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**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND
THE EUROPEAN PARLIAMENT**

Prospects for the internal gas and electricity market

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Prospects for the internal gas and electricity market

1. EXPERIENCE TO DATE WITH THE INTERNAL ELECTRICITY AND GAS MARKETS

1.1. Background

A competitive internal market for electricity and gas has been progressively implemented across the European Union since 1999-2000¹. Since then, regular annual “benchmarking” reports have been conducted on implementation and the practical results of the Directives. During 2006, the Commission has continued to monitor implementation in particular through detailed country reviews and the sector inquiry. This monitoring shows that some, often uneven, progress has been achieved.

On the one hand, during this time, the basic concepts of the internal energy market have become embedded in terms of the legal framework, institutional arrangements and the physical infrastructure such as IT equipment. However, at the same time meaningful competition does not exist in many Member States. Often customers do not have any real possibility of opting for an alternative supplier. Even customers who have successfully changed supplier are often not satisfied with the range of offers they receive. In summary, stakeholders do not yet have a high degree of confidence in the internal market. As a consequence of these shortcomings, the Commission has, throughout 2005-06, been conducting an inquiry for the gas and electricity sectors under competition law. The results of this inquiry are published in tandem with this document².

¹ Initially through Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity (OJ L 27, 30.1.1997, p. 1) and Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market in natural gas (OJ L 204, 21.7.1998, p. 1); and subsequently via Directive (EC) 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 (OJ L 176, 15.7.2003, p. 37), 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 (OJ L 176, 15.7.2003, p. 57), 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 (OJ L 176, 15.7.2003, p. 1), Regulation (EC) No 1775/05 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission network (OJ L 289, 3.11.2005, p. 1). A few Member States had already taken steps towards market opening before these measures.

² Communication from the Commission, "Sector Enquiry under Article 17 of Regulation (EC) No 1/2003 on the gas and electricity markets (Final Report)" - COM(2006) 851.

1.2. Positive results of competition

Efficiency

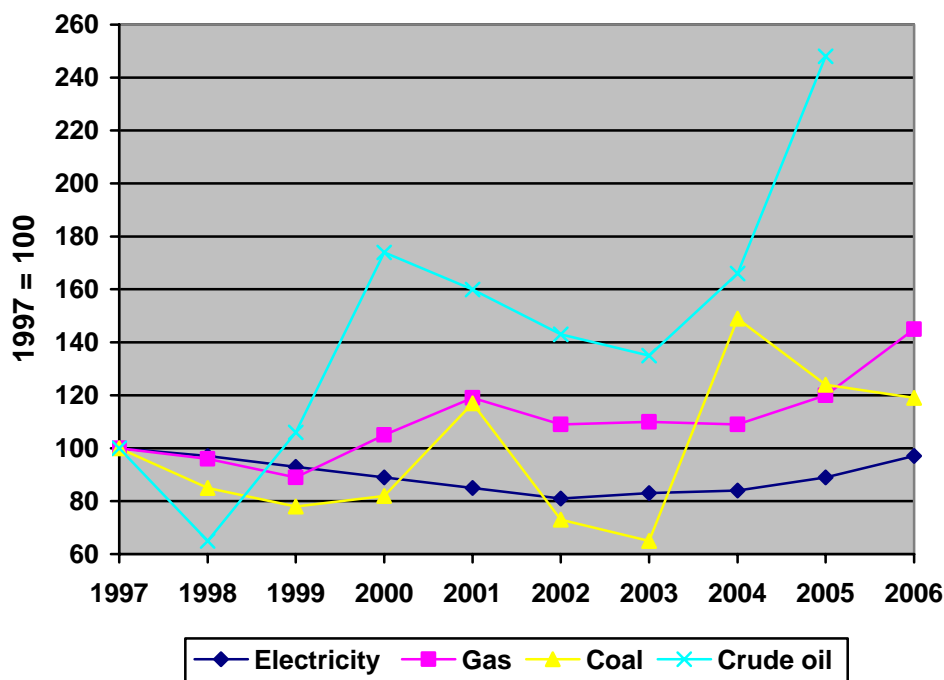
Liberalisation has clearly led to some efficiency improvements in energy supply and delivered savings to customers, particularly in the initial phase. However, recent increases in wholesale electricity and gas prices have, to a greater or lesser extent, fed through into the bills of end-users and now offset some of the earlier reductions, particularly for the very largest industrial energy users. It would therefore appear that efficiency improvements are not being passed on to consumers quickly enough. It is highly questionable that gas and electricity prices are the result of a truly competitive process rather than being the direct result of decision of companies with market power.

There are a range of causes for higher price levels including higher primary fuel costs, the ongoing need for investment and the extension of environmental obligations, including the EC emissions trading scheme (ETS)³, as well as the development of renewable energy sources⁴. However, a continued lack of competitive pressure and high levels of concentration in wholesale markets has also been highlighted as well as a lack of market transparency.

³ With a low elasticity of demand, the power sector can pass on the opportunity costs of allowances received for free under the emissions trading scheme to electricity prices. Indeed, empirical and simulation model estimates for Germany and the Netherlands indicate that the share of CO₂ costs which were passed on to consumers ranges from 60 to 100% depending on market and technology specific factors. Consequently, energy intensive industries covered by the ETS do not only face CO₂ costs but also higher production costs due to higher electricity prices.

⁴ See the Communication from the Commission of 7 December 2005, The support of electricity from renewable energy sources - COM(2005) 627. It is roughly estimated that the cost of the renewable support systems as reflected in electricity prices is between 4% and 5% for e.g. Germany, Spain and the UK (p. 45).

Average⁵ EU-15 electricity and gas end customers prices since 1997 (at 1997 price levels)



As shown in the graph above, the fact that retail electricity prices have, on average across all users, remained relatively constant in real terms over the period, despite very obvious price increases in the cost of primary fuels, clearly demonstrates the effect of increasing efficiency in electricity supply. The electricity price in particular for households would in fact have decreased if the effects of taxation were excluded. As far as gas is concerned, the factors affecting prices, such as the need to move to higher cost sources of supply, for example liquefied natural gas (LNG), and the continued linkage of some gas imports to the price of oil, would have occurred whether or not competition had been introduced. It must be recalled that energy prices cannot be expected to always remain low regardless of external factors. The Commission remarked on this point in the Communication which originally proposed the second package of Directives⁶. Competitive and open markets shall however bring the best prices to end users including to the energy intensive industry.

