BUSINESSEUROPE

POSITION PAPER

15 December 2010

BUSINESSEUROPE'S PRELIMINARY VIEWS ON THE ROADMAP FOR A LOW CARBON ECONOMY BY 2050

Introduction

This document presents BUSINESSEUROPE's Climate Change Working Group's preliminary views on the "Roadmap for a low carbon economy by 2050" as presented in the Commission's public consultation on the matter published on October 27, 2010. More detailed comments to this process will be provided in 2011.

European business supports action to combat climate change and is committed to taking its share of the responsibility by reducing emissions, investing in modern and innovative technologies and by delivering products helping customers to reduce emissions. It is vital that the roadmap includes measures needed to bring about more sustainable growth, extra jobs, accelerated innovation, cleaner air, increased energy security and lowering our vulnerability to external energy shocks. Whilst Europe must be willing to take the lead towards a new low-carbon, global economy, it cannot move alone. We argue in this position paper that ambitious 2050 EU targets must be accompanied by strong commitments from our main trading partners to have a true effect on climate change mitigation; that intermediate targets would be useful but should be carefully defined; and that a proper balance between the EU ETS and other sectors must be struck. Finally we argue that cost efficiency, preservation of EU competitiveness, creating the right framework for low-carbon investment and a move towards greater cooperation on the EU level are key considerations in achieving our objectives without prejudicing European employment, growth and overall wealth.

Concrete suggestions on how to integrate EU policies for climate, energy and industry are found in a separate position paper in annex to this document.

In this context, the main objective of the roadmap must be to show a feasible and practical trajectory to meeting the 2050 ambition level in the most cost-effective way. This feasible trajectory must be designed on the basis of very thorough impact assessments giving special consideration to availability of financing, skills and resources – as well as to the consequences for wealth and prosperity in Europe, including impacts on the sector level. The current more medium term impact assessments have weaknesses which make them less suitable as a solid basis for EU policy development.

BUSINESSEUROPE acknowledges that the Commission currently is preparing two other closely related papers, namely the *roadmap for low carbon energy system by 2050* and the *white paper on future transport policy*. We argue that EU policies for climate and energy must be further integrated and we therefore think that the roadmaps for "a low carbon economy" and "low carbon energy systems" must be

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merged, while integrating relevant parts of the white paper on transport. Moreover, these papers must respect the principles outlined in the Commission's Communication on industrial policy.

A. 2050 target

BUSINESSEUROPE supports the idea of a low carbon roadmap, and we agree that the goal is to at least halve global greenhouse gas emissions by 2050 compared with 1990 levels, in line with science. However, we consider it premature to set a hard EU target for 2050, but if this is to be done it must be subject to a proper impact assessment, based on due consideration to the effects on European competitiveness and jobs. The 80 to 95 percent reduction currently under discussion could only be considered if deemed feasible by this impact assessment and if it is part of a legally enforceable, international climate agreement that demands strong efforts from all other industrialised countries and the main developing countries.

Overly ambitious unilateral action in this direction could significantly impede European employment, competitiveness and the overall wealth of the European society. Furthermore, further unilateral action would only modestly contribute to mitigating climate change, as the EU's share of global CO_2 emissions is 13 percent and rapidly decreasing. To the contrary, further unilateral action may lead to increased global emissions as certain energy intensive production would move from the EU to countries with higher carbon intensity in the electricity mix. As production leaves the EU, companies are less likely to continue to invest in low-carbon solutions. All efforts must therefore focus on achieving a comprehensive global climate agreement.

B. Trajectory to 2050

BUSINESSEUROPE tentatively supports the idea of intermediate targets, such as a target for 2030, as this would provide European business with much needed predictability. For many sectors, setting realistic objectives for 2030 and beyond is a clearer incentive to invest in low-carbon solutions than changes to already established targets for 2020, which from an investment perspective is relatively soon.

However, the low-carbon path to 2050 outlined in the Commission staff working document of 26 May 2010[1] is not necessarily the most cost-efficient path. The proposed linear path would generate extra costs for those European companies which already bear the largest part of the low-carbon transition efforts. BUSINESSEUROPE rather advocates a path which takes account of the commercialisation cycle and learning curves of new low-carbon technologies, such as *Carbon Capture and Storage*, and their growing profitability over the years, as well as the permitting and construction times for large scale investments in low-carbon energy infrastructure. Such a strategy will be better adapted to the real evolution of technologies for a transition to a low-carbon society. The optimal path towards a 2050 target should be set on a bottom-up sector by sector basis following a thorough cost and feasibility analysis.

