THE INTERNAL ENERGY MARKET – TIME TO SWITCH INTO HIGHER GEAR
Non-paper

A well functioning internal energy market is crucial to provide Europe with secure, sustainable and affordable energy supplies. Yet, the EU internal energy market remains far from completed.

A state of play: Facts and figures

In recent years, positive developments towards more market opening and integration have been registered[1]:

- Increased trade in energy is a positive sign of better functioning markets. In 2008 the European energy market was worth around 620 billion Euros (€ 440 billion in electricity and € 180 billion in natural gas)[2]. Between 6 000 and 10 000 wholesale energy transactions are estimated to take place every day.

- In 2009, wholesale prices have responded positively to falling demand in electricity and gas, caused by the economic crisis. The gas price decrease in Western Europe was caused by LNG delivered at lower prices than the oil-indexed gas contracts, putting pressure on the traditional (pipeline) suppliers that were forced to lower their prices or lost market share.

- Market participants continued to trade actively on spot markets despite the reduction of industrial demand resulting from the recession and slow recovery. For example, the volume of electricity traded at spot markets remained stable in 2009. In gas, the traded volume on the three most liquid spot markets rose by 4.45% to reach 1455 TWh in 2009. A very large part of the gas market remains linked to long term contracts.

- Greater convergence of wholesale prices has emerged, in particular in the electricity markets in Northern and Central Western Europe, where a coupling of markets involving 10 different countries was realised as from November 2010.

Nevertheless, significant obstacles to open, integrated and competitive markets in electricity and gas remain in Europe:

- In the first place, interconnection capacity between Member States remains generally insufficient and certain regions, such as the Baltic States, the Iberian Peninsula and the United Kingdom and Ireland remain isolated. In 2002, the European Council set the target for all Member States to have a level of electricity interconnections equivalent to at least 10% of their installed production capacity by 2005. In 2010, 9 Member States still did not meet this target.

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1 These positive developments have also been identified in a recent status review of the internal market published by the European Regulators for Electricity and Gas. Status review of the liberalisation and Implementation of the Regulatory Framework -ERGEG 2010

2 Based on Eurostat data for final energy consumption for households, services and industry and retail price (all taxes included) for households (consumption bands *Db* and *Dc* for electricity, *Da* and *Db* for gas) and industry (consumption bands *Ib* and *Ic* for electricity and gas).

- Also within Member States, in particular in the electricity networks in Central Europe, bottlenecks exist which prevent fluid transmission of energy within and between countries.

- Although Western Europe profited from the availability of cheap LNG, Central and Eastern Europe only received small amounts of that additional supply as gas systems remain relatively isolated from the rest of the continent. As a result, the difference of average prices between Central and Eastern Europe on one side and Western Europe on the other[3] has increased from € 0.55 / MWh in 2008 to € 4.86 / MWh in 2009.

- Even if interconnections exist, the absence of harmonisation of market rules in the different Member States leads to market segmentation and higher transaction costs, which constitutes a barrier in particular for smaller players. This can even lead to the inefficient situation where gas and electricity flow from high-price areas to low-price areas. Furthermore, too many hindrances remain to trade across borders: in gas integrated cross-border transmission services are not yet available, booked but un-used capacity is not offered to other market parties and trading and balancing rules create obstacles to market integration; in electricity the implementation of market coupling is still at an early stage and trading in longer term products can be difficult.

- Energy regulators at national level do not always dispose of the necessary powers and resources to enforce the applicable rules, nor do they have the statutory independence required to enforce correct application of EU legislation in all Member States. Despite many cases of non-compliance with the rules on access to the gas and electricity networks[4], national regulators often do not have sufficient powers to impose penalties.

- Energy markets in the majority of the Member States remain highly concentrated with little evidence of new entry of independent suppliers.

- Decreasing wholesale prices in electricity and gas have not always been passed on to the retail consumers. In gas, most households and industrial consumers were able to benefit from a significant decrease of their gas bills (some 10 % between 2008 and 2009 for households and some 24% for industrial customers). But in electricity, retail prices rose in half of the countries while they decreased in the other half.