Security of supply

As well as improving efficiency, the internal market contributes strongly to the objectives of security of supply. The prospect of a large EU market for electricity and gas with common rules is a strong incentive for new investment. In this context the latest generation adequacy

⁵ Weighted average of large industrial, industrial, commercial and household prices. Source: Eurostat. The evolution of prices for each category of customers can be found in Tables 3.7 and 3.8 of the Commission Staff Working Document: EU Energy Policy Data - SEC(2007) 12. For very large customers, from a reference 100 in July 1997, prices have increased, in July 2006, to 121 for electricity and to 201 for gas.

⁶ Communication from the Commission to the Council and the European Parliament "Completing the internal energy market" - COM(2001) 125, p. 8.

report of the system operators is revealing. It states that, even with growth in peak demand of 1.5-2.0% per year, providing existing and planned investments are available in due time, there is an ongoing surplus of generation capacity over peak demand across the EU as a whole. In this respect, new investment is clearly responding to the price signals in wholesale and balancing markets where these are allowed to function properly. However problems are emerging in Member States with tightly controlled prices, where there is dramatic annual growth in electricity demand such as Spain and Portugal.

Competitive markets also encourage diversification since flexibility to react to market conditions is encouraged. An integrated market also provides a more powerful bargaining position for European energy companies when sourcing energy in global markets since there is a larger range of options available as regards supply routes and better access to customers. A considerable amount of investment in a diverse range of gas import infrastructure is either underway or being planned. This has all been delivered as a result of the liberalisation process and further improvement to security of supply would result from a more competitive framework.

Security of supply can no longer be considered to be only a national issue. The means of addressing such issues cut across national boundaries and will be beyond the powers of any individual country. Specifically, the development and operation of Europe's energy networks must, in the future, be conducted in much more co-ordinated way, at least on a regional basis, if future disruptions are to be avoided. This is not the case at present and the objective of a coherent and secure European network is far from a reality.

The pan-European blackout of 4 November 2006 demonstrated the vulnerability of electricity supply in Europe. In its advice delivered at the request of the Commission on 20 December 2006, ERGEG concluded that lessons from the 2003 Italian blackout have not been followed through, and that the following was needed to keep the lights on in Europe in the future⁷:

- Adoption, on proposal of the European Commission, of legally binding operational security rules;
- Development by the Commission of a framework for the electricity network as part of its energy strategy;
- Improvement of the co-operation between EU electricity grid operators which should be publicly accountable for their actions.

Sustainability

Competitive markets render the supply of energy as efficient as possible and eliminate undue monopoly profits. A competitive market also allows fair access to customers for renewable producers and an efficient application of policy instruments such as the emission trading scheme and energy taxation in order to improve pricing of fossil energy⁸. Transparent and

⁷ ERGEG Interim Report on the lessons to be learned from the large disturbance in European power supply on 4 November 2006, Ref: E06-BAG-01-05. ERGEG will produce a final report by February 2007.

⁸ In order to allow to reflect the environmental aspects of electricity production in taxation, according to the Energy Taxation Directive (Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for taxation of energy products and electricity - OJ L 283, 31.10.2003 p. 51), Member States can exempt from taxation electricity from renewable origin.

liquid wholesale markets for energy also give much clearer signals in favour of energy efficiency.

Additionally, clear and transparent rules for labelling of electricity spur demand for electricity with superior sustainability characteristics.

1.3. Improper implementation of the current legal framework

It is essential that the current European legislation must be properly transposed into national legislation to enable the markets to operate and to ensure that they are effectively opened up for all consumers on 1 July 2007. The Commission has therefore launched 34 infringement procedures against 20 Member States for violation and non transposition of the existing Directives. Following letters of formal notice sent in April 2006 and in advance, if needed, of starting procedure before the European Court of Justice, on 12 December 2006, the Commission decided to send 26 reasoned opinions to 16 Member States including all the biggest⁹.

The main deficiencies observed in transposition of the new internal market directives are the following:

- Regulated prices preventing entry from new market players
- Insufficient unbundling of transmission and distribution system operators which cannot guarantee their independence
- Discriminatory third party access to the network, in particular as regards preferential access being granted to incumbents for historical long term contracts
- Insufficient competences of the regulators
- No information given to the Commission on public service obligations, especially as regards regulated supply tariffs
- Insufficient indication of the origin of electricity, which is essential in particular for the promotion of renewable energy.

The persistent nature of these infringements, almost two years and a half after the obligation to transpose the directives on 1 July 2004, clearly demonstrates the insufficiencies and shortcomings of the current EC legal framework arising from the directives. Energy regulators are not granted the necessary powers and independence enabling them to ensure that open markets that function in an efficient and non discriminatory manner are put into place. In addition, the existing legal framework does not allow for a proper and efficient regulation of the cross border issues relating to gas and electricity network access. The preferential access that is granted in a persisting manner to cross border interconnectors clearly demonstrates the shortcoming of the current rules. Finally, the legal and functional unbundling of network operators that are vertically integrated with production and supply activities, which is

⁹ See <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/481&format=HTML&aged=0&language=EN&guiLanguage=en>

provided for under the current directives, does not succeed in ensuring equal access to the networks for all suppliers.

1.4. Obstacles to competition

Although the above results need to be recognised, it also has to be acknowledged that the European Union is still far from the objective of a true internal energy market where every EU consumer has not only the legal right on paper to choose his or her electricity and gas supplier freely between any EU company, but that this is a real, effective and easily exercised right. Similarly, it is equally important that new entrants are able to invest in new generation and gas import capacity since incumbents, if not properly unbundled, are likely to gain from a position of artificial shortage.

At present, the European Union is also far from being able to guarantee to any EU company the right to sell electricity and gas in any Member State on equal terms with the existing national companies, without discrimination or disadvantage. In particular, non-discriminatory network access and an equally effective level of regulatory supervision in each Member State do not yet exist.

In addition, the European Union has not yet adequately addressed the challenge of investing in the right level of new infrastructure based on a common stable European regulatory framework in support of the internal market. The necessary degree of co-ordination between national energy networks, in terms of technical standards, balancing rules, gas quality, contact regimes, and congestion management mechanisms, which are necessary to permit cross-border trade to work effectively, is at present largely absent.