[1] "Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage", SEC(2010) 650.

We acknowledge the risk that the cost of mitigating climate change may rise over the years, but the scale of investment needed makes it necessary to strike the balance between this risk on the one hand and feasibility and optimised cost efficiency on the other. Realistic 2030 targets will allow the European business community time to carefully prepare for long-term investments, escalating with the availability of new technologies.

C. Effort sharing

BUSINESSEUROPE underlines the utmost importance of a balanced and fair effort sharing between all parts of the European society. A continued focus on some already heavily regulated sectors (such as those subject to the EU ETS) would not be cost-effective and would have significant adverse effects on those sectors and the overall economy. It is important therefore, that EU policies focus on low-carbon growth across all sectors, and look at improving the efficiency and cost-effectiveness of the whole energy system.

As regards the ETS, a continuation of the present annual reductions in the EU ETS would in the 2030 horizon result in a total reduction of 38 percent between since 2005.[2] The technical and economic feasibility of such reductions would have to be carefully assessed on sectoral and regional levels, as many sectors are already operating at or close to physical efficiency limits. Reductions of this order should in all cases be considered as part of a legally enforceable international climate agreement demanding strong efforts from all other industrialised countries and the main developing countries.

BUSINESSEUROPE supports ongoing initiatives to improve the energy efficiency of – for example – buildings, domestic appliances and the transport sector. We underline the importance of achieving further improvements in the non-ETS sectors to reach the long term targets as far as this is more cost efficient, recalling that these sectors constitute more than half of current CO_2 emissions in the EU. Raised awareness among users of products and services will increase in importance. BUSINESSEUROPE acknowledges that there is a challenge in ensuring emission reductions outside the EU ETS are achieved with certainty and that the abatement cost in some of these sectors is higher than in some EU ETS sectors. However, the relative simplicity of calibrating the cap for the EU ETS should not be seen as an alternative to more cost-efficient abatement possibilities elsewhere.

D. Main issues for continued reductions

The way in which the world produces and uses energy must be revolutionised in order to mitigate global climate change. The task must not be underestimated. It is clear that all sectors and all countries must make efforts to reduce emissions, but reductions must be achieved in a cost-efficient way and must consider the impact on European

[2] In the 2050 perspective, a continuation of the present annual reduction of emission allowances in the EU ETS[2] would result in an additional 52.2 percent decrease between 2020 and 2050 compared with 2005 levels. This reduction would be in addition to the 21 percent that will be achieved by the EU ETS sectors between 2005 and 2020, and the 10 percent reduction that was already achieved between 1990 and 2005.

energy security, energy competitiveness, and overall growth and wealth. The EU will only lead by example if it shows that reducing emissions and securing energy supply can be reconciled with economic development. In this context, European business must be considered the *solution provider* rather than part of the problem.

Concrete suggestions on how to strike the right balance between the various concerns are provided in BUSINESSEUROPE's position paper "*European business recommendations on EU policies for climate and energy*" in annex to this document. Building on this, four main issues must be considered in the long-term perspective (let it be 2030 or 2050):

1) First priority must be given to cost-efficiency.

   Any future regulatory approach must ensure that emissions are cut where it costs the least. The ultimate tool to attain this objective is a global carbon market where emission allowances are traded freely at a single global price. In a functioning market, the carbon price would equal the global marginal carbon abatement cost. We must get back to the basic logic and rationale of carbon trading, namely cost optimisation of reductions, and not look upon carbon trading as a tool to achieve other policy objectives.

   We acknowledge that a true global carbon market cannot be achieved without a comprehensive global climate agreement. A substantial expansion of the international carbon offset mechanisms and their use in the EU ETS is a necessary intermediate step.

2) Global competitiveness of EU industry must be ensured

   Measures to protect jobs and competitiveness in Europe must be continued and enforced in case of persistent failure to achieve a comprehensive international climate agreement.

   While bilateral agreements and sectoral approaches to international carbon offset mechanisms may be warranted to facilitate investment and ensure environmental integrity, these approaches must not result in undue restrictions. The long-term use in the EU ETS of credits coming from international carbon offsets must be ensured, encouraged and expanded - as this would enable the EU to take strong responsibility for mitigating climate change at a lower cost. Likewise, free allocation of emission allowances in the EU ETS must continue to protect industries particularly prone to carbon leakage and the impacts on EU energy competitiveness must also be taken into account.

