National contribution to the EU benchmarking report

Report drawn up by the Federal Network Agency
for Electricity, Gas, Telecommunications,
Post and Railway
under section 63(5) of the Energy Industry Act

Bonn, August 2006

1 Summary / Important developments in the past year

1.1 Organisation of the Federal Network Agency

The new Energy Industry Act entered into force on 13 July 2005 as part of the Second Energy Statutes Reorganisation Act. Its purpose is to establish non-discriminatory third-party access to networks at charges that are fair and efficient, at the same time ensuring that the grid-based supply of electricity and gas to the general public is as secure, reasonably priced, consumer friendly, efficient and environmentally sustainable as possible. It focuses in particular on regulating and unbundling system operation in the electricity and gas markets.

This reorganisation of the German energy legislation is the transposition of the EC gas and electricity Directives[1] into national law.

At the heart of the new Energy Industry Act is the establishment of a regulatory authority for the electricity and gas networks. Under the Act, regulatory responsibilities are split between federal and federal state level. Active at federal level is the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Federal Network Agency), while at federal state level each of the German federal states has its own regulatory authority (see below).

Under section 54(3) of the Energy Industry Act the Federal Network Agency has general authority for implementing the Act and is directly responsible for the transmission systems.

Section 54(2) of the Energy Industry Act lists the duties that the federal states perform "in their own right" within the meaning of Article 83 of the Basic Law, or constitution. These include – for distribution networks – most notably the regulation of charges (sections 23a and 21a of the Energy Industry Act), the special control of anti-competitive practices including surrender of gain (sections 30f and 33), the monitoring of unbundling in the case of integrated undertakings (sections 6-10), the policing of rules governing connection to the system (sections 17-19), determinations on the existence of small isolated systems, largely exempt under section 110 from the provisions of the Energy Industry Act, and the policing of rules on the responsibilities of distribution system operators and gas transmission system operators (sections 14-16a). Federal state responsibility presupposes that the network does not cross a federal state boundary and that fewer than 100,000 customers are connected, either directly or indirectly.

The Federal Network Agency, for its part, also exercises authority in matters where it is particularly important to have a single national regulator as an efficient means of providing market oversight. This includes such duties as monitoring markets in order to ensure transparency (section 35 of the Energy Industry Act), cooperating with the European Commission and the regulatory authorities of other EU Member States (section 57), informing the public about the progress of energy market liberalisation (section 63) and devising an incentive-based regulatory model.

[1] Directive 2003/54/EC of the European Parliament and the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC; Directive 2003/55/EC of the European Parliament and the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.

The Federal Network Agency also performs the duties assigned to the regulatory authorities of the Member States by Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in electricity (as per section 56 of the Energy Industry Act).

The **Federal Network Agency** and the **regulatory authorities of the federal states** support each other in discharging their duties. To ensure uniform application of regulatory provisions, the Federal States Committee has been set up under section 8 of the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway Act in which each federal state regulator has a representative. The Committee, which is required to meet at least once every six months in closed session, has the following duties under section 60a of the Energy Industry Act:

- It serves as a coordination body between the Federal Network Agency and the state regulatory authorities and between the state regulatory authorities themselves, with the goal of ensuring uniform application of regulatory provisions across the country.
- Prior to the issue of general orders, in particular of decisions as per section 29(1) of the Energy Industry Act, by the Federal Network Agency under Parts 2 and 3 of the Act, the Committee is to be given an opportunity to state its views. In cases of urgency general orders may be issued without the Committee being given an opportunity to state its views; in such cases the Committee is to be informed subsequently.
- The Committee is entitled to obtain information and opinions from the Federal Network Agency in connection with the issue of general orders. The Federal Network Agency thus has a duty to provide information.
- The Federal Network Agency's report as per section 112a(1) of the Energy Industry Act on the introduction of incentive regulation is to be prepared in consultation with the Committee. To this end, the Committee shall be regularly informed by the Federal Network Agency of the status and progress of the work.

An Advisory Council has been set up at the Federal Network Agency under section 5(1) of the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway Act. It consists of 16 members of the German Bundestag and 16 representatives of the German Bundesrat; the Bundesrat representatives must be members or political representatives of a federal state government. The members and deputy members of the Advisory Council are appointed by the federal government upon the proposal of the German Bundestag and the German Bundesrat. Under section 60 of the Energy Industry Act the Advisory Council has the duty to advise the Federal Network Agency in the preparation of the reports referred to in section 63 subsections (3) to (5) of the Energy Industry Act.

Federal Network Agency decisions are chiefly made by the Ruling Chambers (section 59(1) of the Energy Industry Act). They are composed of a Chairman and two Assessors. The members of the Ruling Chambers may neither own nor manage an energy undertaking, nor may they sit on the management or supervisory board of an energy undertaking.

The Federal Network Agency is headquartered in Bonn. It is a higher federal authority responsible to the Federal Ministry of Economics and Technology, and consequently subject to the supervision of the Federal Ministry in both professional and legal matters. For the purpose of transparency, and owing to their central importance, general instructions from the Ministry concerning the issuing or rescinding of orders are to be published in the Federal Gazette (section 61 of the Energy Industry Act).

Section 58 of the Energy Industry Act addresses the relationship between the antitrust authorities and the regulatory authorities. The Federal Network Agency and the Federal Cartel Office both seek to achieve a uniform interpretation of this Act and one which is

consistent with the Competition Act. The two bodies may, irrespective of the type of proceedings chosen, share information including personal data and industrial and commercial secrets, insofar as this information is necessary for them to discharge their duties. Information shared in this way may also be used in their proceedings.

Section 58(1), first sentence, lists various instances in which a Federal Network Agency decision requires the concurrence of the Federal Cartel Office; in addition, before taking a decision that concerns the regulation of system operation (Part 3 of the Energy Industry Act) the Federal Network Agency must give the Federal Cartel Office, plus the competent authority under the law of the federal state in which the network operator in question is based, the opportunity to comment on the case before proceedings are closed (section 58(1), second sentence). Section 58(2) of the Energy Industry Act similarly requires that antitrust authorities give the Federal Network Agency the opportunity to comment on competition proceedings.

Figure 1 shows the organisation of energy regulation at the Federal Network Agency. Four Ruling Chambers and twelve specialist sections are responsible.