Both the sector inquiry and the country reviews conducted by the Commission during 2006 have unearthed a variety of specific examples which demonstrate the shortcomings of the existing regulatory framework as follows:

- Large and/or vertically integrated companies are at a considerable advantage in terms of the information which they are able to use to formulate their trading strategy. By contrast, smaller companies find out too late about, for example, generation outages, to be able to adjust their positions.
- In some cases there remains confusion within the vertically integrated group about responsibility for the basic functions of the transmission system operator (TSO), for example dispatch and balancing services.
- TSOs have often, especially when vertically integrated, failed to create conditions conducive to liquid competitive markets – for example by maintaining localised separate balancing zones rather than facilitating the integration at national and cross border level. This may be a result of a lack of trust between TSOs that are fully unbundled and those that are not.
- TSOs appear to have been slow to act to increase cross border capacity, either through investment or other means. This is often the result of inadequate incentives provided through the regulatory framework.
- There is evidence that both TSOs and regulators tend to be over-oriented to short term national concerns rather than pro-actively trying to develop integrated markets. For example, congestion has been in some countries shifted to national borders and cross

border capacity is the first to be constrained. Some regulators have been slow to agree how to implement the basic provisions already contained in the legislation – for example, market based capacity allocation.

- On many issues, certain regulators are constrained in their relations with the industry, lacking the appropriate powers and discretion. This is particularly the case for subjects where, in the Directives, the regulator is not responsible ex-ante such as rules for functional unbundling, non-tariff access conditions, provision of information to network users and gas storage.
- Regulators have, on occasion, been put in a position where their decisions clearly go against the objective of creating a single internal market for electricity and gas, usually due to direct or indirect influence from national governments. The clearest, although not the only, example of this is inappropriate regulated supply tariffs.
- Concentrated national markets have tended to encourage regulators to introduce intrusive regulation into wholesale and balancing markets, for example price caps, which are a strong disincentive to invest. At the same time, capacity mechanisms are wholly uncoordinated, leading to potential distortions.
- Smaller Member States have often struggled to introduce meaningful competition in isolation from their neighbours and failed to allow the creation of liquid wholesale markets for electricity and gas. In these cases, competition will not be possible without a co-ordinated regulatory approach between neighbouring jurisdictions.
- Finally, in many cases, distribution system operators (DSOs) appear to be poorly prepared for the opening of competition to households from July 2007.

In addition, the existing regulatory framework has given rise to problems in the field of capital movements¹⁰. First, the existence of different levels of unbundling in various Member States creates asymmetric situations that distort competition among market players on an EU scale, and are difficult to reconcile with the EC principle of free movement of capital. Moreover, this puts at a disadvantage Member States having the higher level of unbundling. Secondly, in some cases where cross-border entry has taken place by means of a producer from a Member State taking over or merging with a company in another Member State, national energy regulators have intervened arguing that an authorisation procedure was necessary to guarantee public security and general interest objectives, in a way that is not justified under the free movement of capital principle¹¹.

As a result of these widespread shortcomings, incumbent electricity and gas companies largely maintain their dominant positions on "their" national markets. This has led many Member States to retain tight control on the electricity and gas prices charged to end-users. Unfortunately this is often a serious constraint on competition. Although the Commission recognises that dominance requires regulatory action, and consumers might need protection from price manipulation, these generalised price caps are preventing the internal energy market from functioning. They are also preventing price signals demonstrating where new

¹⁰ Under Article 56 EC Treaty.

¹¹ There is no equivalent to the "EU passport" in financial services in the energy sectors. Each MS regulator grants authorisations (e.g. the authorisation procedures for new power stations in Article 6 of the Electricity Directive 2003/54/EC).

capacity is needed, and therefore, by discouraging investment, damage security of supply and will lead to future supply crunches. The EU cannot allow such a situation to develop. An attempt to address problems in the *wholesale* market, indirectly, through controls on the *retail* market usually leads to foreclosure of both. This is not in the long term interests of customers.

End user price controls amount to public service obligations which, if discriminatory, are not compatible with Article 3 of the Directives which imposes PSOs in order to ensure equal access to customers for all companies. Secondly, if compensation payments are involved, these must comply with state aid rules. Thirdly, competition law may be relevant with respect to price discrimination and restrictions on re-sale. As indicated above, **the Commission has already launched a number of infringements relating to regulated tariffs. It will continue to ensure that all such obligations comply with Community law.**

The Commission noted these ongoing problems with the electricity and gas market in its report issued at the end of 2005¹². At the time, it was considered too early to draw definitive legislative conclusions. However, the Commission did commit itself to a number of actions. These have been delivered as follows:

- (1) The Commission has undertaken detailed country reviews, interviewing market participants in each Member State, including smaller companies and new entrants¹³.
- (2) Based on the advice of the European Regulators Group for Electricity and Gas (EREG), the guidelines on congestion management for cross border electricity exchanges were adopted on 9 November and entered into force on 1 December 2006¹⁴.
- (3) EREG has launched the regional initiatives and is working towards removing barriers to market integration in the following areas: transparency, access to capacity, and the development of gas hubs.
- (4) The Commission has completed the sector inquiry¹⁵. A number of investigations have been launched against companies in the electricity and gas sectors.

The Commission has also pursued infringements to redress identified problems in the field of capital movements.

The Commission now intends to take action to address the remaining issues in the following areas:

- Ensuring non-discriminatory access to well developed networks,
- Improving regulation of network access at national and EU level,
- Reducing the scope for unfair competition,
- Providing a clear framework for investment,

¹² COM(2005) 568.

¹³ See accompanying document: Commission Staff Working Document, Implementation report on electricity and gas EU regulatory framework: country reviews - SEC(2006) 1709.

¹⁴ Decision 2006/770/EC.

¹⁵ See the Communication from the Commission, "Sector Enquiry under Article 17 of Regulation (EC) No 1/2003 on the gas and electricity markets (Final Report)" - COM(2006) 851.

- Resolving issues relating to households and smaller commercial customers.

Section 2 includes a summary of the Commission's intentions. The legislation introduced in 2003, if implemented correctly, contains many of the key requirements for developing a competitive European market such as full market opening, the introduction of regulated third party access and the obligation to create a regulatory authority. Some strengthening of the existing provisions is, however, necessary. The Commission will propose these during 2007 following a comprehensive impact assessment, including the evidence of the sector inquiry.

