 as amended by FLG I no 106/2006, this year's monitoring report includes a survey of power station development projects planned up to 2020. As required by the Act, the survey focuses

on hydro and thermal power stations. This is because renewable generation projects (e.g. wind, biomass and PV) are heavily dependent on support mechanisms and, as past experience has shown, such plants can be built and commissioned relatively quickly. Any projections must also take into consideration the Green Electricity (Amendment) Act 2011, which targets a combined increase of 2,200 MW in wind, biomass and biogas capacity between 2010 and 2020. Given the current legal situation, the probability of these projects' being implemented is assumed to be 100%.

CAPACITY COVERAGE UP TO 2020 – THE FUTURE CAN COME

Econometric estimates of annual peak load can be generated using the MEDA electricity demand forecast. The error correction approach used is described in detail in E-Control monitoring reports.¹⁴ The peak load trend predicted by the model (annual average growth of 150 MW per year between 2012 and 2020) and the maximum capacity of the available power stations is shown in *Figure 32* below. Scenario 1 includes all plants which are under construction and excludes those that are due to be decommissioned, while Scenario 2 also takes account of projects that have been submitted for approval. Scenario 1 is thus the more conservative prediction. It is assumed that all renewable generating projects will be implemented on account of the current legal framework.

¹² See: http://ec.europa.eu/energy/observatory/trends_2030/index_en.htm

¹³ See: https://www.entsoe.eu/fileadmin/user_upload/_library/SDC/SOAF/ENTSOE_SO_AF_2011-2025.pdf

¹⁴ See, in particular: pp. 18ff. of the 2006 monitoring report (German only):

<http://www.e-control.at/portal/page/portal/medienbibliothek/strom/dokumente/pdfs/monitoring-report-strom-2006-2016-neu.pdf>

The analysis shows that the expected peak capacity of available power stations covers the forecast peak load up to 2020, and as a result no supply shortages are anticipated. However, this depends to a large extent on the number of projects actually executed, which

is subject to a degree of uncertainty. ENTSO-E also expects Austria to be in a position to meet peak load comfortably up to 2025.¹⁵ Even the conservative scenario points to excess capacity (including a reasonable safety margin) of around 3 GW in January 2020.

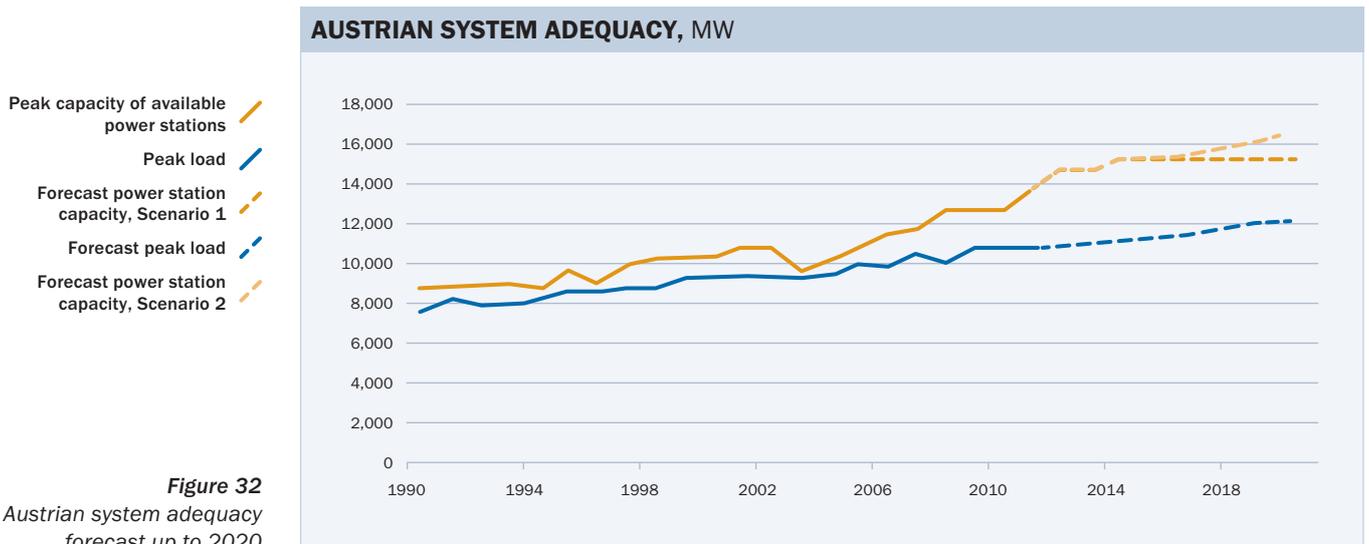


Figure 32
Austrian system adequacy forecast up to 2020

Source: E-Control

SUPPLY SECURITY – UPSTREAM TO RUSSIA

About 80% of Austrian gas demand is met by imports, and most of these come from Russia, under long-term contracts. The remaining 20% is contributed by two domestic gas producers – OMV Austria Exploration & Production GmbH

and Rohöl-Aufsuchungs AG (RAG). Domestic natural gas output was about 1.6bn N cu m in 2011.¹⁶ OMV Austria Exploration & Production accounted for about 83% of this total (see Table 4). As at 1 January 2011 the two companies’ combined proven and probable reserves totalled 24.7bn N cu m.

¹⁵ See: https://www.entsoe.eu/fileadmin/user_upload/_library/SDC/SOAF/ENTSOE_SO_AF_2011-2025.pdf

¹⁶ Including associated gas.

| NATURAL GAS PRODUCTION IN AUSTRIA | | | |
|--|-----------------|--------------|-------------------------|
| | m N cu m | % | % change vs 2010 |
| OMV Austria Exploration & Production | 1,319 | 82.9 | -10.8 |
| Rohöl-Aufsuchungs AG | 272 | 17.1 | 20.4 |
| Total | 1,591 | 100.0 | -6.6 |

Table 4
Natural gas production in Austria, 2011

Source: Geologische Bundesanstalt (Geological Survey of Austria), <http://www.geologie.ac.at/>

Shifts in gas demand are mainly driven by outdoor temperatures and power station use, while industrial demand represents a relatively steady baseload. Supplies to households, small and medium-sized enterprises, and large-scale industry are always sufficient, so all in all supply and demand can be seen as well balanced.

CONTINGENCY PLANNING

In principle, all consumers have equal priority, but it is safe to say that at peak times there would not be enough gas and transportation capacity to supply all customers at the same time – especially if all the gas-fired power stations were operating at full load. As supply is limited, suppliers perform congestion management by adjusting deliveries to power stations. The demand peaks of households, small and medium enterprises, and industry can always be accommodated. As the normal balancing system is only capable of compensating for a small part of any short-

falls caused by supplier outages, there are contingency plans for a range of congestion management measures, chosen according to the severity and duration of undersupply. Section 25 Natural Gas Act 2011 requires the distribution area manager to prepare and implement an action plan in consultation with the affected system operators, balance responsible parties, suppliers, clearing and settlement agents, and storage and production system operators to prepare for and eliminate short- or medium-term congestions.

Provision is made for statutory intervention if it is not possible to overcome a supply short-fall using market-based measures. To permit ongoing assessment of the supply situation and plan emergency intervention measures, since 2007 we have conducted periodic, comprehensive data surveys; the data are processed by E-Control and the distribution area manager.

Concerted action on congestion

**Implementing
Regulation (EC)
No. 994/2010**

**INFRASTRUCTURE THAT MAKES
THE GRADE**

A working group under the chairmanship of the Ministry of Economy, Family and Youth, consisting of representatives of the gas industry, industrial and other consumers, and the regulator, has worked with a consultant to draw up a risk assessment as required by Article 9 Regulation (EU) No 994/2010. The group looked into compliance with the infrastructure standard (N-1 principle) established by Article 6 and the supply standard established by Article 8 of the Regulation.

The calculation applying the N-1 formula in accordance with Annex I yielded a result of 161%, meaning that the existing Austrian gas infrastructure conforms to the infrastructure standard (result of over 100%).

The risk assessment reached the conclusion that the vast majority of the disturbances observed carried a low risk of outages of supplies to protected customers due to the level of development and quality of the Austrian gas grid, and the storage facilities and production systems. The preventive action plan drawn up on the basis of the assessment contains recommendations for dealing with the moderate to high-risk disturbances identified. Some of the recommendations are already being implemented.

The working group has also drawn up an emergency plan, and consulted the regulators of neighbouring countries on it. The emergency plan draws on the gas industry emergency response manual, which first appeared in 2007.

Network quality – a given

**ELECTRICITY OUTAGE AND DISTURBANCE
STATISTICS – TOP SECURITY**

Reliability is an important aspect of supply quality. It refers to the trouble-free operation of network components and networks as a whole, and is assessed by metering the frequency and duration of supply interruptions. We attach great importance to

this issue, and E-Control has been monitoring supply reliability in Austria since 2002. The collection and publication of Austrian supply interruption statistics is governed by the ordinance of the Federal Ministry of Economic Affairs and Labour on statistical surveys relating to the electricity industry (Electricity Statistics Ordinance 2007).

From the outset, we have collected the data required for the statistical surveys in collaboration with the country's system operators and Oesterreichs Energie (the Association of Austrian Electricity Companies). All of the country's system operators have been covered since 2003. The statistical analyses conform to international standards. The reference units selected for the performance indicators may be load, the number of consumers affected or transformer substations. The traditional measure for the Austrian survey is transformer apparent power (ASIDI).

E-Control's statistics show that Austrian supply security hit a new all-time high in 2011. The total duration of unplanned interruptions in 2011 was 27.48 minutes – the lowest figure since records began – for a system availability rate of 99.99%.

The ASIDI figure for all supply interruptions, including the 21.26 minutes of planned interruptions, was 48.73 minutes (2010: 51.64 minutes).

UNINTERRUPTED SUCCESS

The reliability figures related to system users (SAIDI) have the weakness that at present some system operators merely estimate the number of system users affected. The Austrian electricity industry's 2011 reliability

performance according to this yardstick was also a record, at 44.96 minutes (2010: 53.8 minutes). Planned and unplanned interruptions amounted to 16.89 minutes and 28.07 minutes, respectively.

Figure 33 shows the annual unplanned interruptions for the period from 2004–2011. The reliability of electricity supplies in Austria is affected by atmospheric influences such as rain, snow and thunderstorms. Natural disasters, such as the severe flooding in Austria in 2005 and 2011, the Europe-wide interruption on the ultra-high voltage grid on 4 November 2006, the Kyrill, Paula and Emma storms in 2007 and 2008, and the wet snow in Styria in 2009, are reported separately. There was only one geographically delimited event of this sort in 2011, meaning that the number of outages caused by natural phenomena was low.

Precise international comparisons are difficult because in many cases the classifications of exceptional events differ from country to country,¹⁷ but there is no disputing the fact that Austria's ASIDI figure is one of the lowest in Europe, as shown by the results of the published fifth CEER Benchmarking Report.¹⁸ *Figure 34* gives an impression of the wide variations in the results of reliability surveys in Europe. Austria's 27.48 minutes

**Austrian electricity
supplies highly reliable**

¹⁷ CEER, 5th Benchmarking Report on the Quality of Electricity Supply 2011; http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Electricity/Tab/CEER_Benchmarking_Report.pdf

¹⁸ See footnote 17.

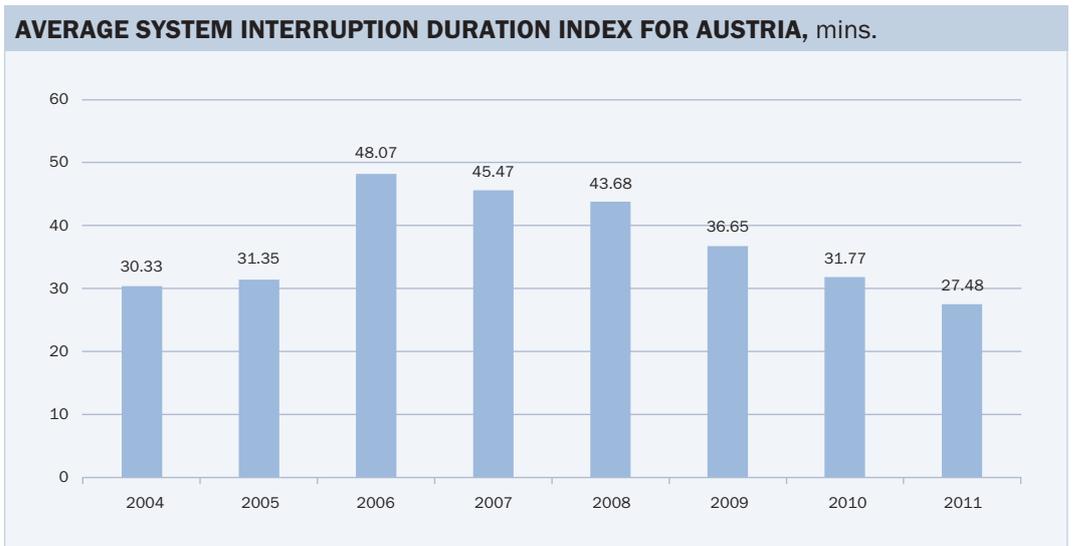


Figure 33
Average system interruption duration index (ASIDI) for Austria

Source: E-Control

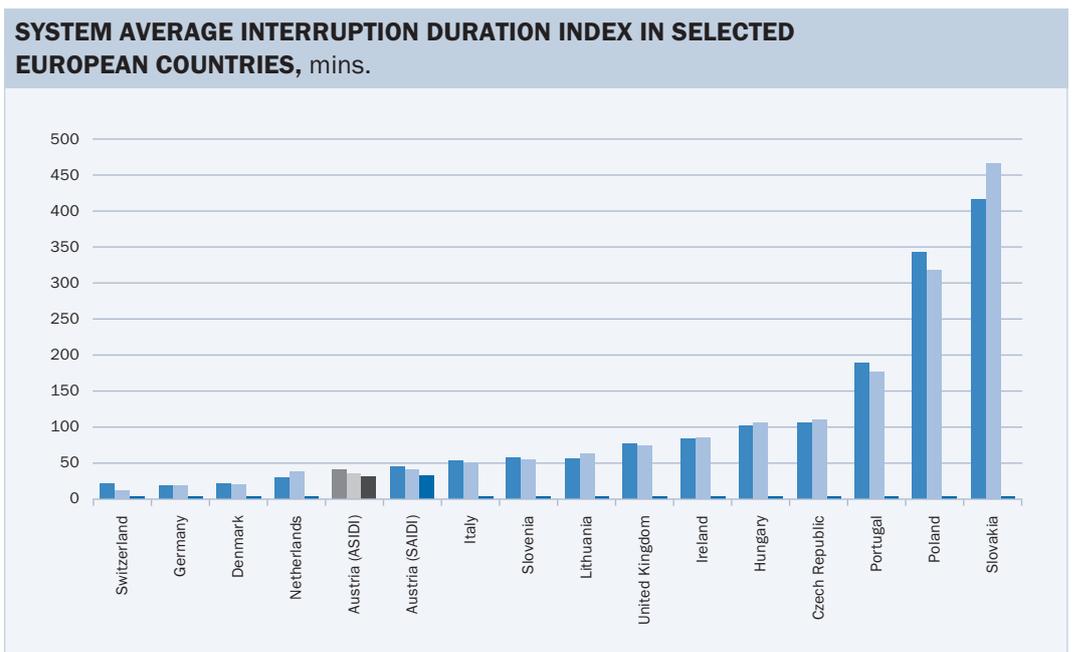


Figure 34
System average interruption duration index (SAIDI; for Austria also ASIDI), medium voltage networks in selected European countries¹⁹

Sources: 5th CEER Benchmarking Report and E-Control

of unplanned supply interruptions (excluding planned interruptions and natural disasters) in 2011 will probably again place it among the top European performers.

