A Preliminary Assessment of the European Energy Market by the European Regulators Group for Electricity and Gas (ERGEG)

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8 December 2005

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Definitions Used

n.a. – not available

n.ap. – not applicable

n.d. – not delivered.

non (HH) – non households

1. Introduction

Under the 2003 electricity and natural gas directives[1], national energy regulatory authorities shall publish an annual report on the outcome of their monitoring activities related to the functioning of electricity and natural gas markets. The European Commission is also required to submit to the European Parliament and the Council an annual report concerning the application of the above mentioned directives. Moreover, the EC shall submit to the European Parliament and the Council, "no later than 1 January 2006", a detailed report outlining progress in creating the internal electricity and gas markets.

In order to ensure appropriate coherence and consistency among the national reports, and as inputs to the Commission's own assessment, the European Commission invited the European Regulators Group for Electricity and Gas (ERGEG) to:

a) ask its member to follow a common structure for their national reports;
b) coordinate the preparation of the national reports, namely ensuring consistency of data provided;
c) cooperate in the analysis of the individual reports in order to enable an overall assessment of the functioning of the internal energy market.

In preparing their national reports, energy regulatory authorities have received the support of several national institutions.

This report provides information concerning the EU-25 Member States, as well as Norway who belongs to the European Economic Area. The report highlights some major critical points in order to achieve efficient and truly integrated European electricity and gas markets. ERGEG believes that the present report, combined with the national reports, can also be a useful input to the inquiry under preparation by the EC Directorate-General for Competition.

Some Member States have not yet implemented the 2003 Directives, while other Member States only recently have introduced the necessary legal provisions to fully comply with the Directives. Therefore, it would be premature, at the present stage, to draw definitive conclusions about the success of the EU energy legal framework established in 2003.

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

The Directives require that "*National regulatory authorities shall contribute to the development of the internal market and of a level playing field by cooperating with each other and with the Commission in a transparent manner.*" Following approval of the 2003 Directives, as well as Regulations on cross-border energy trade[2], ERGEG, in close cooperation with the EC Directorate-General for Transport and Energy, has been developing a regulatory framework for EU electricity and gas markets. Consultation rules were published by ERGEG in 2004 and all interested parties have participated in the development of the regulatory framework. Some guidelines have already been voluntarily accepted by industry, while other guidelines were submitted by ERGEG to the EC for formal approval through comitology. Again, it is too early to assess the success of the EU energy regulatory framework and to draw definitive conclusions about both substance and procedures.

Nevertheless, it is possible to identify some critical points delaying or hampering the development of more efficient and integrated electricity and gas markets in Europe. These points are related to:

a) inappropriate or insufficient legal and/or regulatory provisions;
b) excessive market power;
c) insufficient independence and/or capacity of regulatory authorities.

ERGEG hopes that the present report may contribute to the introduction of adequate solutions to the identified problems, thus facilitating "*the development of the internal market and of a level playing field"* for the benefit of EU energy consumers.

[2] Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity and Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

2. Preliminary Assessment

This paper is an assessment of the individual national reports, and describes ERGEG's conclusions on the most significant barriers to successful liberalization and effective competition, as shown by the extent of progress to date in individual Member States. The assessment does not attempt a comprehensive summary of the individual national reports. It identifies the most significant problems, focusing on those with impacts at the European level. Since the progress of liberalisation varies in different Member States, there will be exceptions to the conclusions in this report, where some problems may not be apparent in all Member States.

The report evaluates a period of critical importance for European liberalisation. Starting from July 2004 all non-household customers are eligible and should - in theory - therefore be benefiting from a liberalized and competitive energy market in the EU. Unfortunately, there has been significant delay in transposing the two EU acceleration Directives into the national law of some Member States. Indeed some Member States still have not transposed the Directives. Consequently this assessment of the impact of the new European Directives is of a preliminary nature.

Even though the evaluation period is rather limited some important conclusions can still be drawn, in particular on structural and regulatory issues. Furthermore some conclusions on market dynamics can already be drawn from an evaluation of those Member States where liberalization started earlier than mandated.

It is the extent of customers' benefits and confidence in the market which decides the success or failure of the liberalization project. In efficiency terms production and wholesale competition influence the majority of added value, and wholesale markets influence the success of cross-border competition. However, competition in retail markets decides the distribution of these benefits between generators and shippers, retailers, and customers. In light of recent record profits of many incumbents and the sharp increase in energy prices there is a growing public sentiment that currently the majority of benefits are not passed on to customers but remain with the incumbent undertakings.

2.1. General issues

2.1.1. Unbundling

Effective unbundling is an essential pre-requisite for effective competition and is therefore a key component of the liberalisation process. Unbundling is necessary at the Transmission System Operator (TSO) level to ensure a competitive wholesale market and at the Distribution System Operator (DSO) level for enabling effective retail competition. Regulators have stated that DSOs play an essential role with regard to providing information to consumers and the switching process and that access to the market is still too closely linked to incumbents' supply business in many Member States.