3) Improve the framework for investment in low-carbon technologies.

   While much of the needed energy efficiencies can be driven by the carbon market mechanisms and to some extent by regulation, it is clear that the revolutionary shift in energy production and supply will need public support. The private sector will drive the development of new products and services - but the

sheer scale of investment needed for low carbon energy production, the related energy infrastructure and energy efficiency improvement means that the public sector must take a large share of the responsibility. Subsidies, tax credits and when necessary public sector financing are all tools that will have to be used. Options to harmonise and centralise such schemes must be considered in order to avoid distortion of competition between Member States.

Funding to bring low-carbon technologies forward is crucial, but care must be taken not to direct resources into specific technologies too early, i.e. to try to pick a winner at an early stage.

Many promising low-carbon technologies currently have higher costs than fossil-fuel incumbents. Here it is not appropriate to build the development and commercialisation purely on the carbon price. Most new technologies will require, at some stage, both the "push" of R&D support and the "pull" of market development. Therefore the EU should pursue energy technology innovation through a number of policies. The EU Strategic Energy Technology (SET) Plan sets the right direction for a low-carbon and secure energy future but lacks financing.

4) Greater cooperation at EU level could lead to most cost-efficient emissions reductions

A focus on cost-efficiency (point 1) and a more harmonised approach to public sector intervention (point 3) leads to the question of WHERE compliance should be ensured to optimise cost-efficiency. Current Member State targets for emissions and renewables are first and foremost *tools* of achieving the overall EU targets. National targets could however lead to efficiency losses and perverse incentives, as seen by some current national plans for wind and solar energy in areas where conditions for such energy production are suboptimal. Although specific emission and renewable targets for specific Member States may be politically desirable, it is not always efficient as abatement costs vary among Member States. As an intermediate step towards single EU targets, Member States should have the possibility to contribute to national targets through activities across the EU. This approach would result in lower abatement costs on the aggregated EU level and boost low carbon investment.

Finally, BUSINESSEUROPE acknowledges that a high carbon price in certain cases can incentivise investment, but we would like to underline that a low carbon price is not necessarily a symptom of market failure. It must be recalled that the objective of carbon trading is to minimise the societal cost to achieving a set target. The EU's goal in this context is to contribute to climate change mitigation by setting targets for CO_2 reductions, and accordingly cap the emissions from certain sectors. The lower the cost at which this can be achieved the better, as a high carbon price increases the risk of carbon leakage. Moreover, a lower carbon price resulting from an internationalisation of carbon markets will not prevent investment and innovation, but make sure that action is taken where it is the most cost-effective. It must be recalled that the environmental value of each ton of reduced emissions is the same - independently of the abatement

cost, and independently of where on the planet the reduction is achieved. By restricting (or failing to deliver) an international carbon market, the resulting artificially high carbon prices will make expensive reduction efforts profitable and will deter less costly investments with higher environmental integrity, but not covered by the market mechanisms.

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Annex: BUSINESSEUROPE's position paper "*European business recommendations on EU policies for climate and energy*".

BUSINESSEUROPE

POSITION PAPER

7 October 2010

EUROPEAN BUSINESS RECOMMENDATIONS ON EU POLICIES FOR CLIMATE AND ENERGY

Executive Summary

BUSINESSEUROPE is committed to transforming Europe's energy system in order to achieve a low-carbon, secure and competitive economy. In line with science, the goal is to at least halve global greenhouse gas emissions by 2050 compared with 1990 levels. This means nothing less than revolutionising the way the world produces and uses energy.

Action now is key. It must be ensured that investments are made to set the EU on the right course towards its long-term goals without compromising the competitiveness of the industrial sectors that will be crucial for Europe's future growth and jobs. Achieving the EU's 2020 targets must be the first goal.

European companies have impressive track records for reducing their greenhouse gas emissions and, more importantly, for enabling emission reductions across European society and across the world through innovative products and solutions. To support these actions companies need a predictable and fully integrated policy approach, starting with joined-up action across the EU institutions, and clearly linked with the national climate and energy strategies of Member States.