GAS NETWORK MAINTENANCE – SYSTEM OPERATORS ON THE LINE

Network operation and maintenance (O&M) must comply with the relevant technical rules (the ÖNORM and ÖVGW standards). A study commissioned by E-Control²⁰ gives a comprehensive account of the minimum requirements for safe and reliable gas network operation.

The technical quality of network services is largely a reflection of O&M. Key aspects are supply reliability, gas quality and operational

security of supply (network operation, maintenance and dispatching). The overall aim is to ensure that the right quantity of natural gas conforming to the quality and operating pressure specifications is delivered to customer installations without interruption.

We survey technical quality indicators as part of our efforts to monitor the quality of the network services provided by Austrian gas distribution system operators. Chapter XII(3) General Terms and Conditions of Distribution System Operators requires system operators to publish such indicators for the preceding calendar year at least annually, on 1 March.

Monitoring network quality

¹⁹ The traditional measure for the Austrian survey is transformer apparent power (see ASIDI). The reliability figures related to system users have the weakness that at present some system operators merely estimate the number of system users affected. Efforts are being made to improve the accuracy of this indicator (SAIDI) as it is the usual yardstick for international comparisons.

²⁰ Kieselbach G., *TÜV Österreich, Zusammenstellung von allgemein gültigen Mindestanforderungen an einen sicheren und zuverlässigen Gasnetzbetrieb entsprechend den gesetzlichen und technischen Rahmenbedingungen in Österreich* (Survey of general minimum requirements for safe and reliable gas system operation according to the legal and technical conditions in Austria), December 2005 (German only), <http://www.e-control.at/de/publikationen/publikationen-gas/studien/gasnetzbetrieb>



MAKING TRADE
GO WITH THE FLOW



MARKET INTEGRATION:

FOR A EUROPEAN MARKET WITHOUT CATCHES

Section 22(4) *Energie-Control-Gesetz* (E-Control Act) states that our remit includes cooperation aimed at further progress towards a European internal energy market.

In both the electricity and gas sectors, we mainly fulfil this responsibility by playing an active role in the work of the Agency for the Cooperation of Energy Regulators (ACER) and the Council of European Energy Regulators (CEER). E-Control also cooperates with other regulators at regional level, through the ACER Regional Initiatives. In 2012 our international electricity and gas activities again focused on our European agenda, and were channelled through the ACER and the CEER work programmes. The Agency's tasks include promoting cooperation between national energy regulators, developing non-binding framework guidelines and monitoring compliance with European policies.

ANOTHER STEP TOWARDS EUROPE – LEADING THE WAY

The purpose of the biannual meetings of the European Commission's gas and electricity regulatory forums, held in Madrid and Florence respectively, is to discuss issues regarding the creation of the internal energy market.

The forums are attended by representatives of the European Commission, ACER, national regulators, member states, the gas and electricity industries and European stakeholder organisations. The regulators use these gatherings to explain their joint activities. For example, at the 21st and 22nd Madrid forums, staged in March and October 2012, E-Control gave presentations on voluntary regional implementation of the target model for the internal gas market under CEER and on ACER's work on transmission system tariff structure harmonisation.

Soon after its establishment in March 2011 ACER assumed a coordinating and support role in the work of the regional initiatives. Regular cross-regional coordination meetings are held to exchange information and examples of best practice. ACER also has a monitoring function which facilitates coordination of the regions' work programmes.

Electricity market – four projects, one goal

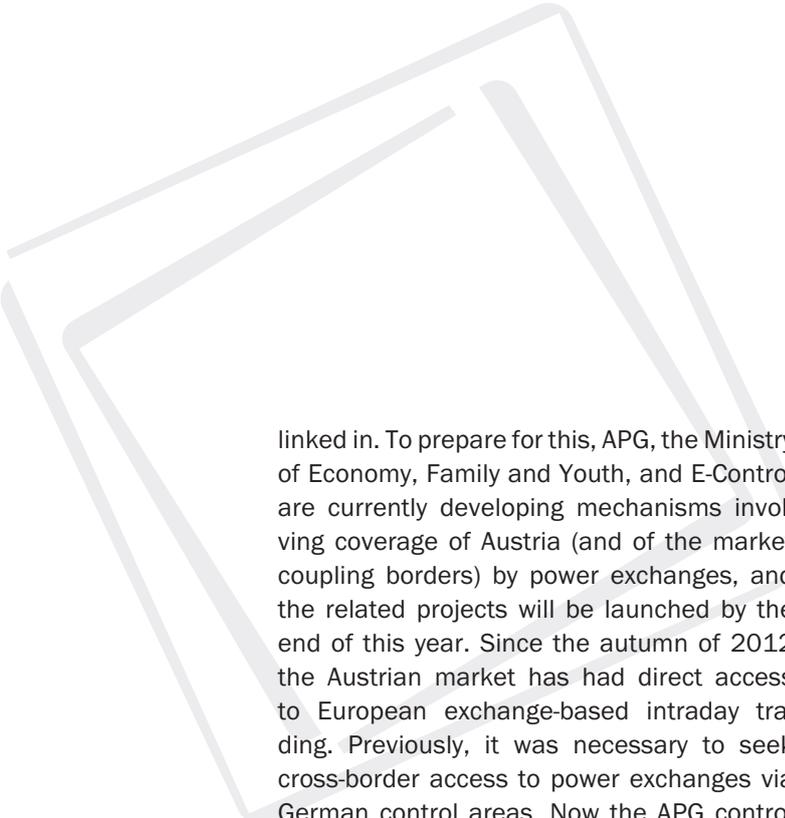
In 2012 the electricity regional initiatives aimed at creating a European internal electricity market were given a new dimension by the introduction of cross-regional coordination via ACER. Following the formulation in 2011 of regional roadmaps aimed at putting market integration target models in place by 2014, action is now being taken to implement these plans. This work has been distilled into four priority projects: long-term transmission rights; market coupling; cross-border intraday; and capacity calculation. The regional focus is giving way to an increased emphasis on cross-regional initiatives.

In future there is to be a single set of rules for the allocation of long-term transmission rights across Europe. The regulators have drawn up outline proposals for this harmonised system and held a consultation. The market coupling project revolves around a core project, aimed at a common price-coupling solution, which is being undertaken by the North West Europe (NWE) Region, comprising the Central-West Europe (CWE) Region, the Nordic Europe Region and Great Britain. The cross-border intraday project is being carried out by a similar geographical line-up, but is proceeding somewhat more slowly. Preparations for a move to the flow-based capacity calculation method are under way in the CWE and Central-East Europe (CEE) regions.

Due to its central location Austria is playing an important role in many of the initiatives concerned. The future European long-term auction rules will be based on the existing rules in the CWE and Central-South Europe (CSE) regions. These are already being applied at Austria's borders with Italy and Switzerland. Elements of the existing rules in the CEE region will also be adopted. In November 2012 E-Control for the first time approved the harmonised auction rules for the CEE region, pursuant to section 23(2) Electricity Act. More extensive changes would have been desirable in the interests of the development of European network codes and harmonised auction rules, but these were only partly achievable by means of regional coordination, and adjustments will have to be made over the next two years.

NEW DEPARTURES FOR ELECTRICITY PRICES

Although the implementation of market coupling in the NWE region does not directly affect any of Austria's borders, it does have implications for Austria because of the common price area with Germany and membership of the Pentalateral Energy Forum. The project has missed its original deadline of the end of 2012, and implementation is now expected to be delayed until autumn 2013. After that time, other regions and borders should be rapidly



linked in. To prepare for this, APG, the Ministry of Economy, Family and Youth, and E-Control are currently developing mechanisms involving coverage of Austria (and of the market coupling borders) by power exchanges, and the related projects will be launched by the end of this year. Since the autumn of 2012 the Austrian market has had direct access to European exchange-based intraday trading. Previously, it was necessary to seek cross-border access to power exchanges via German control areas. Now the APG control area is using the EPEX Spot trading platform, meaning that direct intraday trading of hourly products is possible.

E-Control is continuing to act as the lead regulator for the CEE region. Although flow-

based capacity calculation was ready for introduction in the region, differences of opinion about implementation priorities persisted until a joint declaration by ACER and the CEE regulators during the first quarter of 2012 opened the way for the formulation of a roadmap. The aim was to launch market coupling and flow-based capacity allocation in a single step, in late 2013. However, due to delays in the preparations and in the market coupling initiatives in the NWE region there will be some slippage in this schedule.

The Central Allocation Office (CAO) is continuing to hold all of the region's daily, monthly and annual auctions in accordance with common rules.

Gas market – more room for competition

FROM FRAMEWORK GUIDELINES TO NETWORK CODES

In 2012 ACER's gas activities focused on implementation of the third energy package which, among other things, requires the Agency to draft framework guidelines pursuant to Article 8 of the Gas Regulation. These framework guidelines lay the groundwork for the European Network of Transmission System Operators for Gas (ENTSOG) to draft detailed network codes. Regulators give ENTSOG proactive assistance with the development of the network codes in order to ensure that the latter are as closely aligned as possible with the objectives of the framework guidelines.

ACER drew up the first framework guidelines, on gas capacity allocation mechanisms and gas balancing in transmission systems, in 2011. In 2012 the Agency delivered reasoned opinions on the draft network codes submitted by ENTSOG, in accordance with the process laid down by Article 6(4) Regulation (EC) 713/2009 (Agency Regulation).

The year's top priorities were completion of the Framework Guidelines on Interoperability and Data Exchange Rules for European Gas Transmission Networks, and work on the Framework Guidelines on Harmonised Transmission Tariff Structures.

Developing network codes

E-Control's international activities include active participation in the development of the framework guidelines. These projects are crucial to European market integration. The new framework guidelines have had a significant influence on domestic implementation of the Natural Gas Act 2011. The Gas Market Model Ordinance 2012 reflects the principles of the Network Code on Capacity Allocation Mechanisms. For example, the Ordinance provides for the auctioning of capacity, for marketing of bundled products by transmission system operators, and for fixed short- and medium-term capacity quotas. The principles of the Draft Code on Balancing in Transmission Systems also found their way into the Ordinance – for example, in the requirement that TSOs manage their balancing energy by buying and selling standardised products on the wholesale market. Similarly, the Ordinance provides for daily balancing, with a requirement to balance deviations from schedule over the past 24 hours by the end of the day.

SOUTH SOUTH-EAST GAS REGIONAL INITIATIVE – EUROPE IS MORE THAN THE SUM OF ITS PARTS

Like for electricity, the gas regional initiatives were set up in 2006 in order to drive progress towards the European internal energy market via the interim step of regional markets. Three regions – North West, South and South South-East – were established to this end. The SEE region brings together the following EU member states: Austria, Bulgaria, Cyprus,

the Czech Republic, Greece, Hungary, Italy, Poland, Romania, Slovakia and Slovenia. The Gas Directive 2009/73/EC, in force since March 2011, provides for enhanced regional cooperation – particularly in Article 7(1) – and provides the legal framework for the activities of the gas regions.

PILOT PROJECTS AND MARKET INTEGRATION – PRIORITY FOR NEW IDEAS

The SEE region's 2011–2014 work plan was drawn up in the autumn of 2011 and is frequently updated. It sets out pilot projects designed to enable TSOs and regulators to take realistic steps towards the goal of creating an internal energy market. Implemented on a voluntary basis, the pilot projects range from the introduction of harmonised processes at cross-border interconnection points through to cross-border balancing energy markets like the Central European Gas Hub (CEGH), and implementation of the Gas Target Model proposals. The success of these projects depends entirely on the commitment of those concerned.

A new priority of our regional work is early implementation of the Capacity Allocation Management Network Code by means of voluntary pilot projects. We have joined forces with the Italian regulator AEEG in a pilot project for day-ahead allocation of bundled capacity at the Tarvisio/Arnoldstein interconnection point. The project is aimed at auctioning bundled day-ahead capacity on a joint platform so as to promote short-term cross-border gas trading.

Working towards the internal market

Pushing for more competition

E-BRIDGE CONSULTING STUDY – NUTS AND BOLTS OF AN INTEGRATED FUTURE

At the 18th, 19th, 20th and 21st Madrid Forums the European energy regulators were called on to take a leading role in the discussion process leading to the development and implementation of a European target model. Section 12 Natural Gas Act 2011 permits the integration of the Austrian market areas with neighbouring grids. Approving cross-border market integration is the responsibility of the regulator.