2. KEY OUTSTANDING ISSUES

2.1. Ensuring non-discriminatory access to networks through unbundling

Legal unbundling of TSOs has already led to an improvement in third party access (TPA) to networks. Basic principles of non-discrimination have been established and, for the most part, tariff structures have been developed which encourage the development of competition. Cross subsidies have been progressively removed. This process is still ongoing for distribution system operators, for which legal separation is not a requirement until July 2007.

Although progress has been made since 2004, the evidence reported in Section 1 from both the country reviews and the sector inquiry indicates that legal and functional unbundling as currently required by the legislation is not sufficient to ensure that a real competitive European market for electricity and gas can develop.

The problems reported are not universal and it would be wrong to devalue the considerable efforts that have been made. However the issues regularly brought to the Commission's attention constitute a major source of actual and potential distortion.

Inherently, legal unbundling does not suppress the conflict of interest that stems from vertical integration, with the risk that networks are seen as strategic assets serving the commercial interest of the integrated entity, not the overall interest of network customers. The evidence collected within both the sectoral enquiry¹⁶ and the country reviews show that this leads in some cases to the following problems.

First, non discriminatory access to information cannot be guaranteed. The information barriers put in place under the current unbundling rules cannot guarantee that TSOs do not release market sensitive information to the generation or supply business of the integrated company.

Secondly, the current unbundling rules do not remove the incentives for discrimination with respect to third party access. Incumbents owning the networks may therefore use network assets to make entry of competitors more difficult. Discriminatory access conditions include connection of new power plants for new entrants, unequal access to network capacity (hoarding), maintenance of artificially small balancing zones, or not making available unused capacities.

¹⁶ Technical Annex to the Communication from the Commission, "Sector Enquiry under Art 17 of Regulation (EC) No 1/2003 on the gas and electricity markets (Final Report)" - SEC(2006) 1724, from paragraphs 144 (gas) and 474 (electricity).

Thirdly, investment incentives are distorted. The vertically integrated network operators have no incentive to develop the network in the overall interest of the market with the consequence of facilitating new entry at generation or supply levels. There is considerable evidence that investment decisions of vertically integrated companies are biased to the needs of supply affiliates¹⁷. Such companies seem particularly disinclined to increase, for example, gas import capacity in an open process which has, in some cases, led to security of supply problems. The same applies, in some cases, to the availability of connection capacity for new generation.

The Commission has examined the unbundling issue closely and concluded that only strong unbundling provisions would be able to provide the right incentives for system operators to operate and develop the network in the interest of all users.

It is therefore considering two main avenues for further TSO unbundling measures, with a view to making formal proposals:

- **fully (ownership) unbundled TSOs:** the TSO would both own the transmission assets and operate the network. It would be independently owned, i.e. supply/generation companies could no longer hold a significant stake in the TSOs. Many argue that the difficult problems described above will only be solved once such full ownership unbundling is applied to TSOs. This would indeed have a number of advantages as follows. Non discriminatory third party access to networks would be guaranteed and perceived as such, thereby encouraging investment in generation and gas import infrastructure. TSOs could also more easily exchange potentially market sensitive information increasing effectiveness. Moreover, it would allow clear incentives to be provided to increase internal EU infrastructure capacity since investment decisions would no longer be distorted by supply interests. Additionally, it would facilitate cross border mergers of transmission companies which would allow for more effective management of cross border issues. Finally, there clearly is a balance between the level of unbundling and the level of regulatory supervision. Full ownership unbundling would reduce the need for increasingly burdensome regulation as the regulatory oversight could be less detailed to ensure that no discrimination takes place. The relatively heavy supervision aiming at guaranteeing the independence of the vertically integrated TSOs could be substantially alleviated. In addition, considering the lower regulatory burden that would result, it could certainly be implemented more easily and faster.
- **separate system operators without ownership unbundling:** This solution would require separation of system operation from ownership of the assets. Supply/generation companies could no longer hold a significant stake in the *independent system operator (ISO)*. However, the transmission assets themselves could remain within a vertically integrated group. The system operator would be solely responsible for operation and dispatch, being the primary interface with network users, and would exercise control over network maintenance and development decisions. System operators would require sufficient funds and personnel not employed at the same time by a vertically integrated group. The ISO model would require detailed regulation and permanent regulatory monitoring.

¹⁷ See the national sections on network operator and unbundling in the Commission Staff Working Document, Implementation report on electricity and gas EU regulatory framework: country reviews - SEC(2006) 1709; and the Technical Annex to the Communication from the Commission, "Sector Enquiry under Article 17 of Regulation (EC) No 1/2003 on the gas and electricity markets (Final Report)" - SEC(2006) 1724, especially from paragraphs 157 (gas) and 487 (electricity).

Economic evidence shows that ownership unbundling is the most effective means to ensure choice for energy users and encourage investment. This is because separate network companies are not influenced by overlapping supply/generation interests as regards investment decisions. It also avoids overly detailed and complex regulation and disproportionate administrative burdens.

The independent system operator approach would improve the status quo but would require more detailed, prescriptive and costly regulation and would be less effective in addressing the disincentives to invest in networks. In its reply to the Commission's Green Paper, ERGEG also indicated that its preferred approach was ownership unbundling¹⁸.

The Commission will examine both options closely with respect both to the electricity and gas networks taking account of the individual characteristics of each sector. The objective in both cases will be to ensure fair network access for all companies and ensure that sufficient incentives are in place for TSOs to provide adequate capacity, notably through new infrastructure.

The unbundling solution chosen must be applicable to all operators and to all national markets in order to avoid inconsistencies between the national dimension of regulatory competences and the EU dimension of a single energy market¹⁹. It should be noted that a justifying element for any restrictive effect of the proposed options to the right of establishment and the freedom of capital movements could be found in imperative reasons of general interest (e.g. security of supply). Since ownership unbundling has already been introduced in 11 Member States, the Commission will further evaluate their experience in comparison with that of Member States having introduced legal unbundling. There is a relation between unbundling and regulation. Markets in which there is less than ownership unbundling require more detailed, complex and prescriptive regulation. In such circumstances, national regulators need in particular more intrusive and burdensome powers to prevent discrimination. However, disincentives to adequately invest in networks without ownership unbundling can not in any event be fully addressed by regulators.