According to the directive different levels of unbundling can be distinguished:

- Unbundling of accounts: the goal is to separate and allocate costs between network and competitive businesses; this requirement is the minimum as it is the basis for cost-reflective tariffication of network services
- Functional unbundling of management and information ring-fencing: the goal is to guarantee equal treatment of market players; internal decisions and information release should not be biased in favour of the incumbent (e.g. the supply business affiliated to the network operator)
- Legal unbundling: the goal is by establishing a separate network operator to improve unbundling issues and reach as far as possible a situation comparable to ownership unbundling

Six regulators explicitly found insufficient unbundling as a main impediment to dynamic competition, and approximately 1/3 of major unbundling criteria assessed in electricity and gas (see table below) do not have positive results. Although at TSO level implementation of unbundling is further advanced than at DSO level, management unbundling at TSO level is not yet implemented. It is striking to see that separate headquarters are more often realized than a separation in management, even though the latter is arguably more important for effective unbundling. This indicates that unbundling has not been implemented in the "spirit" of the Directive.

Although the role of independent TSOs in gas is as important as in electricity, unbundling is less developed, i.e. to date it is mainly confined to unbundling of accounts. This means that only the first level of unbundling has been implemented in most Member States until now.

Summary Information on Unbundling (Electricity)												
	Transmission						Distribution					
	Separate Headquarters	Separate corporate presentation	Unbundled regulatory accounts with guidelines	Audit of unbundled accounts	Publication of unbundled accounts	Separate board of Directors without Directors from other group companies	Separate Headquarters	Separate corporate presentation	Unbundled regulatory accounts with guidelines	Audit of unbundled accounts	Publication of unbundled accounts	Separate board of Directors without Directors from other group companies
AUSTRIA	Partly	Y	N	Y	Y	Y	N	Partly	N	Y	Y	Partly
BELGIUM	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
CYPRUS	Y	N	Y	N	N	N	N	N	Y	N	N	N
CZECH REPUBLIC (1)	Y	Y	Y	N	N	Y	N	N	Y	N	N	N
DENMARK	Y	Y	Y	Y	Y	Y	Partly	Partly	Y	Y	Y	Y
ESTONIA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FINLAND	Y	Y	Y	Y	Y	Y	Partly	Partly	Y	Y	Y	N
FRANCE	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	N
GERMANY	N [1]	N [1]	Y [2]	Y	N	Y [3]	N [1]	N [1]	Y [2]	Y	N	Y [2]
GREECE	Y	Y	N	Y	Y	N	N	N	N	Y	N	N
HUNGARY	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N
IRELAND	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N
ITALY	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N	N
LATVIA	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	N
LITHUANIA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
LUXEMBURG	N	N	Y	Y	Y	Partly	N	N	Y	Y	Y	N
MALTA	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	N	N	N	N	N	N
NETHERLANDS	Y	Y	Y	Y	Y	n.d.	N	Y	N	n.d.	Y	n.d.
NORWAY	Y	Y	Y	Y	Y	Y	N	Partly	Y	Y	Y	N
POLAND	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
PORTUGAL	Y	Y	Y	Y	Y	Y	Y	N (1)	Y	Y	Y (2)	N (1)
SLOVAK REPUBLIC	Y	Y	N	N	N	N	Y	Y	N	N	N	N
SLOVENIA	Y	Y	Y	Y	Y	Y	Y (1)	Y (1)	Y	Y	Y	N (2)
SPAIN	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N
SWEDEN	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N
UNITED KINGDOM	Y (1)	Y (1)	Y	Y	Y	Y (1)	Y (1)	Y (1)	Y	Y	Y	Y (1)
Yes	22	23	22	22	21	17	7	9	20	20	17	5
No	2	2	3	3	4	6	16	12	6	5	9	18

Czech Republic: (1) CEPS is not a part of a vertical integrated company and has no other activity beside transmission, in majority owned by the state, ownership unbundled
Denmark: (Partly) Various solutions.
Finland: (Partly) various solutions, but no specific legal requirement.
Germany: (1) No specific legal requirement.
(2) Guidelines to be elaborated by public accountants' association and/or the relevant regulatory authorities.
The Energy Act already provides for both substantial rules and supervisory powers for the relevant regulatory authorities
(3) Top management of legally separated grid operator must not be in charge of other business of a vertically integrated energy supply company.
Portugal:(1) EDP Distribuição belongs to the EDP Holding. Legal unbundling is assured regarding generation and supply in the liberalized market. Notwithstanding, EDP. Distribuição performs simultaneously activities of distributor and regulated supplier. Companies that belong to EDP Holding use a comon "logo" which does not facilitate identification of each individual company.
(2) Accounting norms published by ERSE establish the information that should be public.
Yearly, ERSE publishes a document that justify the tariffs for the following year,in which all the information about activities performed bt the distributor is available. This is published on the ERSE website.
Slovenia: (1) DSO has a complete separate headquarter and corporate presentation from the TSO and from the generators, but from the supplier only in cost terms since it is a part of the entity.
(2) The managing director or the board is one for DSO and supplying dept.
Sweden: Separate board of directors, managing director and person authorized to sign the company required.
UK: (1) For more details see national report.