As part of the activities of the SSE region, E-Bridge Consulting was commissioned with

investigating capacity utilisation at European cross-border interconnection points, which is the key to the feasibility of market integration given existing pipeline capacity. The consultants were also asked to assess the potential economic benefits of integration for two regions spanning the Austrian border.²¹

We also teamed up with Czech transmission system operator NET4GAS, Slovak TSO eustream and Austria’s CEGH gas exchange to commission a case study aimed at developing high-level principles for cross-border market integration from an institutional point of view.²²

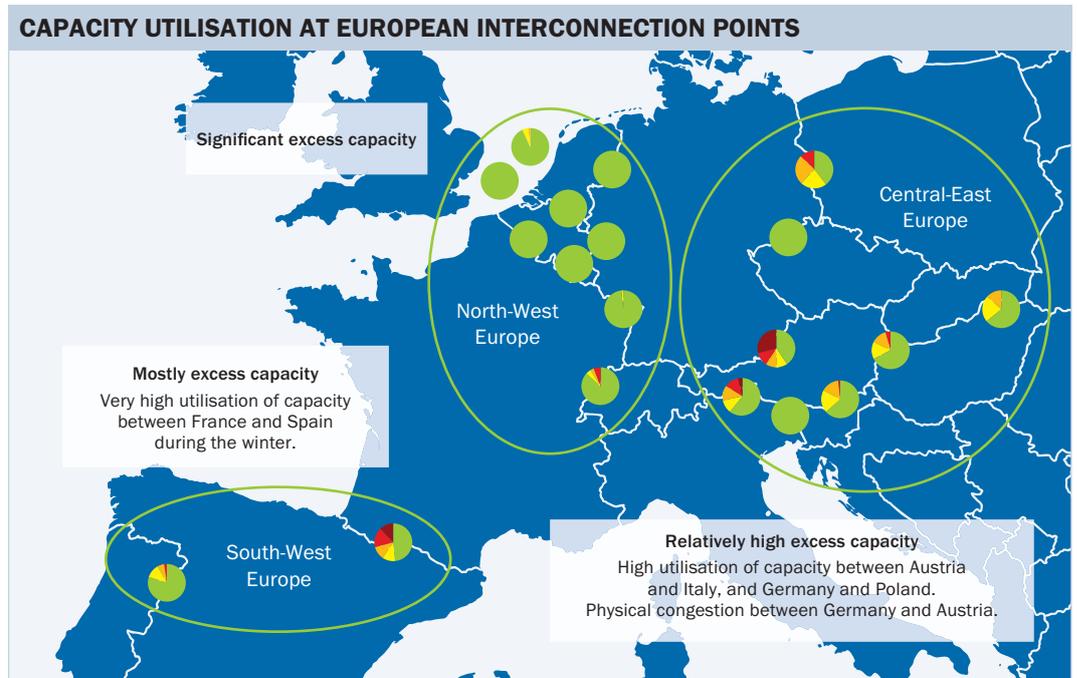


Figure 35
Capacity utilisation at European interconnection points in 2011

Source: E-Bridge Consulting, 2012

BEATING THE OBERKAPPEL BOTTLENECK

E-Bridge's analysis of data from European interconnection points in 2011 shows that in general there is sufficient capacity to support cross-border market integration. However, it revealed that the congestion at the Oberkappel interconnection point on the border between Germany and Austria, and the relatively heavy capacity utilisation at the Arnoldstein interconnection point on the Austrian-Italian frontier were obstacles to closer integration with the German and Italian markets.

The study looked at the potential economic effects of cross-border market integration on the region comprising Austria, the Czech Republic and Slovakia (CEE Trading Region [CEETR]), and that containing Austria and Italy. Due to the shortage of data for the Czech Republic and Slovakia, and the fact that retail prices in the latter countries are regulated, a conservative approach was taken to the macroeconomic analysis. Welfare gains of € 15m were arrived at for this region. Another finding of the paper was that there is probably sufficient capacity in this region for the implicit auctioning of gas and transportation capacity, i.e. market coupling.

Due to the poor quality of the Italian data and the uncertainties inherent in the model, only qualitative statements were made about the impact of market integration on this region. The study came to the conclusion that, in light of the positive results for the CEETR,

integration would probably be beneficial for the other region, too.

On the basis of the study an approach was agreed to the potential implementation of a trading region comprising Austria, the Czech Republic and Slovakia, along the lines of the Gas Target Model developed by CEER and the Madrid Forum.

BUILDING A CEE TRADING REGION

The CEETR would include the transmission systems of the participating countries, and a single virtual trading point for the entire region. "End user balancing zones" would remain in place in each country. Balancing within these zones would continue to be carried out according to the national rules. The main aim of this form of market integration is to increase liquidity at the VTP. The concept outlined by the study closely matches the new Austrian market model in terms of the approach to capacity management, tariff determination and balancing.

Pursuant to section 12 Natural Gas Act 2011, and in light of the welfare gains from integration with the Czech and Slovak markets predicted by the E-Bridge study, the plan for cross-border market integration will be further developed in 2013. Actual implementation of a trading region will require an in-depth study and further development of the existing ideas.

Integration promoting competition

²¹ E-Bridge Consulting, 2012, Study on cross-border market integration – macroeconomic analysis of CEE region.

²² WECOM, 2012, Case study on identification of possible implementation steps of the measures proposed in the Gas Target Model.

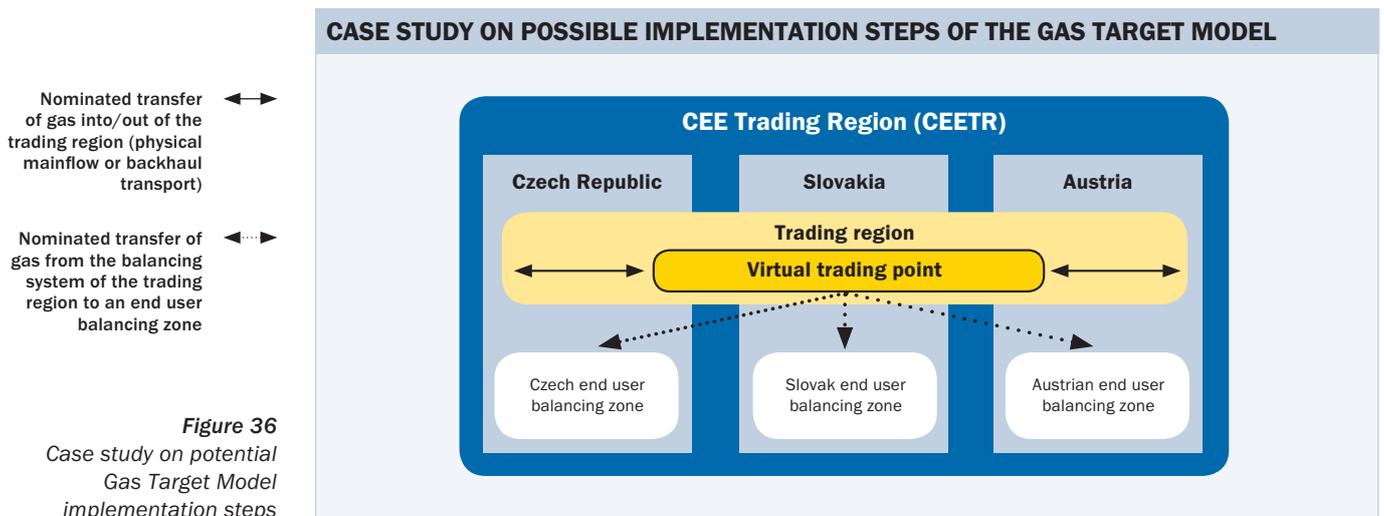


Figure 36
Case study on potential Gas Target Model implementation steps

Source: WECOM, 2012

Twinning projects – sharing expertise

Twinning projects are a European Commission initiative designed to strengthen the institutional capacity of the public administrations of EU candidate countries and membership applicants, as well as European Neighbourhood Policy partners. Twinning projects enable experts employed at public institutions in EU member states to work with their peers in similar institutions in partner countries for extended periods to improve the latter's administrative structures by addressing specific issues. This form of cooperation helps beneficiary countries to implement the *acquis communautaire* to the

same standards as member states, thereby facilitating and accelerating the accession or approximation process. The European Commission funds twinning projects, and tenders are invited for projects benefiting all areas of public administration. E-Control has carried out projects relating to the energy sector since 2007.

READYING CROATIA'S ENERGY MARKET FOR EUROPE

In 2011 E-Control won the tender for a twinning project concerning the Croatian energy market which was launched in August 2012.

This is a relatively small project, with a budget of €500,000. On the Austrian side, we are collaborating closely with the Austrian Energy Agency, and there are contributions from the Ministry of Economy, Family and Youth, and the EXAA exchange. The project team on the Croatian side is made up of staff from the energy ministry and four other partner organisations.

The work began with a detailed analysis of the Croatian energy market – focusing on investigations of supply security and vulnerable consumers – and the regional energy market. The highlights of the first half of the project included the opening conference and a number of workshops on the requirements of the third energy package. During the rest of the project the partners will work on the development of a functioning energy market in Croatia and drawing up recommendations for increased market opening. Information events for local market participants are also planned. The project is due for completion in mid-August 2013 – soon after Croatia's accession to the European Union.

INCENTIVE REGULATION IN GEORGIA – WORKING FOR REFORM

A month after Croatia, in September 2012, we launched another twinning project, in which our partners are EXAA, Germany's Federal Network Agency and Latvian regulator PUC. This involves helping the Georgian energy regulator GNERC to develop an incentive re-

gulation system for the country's electricity networks.

The €1,100,000, two-year project is concentrating on incentive-based regulation and security of supply. Initially, the work was mainly devoted to the official kick-off event, which took place in Tbilisi on 26 October 2012, and on analysing the situation in Georgia and the current tariff determination system. The project will move on to presenting various aspects of incentive regulation and the ways they are handled in different European countries, so as to distil this information into a suitable approach for Georgia. Security of supply will be a consideration. The project will also aim to strengthen GNERC's institutional capacity.

In order to leverage synergies between ongoing projects, in 2011 we launched a website (www.e-twinning.at) with information on all of our twinning activities. The public areas of the site contain news on project progress, while the restricted areas enable project participants to view and download information such as relevant documents, presentations and dates. The site has established itself as a successful communication tool, and the European Commission regards it as an example of best practice.

Exchanging information
with non-EU countries

A photograph showing a group of people from behind, holding hands in a circle. The person in the foreground is wearing a blue and red plaid shirt. The background is blurred, showing green foliage. In the top right corner, there is a white graphic element consisting of several overlapping, semi-transparent lines forming a stylized shape.

STRENGTHENING CONSUMERS' RIGHTS



CONSUMER ACTIVITIES:

VOCAL CONSUMERS, VIBRANT COMPETITION

In addition to its wide-ranging regulatory activities, E-Control's information and service functions also play a vital part in the liberalised gas and electricity markets. In line with this duty of information, E-Control launched a series of PR initiatives in 2012. These were aimed at informing consumers about their rights and the options open to them in the deregulated gas and electricity markets, and helping them to reap the rewards of their freedom to choose their suppliers. We also stepped up our consumer activities during the year. Improvements were made to the tariff calculation tools, and a new calculator for small and medium enterprises (SMEs) was launched.

Household price comparisons – giving power to consumers

HOUSEHOLD TARIFF CALCULATOR – SHOWING THE WORTH OF INFORMATION

The tariff calculator is still one of the best ways for consumers to find out more about energy suppliers' prices, total costs and the potential savings from switching.

Under section 65(2) Electricity Act 2010 and section 121(2) Natural Gas Act 2011, electricity and gas suppliers are obliged to provide the regulator with price information on standard retail products as soon as it becomes available. This can be done electronically by inputting the data to the E-Control tariff calculator. In the first half of 2011 E-Control staged a series of workshops for suppliers on maintaining their tariff calculator data as an aid to getting started. Gas suppliers were given an insight into the calculator during the Gas Academy event series held in 2012.

SURVEY REVEALS GROWING PRICE GAP

The monthly price monitor posted on the E-Control website provides a comparison of the

total gas and electricity costs of the lowest-cost suppliers and the local and regional incumbents in a given month (*Figure 37*).

Annual household electricity bills ranged from € 550 from the cheapest supplier in Graz to € 740 from the incumbent in Upper Austria (based on average consumption of 3,500 kWh/year and prices in December 2012). The largest potential saving from switching from an incumbent to the lowest-cost supplier was € 140/year in Upper Austria – a significant increase on the € 114/year recorded in 2011.

The potential savings for household consumers in Lower Austria, Styria and Vienna were all over € 100/year.

The recent increase in potential savings is only partly explained by discounts for new customers. The lowest-cost suppliers cut their energy prices by 4–10%, meaning that total costs excluding new customer discounts fell year on year in 2012.

ELECTRICITY PRICES IN AUSTRIA

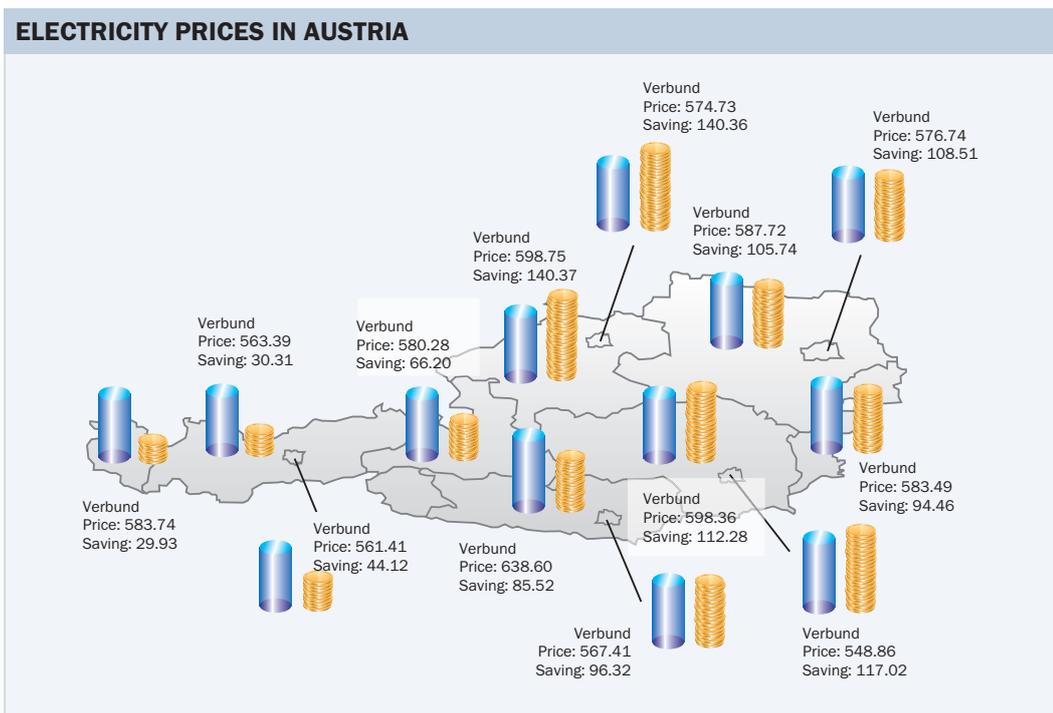


Figure 37
Household electricity prices (excl. new customer discounts) of the lowest-cost suppliers in the large network areas and potential savings compared with the most widely used product of the incumbent (annual cost excl. discounts and inc. energy, system charges, taxes and levies; annual consumption 3,500 kWh; status 1 December 2012)

Source: E-Control

A SMALL STEP FOR CONSUMERS, A GIANT LEAP FOR HOUSEHOLD BUDGETS

The price monitor for household gas consumers reveals potential savings of up to €216 a year (Figure 38).