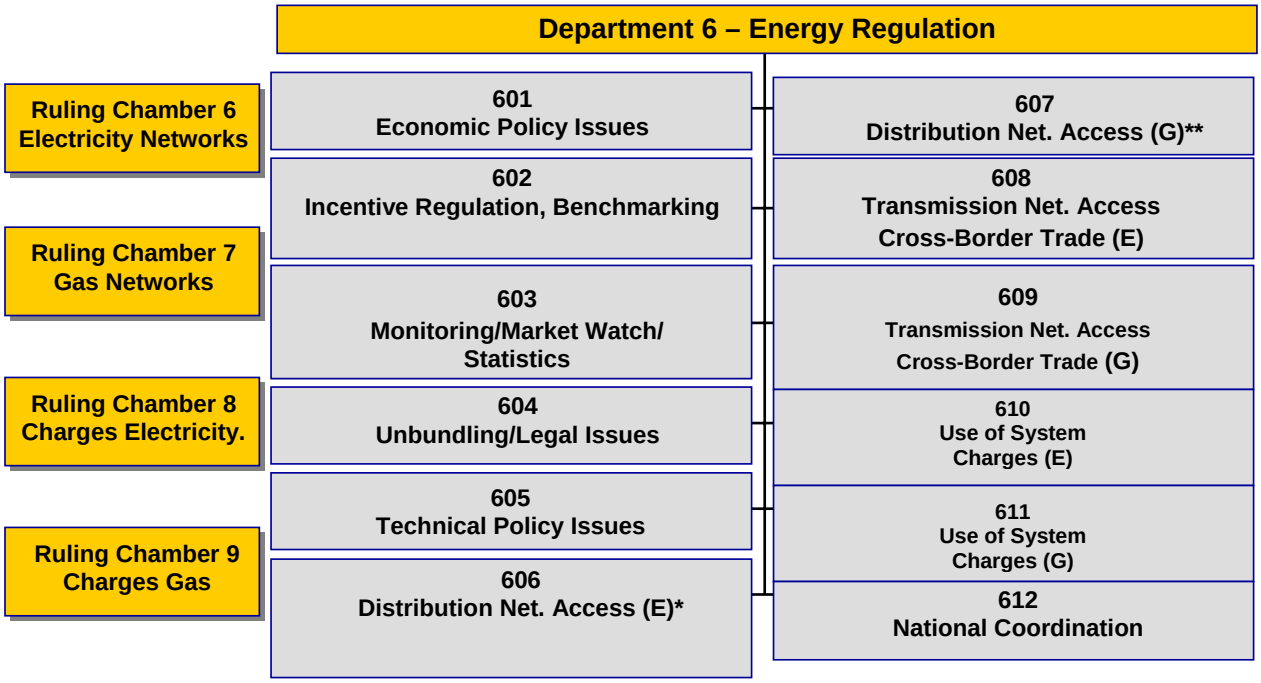

Figure 1: Organisation of energy regulation
* Electricity ** Gas

The regulatory concept of the new Energy Industry Act and existing ordinances poses considerable – and in some cases quite new – challenges for, above all, the operators of electricity and gas networks, but also for the Agency and the state regulatory authorities. From the Agency's point of view, the energy companies and industry associations have done their utmost to comply with the new legal situation; this holds good not least for smaller companies, too. Clear progress has been made, with the different starting positions in the electricity and gas sectors having to be accommodated in the assessment. Yet there are also clear deficits which make it necessary to intensify the efforts to implement the new regulatory framework in full – in the interest of achieving the legislative aims.

Removing the competitive deficits in the energy markets beyond the area regulated by the Energy Industry Act is the focus of the competition authorities' work.

What has been achieved and what is still to be achieved is described in the following.

1.2 Important developments in unbundling and consumer concerns

Practical experience and further observation will be needed before it can be said whether the measures taken by the energy companies to implement unbundling at the level of transmission system operator are enough to secure operational independence of the grid operator from the competitive branches.

Implementation of the legal unbundling rules is mandatory on distribution system operators only from July 2007. As legal unbundling is very closely linked with the other unbundling provisions, with the operational measures in particular, the majority of distribution system operators are still undergoing a restructuring process. Accounting and information unbundling has been introduced across the country. The introduction of compliance programme has meant that the companies under obligation have given their attention to the requirements of unbundling and triggered a reorganisation of network operation business processes. This reorganisation and rethinking process is not yet complete.

Around 92 percent of all supply companies with a universal supply **obligation** in the area they serve have declared compliance with their publication requirements for their general terms and conditions and rates of supply in low voltage and low pressure networks. With **supply of last resort**, by contrast, only 22 percent of the companies asked have declared compliance with their publication requirement. The supply contracts with domestic customers (section 41 of the Energy Industry Act) not served under the universal supply obligation comply only partially with the legal provisions. The Federal Network Agency has called on the gas and electricity suppliers to meet their obligations promptly.

Problems arising in connection with changing supplier have increasingly been subject of enquiries to the Agency's **Consumer Service** over the last few months. Consumers have expressed dissatisfaction in particular about not being able to change their supplier of night / heat storage electricity and natural gas.

1.3 Important developments in the electricity market

The Federal Network Agency has the following to say on this.

Currently, there is **congestion** at all the German borders, with the exception of the border with Austria. A non-discriminatory, market-based and coordinated congestion management system has been applied since the beginning of 2006 at the latest, at all **cross-border interconnectors** where there is congestion. Improvements in comparison to 2005 were

made chiefly as a result of greater coordination of congestion management procedures. The Agency's aim is to extend coordination in each region to all aspects of congestion management, from capacity calculation to capacity allocation. Another focus will be to determine capacity on a load-flow, regionally coordinated basis. Germany's degree of interconnection in 2005 was 15 percent. This is calculated from the import capacity divided by total installed generating capacity in Germany. Import capacity in 2005 was, on average, 17 GW and installed generating capacity, according to the Association of German electricity network operators (*Verband der Netzbetreiber – VDN – e.V. beim VDEW)* 119.4 GW. At 15 percent, the interconnection degree between Germany and its neighbours is clearly higher than the European Council's Barcelona 2002 target of 10 percent.

Revenues from congestion management at the German borders climbed from 200 million euros in 2004 to 334 million euros in 2005. Taken for export capacity in 2005 was 119m euros, and for import capacity 215m euros. Germany exported electricity in 2004 and 2005 mainly to the Netherlands, Switzerland and Austria. The major import countries from the German point of view were Poland, the Czech Republic and France. According to information from the German transmission system operators, revenues from the allocation of cross-border transmission capacity are taken into account in calculating the use of system charges.

Congestion can be found at every voltage level in the **distribution system**. The relatively large number of gaps in the information requested from the distribution system operators indicates a lack of knowledge of the situation in their own networks. This state of affairs must be improved in future. Until they have eliminated the congestion (by extending their networks) some of the distribution system operators have introduced a congestion management system. This also has an effect on decentralised generating facilities, in the industrial and small customer segments in particular.

The share of electricity use of **system charges** in total electricity prices (as at 1 April 2006) depends on the volumes taken. The lower the consumption, the greater is the share of system costs in the total prices for final consumers. The share of system costs, in other words the costs that the regulatory authorities are responsible for examining, ranges between 14 and 39 percent of retail prices before issue of the first approvals of electricity use of system charges as per section 23a of the Energy Industry Act.

Under section 8(2) of the Electricity Network Access Ordinance, transmission system operators must do the accounting for their **balancing energy** with the responsible balancing group not later than two months after the particular accounting month. According to information from the transmission system operators, the data needed for accounting from the distribution system operators is currently supplied late or not in full, resulting in significant delays in the balance group accounting. Hence the transmission system operators have requested the Agency to extend the accounting period as provided for by section 8(2) of the Ordinance. Meanwhile, the Association of German electricity network operators (*VDN = Verband der Netzbetreiber – e.V. beim VDEW*) has submitted a concept agreed between the transmission system operators and the Association of Local Utilities (*VKU = Verband Kommunaler Unternehmen e.V.*), designed to make balance group accounting possible within the statutory two-month period. The Federal Network Agency has held a consultation with the market players concerned about the concept; it is currently being evaluated. If appropriate, the Agency will then make determinations on balance group accounting obligations.

Prices in 2004 for **balancing energy** were 2.7 ct/kWh on average. They rose in 2005 to an average 3.1 ct/kWh. In addition to the average price rise, there was a clear increase in the maximum balancing price charged by three of the four transmission system operators. The average balancing energy prices in 2005 for positive balances ranged from 6.88 ct/kWh (*EnBW Transportnetze AG*) to 8.84 ct/kWh (*Vattenfall Europe Transmission GmbH*), while

those for negative balances ranged between 0.13 ct/kWh (*RWE Transportnetz Strom GmbH*) and 0.50 ct/kWh (*EnBW Transportnetze AG*).

The transmission system operators' joint Internet platform (www.regelleistung.net) for **control energy tendering** has been set up. Currently however – with reference to past and future consultations – there is no joint tendering; just the TSOs' separate tender outcomes can be viewed.

The distribution system operators chiefly use the Internet to **publish information/data**. However, they are not yet in full compliance with the publication requirements. Thus DSOs are called upon to meet these requirements without delay, as this really should have been done when the Energy Industry Act and the ordinances took effect.

Expenditure on **ancillary services** in total rose by 19.5 percent to around 1,218 m euros in 2005. While there was even a slight decline in costs for primary regulation and reactive power, expenditure on secondary regulation, minute reserve and energy losses on showed a clear increase of 8 percent, 29 percent and 49 percent respectively. The reason for the slight drop in primary regulation costs is the slightly lower amount on offer, compared to 2004 (particularly *RWE Transportnetz Strom* with 285 MW compared to 305 MW and *E.ON Netz* with 163 MW, compared to 190 MW), but mainly the falling prices for demand. The reasons for the higher cost of secondary regulation and minute reserve could be a slight overall increase in prices for demand and a lack of competition. The highest rise of 49 percent in connection with energy losses can be explained by a slight increase in demand and the marked increase in electricity prices in 2005. There was a sharp drop in the frequency of minute reserve use with 6,456 instances in 2005 as opposed to 12,737 in 2004.

The higher the voltage level, **the longer it takes** on average **to provide a connection** to the distribution network. When repairs are carried out here, the least amount of work is at the high voltage level; more time is required at the medium and low voltage levels, while the highest average repair time is found at the high/medium voltage transformation level.