This document sets out, in part I, the key principles which should drive the EU policy strategy:

- Implement existing climate and energy legislation
- No increase of the 20% emission reduction target until the international conditions are fulfilled
- Integrate EU policies for climate, energy, industry and innovation
- Give more attention to the global energy competitiveness of industry
- Improve efficiency of the whole energy system
- Focus on growth across all sectors
- Pave a cost-efficient way for 2050

These are followed, in part II, by recommendations for the policies needed to implement this:

- Focus on the implementation of existing EU instruments to drive energy efficiency
- Let all energy sources play their role in Europe
- Create conditions for a competitive, low-carbon European energy system
- Improve the framework for investment and research in low-carbon technologies
- Gear the Emission Trading Scheme (ETS) to support a strong and diversified industrial base in Europe

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I. TOWARDS A NEW LOW-CARBON ENERGY STRATEGY FOR EUROPE

- Implement existing climate and energy legislation

BUSINESSEUROPE supports the objectives of the EU's 2020 climate and energy package. The focus now must be on ensuring the delivery of these ambitious targets in the most cost-effective manner. Implementation of the 3rd energy package is paramount for this. A liberalised, competitive, interconnected EU energy market will help the EU face the triple challenge of energy security, carbon abatement and business competitiveness.

- No increase of the 20% emission reduction target until the international conditions* are fulfilled

An important element of the EU's legally binding climate and energy strategy is to work towards the conclusion of a comprehensive international climate change agreement. Climate change can only be tackled globally. However, the international climate conference in Copenhagen was a disappointment. BUSINESSEUROPE is convinced that at this point in time, i.e. in the absence of an international deal securing equally strong action from other economies, any further increase of the EU's unilateral 20% emission reduction target would be premature and even counterproductive.

- Integrate EU policies for climate, energy, industry and innovation

Rather than focusing the EU climate and energy policy discussion on new numerical emission reduction targets, European business calls on EU institutions to work towards a comprehensive low-carbon strategy for Europe in 2020 and beyond which will provide a stable investment environment for European companies. For such a strategy to work, EU institutions must fully integrate policies for climate, energy and industry, involving the relevant DGs in the European Commission as well as the EU Councils for the Environment, Energy and Competitiveness. This strategy must also take into account, much more than was the case for example in the Commission Communication from 26 May 2010 "Options for moving beyond 20% greenhouse gas emission reductions", the micro-economic challenges and opportunities of climate and energy policies through more sectoral and regional impact assessments. The pragmatic sectoral, bottom-up and technology-based approach to the climate and energy challenges pursued for example in China is an approach from which the EU could learn.

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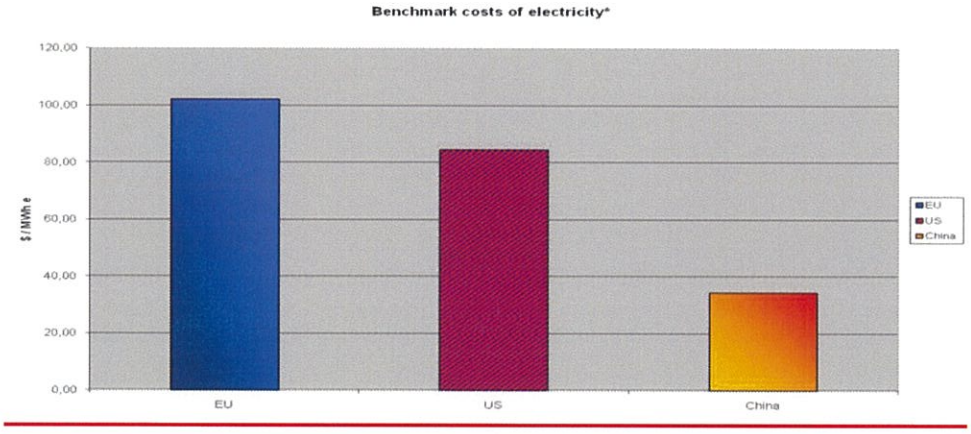
* As stated in the BUSINESSEUROPE Copenhagen Scorecard from October 2009, for European business the conditions for global climate agreement are:
- establishing a shared vision for long-term global action to combat climate change,
- committing all developed countries to internationally legally binding and equally strong emission reduction targets,
- creating a level playing field worldwide for internationally traded goods,
- setting internationally binding emission targets or policies from developing countries by 2020,
- instituting a strong and transparent universal regime for monitoring, reporting and verification,
- protecting intellectual property rights from compulsory licensing,
- enabling and supporting the development of global sector approaches,
- ensuring equal recognition of adaptation and mitigation activities.