The savings to be had remained relatively stable in 2012, although there were some short-term increases due to discount campaigns mounted by alternative suppliers. Consumers in the

eastern control area, and particularly in the Linz network area, enjoyed the highest cost reductions from switching, at up to €216/year. The figure was much lower in Tyrol and Vorarlberg.

Consumers in Burgenland, Linz, Lower Austria and Vienna saw potential annual savings rise by €20 year on year, to over €190/year.

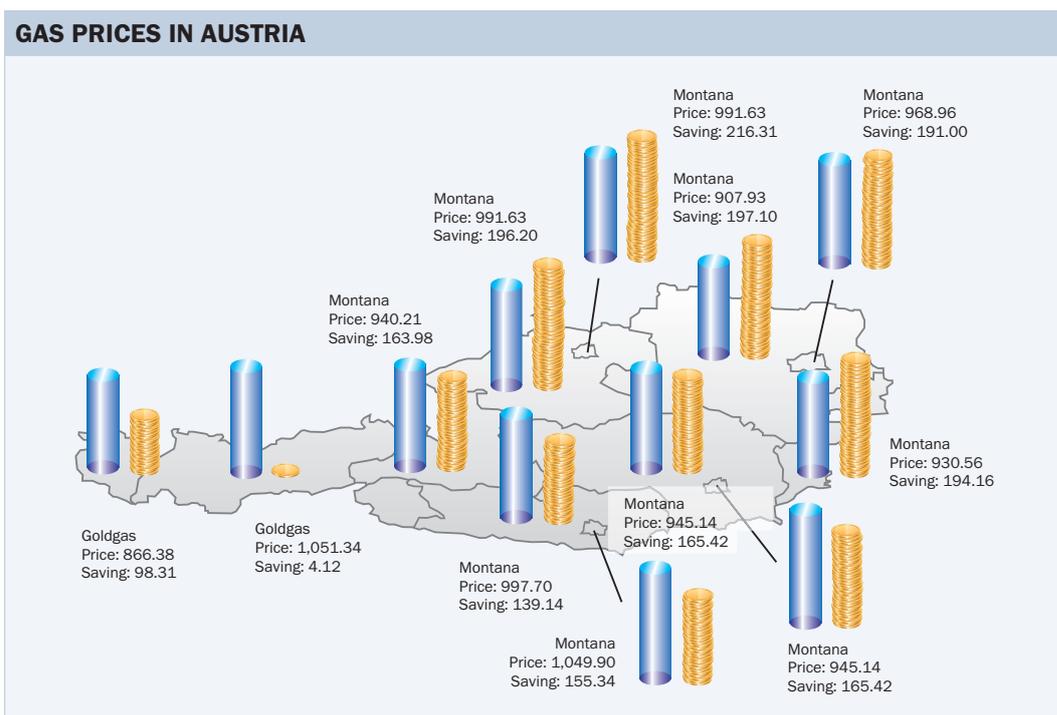


Figure 38
Household gas prices (excl. new customer discounts) of the lowest-cost suppliers in the large network areas and potential savings compared with the most widely used product of the incumbent (annual cost excl. rebates and inc. energy, system charges, taxes and levies; annual consumption 15,000 kWh; status 1 December 2012)

Source: E-Control

PRICE COMPARISONS FOR SMES – AN INSTANT EYE-OPENER

The latest addition to the E-Control service portfolio is the SME energy price check (German only), which provides consumer information according to the peer-to-peer principle. Using the comparison tool could not be easier. You simply enter your current or most recently paid electricity or gas price in cent/kWh, as well as the applicable year, line of business and industry – and up come the results. The results show the consumer's positioning in between the minimum and

maximum price reported for this consumption category, as well as the average and median prices, and the wholesale price. The results are displayed in tabular and diagrammatic form.

- > the price paid relative to other members of the consumption category concerned;
- > the minimum, maximum, average and median prices within the consumption category; and
- > the wholesale price.

Users can then judge whether their current energy prices or those they have been quoted are relatively high or low, and act accordingly. The results page also includes a list of potential suppliers, as well as information on energy pooling and energy advice. By adding their data, users also expand the database and in turn enhance the quality of the information available to all. In essence, the SME energy price check functions in the same way as an online social network, where information sharing benefits all members of the virtual community.

The tool is aimed at load metered consumers with annual electricity consumption of between 100,000 kWh and 5 GWh, and/or

annual gas demand of between 400,000 kWh and 10 GWh.

In the first year of operation (2012) around 4,700 prices were input. Around 7% were deleted following a plausibility check, leaving some 4,400 gas and electricity prices at the end of 2012. Some 60–100 prices are input each week, 80% of them by businesses with annual electricity demand of up to 1.2 GWh or annual gas consumption of 3 GWh or less.

The availability of past, current and year-ahead energy prices permits comparisons of future procurement prices. Analysis of the data reveals that both gas and electricity prices are trending downwards.

New tool heavily used

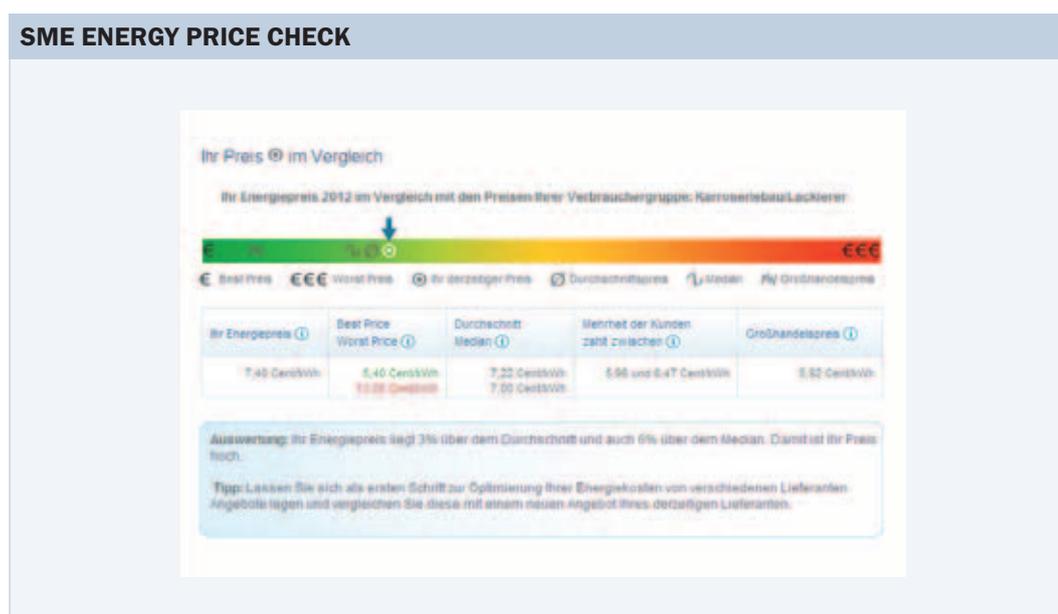


Figure 39
SME energy price check

Source: E-Control

On average, electricity energy prices are 7–10% lower year on year in 2013, depending on the consumer's load profile. Average prices for 2013 range between 6.8–7.3 cent/kWh, depending on the load profile group.

Energy prices in the gas sector fall short of 2012 levels by up to 11.5%. Average energy prices are 2.8 cent/kWh for process and 3.38 cent/kWh for heating gas.

ELECTRICITY BILLS – WHERE BUSINESS SUCCESS BEGINS

Companies with annual electricity consumption of 500,000 kWh and an above-average initial price can save up to €11,000 a year, or even more, by switching suppliers or renegotiating their deal with their current supplier. Gas consumers with a demand of 500,000 kWh/year can shave around €4,000 off their bills.

Large consumer price comparisons – transparency freeing market forces

INDUSTRIAL ELECTRICITY PRICE COMPARISONS – PLUGGING INTO COMPETITION

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). In future the July questionnaire will be shorter, with a survey of contract details only carried out in January. The results broken down by various categories are posted on our website (www.e-control.at).

This year's survey results (*Figure 40*) show a marginal fall compared with 2011. Industrial electricity prices are mainly driven by wholesale prices, since the latter are generally

built into the price formulas in the supply contracts. Under the new Green Electricity Act the "additional expenses" occasioned by renewable electricity are no longer charged on by the suppliers, so energy prices declined in the second half of 2012.

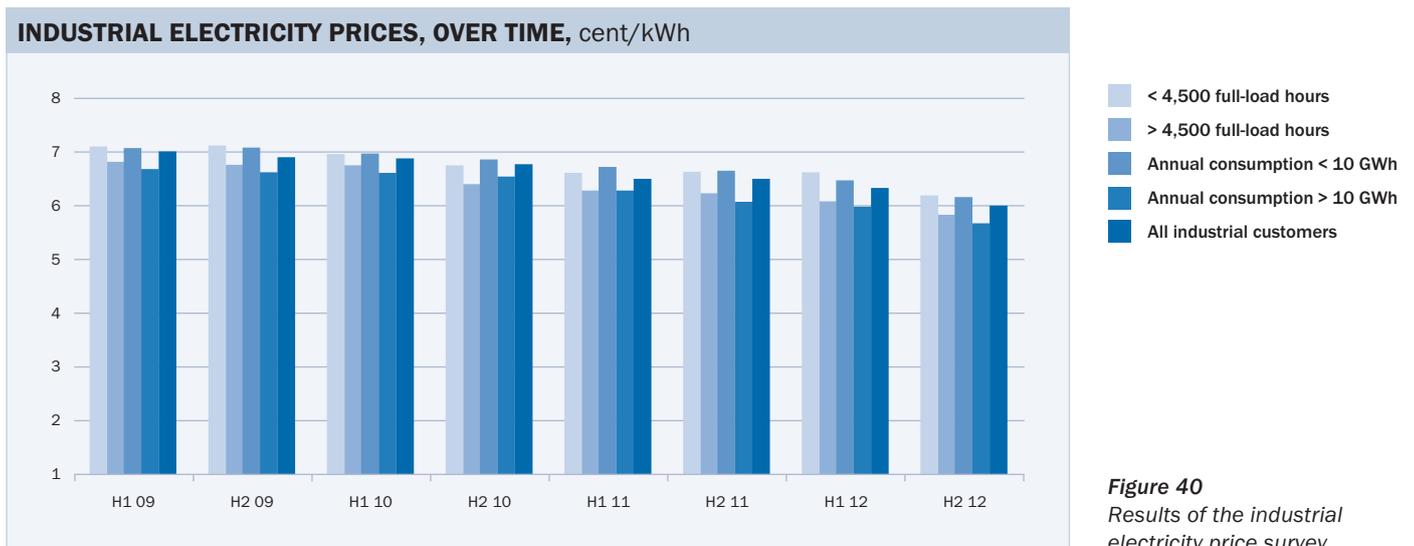
Industrial consumers interested in participating in the survey can register on the E-Control website at any time. The service is well received by industry. This year's sample was adjusted for companies that no longer participate in the survey, which explains the decline in the number of registered businesses. However the number of survey participants remained stable.

**INDUSTRY SURVEY –
OVER 250 RESPONSES**

In 2012 E-Control carried out its fourth yearly survey of businesses with an annual energy demand of over 2 GWh. The main focus was on the companies' assessment of energy cost trends, as well as energy management and supply security.

The size of the sample increased once again, with 251 companies completing the survey either by telephone or in writing. The majority of respondents chose the latter option.

The results of the survey are posted on the E-Control website (www.e-control.at).



Source: E-Control

Figure 40
Results of the industrial electricity price survey

Suggested bill format says more than a thousand words

A BILL OF RIGHTS – PUSH FOR BETTER INVOICES

The annual invoice is one of the most important sources of information for gas and electricity customers.

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 hard to understand – not least because of the many statutory disclosure requirements.

In response E-Control has published new, improved suggested gas and electricity bill formats. These give consumers an overview of the information that must be clearly presented on the bill from their gas or electricity supplier. The many technical expressions 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.

However, it is important to remember that every energy company is free to design its invoices as it sees fit, meaning that consumers may find some items of information in other places than those in the recommended layout. The energy and system charges used in the model bill format were selected at random, and are therefore not suitable for energy price comparisons or for comparison with the figures contained in actual gas or electricity bills.

AT LAST, A BILL PEOPLE GET

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-rate renewables charge and renewables contribution.

The new E-Control recommended 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 reason for this information is clearer presentation of the level of instalments and easier verification by the consumer.

The power labelling details provided with the bill give consumers an overview of the sources of their electricity supply in the respective period, and the information sheet on energy saving provides contact details for energy advisers in the customer's vicinity, as well as energy saving tips.

The gas or electricity meter data, and a precise breakdown of the energy and system charges, taxes and levies are also included.

The meter reading information enables customers to check whether the meter was actually read by the system operator, or whether consumption was calculated using the self-reading card submitted by the customer or 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 one of the key factors behind the decision to switch supplier.

The customer information sheet provided by the system operator and the energy supplier 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 against the company in the event of problems; and how to initiate arbitration proceedings with E-Control.