2.2. Improve regulation of network access at national and EU level

2.2.1. Enhancing the role of national regulators

The 2003 electricity and gas Directives introduced a requirement for Member States to establish regulators with specific competences. However, in many cases, experience suggests that the effectiveness of regulators is frequently constrained through a lack of independence from government and sufficient powers and discretion. For example, the country reviews reveal that there are many issues for which regulators do not have discretionary and effective, ex-ante powers, such as establishing rules for functional unbundling or non-tariff access conditions. In other cases regulatory duties are split between the specific regulatory authority and the ministry, or the competition authority. The country reviews confirm that where insufficient powers are given to national regulators, this leads to inconsistent decision making and inadequate compliance. This is confirmed by a separate consultant's report on regulatory competences, which concludes that: "there remain insufficiencies in respect of the scope of

¹⁸ Council of European Energy Regulators (CEER) response to the Energy Green Paper of 11 July 2006 (C06-SEM-18-03).

¹⁹ Under Article 26(1) of the electricity Directive 2003/54/EC, small isolated systems may be granted a derogation from unbundling rules.

activities, available powers and regulators' ability to exercise independent regulation" and that this "causes residual problems of regulatory asymmetry and in some cases prevents the appropriate development of competition"²⁰.

The Commission has, therefore, come to the conclusion that energy regulators need to be strengthened at national level and have the required level of discretion to take decisions on all relevant issues. The Commission considers that regulators need strong ex-ante powers over the following areas: i) all aspects of third party access to networks, ii) access to gas storage, iii) balancing mechanisms, iv) market surveillance of e.g. power exchanges, v) compliance with functional and account unbundling for distribution system operators, vi) all cross border issues, vii) consumer protection including any end-user price controls viii) information gathering, ix) sanctions for non-compliance. **It therefore intends to propose a strengthening of the Directives on this basis.**

It is also essential to ensure that decisions at national level do not have an adverse effect on the aspects most critical for market entry and the evolution towards an EC internal market, respectively for gas and electricity. To this effect, certain individual national regulatory decisions, in particular as regards cross border issues and the effective development of competition, should be notified to the Commission. This structure is already used in relation to exemptions for third party access for new infrastructure (under Article 22 of the Gas Directive 2003/55/EC and Article 7 of the Electricity Regulation (EC) No 1228/2003) and in the electronic communication sector since 2003²¹. **The Commission will examine appropriate criteria under which other such decisions would require notification and Commission oversight²².**

2.2.2. *Co-ordination of regulators at EU level*

The creation of an integrated EU transmission network²³ implies modifications to the regulatory framework. Removing inconsistencies in investment decisions and network operation has financial implications, including the allocation of costs and risk associated with increasing capacity. In addition, ongoing problems exist in relation to inconsistencies at national level between, for example, tariff structures, capacity allocation rules, balancing arrangements and trading timetables and security of supply measures. The result of these differences in market design is market segmentation with even some national markets remaining split into different local "tariff" or "balancing" areas, which act against the development of the internal market. This segmentation of the European market increases the effect of the dominance of a small number of suppliers and is damaging to security of supply.

²⁰ "Study of the Powers and Competencies of Energy and Transport Regulators" Europe Economics and TIS, October 2006".

²¹ Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) (OJ L 108, 24.4.2002, p. 33, Article 7).

²² The Commission considers that such supervisory powers would be necessary over the following areas: i) exemptions from TPA for new infrastructure, ii) regulation of end-user prices, iii) all decisions relating to cross border issues, including the detailed implementation of guidelines, and iv) market dominance issues, particularly regarding the absence of adequate liquidity, including decisions relating to the treatment of existing transmission contracts.

²³ See 2.4 below.

Regulators are already seeking to resolve such issues through ERGEG and, explicitly, the regional initiatives for electricity and gas²⁴. There are encouraging signs that significant improvements will be delivered in this way. However, progress is dependent on all the involved regulators agreeing on improvements, and having the necessary powers and duties. A greater impetus is therefore required, including more detailed EU co-ordination requiring increased resources. This will be underlined in the Commission report on experience with Regulation (EC) No 1228/2003 which will include a concrete list of actions²⁵. Three main configurations might be considered, embodying the necessary delegations of powers in compliance with the EC Treaty, which would require amendments to the legislative framework, in particular as regards the second and third options.

- **Gradually evolving the current approach:** reinforcing collaboration between national regulators by notably requiring Member States to give national regulators a Community objective, and introducing a mechanism whereby the Commission could review some decisions of national regulators which affect the internal energy market²⁶.
- **A European network of independent regulators (“ERGEG+”):** Under this mechanism, the role of ERGEG will be formalised, and it would be given the task to structure binding decisions for regulators and relevant market players, such as network operators, power exchanges or generators, on certain precisely defined technical issues and mechanisms relating to cross border issues. It would need the appropriate involvement of the Commission, where necessary, to ensure that due account was taken of the Community interest.
- **A new, single body at Community level** would be set up. It would in particular be granted the responsibility for adopting individual decisions for the EU electricity and gas market related to regulatory and technical issues relevant to making cross border trade work in practice²⁷.

Of the three options, the Commission considers that the first, gradually developing the current approach, would not be sufficient, notably because progress would continue to be based on voluntary agreement between 27 national regulators which often have different interests. Thus, the minimum approach likely to make rapid and effective progress in harmonising the technical issues necessary to make cross-border trade work effectively would be the ERGEG+ approach.

²⁴ ERGEG launched the Electricity Regional Initiative (ERI) on 27 February 2006, followed by the Gas Regional Initiative (GRI) on 25 April 2006.

²⁵ To be published early 2007: it identifies seven areas where greater regulatory co-ordination is potentially needed, only some of which are fully covered in the Regulation: a) security rules, b) grid connection rules, c) rules for trading electricity, d) transparency, e) balancing and settlement, reserve power, f) data exchange, g) locational signals and investment incentives.

²⁶ As indicated above, this is based on the approach already used in the electronic communication sector and in relation to exemptions for third party access for new gas and electricity infrastructure.

²⁷ Under the Draft Interinstitutional Agreement on the operating framework for the European regulatory agencies [COM(2005) 59], such a body may in particular be entrusted with the task of applying Community standards to specific cases, which includes the power to adopt individual decisions which are legally binding on third parties (Article 4).