Summary Information on Unbundling (Gas)												
	Transmission						Distribution					
	Separate Headquarters	Separate corporate presentation	Unbundled regulatory accounts with guidelines	Audit of unbundled accounts	Publication of unbundled accounts	Separate board of Directors without Directors from other group companies	Separate Headquarters	Separate corporate presentation	Unbundled regulatory accounts with guidelines	Audit of unbundled accounts	Publication of unbundled accounts	Separate board of Directors without Directors from other group companies
AUSTRIA	Y	Y	N	N	N	Y	Partly	Partly	N	N	N	Partly
BELGIUM	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
CYPRUS	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.
CZECH REPUBLIC	N	N	Y	N	N	N	N	N	Y	N	N	N
DENMARK	Y	Y	Y	Y	Y	Y	Y	Partly	Y	Y	Y	Y
ESTONIA	N	N	Y	N	N	N	N	N	Y	N	N	N
FINLAND	N	N	Y	Y	Y	N	Partly	Partly	Y	Y	Y	N
FRANCE	Y	Y (1)	Y	Y	Y (1)	Y	Y	N	Y	Y	N	Y
GERMANY	N (1)	N (1)	Y (2)	Y	N	Y (3)	N (1)	N (1)	Y (2)	Y	N	Y (2)
GREECE	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.
HUNGARY	Y	Partly	Y (1)	Y	Y	Y	N	N	Y	Y	Y	N
IRELAND	N	N	N	N	Y	N	N	N	N	N	Y	N
ITALY	Y	Y	Y	Y	N	Y	N	N	Y	Y	N	N
LATVIA	N	N	N	Y	N	N	N	N	N	Y	N	N
LITHUANIA	N	N	Y	Y	N	N	N	N	Y	Y	N	N
LUXEMBURG	N	N	Y	Y	N	N	N	N	Y	Y	N	N
MALTA	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.
NETHERLANDS	Y	Y	Y	Y	Y	n.a.	N	Y	N	n.a.	Y	n.a.
NORWAY	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.
POLAND	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
PORTUGAL	Y	Y	N(1)	N(2)	N	N	Y	Y	N(1)	N(2)	N	N
SLOVAK REPUBLIC	N	Y	N	N	N	N	N	Y	N	N	N	N
SLOVENIA	N	Y	Y	Y	Y	Y	N	N	N	N	N	N
SPAIN	N	Y	N	Y	Y	N	N	Y	N	Y	Y	N
SWEDEN	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N
UNITED KINGDOM	Y (1)	Y (1)	Y	Y	Y	Y (1)	Y (1)	Y (1)	Y	Y	Y	Y (1)
Yes	11	13	16	16	12	10	4	7	13	13	9	5
No	11	8	6	6	10	11	16	13	9	8	13	15

Finland: (Partly) various solutions, but no specific legal requirement.
France: (1) As of January 1st 2005.
Germany: (1) No specific legal requirement.
(2) Guidelines to be elaborated by public accountants' association and/or the relevant regulatory authorities.
The Energy Act already provides for both substantial rules and supervisory powers for the relevant regulatory authorities.
(3) Top management of legally separated grid operator must not be in charge of other businesses of a vertically integrated energy supply company.
Portugal:(1) Due to the derogation applicable to Portugal, accounting unbundling is not performed according to Directive 2003/55/EC. TSO is also responsible for supplying power generators, heavy consumers and distribution companies.
DSOs are also suppliers of natural gas in their respective areas.
(2) Accounting unbundling not audited by the Regulator.
UK: **(1)** For more details see national report.

This is partly due to the later date of the legal obligation to fulfil the requirements of the last acceleration directives and in many cases to the less strict national implementation. Ineffective unbundling at DSO level contributes significantly to the disappointing results in most small customer markets. “Soft factors” might in any cases at least be as important as the traditional formal unbundling issues described above. Possible confusion of small consumers regarding brands was explicitly mentioned as a major concern. Furthermore, it seems that several Member States have decided, in compliance with the 2003 directives, not to apply the rules related to functional unbundling for network companies serving less than 100 000 customers. It can be observed that in many cases the goal of independent and non-discriminatory operation of the grid has not been reached yet. The Directive sets a minimum requirement on unbundling for TSOs and DSOs. Given the less than ambitious national implementations of the unbundling provision it seems questionable if under these circumstances the goal of an independently operating grid can be reached.

2.1.2. Regulatory Independence and competencies

Independence in a narrow sense means being independent from “interests of the energy industry” – a requirement which is certainly met by all regulators. However taking into account that in most Member States the industry is at least partly owned by public authorities (federal government, regional government, municipalities) independence increasingly has to be interpreted as to cover also the relationship to those institutions. Two dimensions can be distinguished in analyzing this aspect. First there are situations where the decisions are only prepared by regulators, but the government then takes the decision itself. Secondly there are situations where the decisions are taken by the public authority itself and the government has – under certain conditions – the right to overrule this decision. In the first case regulators only advise on the decision and the government

or ministry may choose not to follow the proposal prepared by the NRA. This could be for political objectives such as protecting state-owned incumbents that are soon to be privatized. In the second case, a ministry might overrule a decision taken by the NRA. If the government is allowed to do so, the national law should, and some Member States do, impose transparency rules to prevent intervention "behind the scenes" and to raise the hurdle for interventions in general. More generally shared competences between government and regulator should be avoided.

