

**Comments on the
Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy**

*The **chemical industry** is one of the European Union's most competitive and successful industries, embracing a wide field of processing and manufacturing activities. It is a global leader, accounting for more than half of global chemicals trade. Many sectors (pharmaceuticals, paints, textiles, automotive, etc.) rely on chemicals manufactured in Europe to meet our fundamental needs for food, shelter and health and support our most advanced technologies. The European chemical industry accounts for 1,3 million direct jobs and 2,7 million downstream employment opportunities.*

*The European chemical industry is one of the most **energy-intensive** industrial sectors – accounting for roughly 12% of total EU energy demand. Energy represents one of its main costs – it can amount to up to 60% of a company's operating costs – and is a decisive element in global competition. Increasing energy costs in Europe – often resulting from energy market shortcomings – have far-reaching consequences for chemicals production and investment in Europe with implications for downstream manufacturing, local employment, global environmental performance and innovation.*

*The chemical industry uses oil, natural gas, coal, and electricity – both as **raw materials and as fuels**. More than half of the energy used by the chemical industry is processed as feedstock, which means it is transformed into products such as plastics, medication, or food packaging meeting the needs of society. In many cases, fossil fuels are not easily replaced as a raw material. This further explains the strategic importance of a reliable and competitive supply of fossil fuels.*

*During the last decades, the European chemical industry has made strenuous efforts to improve **energy efficiency** and reduce its fuel and power consumption, thereby achieving significant reductions of its greenhouse gas emissions. Although chemicals production has risen by nearly 50% since 1990, emissions of greenhouse gases have decreased by more than 20%. This emission reduction represents about one third of the EU Kyoto target.*

Cefic welcomes the Commission's Green Paper and agrees with the analysis and proposals in many respects. The Green Paper demonstrates the risks and challenges for the EU's energy supply. Cefic believes a coherent, better coordinated and integrated EU energy policy is necessary. Cefic regards the Green Paper as a key opportunity to achieve better regulation and implementation and offers to be part of the solution.

The Commission should be given responsibility for safeguarding coherence and integration of the various EU policies and policy objectives, e.g. of energy, industry and environment policies. The Commission should also foster better coordination of national policy decisions in a transparent manner in order to create functioning and liberalized markets for electricity and gas within Europe and beyond.

Key points:

- Urgent action is needed to create competitive gas and electricity markets, including measures to ensure effective unbundling, empowered regulators, sufficient interconnections capacities and increased transparency.
- Europe must deal with climate change in a manner compatible with its Lisbon objectives.
- Energy markets should determine the energy mix.
- The EU should develop a consistent legal framework with supplier countries.
- Innovations in chemistry provide solutions for energy saving technologies (e.g. energy-saving insulation in houses, solar panels, biofuels).

Chemistry making a world of difference



1. The EU needs to create competitive gas and electricity markets

Cefic believes that open, competitive energy markets provide the basis for secure long-term, competitively priced energy. The reflection on the Green Paper should result in a decisive action plan to achieve fully competitive energy markets in the short term.

Cefic comments the current situation in EU energy markets as follows:

- Most EU regions lack true competition in energy markets. Despite ten years of liberalisation policies, suppliers in EU electricity and natural gas markets do not compete for market shares by offering consumers attractive choices. Monopolies simply became oligopolies.
- Moreover, despite the low ambition level of the energy markets liberalisation directives, most EU member states have failed to fully implement these.
- As a result, industrial consumers can still not freely choose suppliers or negotiate on a fair basis with suppliers.
- Non-discriminatory access to the grids, storage and cross-border connections has not been sufficiently established.
- The large increase of electricity wholesale prices in the EU is not justified by the development of external cost factors (e.g. increase of fuel costs, additional taxes) but is the obvious outcome of a malfunctioning market in combination with the EU ETS.
- Cefic is concerned that environmental policies push toward natural gas as the preferred source of energy, e.g. for electricity generation in the EU, rather than seeking to establish diversified energy sourcing.

Context and Outlook

Functioning energy markets are indispensable. The Green Paper therefore rightly puts great emphasis on the completion of the internal European electricity and gas markets. Valuable contributions and recommendations in this regard are being made by the Florence and Madrid Forums, by the new High Level Group on Competitiveness, Energy and the Environment, and the DG Competition Sector Inquiry. Cefic actively supports these initiatives. Until now, the regular publication of the EC Benchmarking Reports on the implementation of the energy markets liberalisation directives has demonstrated the regrettable state of incomplete implementation in most member states. Therefore, existing initiatives need to be empowered to deliver.