INTERACTIVE VERSION OF THE SUGGESTED BILL FORMAT

Musterstromfirma

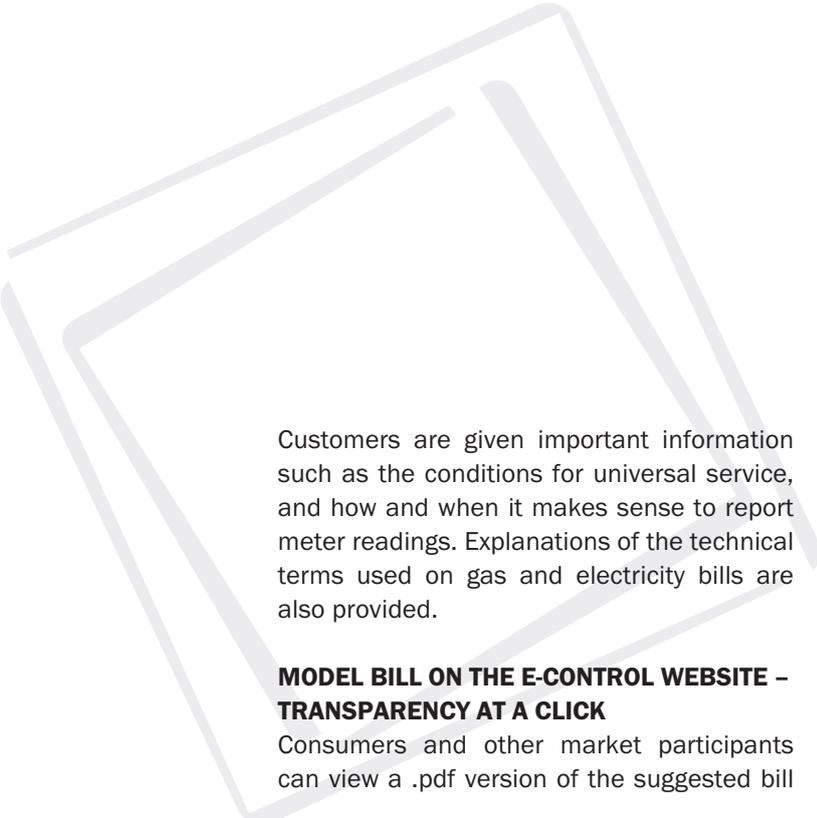
Herrn Max Mustermann
Mustergasse 4
1111 Musterstadt

Abrechnung für 3.500 kWh

| | Betrag in € |
|---|---------------|
| Energie [Produktname] | 279,75 |
| Netznutzung | 174,13 |
| Steuern und Abgaben | 117,26 |
| Summe exkl. USt | 571,14 |
| +20% USt | 114,23 |
| Ihre Gesamtkosten im Abrechnungszeitraum inkl. USt | 685,37 |

Figure 41
Interactive version of the suggested bill format on the E-Control website

Source: E-Control



Customers are given important information such as the conditions for universal service, and how and when it makes sense to report meter readings. Explanations of the technical terms used on gas and electricity bills are also provided.

**MODEL BILL ON THE E-CONTROL WEBSITE –
TRANSPARENCY AT A CLICK**

Consumers and other market participants can view a .pdf version of the suggested bill

format including detailed explanations on the E-Control website. They can print out a copy as an aid to reading their own annual invoices.

Our website also contains an interactive version that lets users read through the various pages on the model bill. Clicking the orange information button next to an item brings up an explanation of the information in question.

New consumer protection provisions: Right to universal service

**UNIVERSAL SERVICE –
CLEAR RULES OF THE GAME**

The provisions on the supplier of last resort in section 77 Electricity Act 2010 and section 124 Natural Gas Act 2011 state that households and SMEs who invoke their right to universal service must be supplied with energy at a specified rate. The prepayments or deposits required from such consumers may not exceed the equivalent of one monthly instalment. If a customer does not default on payments again over a period of six months, the deposit must be repaid, and as long as no further default occurs, the supplier may not demand any prepayments.

The provincial implementing legislation for electricity contains further detailed provisions regarding the supplier of last resort. During the discussions of the new terms and conditions of distribution system operators, we put forward the view that the system operators were obliged up to a point to provide network services if consumers invoked their right to last resort supply.

Qualified reminder procedure

Under section 82(3) Electricity Act 2010 and section 127(3) Natural Gas Act 2011, in cases of breach of contract system operators are only entitled to physically disconnect customers

after submitting two reminders and granting a grace period of at least two weeks after each of them. The second reminder must warn the consumer that disconnection will take place after the grace period if the debt is not paid, and provide information on the anticipated costs. The final reminder must be sent by registered mail. When assessing general terms and conditions, the Regulation Commission takes the position that in the event of a breach of contract by the customer (in particular due to payment default), suppliers are obliged to comply with the reminder procedure also. The corresponding regulatory decisions are posted on the E-Control website.

NEW RULES ON OTHER CHARGES – KEEPING COSTS UNDER CONTROL

Under section 58 Electricity Act 2010, system operators are entitled to demand separate compensation from system users for the cost of supplementary services directly caused by the users where these are not covered by charges under the System Charges Ordinance.

The regulator is responsible for determining reasonable prices for such services by ordinance. These are specified in section 11 System Charges Ordinance 2012 and apply to services such as the collection of dunning fees, changes to metering equipment requested by system users, disconnection and restoration of system access, and meter readings and

the inspection of metering equipment at the customer's request. The charges are based on those previously invoiced by the system operators, but take particular account of the need to protect vulnerable consumers.

In terms of payment reminders, the first reminder may not incur any costs for the consumer, regardless of the manner in which it is sent. However, cost may be invoiced for sending any subsequent reminders. The involvement of collection agencies and similar organisations is not regarded as part of the reminder process and is not covered by the relevant provisions of the System Charges Ordinance. The mandatory reminder procedure pursuant to section 82(3) Electricity Act 2010 also applies in such cases. Where energy and system charges are billed together, the supplier and not the system operator usually carries out the reminder procedure. In such cases the Regulation Commission assumes that system operator's reminder fees, as specified by the System Charges Ordinance, will not be exceeded.

Flat-rate fees apply to the installation, recalibration, and removal of metering equipment. The installation of a load profile meter or quarter-hourly maximum meter for SME and industrial consumers incurs higher costs, and the flat-rate fee is consequently higher.

System operators may no longer invoice any other costs, which are not specified in section 11 System Charges Ordinance (without prejudice to separate provisions of the Electricity Act 2010).

However, they may still invoice the costs of any additional services which are not related to their duties as system operators and are therefore not covered by the system charges. The invoice amount must be cost reflective.

**OTHER CHARGES FOR GAS –
SOCIAL CONSIDERATIONS PARAMOUNT**

Under section 78 Natural Gas Act 2011, system operators are entitled to demand separate compensation from system users for the cost of supplementary services which are not covered by charges under sections 72(2) (1–4) Natural Gas Act 2011, and which are directly incurred by the users. The charges for supplementary services are determined by ordinance of the regulator, and must conform to the principles for calculating charges and social acceptability set out in the Act. Charges for supplementary services must, in particular, be set for dunning fees and changes to metering equipment requested by system users. The charges for disabling connections under section 127(3) Natural Gas Act 2011 and for re-enabling system access are capped at a total of €30. Section 72(1) Natural Gas

Act 2011 prohibits invoicing of any amounts directly related to system operation, over and above the charges specified by section 72(2)(1–5) Natural Gas Act 2011, without prejudice to separate provisions of the Act.

In accordance with section 72(2) in conjunction with section 70(1) Natural Gas Act 2011, the charges for supplementary services are set by section 18 Gas System Charges Ordinance 2013 (supplementary service charges). This determines the fees for reminders, disconnections, meter readings at the customer's request and the provision of load metering data. The charges are based on those previously invoiced by the system operators, but take particular account of the need to protect vulnerable consumers.

The cost of reminders is graduated. The first reminder may not impose any expenses on the consumer, regardless of the manner in which it is sent, but system operators are entitled to charge for subsequent reminders. The involvement of collection agencies and similar organisations is not regarded as part of the reminder process and is not covered by the relevant provisions of the Gas System Charges Ordinance. The mandatory reminder procedure under section 127(3) Natural Gas Act 2011 also applies in such cases.

Where energy and system charges are billed together, the supplier and not the system operator usually carries out the reminder procedure. In such cases the Regulation Commission assumes that system operator's reminder fees, as specified by the Gas System Charges Ordinance, will not be exceeded.

Flat-rate fees apply to the installation, adjustment or removal of metering equipment. The installation of a load profile meter or quarter-hourly maximum meter incurs higher costs, and the flat-rate fee is consequently higher.

Under section 72(1) Natural Gas Act 2011, no charges other than those specified in the Gas System Charges Ordinance 2013 may be invoiced, without prejudice to separate provisions of the Act.

System operators may invoice the costs of any additional services which are not related to their duties as system operators and are therefore not covered by the system charges.

Customer advice – open to all

E-Control's experts answer consumers' questions by way of community and one-on-one consultations, as well as fairs and exhibitions.

A LABOUR OF LOVE – COOPERATION WITH CHAMBERS OF LABOUR

E-Control's experts provided energy consumers with information on finding the lowest gas and electricity prices and on supplier switching in the course of advice days held at eight Chamber of Labour district offices across Lower Austria, and at Chamber branches in Vienna. Over 200 Lower Austria residents took the opportunity to find out more about ways of cutting their household

budgets. The tariff calculator, which enables customers to identify the lowest-cost gas and electricity suppliers, was a particularly popular topic. Most of the attendees of the Lower Austrian advice days were already aware of their right to choose their electricity and gas suppliers, and had more detailed questions. Besides switching, a number of consumers asked about energy bills, while others focused on energy saving and the possibility of a partial exemption from the renewables related charges, introduced on 1 July 2012. Discussions also centred on security of supply, photovoltaic power, and renewable feed-in, as well as the E-Control's dispute settlement service.

WORKING WITH COUNCILS – SERVICE OUTREACH

In October 2012 E-Control launched a series of local energy consultation events designed to inform consumers of their rights in the liberalised gas and electricity markets. A total of 284 district councils expressed an interest in this service, and events in 133 districts will have been staged by May 2013. In face-to-face advice sessions, E-Control representatives highlight ways for consumers to cut their energy costs. As a central point of contact, E-Control offers a range of services that help consumers deal with the complexities of the energy market, including the tariff calculator, the energy hotline, the energy price check and the dispute settlement service. Besides supplier switching and

potential savings, attendees of local events are mainly interested in having their energy bills checked by an E-Control expert.

FAIRS AND EXHIBITIONS – PUTTING OUR EXPERTISE ON DISPLAY

In 2012 E-Control again staged a number of advice days for gas and electricity consumers, as well as appearing at events such as the Bauen & Energie fair in Vienna in February and the Energiesparmesse show in Wels in February/March. Visitors to the exhibitions were given information on changing their energy supplier and generating price comparisons using the tariff calculator, as well as assistance with understanding their energy bills.

Monitoring communications with end users – helping consumers reap the benefits of information

THE E-CONTROL HOTLINE – DOING OUR BIT TO PREVENT CROSSED WIRES

The E-Control energy hotline is the central information service for gas and electricity customers. The hotline is easily reached by dialling 0810 10 25 54 (Austria only; calls cost €0.044/minute) and 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 to the dispute settlement service.

In 2012 the hotline handled 6,373 calls, a significant fall on 2011 when the introduction of the Spritpreisrechner petrol price database (www.spritpreisrechner.at, German only) led to a rise in the number of calls directed to the hotline. Compared with 2009 and 2010, last year was a quiet one – mainly because of the small number of price increases.

Key concerns

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

Round-the-clock service

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 will return their call on the following working day.

THE E-CONTROL WEBSITE – CLICKING WITH CONSUMERS

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. Although particularly the latter is aimed at a relatively narrow public, it is heavily used. The remaining page hits were fairly evenly spread between other areas of the E-Control website, such as Press, Statistics and Publications.

A section containing information for Turkish and Croatian-speaking consumers – the two largest minority language groups in Austria – was added to the site in 2012. This new service has been very well received. E-Control plans to consult representatives of both communities with the aim of tailoring the services and information more precisely to the target groups' needs.

ONLINE TOOLS – APPS FOR ALL

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 topped half a million in 2012. Around 375,000 electricity price comparisons and 150,000 gas price comparisons were made. About a quarter of the users made calculations for both gas and electricity.

By the end of the year, over 60,000 visitors had made use of the energy saving check tool (German only) to pinpoint ways of reducing household energy consumption.

But E-Control's most widely used application in 2012 was the new petrol price database at www.spritpreisrechner.at, launched in 2011 at the request of the Ministry of Economy. The tool, which lists the cheapest filling stations close by, registered more than five million hits during the year.

SOCIAL MEDIA – NETWORKING WITH CONSUMERS

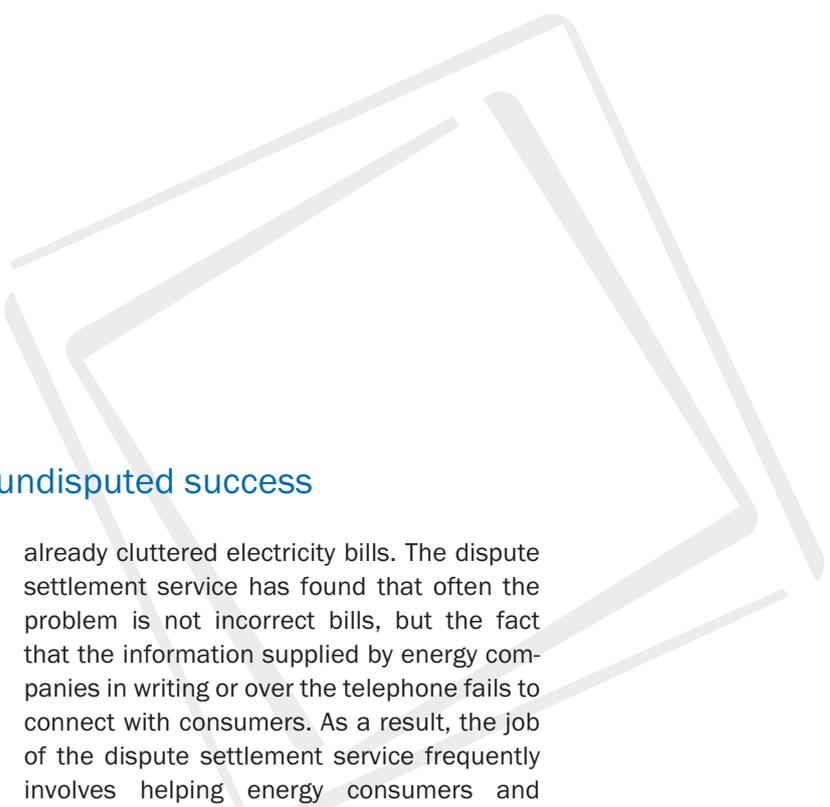
In 2010 E-Control entered the world of social networking by launching pages on Facebook and Twitter, the world's leading platforms, with the aim of building a reputation as a trusted partner for users with an interest in energy issues. The shift from mass media towards masses of media has seen old style one-to-many communications giving way to one-to-one contacts. These rapidly growing online communities are increasingly becoming a vital channel for reaching consumers and providing them with important information.