- Large groups of household and non-household consumers still have regulated prices. Irrespective of the social benefits regulated prices may have, in particular for vulnerable customer groups, regulated prices also tend to act as a barrier to entry for new market entrants in particular when these regulated prices are not well targeted and/or set at a level that does not allow to recuperate costs. Regulated prices may furthermore have a negative impact on investments. In gas, regulated prices are applied in 16 Member States for households and in 13 for non-household consumers. 57% of all European households has regulated electricity prices.

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3 Prices for gas delivered under long-term contract obligations are used for the comparison.

4 As for example identified in the Reasoned Opinions issued to 20 Member States in June 2010. See further: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/836&format=HTML&aged=0&language=en&guiLanguage=en

- Retail prices continue to vary substantially[5] between Member States, amongst other because of highly diverging tax regimes, network costs and regulated prices for groups of customers.

- A recent study into consumer conditions in retail electricity markets also indicates sub-optimal consumer choice[6]. Although consumers may on average be able to save 100€ a year by switching to another supplier or tariff, the switching rate in 2009 was limited to 12%. To make optimal choices consumers need help, for example, with comparing tariffs, switching, or getting redress when their complaint is not dealt with satisfactorily.

How to remove the remaining obstacles?

Action 1: Market opening

a) Implementation of the Third energy package

By 3 March 2011 the Third energy package that was adopted in 2009 must be transposed into the national laws of Member States. A timely and correct transposition of the third package directives is of key importance. It is a precondition for the development of an open, integrated and competitive energy market in the EU, which is needed in the interest of achieving competitive energy prices, energy security and sustainability.

In particular the implementation of the rules on unbundling of networks, which had been identified as an urgent action point already in 2007 in the Commission's Sector Inquiry, is of significant importance. Also the new rules on the independence and powers of national regulators are indispensable for a proper functioning of markets, and national regulators must be equipped with sufficient resources to fulfil their role, even in the context of budget austerity that is relevant for many Member States today. Furthermore, the new rules on the functioning of retail markets are essential to make sure that consumers can benefit from the internal energy market.

So far the results of the transposition of the third package in the Member States have not been reassuring. On 1 February 2011, not a single Member State had yet notified its transposition measures to the Commission. Only in a few Member States had draft legislation been submitted to Parliament for adoption, or had the government been empowered by the Parliament to adopt the necessary transposition measures, but the measures themselves had not been adopted as yet. There is a clear risk that there will be delays in the transposition. More in general, the state of implementation of internal market legislation at national level is

[5] For example, in electricity the ratio of the lowest to highest price paid by a consumer from band *Da* stood at 5.7. For higher consumption bands the ratio of most expensive to cheapest price decreased, going from 2.9 and 2.5 for bands *Db* and *Dc* to 2.4 and 3.2 for bands *Dd* and *De*. Likewise, for gas the price ratio of the Member States with the highest and lowest price level was at 5.05 for the most modest group of consumers (band D1), while the corresponding values for groups D2 and D3 were 3.14 and 2.85 respectively. Price ratios are calculated for prices without taxes. Consumption bands are defined by Eurostat.

[6] Study of the functioning of retail electricity markets for consumers in the European Union, November 2010.

overall disappointing, with currently over 60 infringement proceedings underway on the second internal energy package alone.

Member States are called upon to take their responsibility and to ensure that internal energy market legislation is implemented correctly and without delay. National regulators and transmission system operators are required to play their role in full, both at national level and at European level in the Agency for Cooperation of Energy Regulators, ACER, and in the European Network for Energy Transmission System Operators, ENTSO. Energy companies should be encouraged to take full advantage of the opportunities which the third package brings in terms of enhanced market opening and competition, rather than to retreat in defensive behaviour. Their business models may have to be adjusted. Regional cooperation can be an important stepping stone towards the completion of a single market, as the Commission clarified in its Communication of 7 December 2010 on Regional Initiatives.