Just less than half the distribution system operators have set **minimum requirements for metering station operators** to date. Compared to the total number of connections in Germany (just under 49 million) there is only a relatively small number (2,000 or so) of applications for the installation, operation and maintenance of metering facilities by the distribution system operators. This could change if conditions were set by all distribution system operators for the activity of metering operator and were available to all interested parties in transparent manner, eg on the DSOs' websites. The Federal Network Agency will keep an eye on this.

To date, 80 percent of the distribution system operators have set concrete **conditions for connecting new electricity generating facilities to the network**. 19 percent of the DSOs are not yet in compliance. One percent provided no information. All the transmission system operators have set conditions for access to the network; falling to the electricity generators are the costs for feasibility studies, access and expansion, and any additional reservation premium for access capacity taken into account in project realisation.

Since 2003 an increase in the number of **requests to connect generating facilities** (in the very high voltage network particularly significant for hard coal in 2005) has been recorded. There is a clear trend towards small, decentralised generating facilities in the low and medium voltage network. As regards wind power connection requests, the trend is down on 2003 in the very high voltage network.

Compared to 2004 there was a clear increase in 2005 over 2004 in the volume of trade on the **EEX spot and derivatives market** and the volume of OTC clearing on the EEX (for more information see chapter 3.2.2.1). A sharp rise in prices can be seen on the EEX spot

and derivatives market. The annual Phelix Base and Phelix Peak averages rose in 2005, compared to 2004, by around 61 and 65 percent respectively. The annual averages for the base load and peak load futures for the following year rose in 2005 over 2004 by around 23 and 15 percent respectively.

In the 2005 calendar year there were some 826,000 instances of **change of supplier** by the distribution system operators surveyed. The average cost of switching supplier was put at 108 euros by the wholesalers and suppliers asked. To some extent, these high costs can be explained by the low degree of automation still prevailing and the difficulties in new customer acquisition. A virtually identical picture was obtained with the network operators and suppliers/traders as regards the low degree of automation in the supplier change process. High transaction costs were given by 13 percent of the suppliers and unsuccessful/delayed changes by four percent of the suppliers as the main hurdle in acquiring new customers.[2]

The total amount of electricity accounted for in 2005 by final consumers' changing supplier, according to a survey of distribution system operators, was 31.18 TWh. This corresponds to a share (change quota) of 7.79 percent of the entire volume taken by final consumers from distribution system operators. The change quotas of 10.9 percent and 11.42 percent in the two categories "Mid-size industrial and commercial sector (50 MWh/year up to 2 GWh/year)" and "Large and very large industrial customers (more than 2 GWh/year)" are both clearly above the change quota of 2.22 percent in the category "Households and small-scale trade (50 MWh/year and below)".[3]

The total amount of electricity accounted for in 2005 by final consumers' **change of contracts,** according to a survey of electricity wholesalers and suppliers, was 50.43 TWh. This corresponds to a share (change of contract quota) of 11.96 percent of the entire volume recorded taken by final consumers. As in the change of supplier survey, the quota of changed contracts is lowest of all in the category "Households and small-scale trade (50 MWh/year and below)", compared to the two other categories "Mid-size industrial and commercial sector (50 MWh/year up to 2 GWh/year)" and "Large and very large industrial customers (more than 2 GWh/year)" (see chapter 3.2.3.1 for more information).[4]

In the course of monitoring, the German association of new energy suppliers *(Bundesverband Neuer Energieanbieter e.V.)* has named six companies currently operating in Germany in the mass market/small customer market for power supplies that can be assumed to be independent of domestic and foreign electricity network operators. According to the association, these six companies currently supply a total of 352,000 customers. A current total of 87 foreign companies are registered as traders on the EEX.

Under the monitoring survey, the current **retail price index level** (prices as of 1 April 2006) was ascertained for the Eurostat customer categories Dc (households, annual consumption 3,500 kWh/year, low voltage), Ib (commercial consumers, annual consumption 50 MWh/year, annual maximum demand 50 kW, low voltage) and Ig (industrial consumers, annual consumption 24 GWh/year, annual maximum demand 4,000 kW, medium voltage), all taxes

[2] "Change of supplier" is not an accurate indicator here of competition intensity. Already counted as a change of supplier is simply a change in the name of the company, or a change of supplier within a group (ie between subsidiaries). A change in demand patterns – eg as part of portfolio management – can indicate a number of acquisitions assessed as change of supplier. With a switch to a trader a distinction must be made, for the purpose of assessing competition, between independent traders and those who are associated with large supply companies.

[3] The distinction between mid-size industrial customers on the one hand and large and very large industrial customers on the other has only a limited information value, as a distinction cannot always be made between these customer groups as a result of demand patterns of industrial customers within portfolio management.

[4] "New contract" is not an accurate indicator here of competition intensity. A new contract is defined as a change to a contract with better terms, albeit with the same supplier. In view of rising energy prices, a new contract with better conditions is likely to be the exception, especially for standard rate customers (electricity) and for households and small-scale trade (gas).

and levies included. The volume-weighted average in 2005 (see chapter 3.2.3.2 for more information), under consideration of the volumes sold by the particular company in the relevant customer category, were 18.89 ct/kWh for Dc off take, 19.35 ct/kWh (standard electricity tax rate) and 18.44 ct/kWh (manufacturing industry) for Ib off take, and 12.14 ct/kWh (standard electricity tax rate) and 11.12 ct/kWh (manufacturing industry) for Ig off take.

For the period 2006 to 2016 the percentage of total planned **investment in electricity generating capacity** with a net capacity of a minimum 25 MW is 19.46 percent (23.23 GW) of the country's entire power plant capacity of 119.4 GW at the time of annual maximum demand in 2005. Yet a distinction was not made here between replacement investment and additional net capacity. Also, only 6,4 GW is currently authorised. Net capacity installed for power plants with a minimum net capacity of 25 MW rose in 2005 by a total of around 1.7 GW.

Expected by the Association of German network operators (VDN –e.V. beim VDEW) (for the period 2007 to 2009 is an estimated total investment volume of 13 to 15bn euros for generating and grid infrastructure, and for developed properties, other fixtures and fittings, so as metering and metrology.

According to a survey carried out by the Association, Germany, in 2004, had a **System Average Interruption Duration Index**, or SAIDI, of 22.9 minutes per final consumer and year for unscheduled interruptions (and 6.5 minutes for scheduled interruptions), low figures by international standards. The same holds good for the **System Average Interruption Frequency Index**, or SAIFI, with 0.44 unscheduled and 0.04 scheduled interruptions in supply per final consumer and year.

The **transmission system operators' investments in network infrastructure** in 2005 were around 643 million euros and for this reason higher than in past years. After suppliers' investments in transmission and distribution tended to decline since the mid-90s, the trend looks as if it is being reversed. In 2006 investments rose to some 800 million euros, in particular for expansion and renewal.

An **analysis of procedural weaknesses in the distribution network** has been undertaken so far by only about 60 percent of the distribution system operators surveyed. As far as possible, every distribution system operator should give his attention to this, since it provides the opportunity to identify possible serious supply disruptions and to implement suitable measures, should a disruption occur.

Electricity labelling duties are performed in accordance with section 42 of the Energy Industry Act. The large majority of companies follow the VDEW guidelines in doing so. As a rule, most of the supply companies, at present, give minimum data only.

The share of the total volume sold on standard rate terms in the total volume taken by final consumers from the wholesalers and suppliers surveyed was 19.7 percent in 2005. Monitoring also covered establishment of the current standard rates as at 1 April 2006, all taxes and levies included. The arithmetical average for the "Household requirements" segment is 19.40 ct/kWh with an off take volume of 3,500 kWh/year, for the "Agricultural requirements" segment it is 17.21 ct/kWh with an off take volume of 50,000 kWh/year, and for the "Commercial, professional and other requirements" segment it is 17.88 ct/kWh with an off take volume of 50,000 kWh/year.
The Federal Cartel Office has the following to say on the item "Important developments in the electricity market".

Competition in the electricity market has not improved greatly in the period under review. The trend towards greater market concentration continues, caused in particular by the envisaged deeper vertical integration of the major supply companies and by the integration of the gas and electricity businesses. At regional and local level, the downstream supply companies and municipal utilities are joining forces, particularly as regards purchasing. This structural change is less the result of well-functioning competition than the outcome of companies adapting their structures to meet the changed conditions.