In addition, many of the important details of market rules governing the interactions between network operators and network users may be set out in detailed industry codes (or framework agreements). These rules could, for example, determine how imbalance prices are set, or what kinds of information have to be provided to system operators. It is essential that regulators have the technical skills, appropriate powers, and clear independence to exercise effective oversight of these rules.

Another aspect specifically raised was the relation between independence and sometimes excessively tight legal provisions. Although in principle no ad hoc political intervention is foreseen, in certain cases national law may prevent effective regulation of the network companies and/or incumbent market players, by being too detailed or prescriptive.

The national reports highlight several Member States where either independence or competences of regulators is/are still insufficient. Especially in the area of effectively enforcing compliance (e.g. through being able to penalise non-compliance) many regulators are either not competent at all or the means do not correspond to the task at hand. For example, penalties may be so low that a cost-benefit analysis for companies normally would indicate that non-compliance is very profitable. This is very often true in cases of data collection for the purpose of monitoring compliance with regulatory rules, where companies not responding properly to inquiries do not face any realistic danger of penalties. Either national law does not foresee a sufficient competence to collect necessary data at all, or defines data collection as a statistical exercise where the authority depends on good will of the market participants.

Furthermore many regulators' budgets are part of the state budget and have to be negotiated with the relevant ministries. This might imply a regular dependence of regulators on ministries' good will and therefore undermine independence.

In many Member States (exceptions are The Netherlands, Spain, GB) market monitoring is somewhat blurred by the fact that two authorities (general competition authority and sector regulator) are monitoring and controlling parts of the market. Although that system seems to work in some Member States, there is no guarantee that the whole market is covered, so regulatory gaps might exist. Although the target of monitoring is different (ex-post analysis of behaviour and ex-ante merger control (competition authority) to the feed back to ex-ante regulation (regulator) better formal co-ordination (clearly set up in national laws) seems necessary to use the most efficient instruments to foster competition. For instance market monitoring has to feed back into ex-ante decisions on market design constituting thereby a dynamic process of regulation.

Regulatory gap issues also arise in cross-border problems although Regulation 1228/2003 on access to networks for cross-border exchanges is an important legal basis for co-operation among regulators. Examples of major concern are for instance cross border unbundling and market monitoring. In the first case market players in downstream Member States especially in gas might use their influence on transport companies in upstream Member States to discriminate against competitors. In the second case integrated markets like the Nordic electricity market might result in a situation where adverse effects of the behaviour of a market participant is felt in a different Member State leaving open the question of which authority can collect data and has the competence to deal with the case. As regional integration makes progress co-ordinated monitoring (among regulators) across the border and also the necessary legal basis to close gaps are essential.

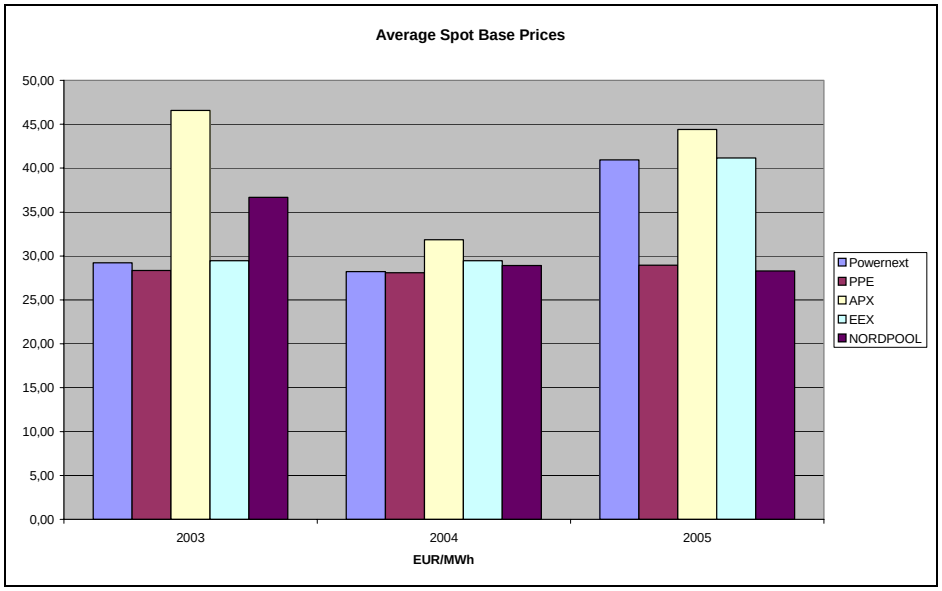
2.2. Electricity

2.2.1. General comment

The development of the electricity market has made considerable progress in certain regions and certain sub-markets. Wholesale trade is becoming more liquid as allocation of interconnection capacity is imposing less risk on traders. Nonetheless there are still regions with significantly different wholesale prices indicating structural problems in regional wholesale markets. However in many Member States special measures for improving national wholesale markets (such as VPPs, restriction of voting rights, restrictions on reserving interconnector capacity for dominant market players etc.) had to be taken to alleviate structural and market power problems. Retail competition shows a diverse picture. Large and medium-sized electricity customers are using eligibility to switch suppliers to a certain degree whereas smaller customers are generally still very sticky, thus maintaining market power of incumbents.