It will be a priority for the Commission in 2011 and beyond to monitor the implementation of internal energy market legislation and intervene where necessary, by means of infringement proceedings or proposals for legislative action. Competition law enforcement will continue to be used as an instrument to sanction anticompetitive behaviour in the energy sector and to ensure that markets are effectively open to competition. In the Commission's Energy Strategy 2020 this approach is clearly confirmed. But in order to put the internal market legislation in practice, a collective effort is required, including from national legislative authorities, energy regulators, competition authorities, energy suppliers, and network operators and with the appropriate (i.e. comprehensive and regular) consultation of national and European consumer organisations

b) Development of European market rules

Europe is facing increasing competition from rapidly growing economies around the globe. Competitive energy prices for European companies will be crucial in keeping our competitive advantage. A well functioning internal market for energy can ensure that energy is generated, transported, and consumed as efficiently as possible, avoiding losses along the value chain. This can make European industry and companies more competitive and more resilient. Member States should be aware of these positive effects which the internal energy market can yield.

In order to overcome segmentation of markets and ensure market integration, harmonised market rules for electricity and for gas should be prepared, adopted and implemented by 2014. The Third energy package provides the legal basis and the institutional framework. All involved actors, including the Agency for Coordination of Energy Regulators ACER, the European Network for Transmission System Operators ENTSO, the Member States and the Commission should see this as an opportunity and contribute in a constructive manner. This may imply that the status quo achieved nationally may have to be abandoned in order to fully harness the mid-term benefits which the internal market will deliver.

As a matter of priority between 2011 and 2013, energy generation and trading must become truly cross border. Energy transmission capacities need to be used as efficiently as possible, making sure that energy will flow to where it is needed, without encountering barriers at the national borders.

In gas, the allocation of transmission capacities should become more efficient and market based. It should also facilitate trade across the border, rather than maintaining the common system applied today, where gas is traded at the border between Member States. At the same time harmonised mechanisms should be put in place to resolve congestion to the benefit of all network users and consumers. For example, cross-border transport capacities today are rarely ever fully used, even though price differences between adjacent markets should provide sufficient incentives to do so. Congestion management mechanisms will aim at resolving such contradictions and bring unused capacity back to the market. Artificially splitting up of markets by means of illicit instruments such as destination clauses in supply contracts or by applying specific conditions for transit of gas flows should no longer be tolerated.

In electricity, congestion at the borders often hinders the alignment of prices in adjacent markets. Here, too, new mechanisms should be established to ensure that the overall capacity available in the European grid is used as efficiently as possible and to the benefit of the entire European market, rather than being reserved for specific national purposes. Despite major steps achieved recently in coupling markets covering Northern and Central Western Europe, some regions still remain isolated. Moreover, renewable support schemes need to be assessed with respect to their compatibility with the electricity market. Finally some network operators manage congestion inside their networks by curtailing exports to other Member States and therefore prevent EU market integration and efficiency. In line with the precedent set by the Commission in the "Swedish interconnectors" antitrust case in 2010, such operators should rapidly take alternative measures (e.g. creating new market zones as in the Swedish case) and cease curtailing exports.

In order to enable industry to compete to provide Europe with the new grids and systems which it will need in the new low-carbon economy, it is essential to accelerate work on technical standards, in particular for smart grids, smart meters and charging systems for electric vehicles so to adopt a first set of these standards by end 2012. This work will have to be undertaken in liaison with European standardization bodies.

Action 2: Upgrading and integrating the networks

In November 2010, the Commission presented a Blueprint for energy infrastructure priorities for 2020 and beyond. The implementation of the infrastructure package will be a key factor in completing the single European energy market.

More interconnection capacity is needed to trade gas and electricity freely from Lisbon to Helsinki and from Bucharest to Dublin. The Commission proposes to focus attention on the following priority corridors which will make Europe's electricity grids fit for 2020.