Structures at the levels of electricity generation and transport and the volumes required by final customers remain essentially unchanged. What has changed, however, are the ways in which electricity travels from the producers to the final users. The greater importance of trading has thus continued in the reporting period.

It is mainly the four major supply companies, but also larger municipal utilities, that are active on the EEX in Leipzig. The four major supply companies account for the predominant share of the trading offers. On the demand side are a few large users, downstream distributors looking to optimise their purchasing, and the big supply companies themselves. Electricity suppliers also include market rate trends on the EEX in their price negotiations for OTC trading.

The greater importance of electricity trading, the changed structure of demand (eg as a result of different supply contracts for different load ranges) and different user structures (eg in the form of purchase cooperatives or municipal utilities with trading functions) are not without consequences for the definition of the markets in which downstream distributors, large users and traders get their electricity. In future, in an assessment of competition it will be the national market for the first-time sale of electricity that is in the spotlight, in which downstream distributors, large customers and electricity traders act as users and the generating companies and importers as suppliers.

Before electricity is first sold domestically, it has to be generated and/or imported. As Germany is a net electricity exporter and import plays only a minor role, domestic generation is very important for power supply. Some 60 percent of this generation is accounted for by the two large supply companies E.ON and RWE. When Vattenfall and EnBW are included, the share rises to around 90 percent. The remaining competitors, who jointly account for around 10 percent of the electricity generated in Germany, do not trigger any real competition, since this market volume is split among a large number of regional and local suppliers. Also significant is that the major supply companies mainly use types of power plant intended for base loads and medium loads, whereas the regional and local suppliers tend more to use power plants for medium and peak loads, whose cost structures are different. The distribution split is also similar at the level of the transport of electricity at a high voltage level. Competitors are not able to use alternative production capacity to any significant extent or, in international trading, to fall back on foreign suppliers. All the players at the trading level are thus reliant on supplies from the major companies. Thus they are still able to control the sales flows and – in conjunction with a strategy of securing sales through vertical integration – to consolidate their dominant market position. E.ON and RWE dominate as a duopoly the national market for the first-time supply of electricity in Germany.

In the markets for the supply of the domestic and small customer segments, too, the shares of the individual market players – besides the major supply companies, a large share in these markets falls to the municipal utilities – remained largely unchanged over the reporting period. The share captured by independent traders continues to be very low at less than five percent.[5]

[5] Text contributed by the Federal Cartel Office.

1.4 Important developments in the gas market

The Federal Network Agency has the following to say on the item "Important developments in the gas market".

Partial networks have been set up to a relatively large extent at both the transmission and the distribution network level. At the distribution network level, however, there are restrictions as regards the availability of the exit points.

There are considerable contractual and physical **bottlenecks** in the non-local gas network (transmission systems and regional distribution systems). Concrete expansion measures, however, are announced only sporadically. Distribution of the booking of interruptible contracts among the individual system operators and traders is far from uniform. Some system operators and many traders do not sign any contracts at all on interruptible capacity. The rucksack principle has scarcely been applied by the non-local gas system operators so far. Only two non-local system operators auctioned capacity in 2005. The measures against capacity hoarding provided for by the Ordinance have hardly occurred in practice. Nothing can be said at the moment about the reasons for this. By far the majority of transmission system operators have done what is needed to allow **capacity trading**, yet trading is taking place on a small scale only.

Nearly 80 percent of the system operators (local distribution system operators and non-local system operators) said in response to the monitoring survey that it was generally possible for their customers to **switch supplier** in 2005. However, it can be deduced from the very few instances of change of supplier and the correspondingly low change volumes in the end customer segment that there is not yet any well-functioning competition to supply end customers (see footnote 3 on page 8). To enable large-scale change of supplier, central importance is attached to the use of a common format as the basis for maximum automation of electronic data exchange between the market participants. As yet, there is no unified format for transmission of the standing and business data between the companies in the gas industry. Since the end of last year, the industry associations *Bundesverband der deutschen Gas- und Wasserwirtschaft* and *Verband Kommunaler Unternehmen e.V.* have been drawing up guidelines on this ("*Geschäftsprozesse zum Lieferantenwechsel bei Erdgas*"). At the end of June 2006 the associations presented the finalised version containing the essentials for change of supplier process and data exchange formats. The Agency has taken the guidelines as its starting point to set uniform standards for this process and how it is to be handled in IT terms.

The share of gas **use of system charges** in total prices (as of 1 April 2006) depends on the volumes sold. The lower the consumption, the greater the share of system costs in the total price for final consumers. The share of system costs, before the first approval of gas use of system charges under section 23a of the Energy Industry Act, ranges between seven and 22 percent of the gas retail prices.

The survey yielded the following results for customers supplied on the basis of standard load profiles. Altogether, 326 companies said that they supplied customers on this basis. Given that there are more than 700 local distribution system operators in Germany that supply end customers and hence ought to use standard load profiles, the number of responses is too low, however. The data supplied on tolerance levels were often incomplete, and sometimes contradictory. The survey showed that 25 percent of the companies did not offer tolerance levels. Clearly, there are implementation deficits here, which need to be clarified. There are also deficits in implementing extended balancing, yet some system operators offer their transport customers several flexibilisation instruments. The responses to the item *Procuring*

energy for the provision of balancing services is extremely unsatisfactory; less than half the companies replied. The responses to the questions on pricing **balancing** were so inadequate that a conclusive assessment is not possible.

The statutory **publication requirements** have not yet been fully implemented by the greater number of local gas distribution system operators, nor by some of the non-local system operators. Presentation of the websites is not very transparent. Because of the importance of the data as the basis for non-discriminatory access to the gas networks, for traders and suppliers in particular, it is necessary that the clarity, presentation and completeness of the data and information for publication is clearly improved.

The time taken to provide a connection is, as can be expected, considerably longer for connections to non-local than to local distribution systems. Moreover, as expected, repairs to gas networks for non-local distribution usually take longer than to local distribution networks. With local distribution there are considerably more numerical values, especially in the pressure ranges up to 0.1 bar and 0.1 to 1 bar as, firstly, there are more system operators in these ranges and secondly, more pipelines/connections. According to their own information, 64 percent of the gas network operator have not yet drawn up conditions for the connection of biogas generating plant. Currently, biogas is not being fed into the natural gas system; 50 percent of the biogas plant operators that responded are planning to feed biogas into the German natural gas network with a maximum theoretical feed-in capacity of a total of 14,000 m³/h.

The **minimum** technical and data **requirements on metering station operators** as per section 21b(2) of the Energy Industry Act were defined in 2005 only by 41.5 percent of local and 66.7 percent of non-local network operators. Virtually no applications to have metering station operations carried out by third parties were registered, either at the level of the local gas distribution networks or at the level of the non-local networks.

At 1,134bn kWh, the **volume of natural gas in Germany** (domestic production and imports not including stotage variations) in 2005 only slightly exceeded the level of 2004 (1,132bn kWh). Domestic production of natural gas declined by 3.4 percent to 184bn kWh, thus reaching a share of around 16 percent of German natural gas volume. The balance was reached by additional imports from the European development areas. The lifetime of the German reserves of natural gas is currently set at around 13 years. It is assumed that technical development and the higher price level will allow more natural gas to be exploited and existing fields to be used more intensively in Germany. Natural gas exports climbed by 11.8 percent in 2005. With a positive storage variation of 12bn kWh between entered and exited gas (change over the previous year + 37bn kWh – ie storage off take – see chapter 4.2.1 for more information) domestic consumption rose by 2.7 percent to 1,045bn kWh.

The average **cross-border price for natural gas**, published by the Federal Office of Economics and Export Control, rose from 1.18 ct/kWh in 2004 by 36.4 percent to 1.61 ct/kWh in 2005.

According to the survey of gas network operators, the total volume attributable to final consumers' **change of supplier** in 2005 was 3.3 TWh. This corresponds to a share (change of contract quota) of 0.4 percent of the entire amount taken by final consumers from gas network operators. The highest quota, 0.74 percent, occurred in the category "Large and very large industrial consumers (> 10,000 MWh/year)". The quotas in the categories "Mid-size industrial and commercial sector (> 300 MWh/year to 10,000 MWh/year)" and "Households and small-scale trade (300 MWh/year and less)" are clearly lower with 0.12 percent and 0.01 percent respectively.