2.2.2. Diverse electricity wholesale prices in Europe

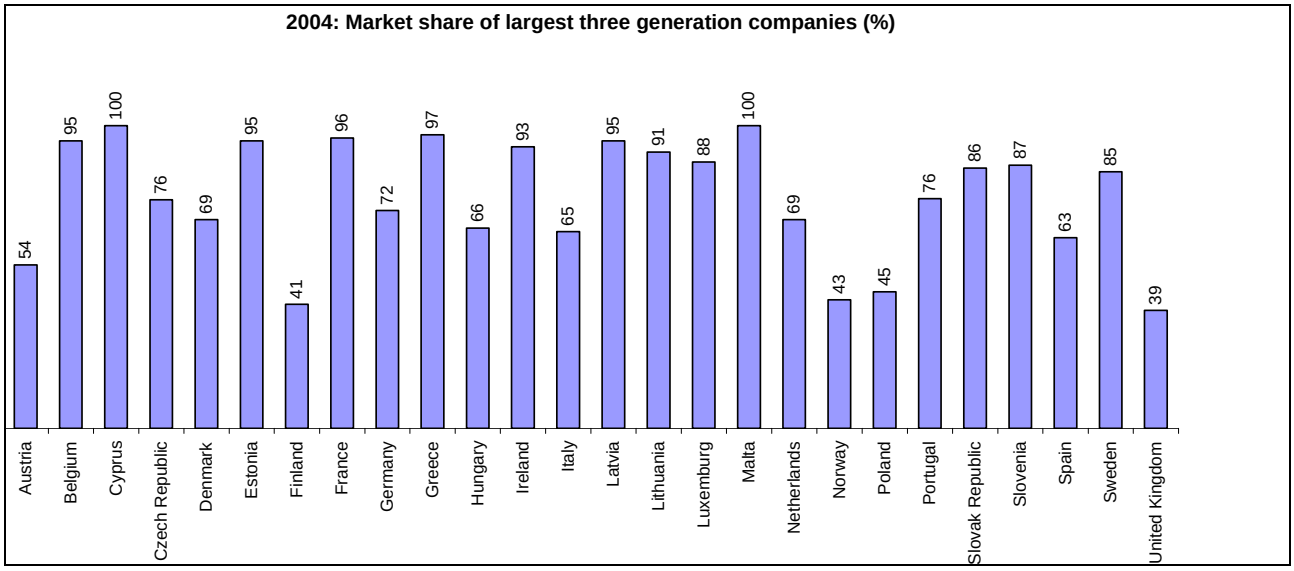
A liquid and transparent wholesale market is a key in achieving efficient use of generation and primary energy. Investment in and operation of power stations has to reflect actual and forecasted demand and supply conditions. In a highly integrated market we would expect similar whole sale prices (provided that there are no cross border constraints and no market imperfections). However there are still major price differences in Europe.



Source:Power Exchanges

2.2.3. Concentration in whole sale market – A predominant problem in Europe

Many Member States started liberalization from a monopolistic or at least oligopolistic market structure. Divestiture was not a common strategy in Member States to enable competition. On the contrary mergers and acquisitions where permitted by national and EU competition authorities (often to induce improvements in market design or because of other forecasted positive effects on competition), further increasing market concentration in several Member States. The figure below clearly shows 13 Member States with very high concentrations on a national basis[3] of CR3[4] above 75% which equates to an HHI (Herfindahl-Hirschman Index) of at least more than 1800[5]. Even some Member States with a CR3 below 75% may be dominated by one or two companies so that even a concentration of 50% can be critical. Competition is therefore not feasible on a purely national scale in most Member States. It is for this reason that cross border trading is so important if effective competition is to be achieved. As the integration of the European market remains to be achieved, the enlargement of the relevant market to a regional one by improving access to interconnection capacity and congestion management is the only viable solution.



[3] Regional indicators will have to be calculated to the extent that countries are highly integrated on a regional basis; the following chart only uses regional indicators for the Nordic market.

[4] CR3: Concentration Rate of the largest three generation companies.

[5] An HHI of at least 1800 is the index which is normally referred to as “high concentration”.

Further regional integration of wholesale markets of neighbouring countries (such as England/Wales-Scotland, France-Benelux, Nordic countries, Germany-Austria, etc.) is expected to improve the situation and is in fact the only way to avoid drastic action to reduce national concentration. In fact the Nordic market and Germany-Austria and in view of the highly correlated prices with France at least over major parts of the year (except situations of congestion) France-Germany-Austria have already reached high levels of integration of wholesale markets. This indicates the increasing necessity to continuously monitor the concentration in the relevant markets in the future as they move from national to regional.

Although there is a slow but steady integration of wholesale markets, only a very small share of new generation projects have been commissioned by independent, non-incumbent generators. The market power of incumbent generators, which invest to cover demand growth, is thus further strengthened.

While progress has been made in allocating scarce cross-border capacity, the total, commercially and technically available capacity for cross-border trade has actually been decreasing in relation to peak load due to changing generation patterns, increasing peak load and a big increase in intermittent wind power. Furthermore price differences in whole sale markets to not directly feed into incentives to increase interconnection capacity.