The Green Paper discussion and resulting strategic energy policy decisions should enable the European Commission and the member states implementing existing legislation, guidelines and recommendations to establish functioning markets. Additional regulation and institutions may be required where existing regulation or institutions do not deliver the desired result. Cefic recognises that the empowering of existing or the creation of new European institutions will require political will. Cefic stresses that such institutions should not duplicate functions of national authorities, adding bureaucracy and creating additional reporting requirements for companies, but should – where possible – take over certain national powers. This requires a clear definition of the relationship between national and European institutions.

Unbundling

Critical to the long-term success of the liberalisation process will be the effective unbundling or structural separation of historically integrated gas and electricity companies. Incomplete

unbundling of generation, infrastructure, transportation and service functions in key regions will inevitably limit the effectiveness of many agreed guidelines and initiatives. New legislation may be needed on effective unbundling.

Regulators

To improve the functioning of energy markets, national regulators must be granted powers to deliver on cross-border electricity and gas transmission. Unless immediate and effective progress is achieved on the market place, the creation of a European Energy Regulator is unavoidable. Too often, national regulators are bound to remain ineffective being subject to lacking or incomplete national transposition of EU legislation.

The current levels of coordination between national regulators and national grid operators in the dedicated forums are inadequate. The consensus-based design of the Madrid and Florence Forums has generated a series of conclusions and a number of voluntary guidelines such as the guidelines on congestion management. However, local implementation and follow-up by the incumbents remain incomplete and insufficient as reported even by the sectors' own industry federations. The recent Commission approach to enforce implementation through the Comitology procedure will help.

Emerging regional forums should include industrial consumers in order to effectively prevent further delays of progress as already experienced in the Madrid and Florence Forums. The perspective of the regional forums must be the same as for the entire European region: Create a single market without internal borders and cross-border transmission tariffs where gas and electricity can be traded freely.

Interconnections

Further interconnections, the removal of contractual bottlenecks and a European Grid Code are essential elements of a liberalised energy market. Cross-border capacities for electricity transmission urgently need to be increased. Cefic therefore strongly encourages the Commission's initiative with regard to its priority interconnections plan. Should existing regulatory bodies remain of limited effectiveness, a European Center for Energy Networks may be necessary.

Whether delays in increasing interconnections are due to conflicts of incumbents' interests or are the result of slow national permitting procedures, a continuation of the status quo is unacceptable. In order to remove these hurdles, transparency, analysis and effective measures are required urgently. As demonstrated by the Sector Inquiry, existing market structures discourage investment into more interconnection capacity. Auctioning of cross-border capacities is not a 'market-based solution' since it does not solve the problem but instead even rewards market deficiencies: Only fractions of the profits from auctioning of capacities were invested into new capacity (see Sector Inquiry findings). Furthermore, in the existing market structure, the European Transmission System Operators (ETSO) failed to provide the necessary transparency and effectiveness to improve the situation. Instead of administering congestion, TSOs need to remove contractual and physical bottlenecks through redispatching and investment.

Transparency

Transparency is of key importance to a functioning market. Cefic therefore calls for equal access to accurate, timely and comprehensive information, especially on available network

and storage capacities, including cross-border capacity, actual flows in bottlenecks, available capacity, production schedules and on-line production of power plants.

Full transparency should result in maximum utilisation of the existing capacities, thereby eliminating contractual bottlenecks. Claims that costs for required software, confidentiality requirements and “legal constraints” are preventing the publication of capacity and generation data have been used to delay delivery on transparency obligations for too long. Additional legislation may be necessary to remove abuse of dominant positions and to enforce agreed minimum rules on transparency and disclosure without further delay – related conclusions from the Madrid and Florence Forums have continuously failed to trigger effective follow-up by incumbents.

Long-term contracts and market solutions

Bilateral or multilateral long-term contracts (LTCs) can meet the specific needs of industrial energy consumers with large investment cycles ensuring competitive energy prices and planning certainty. LTCs give consideration to the particular situation of energy-intensive customers such as the chemical industry (e.g. pooling demand in Finland).

However, too often the conditions of currently offered LTCs are those of an uncompetitive market. As a result, they provide, in many cases, nothing more than a long-term stability of the current unfavourable market conditions.