According to the survey of gas wholesalers and suppliers, the total volume attributable to final consumers' **new contracts** in 2005 was 76.29 TWh. This corresponds to a share (new contract quota) of 9.44 percent in final consumers' entire off take volume. The highest quotas of new contracts were found in the categories "Large and very large industrial customers (> 10,000 MWh/year)" and "Gas power plants" with a percentage of new contracts in 2005 of 15.74 and 13.89 percent respectively of the entire off take recorded in these categories. In the categories "Mid-size industrial and commercial sector (> 300 MWh/year and up to 10,000 MWh/year)" and "Households and small-scale trade (300 MWh/year and less)" the quotas, 5.22 and 1.3 percent respectively, are clearly lower (see footnote 4, page 8).[6]

Under the monitoring survey, the current **retail price index level** (prices as of 1 April 2006) was ascertained for the Eurostat customer categories I4-1 (annual consumption 116,300 MWh/year, load factor 250 days a year), I1 (annual consumption 116.3 MWh) and D3 (annual consumption 23,260 kWh), all taxes and levies included. The volume-weighted average in 2005 (see chapter 4.2.3.2 for more information), under consideration of the volumes sold by the particular company in the relevant customer category, was 4.28 ct/kWh for I4-1 off take, 5.67 ct/kWh for I1 off take and 6.14 ct/kWh for D3 off take.

Market-related measures **to secure supplies** were used on a small scale only. The network-related measures asked about were divided into the categories preventative and interventionary measures with three groups in each (see chapter 5.2.2 for more information). Of the 24 transmission system operators that replied, nine have already begun to draw up an **analysis of weak points,** which they plan to complete between June 2006 and January 2007. The Federal Network Agency has called on all transmission system operators to meet their obligations.

The Federal Cartel Office has the following to say on the item "Important developments in the gas market".

Competition in the gas market has not improved significantly during the reporting period. Competition that extends to all off take areas does not exist to any adequate extent. Domestic and small customers are still not able to choose their supplier. The Federal Cartel Office and some of the federal state antitrust authorities have thus used anti-competitive pricing cases to make it possible for new competitors to enter the market by way of a "provision of services" solution, a transitional scenario until access competition is finally implemented (see chapter 1.6). To date, competition can only be seen here and there in connection with relatively large users, but even there is not countrywide.

Liquidity in the German gas market is low. Contributing factors are high concentration at the import level where *E.ON Ruhrgas* alone, as the largest German long distance gas operator, accounts for well over 50 percent, and the exclusive long-term contracts that the gas importers tend to conclude with the downstream distributors. The Federal Cartel Office has taken action against this long-term "tying up" in abuse proceedings against the long-distance gas operators (see chapter 1.6).

In the period under review the rise in retail prices continued. In this connection, the Federal Cartel Office and some of the federal state antitrust authorities have opened abuse cases against a number of gas suppliers on suspicion of anti-competitive pricing (above all in the domestic customer segment). Most of the cases were closed after the suppliers made pro-

[6] The information gathered in the monitoring survey on new gas power plant contracts is not consistent with the experience of the Federal Cartel Office and the view of the industry in connection with the "Long-term gas contracts" case before the Intermediate Court of Appeals in Düsseldorf. Thus supplier and gas power plant contracts, as a rule, are long-term supply contracts with fixed adjustments as regards the terms (eg gas-oil price coupling), that are not subject to constant change and that are hence included by the banks in security checks for financial reasons.

competition pledges (eg to reduce tariffs).[7] In civil law cases, too, the suppliers' gas price increases were probed on the basis of section 315 of the Civil Code (BGB).
The cases were concerned with pricing transparency and the extent to which the charges asked were fair and reasonable.[8]

1.5 Federal Network Agency's main work items

Access to electricity supply networks

The responsibility for regulating the electricity networks lies with the Federal Network Agency. Formal decisions are taken under the Energy Industry Act by the Ruling Chambers.

The Agency currently has 75 cases on access to electricity networks pending and 56 are at the preliminary investigation stage (as of 30 June 2006).

At present, the main work items are the terms and details of third-party access, connection to the system and implementation of the system operators' legal obligations and refusal to grant access under section 20(2), second sentence, of the Energy Industry Act.

To date, the Agency has had to take some formal decisions in abuse cases as per section 30(2) and section 31(3) of the Energy Industry Act. It was often possible as a result of informal measures to clarify accusations of abuse and to encourage system operators to stop the practices objected to, or to achieve agreement between the parties concerned.

The formal decisions are mostly determinations as per section 29 of the Energy Industry Act. These are general arrangements about how system operators and other actors must behave in the electricity market, and are thus aimed at a determinate majority.

The Agency is also addressing issues such as the standardisation of business processes and electronic information exchange, the blocking of third-party access, contributions to the infrastructure and intraday trade. In particular, the recently agreed business processes and data formats for the market players' communication play an important part in promoting competition in the electricity market and in changing supplier easily. The Agency has looked into disputed issues of supplier framecontracts and the different balance group contracts, including balance group accounting, and is drafting generally valid requirements in the form of determinations and standard contracts. The Agency has held a public consultation on the proposal of the German TSOs on a reference offer as per section 28 of the Electricity Network Access Ordinance for the balance group contracts offered by TSOs. This is currently being assessed and will be the basis of a future decision. Before the end of the autumn, the Agency will also make more specific determinations on balance group accounting within a two-month period (section 8(2) of the Electricity network access Ordinance), on which a consultation has already been held.

During the reporting period there were also matters of connection to clarify; this applied to both the connection of consumption points and of the most diverse production units. The requests from already connected users (downstream operators, industrial customers) were often for connection at a higher voltage level. The Agency was asked by a number of power plant operators for support in their request for connection to the extra-high voltage network. In light of the forecast congestion in particular parts of the transmission network, the first step, in the system operators' view, should be to eliminate the congestion through expanding the network at the cost of those seeking access. A provisional examination shows that such demands are not justified. The Agency is likewise testing options that could provide a

[7] Text from the Federal Cartel Office.
[8] LG Bremen 8 – O – 1065/05 of 24 March 2006 and LG Hamburg 301 O 32/05 of 5 April 2006.

generally agreed solution (for instance, through a restricted period in which the system could be used for feed-in).

The Agency is currently drafting requirements for tendering control energy in the form of both minute reserve and primary and secondary control services. However, with reference to past and future consultations, no joint invitations to tender have yet been issued on the joint Internet platform (www.regelleistung.net) set up by the transmission system operators under section 6(1) of the Electricity Network Access Ordinance and section 22 of the Energy Industry Act for control energy tendering. After completion of the consultation on the concept from the TSOs on joint minute reserve tendering, determinations on the tendering modalities for minute reserve are being worked out by the Agency at the time of reporting. There was also a consultation in the summer on the TSOs' concept on the joint tendering of primary and secondary regulation. Here, too, the Agency will make determinations before the end of the year.

Another issue engaging the Agency is scheduled intraday trading. Thus applicable since the beginning of 2006 to changes to schedules extending beyond a control area, in derogation of section 5(2) of the Electricity Network Access Ordinance, is an advance of 60 minutes. A one-year transitional period requested by the TSOs in which to adapt their systems and processes to the legal requirements was accepted by the Agency, so that the statutory time limits for changes to the schedules will take effect at the beginning of 2007.

A further duty is monitoring the publication requirements prescribed by the Energy Industry Act, the Electricity Network Access Ordinance, the Electricity Network Charges Ordinance and Regulation (EC) No 1228/2003. Thus monitoring of the electricity network operators' publication practice began in 2005. As a result, individual companies were called upon in 2006 to comply with the legal framework.

In order to avoid serious supply disruptions, electricity network operators are required under section 13(7) of the Energy Industry Act to make an annual analysis of weak points and to take measures, if necessary. The results have to be submitted to the Agency. System operators are also required to draw up a report every two years on the state of the network and on expansion planning.

Another duty is to monitor compliance with the electricity labelling obligations as set out in section 42 of the Energy Industry Act.

International Trade in electricity

Besides its national functions, the Agency is responsible for implementing Regulation (EC) No 1228/2003. One of the core tasks in the international area is to monitor and take forward the German TSOs' congestion management at the German cross-border interconnectors. Thus at the German borders with other countries, except for that with Austria, market-based congestion management schemes in accordance with Article 6 of Regulation (EC) No 1228/2003 were established in 2005 in conjunction with the Federal Network Agency or introduced at the latest at the beginning of 2006. The Agency discharged duties under the Regulation and investigated matters of long-term supply contracts and the criteria for calculating cross-border Interconnector capacity.