- Give more attention to the global energy competitiveness of industry

The new Energy Strategy for Europe 2011-2020, which the Commission intends to formulate in early 2011, must be based on three cornerstones: security of supply, low-carbon economy and energy competitiveness. BUSINESSEUROPE supports the efforts made to trigger the transition towards a low-carbon economy and to improve its supply security, but regrets that the energy competitiveness issue has received much too little attention in the Commission May 2010 stocktaking document "Towards a new energy strategy 2011-2020". There is a real risk of carbon and job leakage caused by the cumulative cost of all energy policies. On average, electricity in Europe is 21% more expensive than in the USA and 197% more expensive than in China:



* Based on the 2007 IEA data, the chart above displays the benchmarks of the levelised costs of electricity (LCOE) with a discount rate of 10%. The electricity cost presented here is calculated on a weighted average mix of nuclear, coal and gas.

- Improve efficiency and cost effectiveness of the whole energy system

The purpose of an integrated EU policy for climate, energy and industry must be to restructure and optimise all the various stages of energy conversion: it is not only important which energy source is used, but also how it is transformed, how the transformed energy is used and which energy services are finally asked for (e.g. in mobility: individual or public transport). To this end, all levels and interrelations of the energy system have to be scrutinised as a whole, from the primary energy source to energy services. A sole concentration on the supply of energy is clearly not enough. Innovations in the energy system, and the development and commercialisation of technologies have to play a key role.

The policies to support this transformation must aim to achieve their goals at the lowest cost and highest benefit to society, which will require a careful balance between market-based instruments and regulation at all levels.

- Focus on growth across all sectors

The EU will only lead by example if it shows that reducing emissions and securing energy supply can be reconciled with economic development. Contrary to the assertion in the Commission Communication from 26 May 2010 "Options for moving beyond 20%

greenhouse gas emission reductions", the current crisis has not made it easier for Europe to achieve higher emission reduction targets. Economic actors and SMEs in particular today lack capital to invest in costly new low-carbon technologies. Investments are key, however, to drive the structural change necessary for transforming the way Europe produces and uses energy over the next decades.
The artificial distinction between "green" and "non-green" industries is inadequate and misleading. Functioning value chains are indispensable for producing innovative high-tech products like wind-turbines, electric cars, carbon-efficient power plants, etc.

- Pave a cost-efficient way for 2050

The Energy Strategy for Europe 2020 must also be fully integrated with the Commission's project for a low-carbon energy roadmap to 2050. The low-carbon path to 2050 outlined in the Commission staff working document on 26 May 2010 is not necessarily the most cost-efficient path. A linear path, as proposed in that document, will generate extra costs for those European companies, which already bear the largest part of the low-carbon transition efforts. BUSINESSEUROPE advocates a path which takes account of the commercialisation cycle of new low-carbon technologies, such as Carbon Capture and Storage (CCS), and their growing profitability over the years. Such a strategy will be better adapted to the real evolution of the technologies for a transition to a low-carbon energy system.

II. POLICY RECOMMENDATIONS FOR A NEW LOW-CARBON ENERGY STRATEGY FOR EUROPE 2020

A. Focus on the implementation of existing EU instruments to drive energy efficiency

Work in various Member States[†] to assess the available carbon-reduction opportunities according to their cost indicates that much of the required carbon emission savings can be made cost effectively from more efficient energy use in homes, in business and in transport.

The upcoming revised EU Energy Efficiency Action Plan needs to become the backbone for reducing greenhouse gas emissions and improving energy security by involving all parts of the economy in a cost-effective manner.

The priority should be given to the effective application of existing EU instruments, instead of adding new layers of regulation. The benefit of an EU-wide, legally binding energy efficiency target needs careful assessment. Establishing appropriate measurement instruments would be difficult and costly, and agreeing on a business-as-usual scenario against which to measure efficiency improvements would be politically

[†] A list of carbon-reduction "cost curves" for various countries and regions, prepared by consultancy McKinsey, is available at:
http://www.mckinsey.com/clientservice/sustainability/Costcurves.asp

and technically challenging. On the other hand, a number of concrete EU policy areas should be emphasised to ensure that energy is used more efficiently, such as

- Energy efficiency in buildings

The buildings sector is the largest consumer of energy in the EU with a 40 percent share of final energy demand. Private households use the better part of this energy for residential heating and cooling and the generation of hot water. The energy-efficient refurbishment of existing buildings and the construction of energy efficient new housing, commercial buildings, public buildings, e.g. schools, and social infrastructure can boost economic growth and promote climate protection. Focus should be put on the following measures:

- Use of huge potential in the thermal improvement of existing building stock
- Obligatory increase of percentage of new buildings with passive house standards or equivalent
- Intelligent construction with multifunctional building materials in building constructions
- Smart metering to create awareness among individuals
- Incentives to overcome the landlord-tenant dilemma in the buildings market

- Energy efficiency in power generation and transmission

There is significant scope to increase energy efficiency on the supply side. Among the areas where advances could be made is Combined Heat and Power (CHP). With increased use of district energy a lot of the energy wasted today could be distributed to consumers. District energy is a proven and available technology which allows for a multiple range of energy sources to come into play. Equally, industrial CHP is potentially a very efficient way of saving fuels and energy in some industries. At the EU level the political framework should promote these technology options where economically viable, in line with the general EU framework for liberalised energy markets.

- Implementation of revised Energy Labelling / Eco-Design Directives

The revised Eco-Design and Energy Labelling Directives will stimulate the transition towards an eco-efficient economy and strengthen energy-efficiency information towards consumers. Their implementation must fully take into account lifecycle thinking, which incorporates all relevant energy-related aspects that occur from a product's initial manufacture to the end of its life. The role of industrial stakeholders in the implementation process should be strengthened. The institutional agreement concerning public purchases of energy-efficient products should become much more ambitious.

- Efficiency in transport

BUSINESSEUROPE welcomed the European Parliament's Report "A Sustainable Future for Transport" and supported the general direction the report has taken. Given that Europe needs to ensure secure supplies of all transportation fuels, an integrated and balanced approach is needed, considering the economic, environmental and social pillars. Furthermore, business supports the principle of co-modality: adequate infrastructures with intermodal links provide a better exploitation of the strengths of each transportation mode, which can contribute significantly to reducing congestion, emissions, pollution and accidents.

In order for emission reductions in transport to be achieved as cost-effectively as possible, the evaluation of new transport energies for all transportation modes must be based upon their CO_2 efficiency in the production, distribution as well as consumption phases.

B. Let all energy sources play their role in Europe

- Renewable Energy

Renewable energy is an increasingly important element of the EU energy mix. The future grid infrastructure must cater for stronger use of intermittent energy sources like wind or solar. This makes it necessary to increase capacity of electricity interconnections as well as conventional energy sources as a back-up when weather conditions reduce the effectiveness of wind and solar power.
At the same time it must be acknowledged that energy prices have risen significantly in some Member States due to renewable energy support. Renewable energy support should be designed in such a way that it does not cause excessive increases of electricity prices. Otherwise, it would damage Europe's competitiveness. In the short term, energy-intensive industries must be compensated for their increased energy costs to reduce the competitiveness risks due to the cumulative impact of energy policies. In the long term, and without prejudice to the prerogative given by the EU Treaty to Member States to choose their own energy mix, renewable energy support schemes must be harmonised to ensure investment in renewable energy where it is economically and environmentally most efficient, so that these energy sources eventually become commercially viable.
Regarding biofuels and biomass the European Commission should propose harmonised and binding sustainability criteria for the use of solid and gaseous biomass. Harmonised sustainability criteria are essential to ensure that biomass is environmentally, economically and socially sustainable. The full impacts of technology and infrastructure developments and emissions in production and use should be integrated for an effective choice between energy sources.
Finally, renewable energy support should ensure that it benefits growth and jobs within Europe as well as European security of supply.

- Nuclear energy

Nuclear power is currently the best commercially available low CO_2 energy source for base load electricity to cover growing electricity demand and to replace old fossil-fired power plants. Nuclear power therefore has an important role to play in reducing CO_2 emissions and is one functional way for the development of renewable energy sources. Nuclear energy reduces risks of energy import dependence, and hence increases security of supply. Though the initial investment cost of nuclear power is relatively high, in countries using nuclear energy it is the cheapest electricity source. As changes in fuel cost have little impact on total cost, the production cost of nuclear electricity is stable and predictable for decades to come. These competitiveness and predictability parameters are important for energy-intensive industries and for their investments.
Moving towards EU-harmonised licensing and towards standard designs should lead to economies of scale and improved safety. Long-term voluntary commercial arrangements like the Exeltium model can help translate the cost-competitiveness of nuclear into electricity prices for the final consumer. While China, the USA and other

world powers are endorsing aggressive development strategies in nuclear energy, the EU energy strategy must make sure that the technology leadership of European companies is sustained, as only then will maximum creation of jobs be secured in the EU.