Given the importance of investment projects to bring gas to Europe's borders, ERGEG would also be expected to play an important role in the dialogue with Europe's international energy partners. This would enable a strong promotion of international co-operation at regulatory level. Collaboration with South East Europe, Euro-Mediterranean and the International Energy Regulation Network should all be continued and new avenues with Russia and others, such as e.g. an EU-US dialogue, could be explored.

2.3. Reducing the scope for unfair competition

As repeatedly identified in Commission monitoring reports, and as further explored in the sector inquiry, many national markets are characterised by high levels of concentration and consequent concerns about wholesale market manipulation. Both gas and electricity markets are susceptible to concentration due to the existence of pre-liberalisation monopolies and their natural characteristics.

In particular, electricity is a product with low elasticity of demand, so that even with relatively high prices, customers do not reduce their consumption very significantly. This, the effects of congestion and the need for continual balance of supply and demand, increase the scope for market dominance. For gas, competition difficulties also have their roots in the structure of the gas industry outside the EU as well as national production in Member States.

These problems are made worse due to the national scope of markets and the lack of integration. The improvements discussed in Sections 2.1 and 2.2 above would provide strong impetus to market integration and reduce such problems.

In addition, over time and provided there is fair access to networks, new investment by non-incumbents will also contribute to eroding concentration. This would be particularly encouraged if incumbents or TSOs were to publish a list of suitable electricity generation or gas storage sites, and adopt mechanisms for releasing such sites to new investors. In the short term, market participants have identified a range of other possible measures that would also assist the process of moving to more competitive and contestable electricity and gas markets and which relate to: a) transparency, b) contract structures and c) gas storage.

2.3.1. Transparency

The problem of concentration is made worse where dominant companies are not required to reveal information to other market participants. For example, wholesale price movements are often caused by variations in production or the use of import capacity by the largest electricity and gas companies. If smaller market participants are unable to track the underlying causes of changes in market price, they will be at a disadvantage. A higher degree of transparency would also allow for improved market surveillance. ERGEG has already proposed guidelines on transparency and advised the Commission that these should be made legally binding.

The Commission intends therefore to introduce binding guidelines for transparency through either new legislation or by modifying the existing electricity Regulation (EC) No 1228/2003. It also intends to improve the transparency requirements for gas using Regulation (EC) No 1775/2005. In both cases the advice of ERGEG will be the starting point.

2.3.2. *Long term gas transmission and downstream contracts*

The Commission has repeatedly acknowledged the role of long-term contracts between external producers (i.e. upstream) and companies supplying customers in the European Union²⁸. These long-term contracts reflect the need for upfront investments to be undertaken and have an important role to play as regards access to cost-effective energy inputs. However, such agreements are often extended downstream and serve to foreclose the downstream market via priority transmission contracts and disproportionately long term supply contracts with either local suppliers or directly with final customers. This often results in market foreclosure within the European Union.

The gas Regulation already imposes strict use-it-or-lose-it conditions regarding transmission contracts. This includes contracts which were concluded under Directive 91/296/EEC on the transit of natural gas through grids. These requirements, when combined with additional investment in gas networks, may help overcome the current blockages to meaningful competition. Further development of use-it-or-lose-it guidelines would also help competition develop more rapidly. **The Commission will strictly monitor compliance with the requirements of Regulation (EC) No 1775/2005. It will further develop the guidelines under the Regulation. It also considers that any regulatory decisions relating to such contracts should be subject to Commission scrutiny under the arrangements discussed in Section 2.2.1.**

2.3.3. *Access to gas storage facilities*

A second factor affecting competition in the gas sector is the limited availability of storage which is often in the hands of the incumbent companies. Although storage is not a natural monopoly, facilities in certain locations may have a large impact on the functioning of the internal market. Voluntary guidelines for good practice for storage system operators (GPSSO) were agreed in 2004 but the findings of the ERGEG final 2006 report on monitoring the implementation of the guidelines²⁹ showed a rather disappointing picture in terms of compliance. Similarly the sector inquiry highlighted a number of problems in this respect. **The Commission therefore intends to examine measures which would best balance the need for effective access with maintaining incentives for new storage developments. This may need a specific regulatory framework requiring the following: a) legal unbundling, b) the adoption of binding guidelines following further advice from ERGEG, and c) increased powers of regulatory agencies over gas storage on an individual facility basis.**

2.4. **Co-ordination between transmission system operators**

Gas and electricity needs to be able to flow freely across the European Union in accordance with compatible technical rules. This is essential not only to ensure a competitive market but also to guarantee security of supply. In order to achieve this, it is essential that TSOs make sufficient transmission capacity available to meet demand and integrate national markets without jeopardising the quality of supply. The network in the Member States was designed to fit the needs of many partitioned national markets not those of a single European one.

²⁸ See for example, consideration 25 of Directive 2003/55/EC or consideration 8 and 11 in combination with Articles 5 and 6 of Directive 2004/67/EC.

²⁹ Available at http://www.ergreg.org/portal/page/portal/ERGEG_HOME/ERGEG_DOCS/ERGEG_DOCUMENTS_NEW/GAS_FOCUS_GROUP

Increased investment in the network with a pan European objective is therefore strongly needed. It requires joint planning of system development and the allocation of the costs and risks of increasing cross-border interconnection. Furthermore, as well as the construction of important new interconnections, there are many other ways in which TSOs could increase capacity. Replacement of major transformers for instance, installation of phase-shifters or, for gas, additional compression equipment, could also yield important additional capacity. Other enhancement could come simply from more regular information exchange between TSOs, operational techniques such as re-dispatch, improvement in congestion management practices such as the wider use of co-ordinated market coupling at the day ahead stage, as well as intra-day allocation. **All such measures require a very high level of co-operation and a clear regulatory framework.**

Similarly, in order to function effectively at cross-border level in a secure way, TSOs also need to have agreed detailed inter-TSO operational standards. This requires a high level of technical co-operation between TSOs including detailed exchange of information, both in terms of long term network planning and on a real-time operational basis. From the point of view of network users, these interoperability issues should be visible to the least possible extent.

The experience of the Commission suggests that it is doubtful whether this can be achieved in the current framework where both TSOs and regulators are inclined or even obliged to follow a national focus. This is a key theme of the country reviews for several Member States.