Where markets do not function and LTCs do not provide a solution either, special measures on a national level (i.e. tariffs in France and Spain) seem unavoidable to prevent irreversible damage to the energy intensive industries in the short term. In order to avoid market disintegration in the medium term, efforts to establish competitive markets need to be urgently intensified.

Base load demand

Electricity-intensive industries such as the chemical industry offer special, favourable consumption profiles long-term: They offer continuous long-term power consumption (base load demand) without the risk of peak consumption (providing planning certainty), while allowing the option of interruption, safeguarding thereby a higher flexibility for the power producers and grid operators. These individual power demand and consumption profiles are not reflected in the short-term oriented power exchanges, which in fact represent only a fraction of the total power trade. Instead, most energy is bought/sold over-the-counter. Therefore, it is misleading to present power exchanges as “representing the general market reference” or as delivering “the reference power price”.

2. Security of supply in the internal energy market

Truly opened up markets with free choices of fuels and technologies will attract new entrants, foster investment, encourage new capacities and thereby improve security of supply. Currently, market structures dominated by incumbents hinder new investments in production and infrastructure.

Transparency is of key importance for safeguarding security of supply in the internal market. Cefic supports significantly increased data transparency on security of energy supply within the EU.

Moreover, Europe can gain a much stronger voice if national energy policies are coordinated and developed coherently. The European Commission can obtain a mandate bundling the

EU's national needs, market powers and energy opportunities when building reliable energy relationships with third regions on a sound, legal basis for long-term security of supply (see section 6).

Cefic encourages the Commission to consider carefully whether the establishment of new regulatory bodies is required or whether existing structures can provide required services, e.g. better coordination of TSOs and monitoring of demand and supply patterns. A closer cooperation with IEA may also offer a solution.

3. The market should determine energy mix

Cefic calls for a well-balanced EU Energy Policy that encourages all sustainable, competitive and reliable energy sources to help satisfy future European energy demands. Cefic encourages the diversification of energy sources. The ultimate driver for the energy mix should be the market. The exclusion of individual energy sources such as nuclear energy will not help the EU's climate change and energy supply objectives. Cefic therefore believes a rational, strategic debate on all sources is needed, including the analysis of economic impacts of long-term subsidisation.

The chemical industry is an important actor in the development as well as the deployment of renewable energies from wind, solar, hydro or biomass. The promotion of renewable energies should take into account local conditions and focus on those that are cost-effective. Politically motivated targets must not lead to an inefficient use of resources e.g. long-term subsidies for inefficient technologies. The effects of the national energy mix on EU competitiveness, reliability and security of supply should be analysed and reported at the EU level by the Commission.

4. Europe must deal with climate change in a manner compatible with its Lisbon objectives

Climate change is a worldwide challenge and must be addressed globally: No single region can solve the problem alone. Comparatively small greenhouse gas (GHG) reductions in Europe are facing tremendous emission increases in other parts of the world. An EU leadership regarding climate policy without immediate followers will inevitably weaken the EU industry's competitiveness within a global business environment. Therefore, Cefic calls on the EU not to pursue a unilateral approach to climate policy beyond 2012.

Specifically, Cefic calls on the Commission to urgently resolve the issues indicated below regarding the functioning of the European Emissions Trading Scheme (ETS). Performance-based allocation offers a solution to these problems:

(i) Emissions Trading Scheme hampers growth

The current cap and trade system hampers growth of industrial activity within Europe by setting absolute emission targets for each installation independent of its level of production. This is inconsistent with the declared commitment to the Lisbon Strategy: Delocalisation of production must not be rewarded by EU policies since it weakens the EU economy and decreases employment while global demand will be met at potentially much lower social and environmental standards. Instead, the system should be allowing industrial growth in the EU with best available technologies rewarding efficiency increases.

(ii) Emissions Trading Scheme is incoherent with energy markets liberalization

The currently most widely used allocation methodology based on grandfathering is cementing the incumbents' market shares thus limiting opportunities of new entrants and clearly undermining competition and the spirit of the EU Energy Markets Liberalisation. Cefic calls for corrections towards more coherence and integration of EU policies.