Another international component of the Agency's work is the regional integration of the European electricity markets. The Mini-Fora called into being by the European Commission during the Florence Forum in 2004 are now being followed by the regional initiatives set up by the European regulatory authorities in early 2006. The main issues addressed are implementation of the congestion management guidelines, harmonising the transparency of the separate markets and identifying market entry barriers. Germany is represented in four (northern Europe, central and eastern Europe, central and southern Europe, central and

western Europe) of the seven regions. As a central market Germany plays an essential part in the development of competition in the electricity market.

System charges (electricity)

The focus of the Agency's work as regards system charges for electricity fell on the approval procedures as per section 23a and benchmarking as per section 21(3) of the Energy Industry Act.

The Federal Network Agency has prepared and carried out the approval procedures prescribed by section 23a of the Energy Industry Act for the system charges for electricity. It has closely scrutinised the requests for approval that it has received since 30 October 2005 (99 applications handled on its own responsibility and 150 through powers officially delegated by the state regulatory authorities of Berlin, Bremen, Mecklenburg-Vorpommern, Schleswig-Holstein and Thuringia), using the criteria of the Energy Industry Act and the Electricity Network Charges Ordinance. Examination of the applications covered, amongst other things, completeness, drawing up approval notices, and individual examinations. Initially, considerable deficits were found as regards full sets of documents submitted, which meant that extensive enquiries had to be made of the companies. In its examinations the Agency was guided by a template agreed with the state regulatory authorities which specified certain priorities. It was on this basis that the first approvals were granted in early June 2006 to the TSO *Vattenfall Europe Transmission GmbH*. On 31 July 2006 the Agency scaled back the costs underlying the charges applied for by three further major electricity system operators by up to 14 percent (see chapter 3.1.3.1 for more information).

Besides its activities with general approval procedures, the Federal Network Agency also, during the reporting period, received 86 applications for approval of individual system charges, of which 14 were decided or otherwise dealt with. Additionally, two abuse cases in connection with pricing for customers with sole use of facilities were decided.

Benchmarking was used to appraise the efficiency of the German system operators. Some 900 German distribution system operators were therefore requested to submit data. This was then plausibilised by the Agency in a number of separate rounds. Inconsistencies were pointed out to the operators, who were asked to make corrections. After completion of plausibility, structure class codes were created per operator to provide the first indications of efficiency.

Access to gas supply networks

Access and access model

The Federal Network Agency's main activity as regards third-party access to gas network was the implementation, between summer 2005 and June 2006, of the arrangements of section 20(1b) of the Energy Industry Act. Section 20(1b), which took effect on 1 February 2006, requires access to the German gas supply networks to be based in future on two contracts and two capacity bookings only, as a result of cooperation between the system operators. The obligation to cooperate is limited to what is technically feasible and economically reasonable. The legislative purpose of this new arrangement is a fundamental restructuring and simplification of the old, transaction-dependent system.

In autumn 2005 the Federal Network Agency set up a consultation group of system operators and user associations (including BGW, VKU, GEODE, VIK, EFET, VEA) to discuss the implementation concepts and to manage the new legal arrangements. The consultation group and offspring working groups met on several occasions in a first round of talks finishing at the end of January 2006 and in a second round finishing at the end of May 2006, and put forward many proposals for implementing the arrangements. At the end of January

2006 a basic plan was presented for implementation of the new model, and the schedule for doing so. Under the schedule the BGW/VKU was to submit to the Agency by 23 March 2006 a draft cooperation agreement naming up to 20 market areas, to be published by 1 June 2006. Within that period rounds of talks were held on special aspects of the cooperation agreement and on reducing the 28 market areas initially proposed. On 1 June 2006 the BGW/VKU then published drafts of the cooperation agreement and the standard access conditions, which also include a list of 19 market areas. The schedule provides for introduction of the new access system on 1 August 2006, that is two months before the new gas year. One of the Agency's main work items in future will be to progress the new access model.

Exemptions for new infrastructure

In connection with the exemption of new infrastructure from regulation under section 28a of the Energy Industry Act (Article 22 of Directive 2003/55/EC) the Federal Network Agency has held a number of talks with interested companies. In these talks the companies learned about the basic requirements for an exemption from access and charges regulation and the special legal details. No applications for exemption have been received to date.

Market surveillance, publication and notification requirements

Since July 2005 the Federal Network Agency has been monitoring developments in access to the gas networks and storage facilities. It has set up a database on refused access reported by system operators and called up load flow logs from the system operators to assess the capacity situation. It has sent letters to the system operators and put notices in the Official Gazette to draw attention to compliance with legal publication duties. At the same time, the Agency has held intensive talks with the associations with a view to designing and publishing the operators' joint grid map.

Business processes on change of gas supplier

Under section 37 ("Change of Supplier") of the Gas Network Access Ordinance, operators are required to develop uniform procedures to simplify a change of supplier and uniform, standardised formats for data transmission. The aim is to make sure that switching supplier is a process that can be done on a large scale, one that thus presupposes maximum automation of the processes for handling customer data. Unlike in the electricity sector, the processes for changing supplier have not yet been defined uniformly in the gas sector. A first draft from the German Gas and Water Industry Association (BGW) was presented to the Agency at the end of 2005.

The Federal Network Agency is backing the matter of business processes and data formats in a dialogue with those concerned and with manufacturers of software systems and service providers, in order to push prompt and binding implementation of the legal requirements. The Agency is also drafting process basics, giving special attention to the mechanisms of supplier change. The main points of the business process are the deadline arrangements, the arrangements on data exchange and special and problem cases, eg in the case of supplier competition.

Additionally, the application by the market players of standardised load profiles as per section 29 of the Gas Network Access Ordinance is a prerequisite for handling end customer supplier change on a large scale. The Agency is following the process of introducing load profiles by monitoring implementation by the market partners of the relevant legal requirements. At European level an intensive exchange of experience is taking place to progress supplier change in the gas sector and on developments in the liberalised gas market generally.

Abuse cases

In May 2006 the Federal Network Agency completed its first official abuse case under section 31 of the Energy Industry Act concerning refusal of access on a fixed capacity basis to a gas transmission network. The background to the case brought by *EnBW Trading GmbH* was the unhampered transport of gas volumes bought under the Gas Release Programme. The Gas Release Programme was brought into by a special authorization of the minister during the *E.ON AG/Ruhrgas AG* merger proceedings in 2002. The Agency's decision confirmed *EnBW Trading GmbH*'s view that *E.ON Ruhrgas Transport AG & Co. KG* had shown discrimination in the allocation and hence anti-competitive behaviour. Pivotal to this decision was the interpretation of the conditions attached to the special authorization of the minister. Accordingly, there was an unconditional obligation to transport gas volumes from the Release Programme, as far as the buyer wanted this. This also held good when none of *E.ON Ruhrgas's* previous supply volumes were to be substituted. Contrary to *E.ON Ruhrgas Transport AG & Co. KG's* assessment, the transport obligation is thus not restricted to the so-called rucksack principle. It is good that the *E.ON Ruhrgas* group, in this year's auction, held just a few days after the decision had been issued, has promised all buyers fixed transport capacity. Thus the decision has a pro-competitive effect not just for the case in hand, but also beyond. This is seen not least in the fact that, according to company information, there was record demand for the gas on auction. This meant that the entire volume offered, 39 billion kilowatt hours, could be sold this year. By contrast, 18 billion kilowatt hours was left unsold in the first auction, a third of which was offered in the subsequent auctions. The Agency's decision is not yet final.

International Trading in gas

The Federal Network Agency also provides input within the European regulators groups CEER and ERGEG. It drew up proposals for development of the balancing guidelines and carried out the second round of implementation controls of the European Guidelines for Good Practice for Storage System Operators, which also involved the preparation of a national report. Within the capacity working group the Agency has been involved in a survey of the capacity situation and congestion management on the main cross-border transit routes in Germany. In addition, it has submitted a number of comments on the Commission's interpretation notes on Regulation EC no 1775/2005 on conditions for access to the natural gas transmission networks which took effect on 1 July 2006, especially on tarification as per Article 3 of the Ordinance (issue: benchmarking) and on some aspects of capacity allocation and congestion management. The Agency was involved in the comments on the Commission's Green Paper and on the outcome of the Sector Inquiry. A main focus of activity at European level was built on ERGEG's Regional Initiative, which began in the "Road Map Paper" and came to prominence with the setting up of the Regional Coordination Committees in June 2006. The Agency will take an active part in shaping the Regional Initiative North/North-West, the aim of which is to improve the working of regional markets on the way to establishing a European internal market.