An enhanced level of TSO co-ordination would require a new legislative framework at EC level. Existing associations of TSOs would be granted an institutional role with *formal obligations and objectives being added to their role*³⁰ (“ETSO+GTE+ solution”³¹). For example the TSO group may be required by the Commission or the regulators, in particular in view of ensuring security of supply, to report on European grid operation and investment as well as the development of technical standards for network security discussed above. ETSO+GTE+ could be granted the task of adopting recommendations on precisely defined technical issues, such as standards and operational rules. It could also, in particular, be responsible for monitoring the developments of networks so as to improve the transmission capacities between Member States. ETSO+GTE+ would also be responsible for reviewing progress with infrastructure investments, for example on a rolling two year basis as well as interacting with local populations affected by such investments.

Efforts should also be made to have a gradual evolution towards regional system operators: Cross border system operators would be set up. These would be independently owned and would require additional unbundling as discussed above.

2.5. Providing a clear framework for investment in generation plant / gas import and transmission infrastructure

Initial concerns relating to the incentives for building of new plant and gas infrastructure in a competitive framework were prompted by experiences with the introduction of competition in other parts of the world. However it was quickly apparent that these were the result of some,

³⁰ This could take the form of a consultative group to be established by the Commission or of a voluntary agreement under co-regulation.

³¹ ETSO, the European Transmission System Operators, and GTE, Gas Transmission Europe, are the associations of the European electricity and gas network operators.

now obvious, design faults in the trading arrangements as well as possible market manipulation by certain market participants. The 2003 Directives contained safeguards to avoid such problems and the gas and electricity Directives on security of supply have further strengthened this aspect³². As we have seen from the development of competitive frameworks at national level, moreover, increased regulatory certainty at EU level will act as a significant magnet to further investment and help deliver security of supply. Creating a stable and attractive environment for investment must be a priority of future action at EU level. In this regard, improvements to the regulatory framework are also necessary to ensure coherence and deliver regulatory certainty, which requires further change as described in Section 2.2.

Beyond this, it should be emphasised that, in the energy sector as in other sectors, creating a framework necessary to increase investment in R&D and innovation should be a priority at EU and Member States levels. Trends in RTD investments in the energy sector will be closely followed.

2.5.1. Investments in electricity generation and infrastructure

Considerable investment is needed to replace Europe's aging power plants and this is now coming forward on a competitive basis in response to current price levels. Problems which have arisen in certain Member States are – if not associated with inadequate unbundling – largely the result of inappropriate controls over prices at either the wholesale or retail level and in those Member States which lack a liquid and reliable wholesale market. It is important to stress that the Directives give any company the right to invest in an electricity generation or gas import project. Although many projects are being developed by the large incumbents, this is not always the case.

Potential investors do, however, need up to date information on short and medium term developments in the market. The creation of the Office of the Energy Observatory, in charge of the collection and monitoring of the essential data in the energy sectors, will be an important complementary measure to facilitate efficient new investments. Taking into account the electricity Directive on security of supply, the Commission will also establish a working group to monitor the investments needed in electricity generation and examine the investment framework to have sufficient capacities being created in Member States. There are several other policies that also serve to influence investment in electricity generation; for example, allocation of emission certificates or the effect of specific incentives to, for example, renewable generation. These wider issues cannot always be addressed in the framework of the Directives. However they will be pursued by the Commission in other energy policy areas discussed in the Strategic Energy Review Action Plan.

The development of an effective electricity infrastructure is also supported at EC level in particular through the TEN-E Guidelines³³.

³² Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (OJ L 127, 29.4.2004, p. 92) and Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment (OJ L 33, 4.2.2006, p. 22).

³³ See the Communication from the Commission, "Priority Interconnection Plan" - COM(2006) 846.

2.5.2. *Investments in gas import infrastructure*

Market signals have also brought forward a range of investment projects for bringing gas to the European market. The use of the exemption process under Article 22 of the gas Directive has been instrumental in some cases. In some cases an enhanced Community framework via involving ERGEG may be necessary, especially where many Member States are affected. **As well as maintaining the existing Commission powers over such exemptions, the Commission also intends, to modify the gas Directive in order to provide a Community framework under the mechanisms discussed in Section 2.2.2 for exemption of new pipelines affecting more than two Member States. It will also consider producing new guidelines for all exemptions which will give greater certainty to potential investors.**

2.6. **Issues relating to households and smaller commercial customers**

From 2007 all electricity and gas customers will have the right to switch supplier from the historical incumbent. There are a range of outstanding issues that need to be resolved in order for this final phase to be successfully realised. Country reviews suggest that there are several Member States where the preparation for full market opening in 2007 is not well advanced, while the sector inquiry has also confirmed significant obstacles at the distribution level.

2.6.1. *DSO Unbundling*

Full market opening requires distribution companies to ensure fair access to networks, a workable procedure for switching and confidentiality in data handling. However the Commission's country reviews and the sector inquiry reveal that this is often not yet the case. There are many concerns about the incidence of cross subsidies, discrimination in the way information is handled as well as problems with switching procedures and load profiling, including the interaction with balancing rules.

Many of these difficulties can be traced back to insufficient unbundling of network companies from supply businesses. Under the existing Directives, DSOs above the threshold of 100.000 customers have the same unbundling regime as TSOs. Several Member States have failed to ensure implementation of functional unbundling despite the fact that it was required from 2004. Legal unbundling of DSOs is required from July 2007. **The Commission will continue actively to pursue Member States with insufficient rules for DSOs.**

Moreover, some market participants argue that the existing Directives do not provide sufficient enforcement at Member State level. ERGEG has already set out a recommendation on best practice for supplier switching and this needs to be enforced. **The Commission therefore intends to strengthen the powers of regulators to enforce functional unbundling.**

Furthermore, DSOs with fewer than 100 000 customers are currently excluded from the basic unbundling requirements in the current gas and electricity Directives. This makes it rather unlikely, without very strong regulation, that other potential users will get fair access to networks. **The Commission will re-examine the suitability of the 100 000 threshold.**

2.6.2. *The Household Market Segment: Consumer Protection and Energy Poverty*

Experience to date has demonstrated that wholesale energy prices exhibit considerable volatility. This raises the question of whether and how end-user customers, including vulnerable customers, should be exposed to such fluctuations. The gas and electricity

Directives require safeguards to be put in place in order to protect consumers as well as includes the concept of universal service for electricity. Finally, the annexes of the Directives require that consumers also have to be given rights to transparent contract structures, a dispute settlement mechanism, the right to switch free of charge and protection from mis-selling.