- Gas

Natural gas has a major role to play in meeting the overall EU goal of safe, secure, sustainable and affordable energy for all. The IEA predicts that even in 2030, 35% of EU gas demand will still be met by European production. The development of unconventional gas looks promising and may further increase global gas reserves. There could be considerable potential for Europe in this regard. New gas pipeline projects in Europe and increased supplies of Liquid Natural Gas (LNG) will further ensure diverse sourcing and routes. Gas technology is mature and can thus rapidly help secure supply and achieve large emission reductions. Gas will also be crucial to back up increasing proportions of intermittent energy supply from renewable sources.

- Oil

According to the IEA, oil will continue to provide 30% of EU primary energy in 2030 and in particular 80% of transport fuels, even in their low-carbon scenario. In addition oil is a key part of the supply chain that delivers many different products to industrial customers and end-consumers. The ability to refine crude within the EU is a key element for the region's supply of secure and competitive energy and raw materials.

- Coal

Coal (hard coal and lignite) provides security of electricity supply for many countries inside and outside Europe and will thus remain a dominant fuel source for many years to come. In order to secure sustainable and environmentally friendly use of coal in the future it is of utmost importance to develop clean technologies such as Carbon Capture and Storage (CCS). Therefore further R&D activities are needed in order to make clean coal technologies economically viable in the future. For the time being the EU must continue supporting demonstration projects to help develop these technologies.

C. Create conditions for a competitive, low-carbon European energy system

- Integrated and modernised energy networks

Sufficient investments in cross-border interconnection infrastructure are crucial, particularly for interconnections of long-term economic European interest. The Presidency Conclusions of the May 2007 European Council called for at least 10% of electricity and gas interconnection capacity by 2010. Everything must be done to let the market forces play their role in this respect. In some specific cases, obstacles might however impede market-driven investments in infrastructure. In these cases the Commission should conduct an analysis of such obstacles and propose specific measures to remove them.

Greater cross-border interconnection and projects under consideration such as the North Sea Grid would facilitate greater integration of renewable energy sources. However, lack of political coordination or regulatory compatibility between Member States can prevent projects of European interest from receiving the support they need. Offshore wind development presents difficulties where it is proposed to connect a wind

farm to more than one Member State. A potential integrated grid would benefit from an EU-coordinated solution such as that suggested for the forthcoming Energy Infrastructure Package.

Focus should be put on:
- Strengthening cooperation at EU level of energy network operators (strengthen role of ENTSO), in particular with the aim of strengthening cross-border interconnections and capacities.
- Accelerating authorisation procedures for infrastructure projects.
- Improving framework conditions for investments through loan guarantees and continuous co-financing of energy infrastructure by the EU.
- Creating incentives for roll-out of smart grids.
- Improve social acceptability of large infrastructure projects

- Internal market

It is essential to continue building a real European internal market for all energy sources. Establishment of a comprehensive European internal gas and electricity market is a critical factor for reaching the goals of competitiveness, security of supply and development of efficient climate protection measures. Overall implementation of the European energy liberalisation package is currently poor. The second liberalisation package has not been adequately implemented in several EU Member States, which represents a serious obstacle in both delivering quality services and realising responsible development strategies. Moreover, there is a lack of efficient enforcement tools for ensuring appropriate implementation of legislation put in place in a number of Member States.

Oil product markets were recognised in a recent study commissioned by the EC as being competitive, with EU-wide specifications and efficient logistics. Different practices in the introduction of biofuels across Member States should not prejudice the economic and reliability advantages of a common European market.

- Market oversight

The regulation of energy, carbon and financial markets must focus on actual policy failures while avoiding excessive regulatory costs and unintended consequences. With DG Energy consulting on energy market oversight, DG Climate Action examining carbon market regulation and other Commission services focusing on various financial market reforms it is essential that the EU, Member-State governments and regulators are fully joined up as all these potential regulations will affect energy investments.

- Cross-border fees

Regulations on conditions for access to the network for cross-border exchanges in electricity and gas should be fully implemented and enforced. In particular, methodologies and practices concerning cross-border fees in the electricity area should be reviewed (e.g. regarding congestion fees) and addressed where appropriate.