System Charges (gas)

Cost-oriented pricing within the meaning of section 21(2), first sentence, of the Energy Industry Act is subject to approval. Following enactment of the legislation, the Federal Network Agency has devised a concept for the data survey and a reporting scheme for approval of the access fees under section 23a of the Energy Industry Act on which it has consulted with industry associations and the business community. A determination followed on 20 December 2005. Operators of gas supply networks had until 30 January 2006 to submit their first application for approval of their charges (section 118(1b) of the Act). Applications have been received from around 220 suppliers. Around 60 of these were to be handled under the Agency's direct responsibility, while the remainder were to be dealt with

under an official delegation of powers to the Agency from the federal states concerned, within the framework of an administrative agreement.

Subject to particular scrutiny is valuation of the fixed assets, return on equity and trade tax. In addition, the Federal Network Agency is pushing on with matching procedures with the state regulatory authorities.

The Federal Network Agency has developed a concept for the benchmarking data survey. After consultations with the industry associations and the business community, a determination was published. The data received are checked for completeness and plausibility. Benchmarking indicators are then created. Six structural classes (high, medium and low sales density in east and west) were formed and the operators assigned to these classes. The preliminary results of the benchmarking were discussed with the operator associations and their publication and presentation prepared. Objections were raised during the actual benchmarking process and complaints submitted about publication of the results.

Publication in the Agency's Official Gazette of the benchmarking results has been halted for the time being as a result of applications to the Düsseldorf court to desist, as a preventive measure, from complete publication with individual data and naming of operators. Thus the form and the time of publication of the benchmarking results depend on the court's decision.

Operators of supra-regional gas transmission networks in actual or potential competition are exempted under section 3(3) of the Gas Network Charges Ordinance from the principle of cost-oriented pricing and approval of grid access as per section 23a of the Energy Industry Act. Notifications were received from 13 companies in early 2006, which the Agency is looking at for eligibility. The companies have since been asked to provide further documents, which are being evaluated. Also, the information from information requests to domestic and foreign gas traders, industrial customers and municipal utilities is being studied.

Meanwhile, the Agency has rejected the application from one company that had given notification of pipeline competition as per section 3(3) of the Gas Network Charges Ordinance, as the notifying company is not a supra-regional transmission operator within the meaning of section 2 Para 3 of the Ordinance. As regards the other companies, the Agency is currently investigating whether their networks, for the main part, are exposed to effective or potential competition.

Unbundling

The Agency's unbundling activities for the period July 2005 – June 2006 can be summarised as follows:

- active support of the unbundling process through consultations with companies and industry associations
- publication of regulatory clarification of unbundling provisions in agreement with the Federal Cartel Office
- monitoring introduction of compliance programme and reports as set out in section 8(5) of the Energy Industry Act
- requesting information, in a market data survey, on the progress of implementation of the unbundling provisions (sections 6 to 10 of the Energy Industry Act) (see chapter 2).

Quality of supply

Since the new Energy Industry Act took effect in July 2005 network operators are required to notify the Agency of any interruptions in supply to final consumers. In this connection, one of the Agency's main tasks was to define, consult on and determine the survey for interruptions to supply as per section 52 of the Energy Industry Act. In March 2006 the Agency published specific requirements on the content and form of the data with which it was to be provided.

Also, network operators answerable to the Federal Network Agency as the regulator must notify it without delay of any major disruptions (under section 13 of the Energy Industry Act, disruption in supply for essential requirements). In 2005 this concerned only the power failure in and around Münster that began on 25 November 2005. An extensive investigation of the case was made with reference to security of supply (see chapter 5.1.3 for more information).

Incentive regulation

The Second Energy Statutes Reorganisation Act of 7 July 2005 mandates the Federal Network Agency with presenting to the federal government by 1 July 2006 a report on introduction of incentive regulation containing a concept that can be implemented under the legal requirements.

Preparation

Firstly, for the revenue cap, extensive research was carried out on the existing methods. This included research of the literature at specialised research institutes and an exchange of views with other regulatory authorities. The exchange was carried out both on a bilateral basis and within the framework of the "Efficiency Benchmarking" workstream of CEER's Information Exchange and Benchmarking Task Force (IEB TF). And secondly, preparations were made for the revenue cap data survey.

Data selection and collection

A wide-ranging and robust data basis is vital both for the conceptualisation of incentive regulation and for preparation of the report referred to in section 112a(1) of the Energy Industry Act. For this reason, a survey was made of the network operators. In advisory projects the data were checked for plausibility and selected for benchmarking.

Consultation process

The Federal Network Agency has launched a high-level public consultation process for development of the concept. A monthly series of talks and consultations began in August 2005 in two main bodies. In one working group the Agency presented public sector representatives with its preparatory work on the fundamentals of the incentive regulation system for discussion. Here the processes of technical and economic methods development were analysed and brought together with the results of the consultations carried out in parallel by a consultation group and external advisers.

Besides the members of the incentive regulation working group, the consultation group comprised representatives of 15 associations and groups of companies in the business circles concerned. The consultations focused, in addition to the Agency's work, on seven advisory reports and projects. The aim of consultation was to accommodate as many different viewpoints and positions as possible in the development of the concept and to incorporate a large number of specialist contributions in the discussions, to enrich the concept.

Reference reports

Reference reports on the following issues were published in advance to give the business circles concerned – besides the discussions in the consultation group – the opportunity to make written comments before presentation of the final draft report:

- price caps, revenue caps and hybrid approaches
- general sectoral productivity trends in incentive regulation

- cost-driver analysis to determine benchmarking parameters (WIK)
- Quality incentive regulation.

International experience

In line with its legal mandate, the Federal Network Agency has made a wide-ranging analysis of international experience. An advisory report has been commissioned and a working group of European regulatory authorities, chaired by the Federal Network Agency, set up, giving this work further concrete shape. Addressed in the group were the experiences of the UK, the Netherlands, Sweden, Austria, Spain, Finland, Poland, Luxembourg and Italy. Additionally, a one-day workshop was held with the Norwegian regulator.

Inclusion of academia

This was done particularly through the Agency's Specialist Group for Regulatory Issues (*Wissenschaftlicher Arbeitskreis für Regulierungsfragen*, or WAR). A project was commissioned to ask the experts their views. The Agency also hosted a conference in Bonn on 25 and 26 April 2006 entitled: "Incentive regulation in the German electricity and gas sector – efficiency and reliability to set the yardstick".

Draft overall concept

The elements of the concept, hitherto consulted on individually, were brought together to form the draft overall concept (draft report). This draft provided the basis for comments that the Agency expressly invited. All the responses received were assessed and reflected in the final report presented to the federal government to schedule on 30 June 2006.

Monitoring

Under section 35(1) of the Energy Industry Act the Federal Network Agency monitored, for the first time, the issues listed in section 35(1) paras 1 to 12 of the Energy Industry Act, which also include transparency and competition. Understood by monitoring is the creation of market transparency as a result of collecting, evaluating and making a summarised presentation of data from the players in the German electricity and gas markets. Monitoring is an activity intended to track developments in the market and to check the implementation and working of the Energy Industry Act.

The exact data content of the monitoring was determined by the Agency after consultations with market players, industry associations and institutions. It was decided there should be an opportunity for comments in order to achieve broad-based agreement for the data survey.

In the period from 22 March 2006 to 19 April 2006 questionnaires were posted on the Agency's website to be answered by the market players. The questionnaires were differentiated by electricity and gas sector and by the different groups of player.

The survey concerned the separate areas of activity of the (consolidated) companies. Provision was not made for summarised responses from controlling companies.

The data survey was carried out electronically by the market players downloading the questionnaires and using the specified formats. Upon receipt, the completed questionnaires were automatically put into an evaluation database by the Bundesnetzagentur. This provided the summarised assessments for the monitoring report and for the individual contributions. In all, 2,656 completed questionnaires from the different segments of the market were evaluated.

The separate chapters of the monitoring report set out actual market coverage, as shown by the responses, in relation to selected data for the market as a whole. As far as a comparison with known data for the market as a whole is possible, the coverage of the market shown in the monitoring survey ranges between 76 and 100 percent.