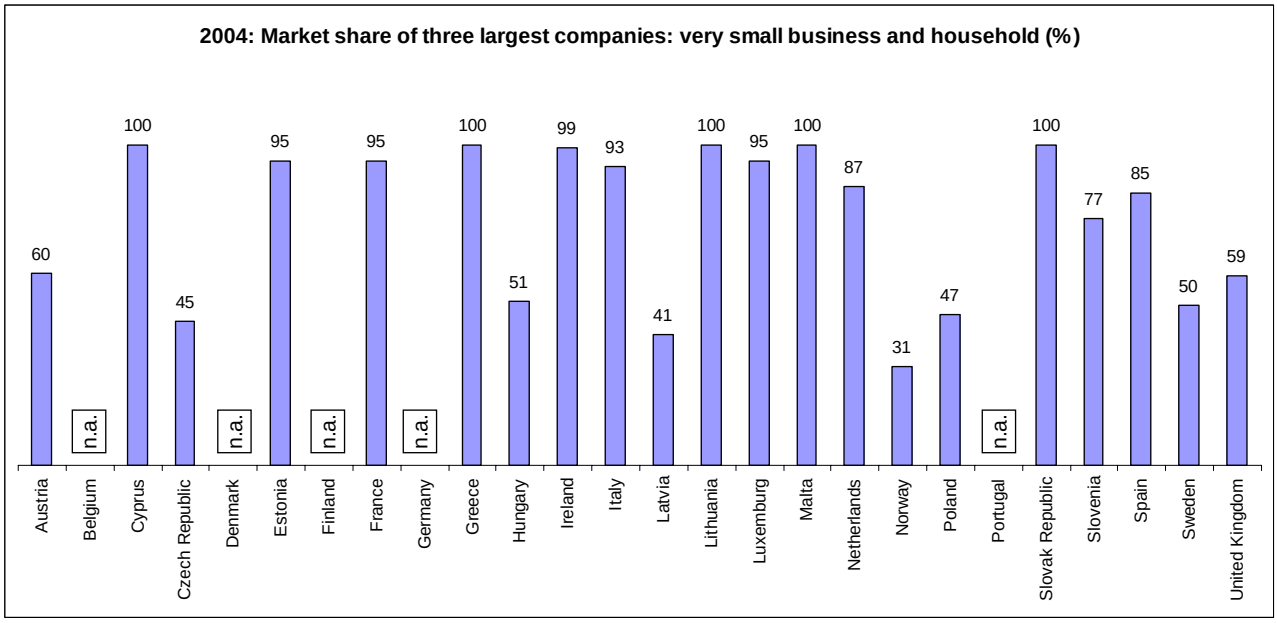
An additional potential deficiency of wholesale markets is the high share of long term reservation of interconnection capacity. Even in relation to net transfer capacity (which is sometimes far below technical limits), long term reservations very often bind an important share of the capacity. This is another example of insufficient unbundling at the TSO level. The lack of new entry by non-incumbents and the slow development of cross-border competition suggest that market power on the wholesale level is still significant in many Member States.

2.2.4. Retail market – sluggish development

Although switching rates seem broadly encouraging (30-50% in volume terms for several Member States), an in-depth analysis indicates that there is a significant difference between large and small customers' markets. Many regulators report that industrial companies are switching most, whereas small business customers and households are rather reluctant to use their eligibility. Stickiness of smaller final customers allows for persistent price differences and may permit abuse of market

power. This stickiness is, in many cases, not primarily attributed to deficiencies of market rules. Even where the main regulatory requirements are fulfilled including the absence of any formal switching cost, the existence of sufficient information for customers and the implementation of easy switching procedures, small customers tend to stick with the incumbent supplier (exceptions are mainly the Nordic market and GB with almost a decade more of liberalization experience). However some elements of suppliers´ behaviour (*inter alia* multi-utility rebates, fidelity rebates, policy on providing information to consumers about the switching process) were found also to contribute to consumers´ fidelity, and therefore to raise entry barriers, cementing the dominant market power of incumbents in many retail markets. In the case of multi-utility rebates there are positive effects for customers which might outweigh negative effects of barriers to entry so that an individual assessment of its merits is necessary. In addition insufficient unbundling at the DSO level, with the possibility of cross subsidies between the network tariffs and retail electricity prices, creates additional entry barriers for new entrants. Strict action by regulators and/or competition authorities is a key to any success in this area.

In retail markets most Member States currently exhibit very high concentration ratios (CR3) of more than 70%. At the same time only very few really independent suppliers have successfully entered the market.



Some Member States plan to maintain regulated electricity end-user tariffs in a transition phase or explicitly envisage maintaining them under a long-term hybrid model. In total 18 Member States have regulated tariffs, which is likely to impede the development of retail competition further. In many cases these tariffs do not only cap retail prices, which might be a necessity at the beginning of liberalization, but also undercut realistically priced competing retailers, thereby strangling retail competition. Furthermore this does not lead to strengthening of consumer confidence in the competitive market.

2.2.5. Transparency – lack of transparency increases risk and reduces confidence of consumers

A well-functioning whole sale market is key to improved efficiency in production. Most regional initiatives therefore concentrate first on wholesale markets (see for example the Akureyri Declaration in 2004 for the Nordic market).