- Offshore grid in the Northern Seas and connection to Northern as well as Central Europe – to integrate and connect energy production capacities in the Northern Seas with consumption centres in Northern and Central Europe and hydro storage facilities in the Alpine region and in Nordic countries.

- Interconnections in South Western Europe - to accommodate wind, hydro and solar, in particular between the Iberian Peninsula and France, and further connecting with Central Europe, to make best use of Northern African renewable energy sources and the existing infrastructure between North Africa and Europe.

- Connections in Central Eastern and South Eastern Europe – strengthening of the regional network in North-South and East-West power flow directions, in order to assist market and renewables integration, including connections to storage capacities and integration of energy islands.

- Completion of the Baltic Energy Market Interconnection Plan - BEMIP - integration of the Baltic States into the European market through reinforcement of their internal networks and strengthening of interconnections with Finland, Sweden and Poland and through reinforcement of the Polish internal grid and interconnections east and westward.

For gas, progress has been made since the January 2009 supply crisis which revealed dramatically the cost caused by the missing links, but overall the situation remains largely insufficient both from a security of supply perspective and from an internal market perspective. For gas, the following priority corridors have been identified.

- Southern Corridor - to further diversify sources at the EU level and to bring gas from the Caspian Basin, Central Asia and the Middle East to the EU.

- Linking the Baltic, Black, Adriatic and Aegean Seas through in particular:
  – the implementation of BEMIP and
  – the North-South Corridor in Central Eastern and South-East Europe.

- North-South Corridor in Western Europe - to remove internal bottlenecks and increase short-term deliverability, thus making full use of possible alternative external supplies, including from Africa, and optimising the existing infrastructure, notably existing LNG plants and storage facilities.

Work should also start on defining the energy networks of the future, which will be necessary to allow Europe to further reduce greenhouse gas emission.

The network operators should be in charge of designing the European grid through the Ten Year Network Development Plan which the Third energy package legislation requires them to develop, with the involvement of the Agency of European Energy Regulators ACER and taking into account the priorities laid out in the Infrastructure Package. The above mentioned priorities should translate into concrete projects and lead to the establishment of a rolling programme. First project lists should be ready in the course of 2012 and be subsequently updated every two years, so as to provide input to the regular updating of the TYNDPs. Projects should be identified and ranked according to agreed and transparent criteria leading to a limited number of projects.

The projects identified would be examined at EU level to ensure consistency across the priorities and regions and ranked in terms of their urgency with regard to their contribution to the achievement of the priorities and Treaty objectives. Projects meeting the criteria would be awarded a ‘Project of European Interest’ label. This label would form the basis for further assessment and consideration under the actions described in the following chapters. The label would confer political priority to the respective projects.

The 10% interconnection target set in the conclusions of the 2002 Spring Council should be renewed and arguably increased to take into account the necessary integration of renewable

energy sources. The 10% target at the time was developed in a context of power generation mainly based on fossil fuels. As renewable sources are often further away from consumption, less correlating to peak and more variable, more ambitious interconnection targets should arguably be set today. Without a European approach full benefits of new infrastructure cannot be exploited.

There is also a need for a framework and initial incentives for rapid investments in a new "intelligent" network infrastructure to support i) a competitive retail market, ii) a well-functioning energy services market which gives real choices for energy savings and cost-efficiency and iii) the integration of renewable and distributed generation as iv) to accommodate new types of demand, such as from electric vehicles. Distribution grids will play an increasing role both for connecting generation sources (e.g. many wind turbines in Germany are directly connected to the distribution grid) and for enhancing energy efficiency.

The average time between the final investment decision and the construction of energy infrastructure is approximately 12 years. This very significant delay is caused by the permitting process at national level, and forms an important obstacle to investments. In order to ensure a timely implementation of the identified infrastructure projects, the Commission intends to propose, in line with the principle of subsidiarity, to introduce permitting measures applying to projects of "European interest" to streamline, better coordinate and improve the current process, while respecting safety and security standards and ensuring full compliance with EU environmental legislation.