The Agency published a monitoring report under section 63(4) of the Energy Industry Act in 2006 for the first time.

1.6 Federal Cartel Office's main work items

In connection with the appeal proceedings on *E.ON/Stadtwerke Eschwege's*[9] merger control the Federal Cartel Office, in the reporting period, carried out an extensive, new data survey on the electricity market for 2003 and 2004. The survey showed that the structures at the level of the generation and transport of electricity and the volumes requested by the final customers have remained virtually unchanged. All that has changed is the ways in which electricity reaches the final customer from the generating and distribution levels and the ways in which electricity, besides the traditional supply contracts, is offered. This confirms the finding of E.ON's and RWE's joint dominant position as regards the first domestic sale of electricity, so that the Cartel Office still has reason to prohibit the intended merger. The case is currently waiting to be heard by the Intermediate Court of Appeals in Düsseldorf; oral proceedings scheduled for May 2005 have been cancelled by the court for reasons the company is responsible for.

In the period under review the major gas supply companies continued to push their strategy of vertical integration to secure their sales markets and to strengthen cooperation with adjacent supply companies through participating interests. For the Cartel Office, this strategy is problematic in competition law terms:

- In the supply markets for regional and local gas suppliers, geographically defined according to the areas served by the participating companies, vertical integration works to secure the position of the upstream supplier (mostly a regional grid gas company). The upstream supplier, as a result of integration with his customer, can be expected in particular to acquire information rights that are not available to competitors and that strengthen his position. There is also the risk of potential competitors being deterred from entering the market by the participating interests.
- In the supply markets for large, domestic and small customers, likewise defined geographically according to the areas served by the participating companies, vertical integration inhibits potential competition as regards the municipal utilities' choice of wholesale supplier.

During the reporting period the Intermediate Court of Appeals in Düsseldorf finally rejected the appeal lodged by the companies concerned in the *Mainova AG/Stadtwerke Aschaffenburg* merger case,[10] directed against prohibition by the Federal Cartel Office[11] of *Mainova AG* taking a stake in the Aschaffenburg municipal utility. Thus, in assessing competition, reference is always made to the actual circumstances of the particular case. A change in the market situation is not given just by the legal framework being taken forward. Nor can limited potential competition, as given for instance through the – at least theoretical – building of a spur line, pose a threat to a company's dominant position.

[9] Cf Federal Ministry of Economics and Labour: Benchmarking Report on the Electricity and Gas Markets in Compliance with the GD TREN Requirement of 2 June 2005 (2005), page 9.
[10] Ruling of 23 November 2005, WuW/E DE-R 273-277.
[11] Order of 22 July 2004, WuW/E DE-V 983-988.

The announcement, during the reporting period, of the acquisition of a stake in Ludwigsburg municipal utilities by EnBW[12] was withdrawn following the Düsseldorf court ruling in the *Mainova AG/Stadtwerke Aschaffenburg* case. Also announced in the period under review was an increase in EWE's stake in the Eberswalde municipal utilities.[13] After the Cartel Office had given notice of its reservations, the parties concerned withdrew their filing.

Electricity

In the reporting period prices in the wholesale markets rose markedly. The Federal Cartel Office is investigating whether the energy supply companies have been using trading in CO_2 certificates, which came into being on 1 March 2005, to price in the emission certificates which are assigned free of charge, and to gain unjustified revenues. Prior to the investigations, the Cartel Office had received a number of complaints from the industry. Help was also requested from the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Federal Financial Supervisory Authority (*BaFin*). On 30 March 2006 the Cartel Office held a public hearing with all the parties concerned; the insights it has gained are currently being evaluated (cf chapter 3.2.2.2).

Notwithstanding abuse supervision by the state antitrust authorities, the electricity tariffs reflecting the Federal Tariff Code for Electricity are currently approved by the supervisory authorities in the federal states. In the domestic customer segment scarcely any cases of hindrance in changing supplier were observed during the reporting period, yet it is not possible, as a rule, to change supplier when it comes to electricity for night storage heaters. Despite the lack of competition in this segment no cases of price abuse were opened, since the price of heating current is clearly below a company's tariff and product prices and the profit margins here are lower. In the approval procedures that the state energy supervisory authorities carry out for the general tariffs, the price increases filed for were often only approved with deductions during the reporting period.

Gas

In the gas sector the Federal Cartel Office continued its antitrust examination of the long-term gas supply contracts the import companies conclude with downstream distributors. Initially, agreement was sought with the 15 gas companies concerned, but the consensus failed late in 2005 because of *E.ON Ruhrgas'* resistance. The Cartel Office in early 2006 then issued a prohibition order on *E.ON Ruhrgas* as the largest German gas company. This case sets the tone for the branche as a whole.

In the order the Federal Cartel Office established that the arrangements in the current contracts, the combination of long-term buying obligations and the degree of actual coverage of requirements, breaches Articles 81 and 82 of the EC Treaty and section 1 of the German Competition Act. *E.ON Ruhrgas* was also ordered to end the infringement not later than the close of the current gas year on 30 September 2006. The conclusion of new contracts with regional and local gas companies whose term exceeds four years and whose distribution requirements cover over 50 to 80 percent of downstream distributors' demand, and contracts running for over two years with a buy-in requirement of over 80 percent, are prohibited. Exempted, for reasons of practicability, are distributors whose total requirements are less than 200 GWh. To spread the economic risk fairly among all a distributor's suppliers, the prohibition order also states that risk coverage, when there are fluctuations in the case of supply by several suppliers, must match at least the level of the share supplied. To prevent these principles from being undermined, more than one supply contract between supplier and customer (so-called stacking of contracts) is to be regarded as one contract. Tacit extension clauses are not allowed.

[12] Reference B8-73/05.
[13] Reference B8-89/05.

The prohibition order runs out at the end of the gas year 2009/2010, ie on 30 September 2010. It is based on Articles 81 and 82 of the EC Treaty and section 1 of the German Competition Act, and is immediately enforceable. *E.ON Ruhrgas* has taken legal action against the prohibition order itself and also against its immediate enforceability. In its ruling of 20 June 2006 the Düsseldorf court confirmed immediate enforceability, stating that there were no serious doubts about the lawfulness of the order or about the factual preconditions for it. The court has fully affirmed the Cartel Office's market definition and analysis of competition. No differently from the Cartel Office, the Cartel Division of the Düsseldorf Federal Court of Justice saw in long-term procurement ties on the import side, combined with take or pay obligations, no reason for foreclosing sales markets by way of long-term supply contracts. In particular, the security of gas supplies is not regarded as under threat when *E.ON Ruhrgas* is prohibited from offering exclusive long-term contracts. As far as the official order requires fair risk distribution and does not allow "stacked" contracts, the Düsseldorf court has deemed these measures justified. Just the outcome of the summary proceedings justifies, in the court's view, action against the other gas companies. The appeal on a point of law to the Federal Court of Justice was allowed by the Düsseldorf court.

In the current gas year 2005/2006 again, the Federal Cartel Office opened cases of suspected anti-competitive pricing against a total of seven gas supply companies that had introduced – in some cases, hefty – price rises since October 2005. Previously, the Cartel Office, in conjunction with the state antitrust authorities, had established the gas prices and structural data (eg gas sales, load factor) of over 700 supply companies and set up a gas price database available to all the antitrust authorities.[14] The state antitrust authorities opened a further 80 cases.

The cases opened by the Cartel Office against the seven supply companies was discontinued in February 2006 after the companies had given a written assurance that they would allow competitors into the area served by them from 1 April 2006 by way of a special provision solution. This allows private final customers to conclude a supply contract with an alternative supplier obtaining the gas from the established local system operator. This interim solution uses a commercial solution to make the first supplier change possible, before a physical solution is enabled when the Federal Network Agency and the state regulatory authorities open the gas networks.

Many of the abuse cases opened by the state antitrust authorities were discontinued once the companies had withdrawn or reduced their price increases or committed to offering alternative tariffs or to opening the market to competition by way of the special provision solution mentioned above. Some companies were able to dispel the suspicion of abuse and demonstrate, moreover, that the extent of their price rises was below the price they had bought at. A few of the state antitrust authorities have not yet closed the cases.[15]

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[14] Decision taken by the conference of the federal state economic ministers that the Cartel Office should continue to maintain and update a national gas price database. The database should also be made available to the public.
[15] Text contributed by the Federal Cartel Office pages 22-24.