(iii) Emissions Trading Scheme – electricity consumers pay the bill

Power producers have priced in a substantial proportion of the market price of CO₂ allowances, which they received largely free of charge, into the wholesale electricity price – thereby realising significant windfall profits. This results in a huge, unjustified transfer of resources from the energy consumers to the energy producers - without any significant reduction in CO₂ emissions. The viability of chemical operations in the EU is directly affected by this power price increase because of the high degree of global competition in the chemical sector. The solution to this unintended impact on power prices without further delay (i.e. before the second trading period starts) must be on top of the EU's priority list as it is also a fundamental precondition for the long-term perspective and global recognition of the EU ETS.

Energy Efficiency

Cefic is supportive of initiatives to increase energy efficiency. While the chemical industry and other energy-intensive sectors invested heavily in efficiency improvements in the last decades (see introduction), similar efforts could be encouraged in other sectors of society.

Cefic is not in favour of introducing a “white certificates” trading system. Cefic believes that the EU should first make ETS fully functional and learn the lessons from this project before engaging in other projects.

Renewables

Renewable energies are important to meet the climate challenge. The chemical industry delivers solutions (see section 5). Already available technologies should be fully exploited (e.g. biofuels). Promotion of renewables should respect cost-effectiveness in the medium term (see section 3).

5. Innovation

New technologies are vital for improving energy efficiency and for exploring and developing new energy sources. The chemical industry's R&D capabilities and innovative products and processes make it an integral part of this process. The chemical industry aims to provide resources, skills, process facilitation, and research capabilities to help deliver long-term solutions to an effective and integrated future energy policy. However the promotion of renewable and alternative energies and feedstock must be based on

- collaborative government, industry and academic engagement,
- incentives that enable exploration into potential solutions with a focus on technologies that can sustain themselves in the market within a designated time period,

- an integrated energy policy approach that does not discriminate against Europe's energy-intensive industries but does ensure all sectors and parts of society contribute to more efficient energy use in the future.

Specific areas of contribution from the chemical industry include

- more efficient energy management through higher performance insulation for buildings and appliances, lighter materials for transportation, and greater use of multi-functional materials,
- developing more effective technologies to support renewable energies such as bio-mass based products and processes (including bio-diesel, bio-ETBE, bio-ethanol and other bio-feedstocks), wind and solar energy,
- improving energy storage and distribution with new technologies for batteries, fuel cells, hydrogen storage and super-conductors,
- breakthroughs in catalysis and process innovations to support clean coal technologies and increase yields in other conventional power technologies.

Cefic supports the worldwide dissemination of technological breakthroughs so that all countries may benefit and especially those with large efficiency potentials, i.e. emerging economies. While encouraging technological transfer, the EU should not deteriorate Europe's competitive edge in this field.

6. A common external energy policy

Cefic agrees that security of energy supply has an external, even geopolitical dimension. While the EU's dependency on energy imports is increasing, the EU's policy approach has traditionally been focusing on internal options, i.e. on curbing the growth in energy demand and on promotion of renewables. The EU lacks a common strategy towards security of energy supply – despite the fact that the EU is a major player on the world market. Therefore Cefic welcomes and strongly supports the Commission initiative in this area. Cefic shares the analysis, in particular that (i) the EU needs to coordinate its energy policy faced with fierce competition for energy on the world market; (ii) the EU needs to ensure a high degree of diversity in terms of energy supplies.

Security of supply is crucial for the chemical industry as well as for the European economy as a whole. Cefic encourages the inclusion of major industrial energy consumers in the development of a more strategic energy policy.

The EU should develop a consistent legal framework with supplier countries, e.g. with Algeria and Russia involving consumer industries. An important step will be Russia's full ratification of Europe's Energy Charter resulting eventually in progress on market liberalisation in Russia. The European Commission should be given the mandate to bundle EU interests and to prepare multilateral agreements.

WTO and bi-laterals trade negotiations should include energy chapters. Indeed, several Free Trade Agreements (FTAs) already include energy chapters. For example, the North American Free Trade Agreement (NAFTA) between the US, Canada and Mexico includes an energy chapter which covers:

- The right and protection of investors in production
- Investor access in transport/distribution of energy
- Security of supply guarantees (6 month supply stability)
- Security of access guarantees
- A dispute settlement mechanism
- Competition provisions.

In July 2006, European Commission President Barroso proposed the idea of an EU-Russia Free Trade Agreement. Cefic supports an EU-Russia FTA with broad coverage, including energy. By combining trade, investment, security of supply and access and competition rules, an EU-Russia FTA could solve many issues in the energy sector, such as:

- Cross-border investment in energy production, transport and distribution
- Security of supply and secure access to consumer markets
- Market pricing of energy.

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