Without energy, people cannot live in today's economic and social environment. Electricity is essential to citizens' daily life. It also often impacts on the availability of many essential services. Households with lower income spend proportionally more on energy than households with higher income. Also, households in rural areas spend proportionally more on energy than those in urban areas. For the large majority of EU citizens, access to electricity supply services is satisfactory. This is evidenced by recent data coming from a Eurobarometer poll and a consumer satisfaction study³⁴. The average score of consumer satisfaction at EU level is 7.6 (on a scale from 1 to 10)³⁵.

The Commission considers that the highest possible standards of public service must exist across the EU. The changes taking place in the European energy market must fully protect the citizens' rights to be supplied with enough electricity to meet their basic needs at reasonable, easily and clearly comparable and transparent prices. Special measures may also be taken to ensure the protection of the most vulnerable citizens, particularly in terms of fuel poverty. Finally, the gas and electricity Directives provide for protection from unfair selling practices and the citizens' right to have the necessary information to choose and possibly switch supplier.

These provisions must be implemented at national level with transparency and without discrimination. They must not impede the opening-up of the energy internal market to the benefit of all consumers in 2007. Well targeted universal and public service obligations (USOs and PSOs), including proportionate price regulation, must remain an integral part of the market opening process. Energy consumption is relatively inelastic. Consumers will often react to price fluctuations through investment in new equipment that will help reduce consumption. Many Member States have, however, retained more general controls on retail supply tariffs. Although price controls prevent suitable price signals being given to customers about future costs, targeted price regulations may be needed to protect consumers in certain specific circumstances, for instance in the transition period towards effective competition. They must be balanced so as not to prevent market opening, create discriminations among EU energy suppliers, reinforce distortions of competition or restrict resale.

Liberalisation may be accompanied by aggressive and misleading marketing and selling strategies used by energy companies to pressurize consumers to switch. The Unfair

³⁴ 2006 eurobarometer survey on consumer satisfaction on services of general interest (EU-25) and on IPSOS Consumer Satisfaction Survey 2006, to be published.

³⁵ Access to electricity is difficult for 4% of consumers. Almost all European citizens who have access to electricity effectively use it. Out of 72% of European consumers who have access to piped gas, 74% use it. Between 2004 and 2006, the affordability of electricity has remained relatively constant, except for Greece and Italy (upward trend) and for Malta (sharp decrease). 66% of European citizens say that prices of electricity services are affordable while for 16 % of them prices are not affordable and 15 % consider prices as excessive. Only a few consumers have lodged a complaint related to the provision of electricity and gas (6% for electricity and 5% for gas). On average, 62 % of EU consumers feel that their interests are well-protected. In some big countries (Germany, Italy and Spain) this share is lower than 50%.

Commercial Practices Directive puts in place a robust framework for addressing these issues³⁶.

A clear picture of the national measures that Member States have taken to transpose the energy Directives with regard to consumer rules is not available. Existing data suggests that Member States have made rather limited use of targeted PSOs to address vulnerable customers. Indeed only half the Member States have even attempted to define this group and only five have any form of social tariffs. There are also substantial differences in terms of compensation for supply interruptions – only 8 Member States have refund systems - and codes of conduct for transparency of prices and contract conditions.

The Commission will therefore assess the national legislation in this field, its impact on operators as well as on households. In particular through the infringement procedures, it will provide guidance as to compliance of national measures with Community law.

The Commission will also keep under constant review the retail markets to assess the effects of liberalisation on households, in view of increasing consumers' confidence in the energy market and limiting the risk of market manipulation.

Finally, the Commission will launch a major information and awareness raising campaign in the run up to full market opening in July 2007, and intends to develop an Energy Customers' Charter to (i) tackle fuel poverty, (ii) improve the minimum level of information available to citizens to help them choose between suppliers and supply options (iii) reduce red tape when customers change supplier and (iv) protect customers from unfair selling practices in compliance with the relevant EC directives.

2.6.3. Frequency of meter reading

Some wholesale market issues can be traced back to an insufficient elasticity of demand. For example wholesale price volatility is partly caused by the fact that smaller customers are insulated from wholesale price movements over the short term making wholesale prices more volatile. Even where prices are totally free of controls, infrequent measurement of consumption prevents any kind of demand response from certain customers.

The extended use of smart metering would enhance competition and other policy goals such as energy efficiency and security of supply, encouraging innovation in the provision of energy services. Smart meters are also good for consumers giving them more frequent readings and the opportunity to modify their consumption patterns. Directive 2006/32/EC on energy end use efficiency and energy services already provides for Member States to use smart metering to achieve energy efficiency targets. **The Commission will examine whether further specific action is required in this area.**

³⁶ Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council ('Unfair Commercial Practices Directive') (OJ L 149, 11.6.2005, p. 22), applicable as from 12 December 2007.

3 CONCLUSIONS AND NEXT STEPS

The discussion above sets out the main Commission conclusions from the experience gathered over the last seven years in putting into effect a competitive European market for electricity and gas. This initiative has been a qualified success. While there are some positive results, the outcome of the sector inquiry and the country reviews have given the Commission a substantial insight into the current state of the liberalisation process, which has shown, despite significant shortcomings, some progress and considerable further potential benefits.

A competitive integrated market remains, in the view of the Commission, the only way to deliver a secure and sustainable energy future for Europe, based on a coherent electricity and gas market consisting of 500 million consumers, all operating according to the same competition and regulatory framework.

The Commission believes that it is now time to consider its options for encouraging a further breakthrough which will be the final step towards fully functioning electricity and gas markets at European level, as presented in the Sections 2.1-2.6 above.

The Commission has already initiated an impact assessment procedure to identify the most suitable methods for implementing these intentions in practice. It will conclude this exercise later in 2007. A further Communication including detailed formal proposals to the Council and the European Parliament will be produced.

The Commission calls on the Council and European Parliament to confirm that the key objectives to be pursued in completing the internal energy market are those identified by the Commission and to endorse the Commission's intention to table further measures to ensure that they are achieved.