So far, E-Control has received Likes from around 1,400 Facebook users. The viral effect of Facebook means that E-Control has contacts to some 40 million people. Such a wide reach could otherwise only be achieved using traditional mass media.

Since summer 2012 E-Control has been using Twitter to publicise important dates and distribute press releases, draw the community's attention to interesting articles in the press, and pass on hot tips about potential savings. On average, at least one tweet is posted every day and the reach of this channel as well as its reputation as a reliable source of information are being steadily enhanced.

GOOGLE – COMING OUT ON TOP

A series of search engine optimisation (SEO) measures implemented in the second half of 2012, and a three-month information campaign have helped to raise E-Control's profile on the world's leading search machine Google, as well as making the regulator's range of consumer services easier to find. Pages on our site appear first or second in the Google results for almost all key energy related search terms such as "electricity price", "gas price", "energy efficiency" and "saving energy". The related information campaign drew the attention of an additional 1.5 million people to E-Control's online services.



Dispute settlement service – an undisputed success

Once again, large numbers of gas and electricity consumers turned to our arbitration service in 2012 in an effort to resolve disputes with their suppliers or system operators. Besides handling complaints (in particular over electricity and gas bills, disconnections, and in relation to supplier switching) in accordance with section 26 E-Control Act, the dispute settlement service is increasingly offering support to consumers who feel that their supplier or system operator is not giving them enough information about their rights and duties. The service also fields general enquiries about the liberalised gas and electricity markets. Reports on topics such as the *Energiewende*, rising gas and electricity prices, and the greening of power generation attract frequent media coverage, and fuel consumers' growing demand for information. Energy poverty in hard economic time is another hot issue – more and more vulnerable consumers are being confronted with energy bills that they are in no position to pay, leaving them open to the threat of disconnection. Progress on making gas and electricity bills easier to understand was disappointing during the reporting period, meaning that the number of consumers requiring information on invoices remains high. One of the main difficulties faced by consumers is that owing to the statutory requirements, bills must contain large quantities of information which cannot be easily explained. The introduction of the new renewables funding scheme on 1 July 2012 has added yet another item to

already cluttered electricity bills. The dispute settlement service has found that often the problem is not incorrect bills, but the fact that the information supplied by energy companies in writing or over the telephone fails to connect with consumers. As a result, the job of the dispute settlement service frequently involves helping energy consumers and suppliers to speak the same language, and resolving customer satisfaction issues in this way. The service helps consumers to insist on transparent, comprehensible information.

ARBITRATION – THE RIGHT OF EVERY CONSUMER

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

After precisely examining inquiries, dispute settlement service staff decide whether the issues can be resolved by telephone or e-mail, or whether formal arbitration proceedings are required. Since its establishment the dispute settlement service has handled a total of 1,374 proceedings, including 108 in 2012.

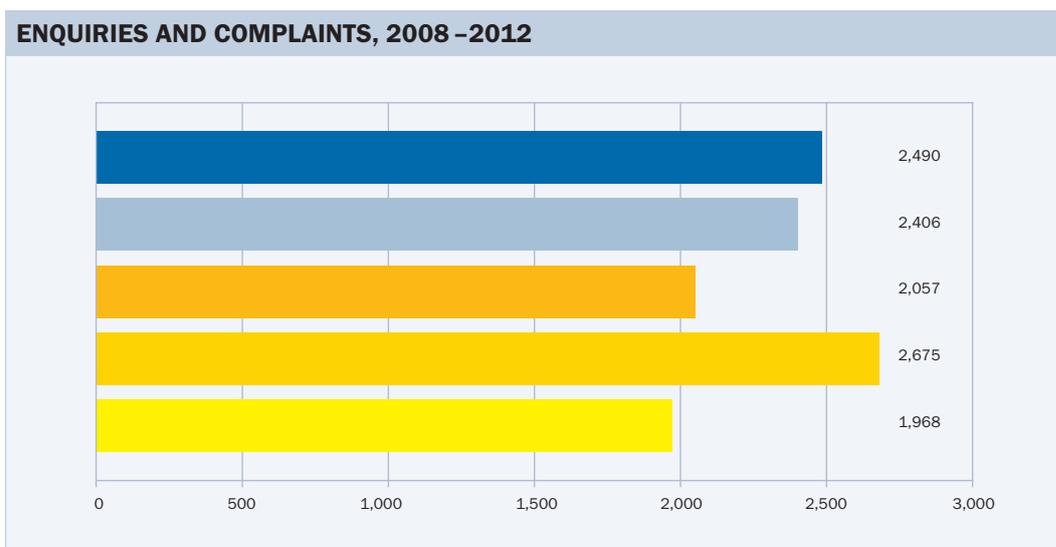


Figure 42
Enquiries and complaints,
2008 - 2012

Source: E-Control

PERFORMANCE OF THE DISPUTE SETTLEMENT SERVICE – ALMOST 2,500 SUCCESS STORIES

In 2012 the dispute settlement service received around 2,490 written enquiries, meaning that the number of gas and electricity consumers seeking assistance from the service remained virtually unchanged year on year. The number of enquiries is always related to the number and size of the price rises during a given year, and the entry of new suppliers to the market. Suppliers raised their prices less frequently than in 2011. A new supplier for household consumers, Montana GmbH, entered the retail market in November 2012. Formal arbitration proceedings were initiated in 108 cases

(2011: 110 cases), and all of the remaining disputes and enquiries were resolved by means of informal e-mail communication with the companies and the complainants.

Of a total of 2,490 enquiries, 258 were submitted by post or fax, and 2,135 electronically (by e-mail to schlichtungsstelle@e-control.at or office@e-control.at) or via the E-Control website. In 97 cases, queries fielded by the energy hotline were passed on to the dispute settlement service for resolution. Although the proportion of consumers who communicate electronically with the service is rising each year, about 10% of complaints and enquiries are still made in hard-copy form. Electricity

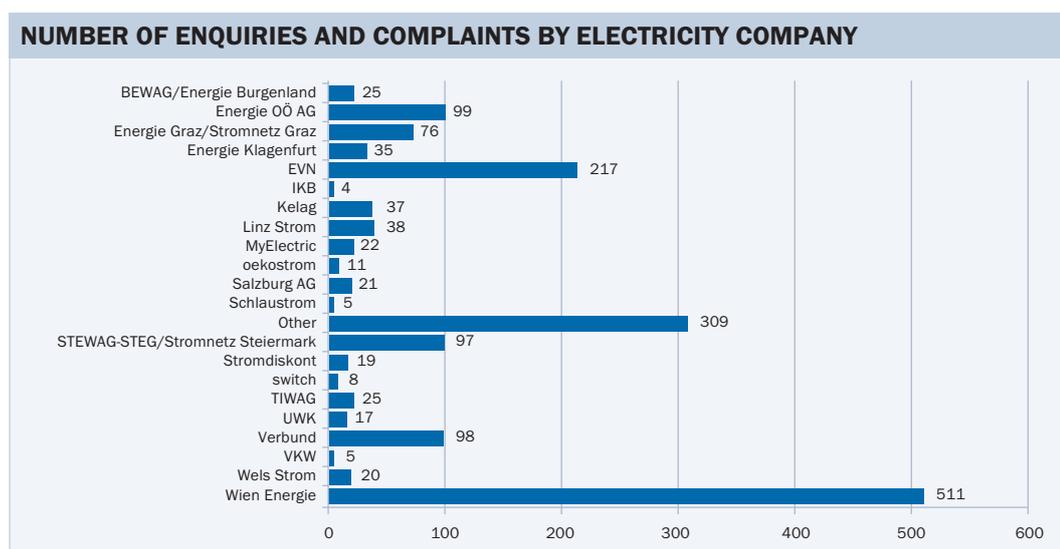
consumers accounted for 70% of enquiries and gas consumers for 30%. Figures 43 and 44 show the number of enquiries broken down by system operators/local incumbents.

VIENNA ASKING THE MOST QUESTIONS

The number of enquiries received by the dispute settlement service relating to a particular company depends on how many customers it has. Another factor is the greater awareness of E-Control in eastern Austria than in the west of the country. As a result, the largest number of queries related to Wien Energie Vertrieb GmbH & Co KG/Wien Energie Stromnetz GmbH (511), followed by EVN Energievertrieb GmbH & Co KG/EVN

Netz GmbH (217), Energie AG Oberösterreich Netz GmbH/Energie AG Oberösterreich Vertrieb GmbH (99) and Verbund AG (98).

Also in the gas sector, the number of enquiries to the dispute settlement service is related to the number of customers served by a given company. The largest numbers of enquiries to the dispute settlement service relate to the two largest gas suppliers/system operators, Wien Energie Gasnetz GmbH/Wien Energie Vertrieb GmbH & Co KG and EVN Netz GmbH/EVN Energievertrieb GmbH & Co KG. A large number of complaints were also lodged against Goldgas, which entered the gas market in 2011.



■ Number

Figure 43
Number of enquiries and complaints by electricity company

Source: E-Control

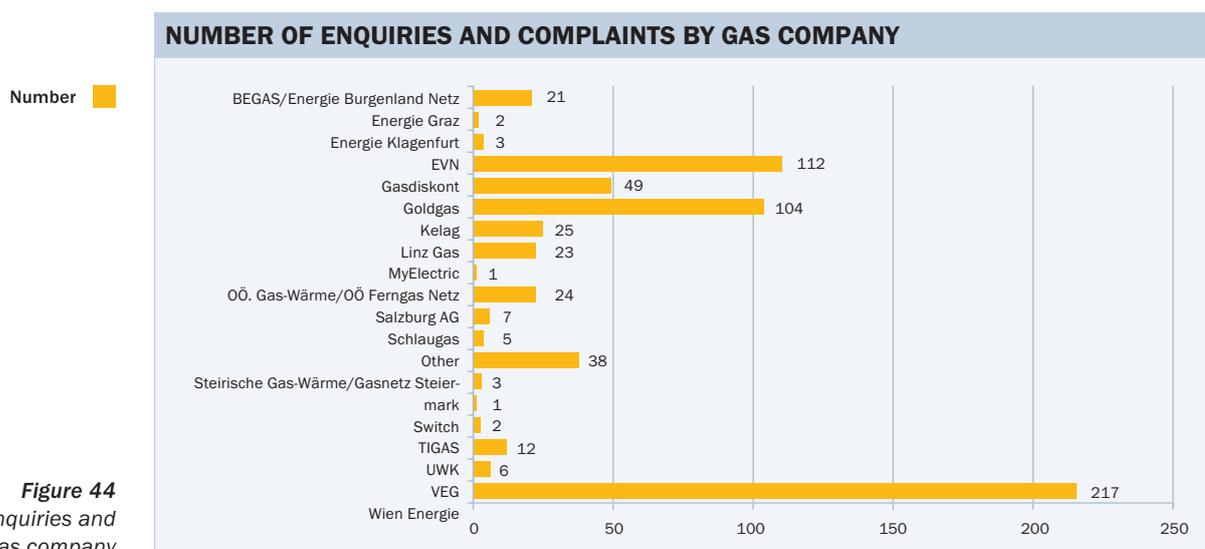


Figure 44
Number of enquiries and complaints by gas company

Source: E-Control

ISSUES DEALT WITH BY THE DISPUTE SETTLEMENT SERVICE

The subjects of the enquiries and complaints handled by the dispute settlement service have remained more or less unchanged over the past few years. In 2012, most of the queries were connected with consumption and meter readings, followed by payment difficulties (topics such as disconnections, reminders and collection) and problems related to the cost of making and/or upsizing network connections, as well as the system provision charges. Supplier switching, energy prices and system charges each accounted for about 10% of enquiries.

QUALIFIED REMINDER PROCEDURE – SUPPLIERS STILL DRAGGING THEIR FEET

The Electricity Act 2010 and the Natural Gas Act 2011, which entered into force in March 2011 and November 2011, respectively, brought a series of improvements for consumers with regard to notice of disconnections. Under section 82(4) Electricity Act 2010 and section 127(3) Natural Gas Act 2011, customers must receive at least two reminders, each followed by a grace period of at least two weeks, before their supply is disconnected. The final reminder must be sent by registered mail and provide information on the anticipated cost of a disconnection.

Consumer enquiries submitted after the new provisions came into force highlight the fact that the system operators were slow to implement the new qualified reminder procedure. Consumers frequently pointed out that system operators comply with the requirement for two reminders, but the second and final reminder was not always sent by registered mail. When requesting responses from a number of system operators to customer complaints the dispute settlement service has drawn their attention to the new regulations and demanded that they comply with the prescribed reminder procedure. If the consumer enquiries on this matter are anything to go by, the service believes that all the system operators now meet the stricter reminder process requirements. No information is currently available on energy suppliers' compliance with the qualified reminder procedure where energy and system charges are billed together.

UNIVERSAL SERVICE – STILL SOME WAY TO GO

Under section 77 Electricity Act 2010 and section 124 Natural Gas Act 2011 if consumers in the meaning of section 1(1) (2) *Konsumentenschutzgesetz* (Consumer Protection Act) invoke their right to universal service suppliers must provide energy at the normal tariff, regardless of any outstanding debts. As a condition for the provision of universal service, suppliers are entitled to

demand a prepayment of up to the equivalent of one monthly instalment. The electricity legislation in place before the Electricity Act 2010 already provided for universal service, although the requirement to supply regardless of outstanding debts is new. The universal service provisions of the Natural Gas Act 2011 are entirely new.