The Commission furthermore intends to make proposals to create a stable framework for financing of the new infrastructure. This work will focus in the first place on guidelines or on a legislative proposal to address cost allocation of major technologically complex or cross border projects, through tarification and investment rules. The work will focus in the second place on optimising the leverage between public and private sources by mitigating investors' risks. These Commission initiatives and proposals, already foreseen in the Communication on Infrastructure priorities[7], are envisaged to be launched still in 2011.

Action 3: Empowering consumers

The development of well-functioning retail markets, to the benefit of all energy consumers, is one of the main priorities of the EU internal energy market legislation. Yet, as mentioned above, real competitive retail markets are still not achieved, depriving consumers from the benefits of increased efficiency on wholesale markets.
At the Energy Council meeting on 3 December 2010 the Energy Ministers of the Member States underlined the importance of improving consumer welfare in the energy sector. For consumers to be able to benefit from the internal energy market in terms of prices, choice, innovation and service, it is essential that the opening of markets goes hand in hand with measures to protect consumers and to support them to make the right choices. These measures should aim to empower consumers, provide adequate, user-friendly and frequent information about their actual electricity and gas consumption and costs, raise awareness of the existence of alternative offers, facilitate price comparison and switching, and provide redress.

Energy consumers need to have easy access to clear and user-friendly information and training. Consumer education, preferably starting from the primary education level, can make

[7] Communication "Energy infrastructure priorities for 2020 and beyond - A Blueprint for an integrated European energy network", COM (2010) 677

consumers better aware of their rights, their role in open markets, the potential benefits of market competition as well as of their energy use and their energy expenditure. The energy bill is one of the most important means of information to the consumer and therefore deserves special attention. Energy consumers should be able to compare prices, for example through price comparison sites. In case energy consumers want to switch supplier, the process should be as easy as possible. New deadlines have been introduced so that consumers can actually switch supplier within three weeks. For the full and correct implementation of existing and future actions to empower consumers, the role of consumer organisations and formal consultation processes is very important.

At the Energy Council the Energy Ministers furthermore invited the Commission to put in place a European network consisting of national and fully independent energy ombudsmen and/or other fully independent out-of-court dispute settlement bodies which will cooperate on the exchange of information and best practices.

National regulators will become more actively involved in monitoring the retail energy market and will be empowered to take enforcement action where necessary. The Third energy package provides regulators with the necessary powers in that respect. Regulators will develop guidelines in the areas of improved provision of information, enhancing price comparison and facilitating the switching procedure.

Also new provisions on the roll out of Smart Meters by 2020 have been introduced. Smart Meters have the potential to improve information for consumers and provide a platform for tariff and service innovation. They enable consumers to directly control and manage their individual consumption patterns, notably if combined with time differentiated tariffs, providing, in turn, strong incentives for efficient energy use. Smart meters can significantly contribute to the better functioning of retail markets in Member States, whilst giving due consideration to data protection and privacy standards. By 3 September 2012 Member States are to present an economic assessment, where deemed necessary, relating to the future roll out of smart meters on their territory. Subject to that assessment, Member States, or any competent authority they designate, shall prepare a timetable for the implementation of smart meters within 10 years. Where roll-out of smart meters is assessed positively, at least 80% of consumers shall be equipped with smart meters by 2020.

Protecting consumers remains necessary in the internal market. It is important that the group of vulnerable consumers a Member State wishes to protect is clearly defined, and any mechanism adopted to protect these vulnerable consumers must not interfere with the operation of the market and must take into account other social policy measures in the Member State. There are reasons to reconsider regulated prices, taking into account the negative impacts regulated prices may have on market access, investment and consumer incentives to reduce energy consumption.

A correct and timely implementation of the Third energy package, in particular its provisions concerning the functioning of retail markets, is of utmost importance to enhance consumer welfare.

In its regular reporting on the functioning of the energy market, the Commission intends to pay particular attention to consumer-related issues, and to assess the progress in making the energy policy more beneficial to consumers.