Equal access to all information from generators and TSOs which is relevant for price formation seems to be a prerequisite for an efficient wholesale market and a high level of confidence in the market, which is especially critical when liquidity is still low and the market power of incumbents is significant. While information access to information about the network has improved, progress on generator information is still insufficient in many markets. The possibility of power exchanges to impose transparency requirements depends on the role of the exchange in the market design. However it is not possible to rely on self-regulation concerning transparency so in every market there has to be a mechanism to guarantee a sufficient level of availability of information.

So far only market rules in centralized market systems (like mandatory pools) seem to have explicitly implemented clearly targeted instruments to monitor the wholesale market (e.g. in Spain the Market Agents Committee is to monitor the market operator). In most markets monitoring is with the responsibility of the general competition authority and/or the financial competition authority. Special monitoring provisions for the quite complex electricity markets, which pose a high risk of manipulation due to market concentration and the need to balance supply and demand at all times are in most cases lacking. Experience shows that it is not certain that ex-post control of abusive behaviour will be sufficient to guarantee an adequate level of information to the market.

2.2.6. Market design – need to promote intra day markets

Markets close to real time have the potential to increase efficiency. Some Member States, as their markets develop, have already introduced intra-day markets (Spain, France, GB, Nordic countries). However these markets are often regionally restricted because of technical and organisational constraints. In principle regional enlargement is a challenging task, which was successfully solved in France and Scandinavia for the balancing market (as a special intra-day market). Further integration of these markets is under discussion in several other Member States and will be one of the challenges ahead.

2.3. Natural Gas

2.3.1. General comment

Development of the gas market is at a very early stage in most Member States. Most markets are characterized by a lack of wholesale gas supplies available to new entrant retailers, making competition practically impossible in many Member States. This applies to most of the EU. The fact that there are currently only three major pipeline gas suppliers for Europe further limits competition. National authorities react by making efforts *inter alia* to promote interconnection and to improve the situation through gas release programmes.

There has been progress towards the long-term goal: for example, hub-based trading[6] continues to develop across Europe; third-party access to storage facilities has improved; and investment is bringing new sources of piped gas and LNG to European markets. However, significant problems can also be seen.

- Although hubs have developed in several markets, trading is not yet liquid, and there are many markets where hubs have not yet developed at all. Access to, and availability of, transportation capacity to and from hubs can also be problematic. Contractual and physical flows remain closely linked.
- Where there is sufficient transportation capacity, gas may be unavailable for contractual or commercial reasons, thereby preventing liquid trading from developing.
- The existing legislative package has gone some way to providing non-discriminatory third-party access to pipeline capacity—which is essential for effective competition. However, cross-border trade may be hindered by insufficient capacity being made available and by some legacy contractual capacity contracts where there may not be effective Use-It-Or-Lose-It mechanisms or secondary trading. It may also be adversely affected by interoperability problems between adjacent systems, and by tariff issues (under the new gas Regulation, the degree and level of detail to which tariff principles should be harmonised to avoid distorting cross-border trade needs to be assessed). Arrangements for ensuring investment in sufficient cross-border transportation capacity may not be in place.
- There is still a lack of transparency and better management of information by TSOs, which would improve competition in European gas markets.

- Market structure and concentration, including upstream outside the EU (where some gas exporters have monopolies), presents a threat to effective competition. In particular, it remains to be seen whether unbundling of integrated companies is effective enough to ensure non discriminatory access to infrastructure. Given this situation, the benefits of gaining access to new supplies, and the importance of market rules supporting competition between suppliers, are clear. New supplies could provide competition upstream, as well as a source of gas for new entrants wishing to compete downstream.
- Some progress has been made through voluntary guidelines (for example, the Guidelines on Good Practice for Storage System Operators), and this approach could be followed in other areas (e.g. transparency). It is too early to say whether compliance under such an approach can be effectively monitored and enforced.
- Gas quality issues may restrict cross-border trade if adequate treatment facilities and appropriate mechanisms for access to them are not in place.

The following remarks do not mention retail competition, which is at a very early stage in many Member States, as in the natural gas fundamental up-stream problems have to be solved first.