Most of the complaints related to access to universal gas and electricity service have been directed towards the dispute settlement service by telephone. In such cases, the service has advised consumers to write to their energy supplier and the system operator to claim universal service and to express their willingness to make a prepayment for one month. The service also provided the consumers concerned with a sample letter invoking their right to universal service. At the request of several provincial Chambers of Labour, as well as advice bureaux operated by charities such as Caritas and Volkshilfe, copies of the model letter have been sent to them.

DISCONNECTIONS, DEPOSITS AND PREPAYMENT METERS – VULNERABLE CONSUMERS IN THE FIRING LINE

Disconnections, the level of deposits and prepayment meters are among the most common subjects of enquiries forwarded to the dispute settlement service. Consumers usually turn to the service only when matters

NUMBER OF ENQUIRIES AND COMPLAINTS BY CATEGORY

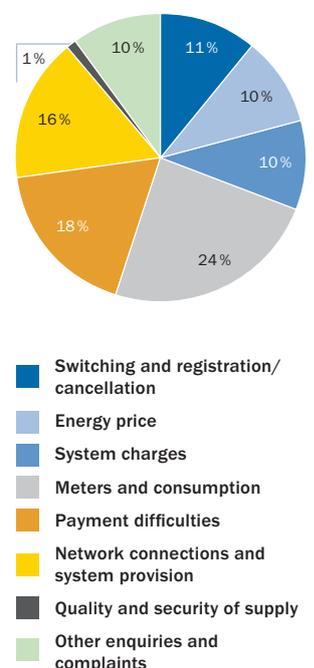
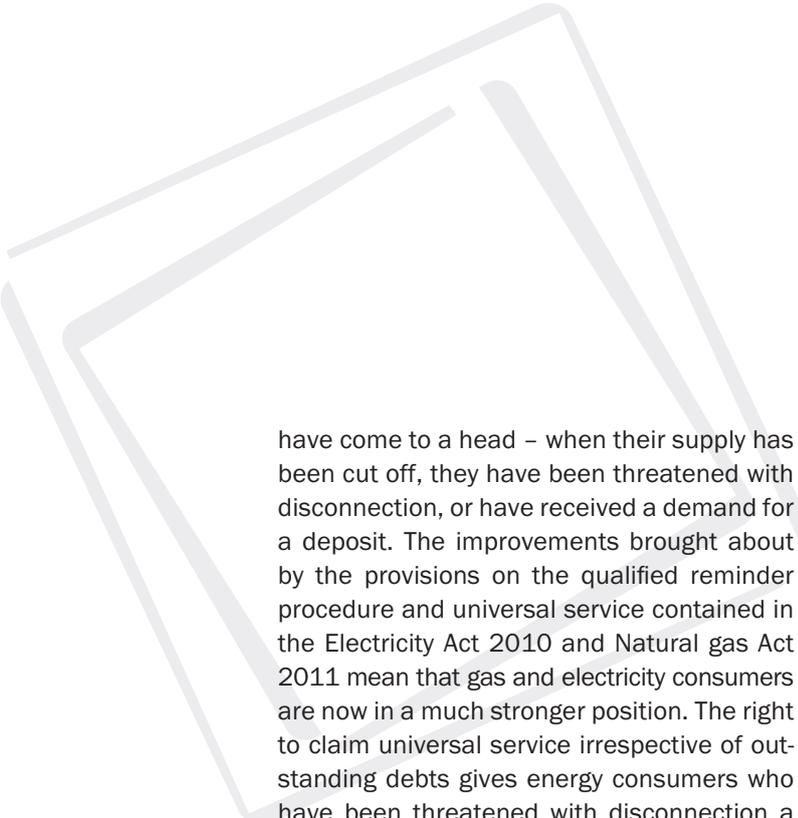


Figure 45
Number of enquiries and complaints by category

Source: E-Control



have come to a head – when their supply has been cut off, they have been threatened with disconnection, or have received a demand for a deposit. The improvements brought about by the provisions on the qualified reminder procedure and universal service contained in the Electricity Act 2010 and Natural Gas Act 2011 mean that gas and electricity consumers are now in a much stronger position. The right to claim universal service irrespective of outstanding debts gives energy consumers who have been threatened with disconnection a “second chance” to maintain or restore their energy supply quickly and with a minimum of red tape. However, it is still unclear whether the possibility of making payments in due course after invoking the right to universal service will help to avert disconnections or at least make them less frequent.

ENQUIRIES ON CONNECTION AND SYSTEM PROVISION CHARGES – SOLAR ENERGY A HOT TOPIC

The number of enquiries related to solar energy rose by 20% year on year in 2012. The increase was mainly due to the large number of new photovoltaic connections, and the need to clarify whether the capacity is sufficient and to what extent local networks will bear the cost.

Consumers are familiar with the regular bills they receive for energy supplies and system charges, but many are still in the dark when it comes to the complex regulations governing

the one-off network connection charge. Household consumers frequently send catch-up bills for the system provision charge to the dispute settlement service, mainly because they do not understand the term “system provision”, and suppose that all the system and energy charges are included in their annual statements. Bills for system provision charges are particularly confusing for switchers, since they are sent directly to the customer, although the charge is part of the annual settlement under their joint energy and network bill. Closer inspection of the bill reveals that the catch-up bill is triggered by breaching a given consumption threshold specified in the general terms and conditions of access to distribution networks. This often astonishes consumers as they do not find out about system provision charges until the bill makes them aware that they have exceeded certain consumption limits. In most cases, the dispute settlement service is able to clear up any misunderstandings by explaining the role of system provision charges as a means of financing the upstream network.

The sharp rise in the number of photovoltaic arrays explains the many enquiries about network connections.

Further information on energy companies’ collaboration with the dispute settlement service can be found in the former’s annual reports.

At the heart of Europe – working for consumers through CEER

E-Control belongs to the Council of European Energy Regulators (CEER). The CEER Customers and Retail Markets Working Group deals with customer issues.

It is subdivided into the Customer Empowerment Task Force (CEM TF), which focuses on issues connected with the protection of energy consumers and strengthening their position, and the Retail Market Functioning Task Force (RMF TF), tasked with the analysis and design of retail markets and smart metering systems. The Strategy and Communication Work Stream (SC WS) draws up plans and initiatives geared towards increasing consumer participation in the workings of the European energy market.

E-Control experts are involved at all levels of the organisation, and in all working groups and task forces, playing a major part in improving cooperation between European regulators.

PAVING THE WAY FOR INCREASED COMPETITION

In 2012 the Customers and Retail Markets Working Group published reports on a number of issues, including progress on transposing

the consumer and market design standards established by the third energy package into national law in CEER member countries. A status review shed light on the extent to which the requirements of the third package had been transposed into national law nine months after the end of transitional period, and on the approaches taken by member CEER countries. The review focused primarily on universal service, supplier switching, vulnerable consumers, customer information standards, out-of-court dispute resolution procedures and regulated retail prices.

Another report looked at meter data management, using case studies to present an overview of the systems in place in Austria, Belgium, Denmark, Germany, Italy, the Netherlands, Norway, Spain and the United Kingdom. Meter data management is concerned with the collection, use and treatment of data. The regulatory, functional and technical aspects of meter data management are growing in importance as a result of the introduction of smart meters. The report covered the levels of consumer data protection and security provided by the various meter data management models.

Another key topic is access to objective and impartial energy market information. In many EU member states, consumers have only limited access to information, which restricts their ability to participate in the energy market, for instance by changing supply agreements and/or switching suppliers. CEER therefore agreed to draw up recommendations for means of providing consumers with information, and came to the conclusion that price comparison tools are the best way of achieving this. The Council's Guidelines of Good Practice on Price Comparison Tools make a number of recommendations related to the presentation of key information so as to enable consumers to play an active role on the energy market.

UNLEASHING MARKET FORCES – CONSUMERS ARE KEY

In consultation with the European Consumers' Organisation (BEUC), CEER has drawn up a vision for the energy sector in which customers – and particularly consumers and SMEs – play a central role. The joint vision builds on the information exchanges with consumer organisations during the first CEER interactive customer conference, in June 2012. The ideal of a consumer friendly energy market rests on four basic principles:

- > Reliability in the physical supply of energy, and in commercial systems and processes that provide continuous access and affect customer service levels, such as billing;
- > Affordability such that charges are clear and kept to fair and reasonable levels for all customers, reflecting value for money at a level consistent with funding necessary investments to develop energy networks and to achieve energy policy targets (for example renewables), taking into account the real needs of customers;
- > Simplicity in how information is provided to customers, and especially residential consumers, such that it is easy for them to understand their bill and better manage their energy consumption, making the choices that are right for them. It also means simplicity and transparency in how processes that affect customers operate;
- > Protection and empowerment to ensure access to energy supplies, and to guard against unfair commercial practices and unsatisfactory outcomes. The Vision recognises their right to choose by whom and how their energy is to be provided and charged.

All of the aforementioned reports are posted in the Energy Customers section of the CEER website.

**CEER WEBSITE –
A FRONT SEAT VIEW OF ENERGY MARKETS**

The Energy Customers section of the CEER website provides important information on customer rights and the functioning of the energy markets, as well as explanations of the roles of the various market participants, and of the responsibilities and aims of CEER.

**GIVING CONSUMERS A VOICE –
5TH CITIZENS' ENERGY FORUM IN
LONDON, 13–14 NOVEMBER 2012**

Reports and other documentation drafted by CEER fed into the discussions at the European Commission's fifth Citizens' Energy Forum, held in London in autumn 2012. The forums aim to drive energy market liberalisation while also safeguarding consumers' interests. The participants include national regulators and CEER, national and European consumer organisations, as well as representatives of the gas and electricity industries, and the ministries responsible for energy and consumer affairs in EU member states.

**CLEAR FOCUS –
PUTTING CONSUMERS FIRST**

The 2012 Citizens' Energy Forum focused particularly on creating consumer-centric models for the European gas and electricity market. All of the speakers at the event, including EU Commissioner for Energy Günther Oettinger, highlighted the central role of consumers in European energy policy. In addition to addressing the challenge of ensuring transparent pricing on the energy markets, the forum's primary goal was to achieve significant improvements in consumer protection, further strengthen customers' rights and generate consumer benefits from the introduction of new technologies – notably smart meters. Speakers also stressed the need for closer cooperation with national and European consumer organisations as a means of making a reality of the vision of a customer-focused energy market.

**No competition without
consumers**

LETTING GREEN ENERGY FLOWER





RENEWABLE ELECTRICITY TRENDS:

ENERGY FOR ALL OF OUR TOMORROWS

Austria has been recording increases in electricity consumption²⁴ and output since 1990. In 1990, 43.5 TWh of electricity (including pumped storage, system losses and generating station own use) was withdrawn from the public grid, compared with output of 44.1 TWh; renewables covered 70% of consumption.

Green electricity – wind in its sails

By 2011 consumption had climbed by 48% from its level in 1990. That year 64.8 TWh of electricity (including pumped storage, system losses and generating station own use) was withdrawn from the public grid, compared with output of 56.6 TWh. Renewables accounted for 63% of total output.

The amount of “other” renewable electricity (i.e. excluding small hydropower) subject to

the Green Electricity Act grew steadily between 2002 and 2010, but then fell slightly in 2011. Generation from wind, solid biomass, biogas, liquid biomass and photovoltaic jumped from 412 GWh in 2002 to 4,647 GWh in 2010 and then slid to 4,464 GWh in 2011. This was mainly due to lower infeed from wind farms.

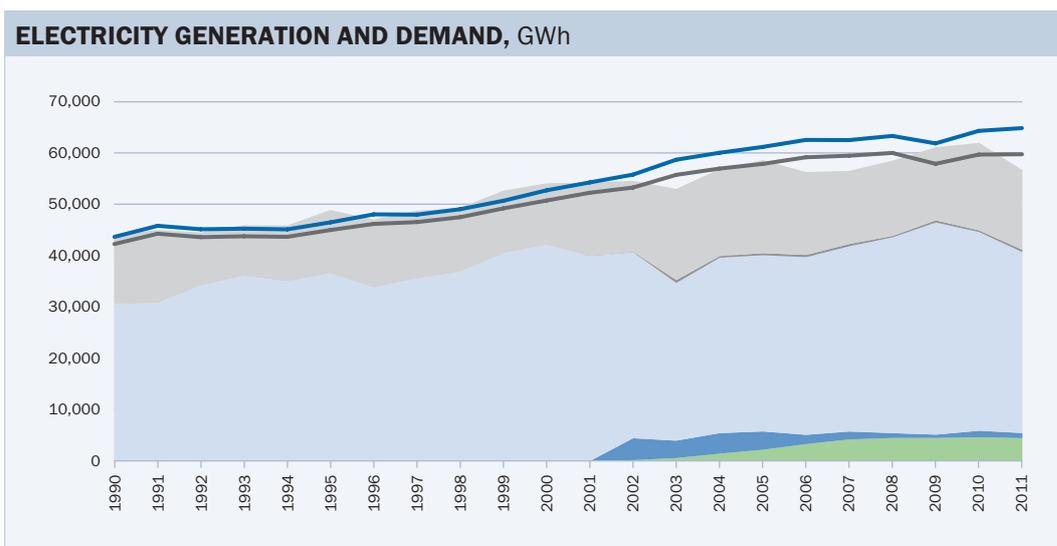


Figure 46
Electricity generation and consumption from the public grid, 1990–2011 (status: 8 August 2012)

Source: E-Control

²⁴ The electricity consumption data are based on statistics compiled by E-Control. Electricity consumption is calculated as follows: gross electricity output + physical imports – physical exports. This includes power from pumped storage.

RENEWABLE ELECTRICITY INJECTION VOLUMES AND COMPENSATION IN AUSTRIA

H1 2012 and comparison with H1 2011

| Energy source | Infeed (GWh) | Net compensation (€m) | Supported renewable electricity injection volumes as a percentage of total supply | Average compensation (cent/kWh) |
|---|-----------------|-----------------------------|--|---------------------------------------|
| H1 2012 | | | | *) |
| Small hydropower (supported) | 482 | 26.6 | 1.6% | 5.53 |
| Other renewable generating stations | 2,684 | 301.6 | 8.9% | 11.24 |
| Wind power | 1,357 | 107.7 | 4.5% | 7.93 |
| Solid biomass inc. HBF waste fired | 1,001 | 139.8 | 3.3% | 13.97 |
| Biogas | 277 | 39.7 | 0.9% | 14.34 |
| Liquid biomass | 0.3 | 0.03 | 0.001% | 12.48 |
| Photovoltaic | 33 | 13.4 | 0.11% | 40.93 |
| Landfill and sewage gas | 17 | 1.0 | 0.06% | 6.22 |
| Geothermal energy | 0.4 | 0.02 | 0.001% | 5.02 |
| Total small hydropower and other renewable generating stations | 3,166 | 328.2 | 10.6% | 10.37 |
| H1 2011 | | | | **) |
| Small hydropower (supported) | 543 | 31.6 | 1.8% | 5.81 |
| Other renewable generating stations | 2,268 | 257.4 | 7.7% | 11.35 |
| Wind power | 977 | 75.8 | 3.3% | 7.76 |
| Solid biomass inc. HBF waste fired | 986 | 134.3 | 3.4% | 13.61 |
| Biogas | 260 | 36.7 | 0.9% | 14.13 |
| Liquid biomass | 7 | 0.9 | 0.02% | 13.26 |
| Photovoltaic | 16 | 8.2 | 0.06% | 50.17 |
| Landfill and sewage gas | 21 | 1.5 | 0.07% | 7.02 |
| Geothermal energy | 0.6 | 0.03 | 0.002% | 5.48 |
| Total small hydropower and other renewable generating stations | 2,811 | 289.0 | 9.6% | 10.28 |

*) Based on total supply from the public grid to consumers in H1 2012 of 29,988 GWh (preliminary figure)

***) Based on total supply from the public grid to consumers in H1 2011 of 29,432 GWh (preliminary figure)

Source: OeMAG, February 2012 (preliminary figures)

Table 5
Renewable electricity
injection volumes and
compensation,
H1 2012 vs. H1 2011

The data currently available for 2012 show that in the first half of the year infeed of “other” renewables increased in comparison with the like period in 2011. The main reason for this was a rebound in wind power infeed. In the first quarter of 2012 injections of renewable electricity into the public grid rose year on year from 9.6% to 10.6% of total supply, although total supply from the public grid to

final consumers also expanded over the same period, from 29,432 GWh to 29,998 GWh.

According to current forecasts the supply of renewable electricity to consumers from the public grid will represent 17.7% of total consumption by 2015 – well above the 15% target.

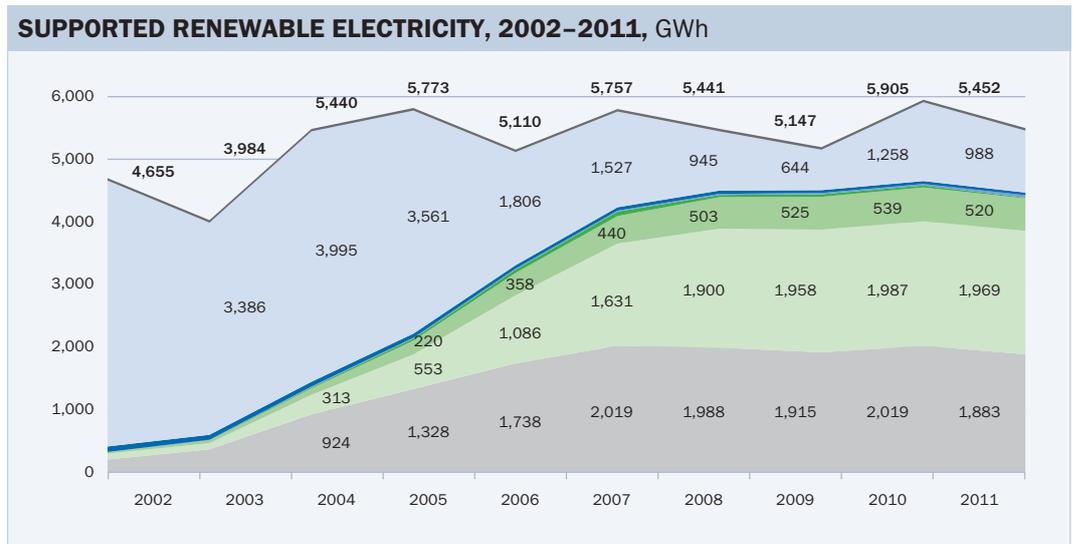


Figure 47
Offtake of renewable electricity by OeMAG/GBRPs, 2002-2011 (GWh)

Source: E-Control and OeMAG

Changes to the legal framework

GREEN ELECTRICITY ACT – ENHANCING AUSTRIA'S GREEN CREDENTIALS

The Green Electricity Act 2012 was passed in July 2011, and some provisions (reduction in wind and photovoltaic power project delays) came into force on 29 July 2011, the publication date. The Act entered into full effect on 1 July 2012 following its approval by the European Commission. The Green Electricity Act 2012 is aimed at the complete disappearance of nuclear from Austria's energy balance by 2015, by which time supported renewable electricity is due to account for 15% of total supply from the public grid to consumers (section 4[2]). Expansion targets were also set for the period to 2020. Between 2010 and 2020, hydro generating capacity is scheduled to increase by 1,000 MW (approx. 4 TWh), wind capacity by 2,000 MW (approx. 4 TWh), biomass and biogas by 200 MW (approx. 1.3 TWh) and photovoltaic generation by 1,200 MW (approx. 1 TWh), subject to the availability of feedstock and suitable locations (section 4[3] and [4]). Feed-in tariffs will continue to be set by ordinance.

Other important changes and adaptations introduced by the Green Electricity Act 2012 include:

- > Changes in the funding system: funding will comprise income from the flat-rate renewables charge, the sale of renewable electricity and the accompanying guarantees of origin to electricity traders, the renewables contribution, administrative penalties, interest and other grants (section 44).

- > Cap on the renewables contribution pursuant to section 49 and exemption from the flat-rate renewables charge for low-income households pursuant to section 46: households with an income below a specified level may apply for an exemption from the flat-rate renewables charge, and for entitlement to a cap on their renewables contribution of €20. Applications must be submitted to Gebühren Info Service GmbH (GIS), which is also responsible for issuing exemptions to the radio and television licence fee. GIS announced that it had processed around 100,000 applications by the end of 2012.
- > Section 23 of the Act limits annual support payments to a total of €50 million.

GREEN POWER FEED-IN TARIFF ORDINANCE 2012 – INVESTING IN AN ENERGISED FUTURE

The *Ökostrom-Einspeisetarifeverordnung* (Green Power Feed-in Tariff Ordinance) 2012 was published on 18 September 2012. It sets the tariffs for the second half of 2012 and for 2013.

There are tariffs for free-standing and building-integrated photovoltaic arrays of between 5 kWp and 500 kWp. The tariffs for both categories have fallen and have been lowered accordingly for 2013. In the case of building-integrated systems, investment subsidies of 30% of the cost, up to a maximum of €200/kWp, will be paid in addition to the feed-in tariff.

Wind farm tariffs remained unchanged in H2 2012, and were cut slightly to 9.45 cent/kWh for 2013.

A new category of solid biomass has been introduced, namely, “high-efficiency plants with a maximum electric capacity of up to 500 kW”. Tariffs have risen sharply across the board, although a small reduction was implemented for 2013.

A new biogas category was added at the upper end of the capacity range: “maximum electric capacity of over 750 kW”. There was a modest rise in tariffs in 2012, and these will be reduced by 0.07–0.10 cent/kWh in 2013.

Another innovation is graduated feed-in tariffs for small hydropower plants with capacities of up to 2 MW. The tariff for the smallest category, new build plants with capacity of up to 500,000 kWh, is 10.60 cent/kWh – significantly higher than the wind power feed-in tariff. A reduction in tariffs in 2013 – of between 0.03 and 0.05 cent/kWh – was also implemented for small hydro.

As far as the remaining technologies are concerned, the tariffs are generally the same as those set out in the Green Power Feed-In Tariff Ordinance 2012.

POWER LABELLING – ELECTRICITY THAT OWNS UP TO ITS ORIGINS

Following the adoption of the Electricity Directive (Directive 2003/54/EC) in 2003, EU member states were obliged to introduce wide-ranging public service measures designed to enhance consumer protection. One of most important was the power labelling requirement for electricity retailers.

Austrian legislation has obliged suppliers to inform their customers about the mix of primary energy sources used to generate power since 2001. This was originally dealt with at provincial level, but uniform nationwide standards were introduced in August 2002 with the enactment of the Electricity (Amendment) Act (FLG I No 149/2002).

The Renewables Directive (Directive 2009/28/EC) governs guarantees of origin for renewable energy sources. Art. 15(4) requires member states to designate a national body to supervise the issuance, transfer and cancellation of guarantees of origin. Section 10(1) Green Electricity Act 2012 entrusts these responsibilities to E-Control, which is also charged with monitoring the accuracy of power labelling under section 78(3) Electricity Act 2010.

Electricity retailers in Austria must include details of the mix of energy sources used to generate the power they provide and the environmental impact of the electricity generated in their bills, and advertising and information materials. E-Control checks the information provided by electricity suppliers and publishes its findings in the annual power labelling report.

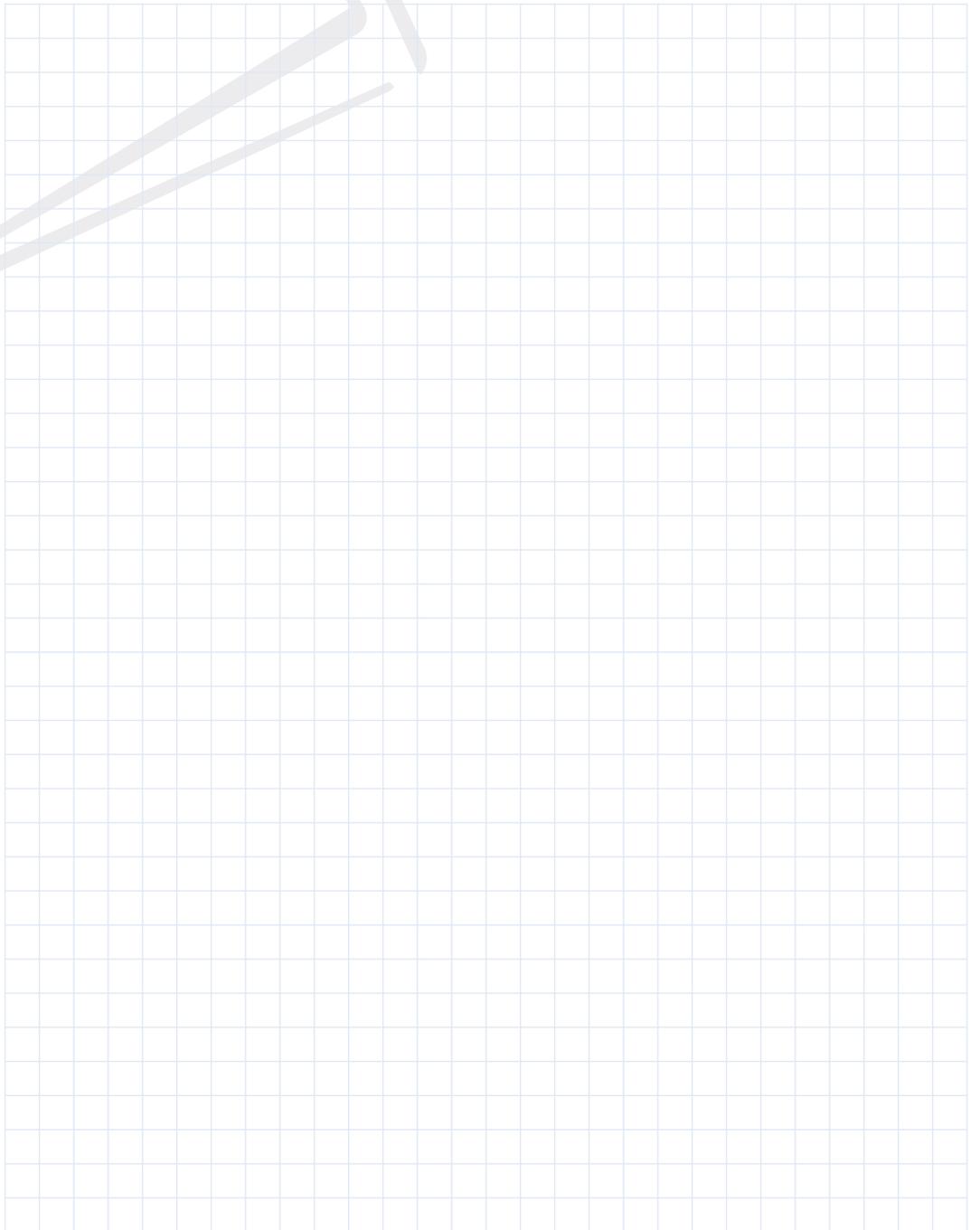
Power labelling is processed via the national electricity guarantee of origin database, which tracks the entire life cycle of a guarantee of origin (issue, transfer and use for power labelling). Opting for a certificate-based approach and handling via a central database has created a highly transparent and trustworthy system that rules out fraudulent practices such as double issue and use. A further step towards enhancing transparency for consumers was taken in September 2011, with the enactment of the *Stromkennzeichnungsverordnung* (Power Labelling Ordinance), which regulates the presentation of power labelling information, as well as guarantees of origin. E-Control first applied the new Ordinance in its most recent assessment of power labelling. As a result, the suppliers' power labelling documentation has become far more transparent and easy for consumers to understand. The credibility of the Austrian

power labelling system has been enhanced by: mandatory inclusion in bills of a chart as well as a table showing the generating mix; a stipulation that only the supplier mix is to be included in the power labelling section of the bill; strict rules for the recognition of foreign guarantees of origin for the Austrian power labelling system; and a requirement for electricity bills to clearly specify the country issuing the guarantee of origin.

POWER THAT SPEAKS FOR ITSELF

E-Control carried out its first ever electronic survey of power labelling in 2012. Thanks to the user friendliness of the survey the response from the electricity suppliers was extremely positive. The origin of 86.1% of the electricity supplied to Austrian consumers is verified by guarantees. The remaining 13.9% is categorised as electricity of unknown origin. The provisions of the Power Labelling Ordinance, in particular with regard to the recognition of foreign guarantees for the Austrian power labelling system, have resulted in changes in the types of guarantee most commonly used. Compared with other European countries, Austria's power labelling system still includes a very high proportion of renewables.

NOTES





Editorial

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