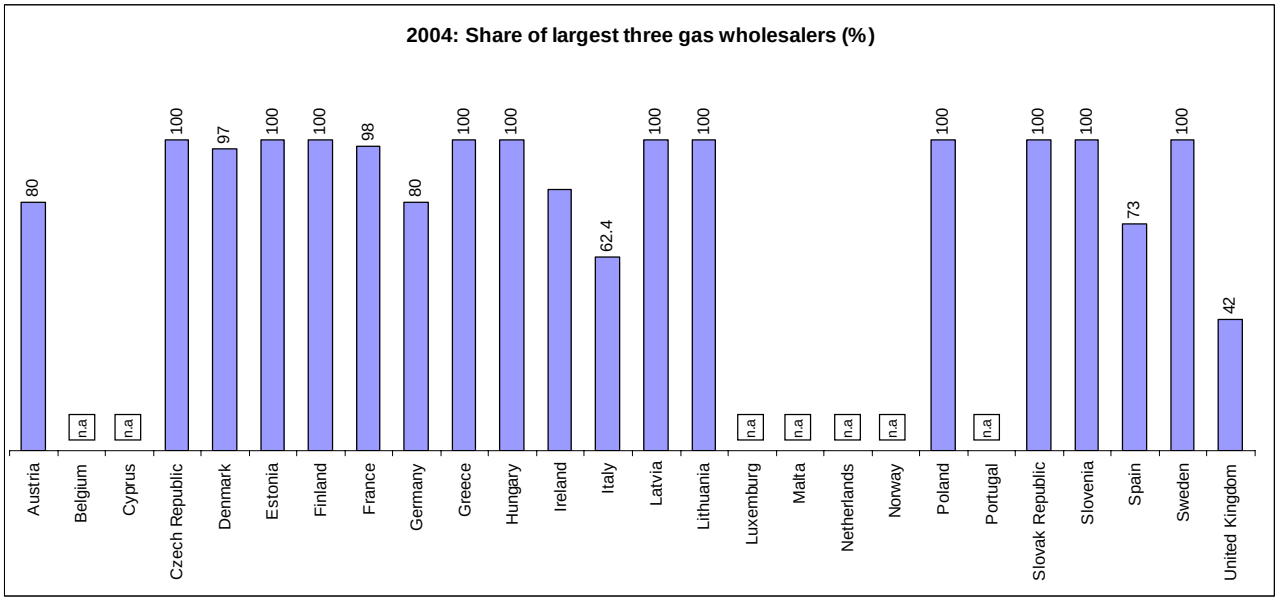
2.3.2. Import dependence – supporting concentration in wholesale markets

Concentration in wholesale natural gas markets is even higher than in electricity. High concentration in production has in the past triggered a system of import monopoly or a system of a few selected big importers per Member State. This system is generally still in place. With a few exceptions like Belgium and GB there is a lack of organized trading facilities (hubs). This means that currently only a very small coverage of physical delivery of gas is traded at all. Yet Spain exhibits some gas trade at the transmission system, LNG terminals and storage sites.

[6] a hub is a physical or notional reference-point within a network at which liquid trading can develop because the hub is well connected to multiple sources of gas supply and demand

In order to offset the lack of competitive gas available to new entrants, some regulators/competition authorities have used competition cases to implement gas release programmes, but in general competition at the wholesale level is limited across Europe, and steps to improve the situation (e.g. gas release programmes on a larger scale) are not numerous.

Trade outside “traditional” channels of bilateral (and in many instances long-term) contracts with big importers or producers is still rare. As a consequence even very big customers (such as power producers or chemical industry) have only rarely negotiated their own contracts with new entrant suppliers



Member States with access to LNG enjoy the potential of a more liquid market. Over the next years a number of new LNG terminals are expected to be completed in Europe and should contribute to developing competition. As new sources of supply, in particular LNG, may displace gas available from existing supply routes, the displaced gas could be available to other markets, thus bringing additional competition even to markets without direct access to LNG.

The potential of indigenous production as a competitive factor is in some Member States reduced by quality issues (e.g. L-gas vs. H-Gas). Therefore for instance the Benelux or German markets are segmented with possible adverse effects on neighbouring markets. However, gas quality is a general problem which has to be solved in order to realize an integrated European market where gas is freely traded.

2.3.3. Transit/transport system

Access

Lack of efficient and non-discriminatory access to transport infrastructure is regularly mentioned as a major problem. Non-discriminatory allocation of capacity in the primary market and efficient use of capacity via secondary markets are a key. These measures are meant to be instrumental in bringing about a liquid secondary trading market and preventing hoarding of unused capacity. However where capacity is used in the primary market only a few Member States have actively tried to open up the capacity market (e.g. through capacity release programmes) to competitors. Inheritance of long-term transport (and supply) capacity seems to be a major source of incumbents' market power. This problem needs to be addressed in order to realize a competitive environment in international gas markets. Effective UIOLI arrangements are certainly necessary. In addition gas and capacity release programmes may be needed.

Transparency

The importance of transparency is reflected in the recently adopted EU "Regulation on conditions for access to the gas transmission networks" which gives a firm legal basis to principles initially drafted in the "Guidelines for Good TPA Practice" from February 2002. The need for this regulation resulted from the limited degree of delivery from these non-binding guidelines. Capacities, use of capacities, network services, tariffs and conditions have to be published. The next few years will show whether the regulation improves transparency significantly.

2.3.4. Storage

Access

Storage is a major part of the value chain in many Member States. According to national contributions it seems questionable whether the market for flexibility is competitive and in many Member States there are not significant alternatives to storage as a tool for flexibility. Access arrangements for storage are defined under the Gas Directive (where Member States have a choice of negotiated or regulated regime). Fair and non-discriminatory access to storage is crucial if the EU gas market is to function efficiently. To help to improve access arrangements to storage facilities/services, ERGEG developed voluntary guidelines for good practice for storage system operators. These were adopted by the industry for implementation from 1 April 2005. ERGEG is currently reviewing implementation and it remains to be seen whether such voluntary

arrangements are sufficient to ensure that access to storage is in line with the requirements of the Gas Directive.

Transparency

Transparency in information provision is considered as a prerequisite for non-discriminatory access to storage facilities. Where information is not equally provided to all storage users – including potential future users – market distortions are likely to result. In the case of operational information, the fact that not even information on available capacity is published is a major barrier to effective access by new users. The problem of lacking transparency as outlined above does in fact still exist in practice as the implementation of transparency requirements is often missing.