- Market coupling

To enable the creation of a better functioning and single European internal energy market, market coupling is an essential tool that needs to be implemented in the areas of gas and electricity. Coupling of national and transnational markets needs to make

progress. The draft Strategy should therefore provide a stable platform for activities leading to closer and more efficient cooperation between markets, resulting in the medium term in their integration into one single European transparent energy market, with harmonised price-fixing approaches.

- Long-term contracts

The new energy strategy should take initiatives for promoting best practice in terms of long-term contracts between energy suppliers and users, co-investment models and other risk-sharing models (e.g. Exeltium model). These long-term commercial arrangements can facilitate investment decisions as they give visibility of the economic conditions for future electricity supplies, an element which is important for energy producers and industrial energy consumers.

- Standardisation policy

A standardisation policy of power plant technology on the European scale would improve economies of scale and thus dramatically reduce cost, increase reliability, improve safety and create a virtuous cycle of experience exchange within Europe.

- Demand management

For structural reasons, peak and trough demands have become more extreme and frequent in Europe, leading to strong amplitudes of consumption. Development of policies for modulating the demand will limit investments in peak production tools, which are often uneconomical and strong greenhouse gas emitters.

- External energy policy

The EU should develop a more coherent framework to develop effective and properly financed policies to diversify energy imports, to reduce the over-reliance of some Member States on a single gas supplier and to engage in constructive dialogues with key producer countries on security of supply issues and with major consumer countries to cooperate on energy efficiency matters. As Europe is increasingly reliant on external supplies of energy that are often controlled by state-owned energy companies, commercial negotiations would benefit from high-level political support.

D. Improve the framework for investment and research in low-carbon technologies

Funding to bring low-carbon technologies forward is crucial, but care must be taken not to direct resources into specific technologies too early, i.e. to try to pick a winner at an early stage.

Many promising low-carbon technologies currently have higher costs than fossil-fuel incumbents. Here it is not appropriate to build the development and commercialisation purely on the carbon price. Most new technologies will require, at some stage, both the "push" of R&D support and the "pull" of market development. Therefore the EU should pursue energy technology innovation through a number of policies. The EU Strategic Energy Technology (SET) Plan sets the right direction for a low-carbon and secure energy future but lacks financing. Ways to fund low-carbon energy research, development and deployment:

- Article 10 of the revised EU ETS Directive calls for a high percentage of the revenue from auctioning to be earmarked for financing the development of new energy technologies.
- The EU budget should be refocused on innovation, with a special priority on climate and energy technologies.
- Financing means for low-carbon technology projects, especially energy efficiency must be expanded in institutions like the European Investment Bank or the European Bank for Reconstruction and Development.

E. Gear the Emission Trading Scheme (ETS) to support a strong and diversified industrial base in Europe

The EU ETS must set a clear direction for companies and support long-term confidence in the value of low-carbon investments, especially in the power sector. But at the same time the international competitiveness of industry must be protected. With Europe recovering from the crisis and industries re-starting growth and re-establishing positions in competitive markets, this obligation will be difficult, especially for energy-intensive industries: according to the European Environment Agency, European manufacturing industry already decreased its fuel emissions by 22% between 1990 and 2007. Energy efficiency improvements were the main driver of this reduction. Further efficiency improvements will therefore be costly, especially compared with opportunities to save energy, e.g. in households.

The use of highly efficient industrial products saves emission throughout their product lifecycle. It is essential to protect the competitiveness of and stimulate the growth of industrial companies that provide the solutions for a low-carbon society. The "Copenhagen Accord" agreed at the UNFCCC COP-15 Conference in Copenhagen in December 2009 is legally non-binding and has not established a level playing field. Therefore, it has not reduced the carbon and job leakage risk.
The functioning of the ETS relies on clear, transparent and predictable rules for the actors. Therefore plans to dictate the "right" carbon prices by interfering with the cap and the rules will prevent building trust in the market.

Adequate measures to mitigate competitiveness distortions and to prevent carbon and job leakage must be put in place:

- Free allowances based on achievable benchmarks

Free allowances based on achievable benchmarks and other allocation rules provide the right incentives for companies to make long-term investments in low-carbon technologies. The benchmarks based on the 10% best performing installations in a sector should be the target set for 2020, thus providing enough time and funding for investments in line with industrial investment cycles. Given the lack of comparable, comprehensive carbon-reduction policies in other major economies, European industry should receive the maximum amount of free allowances permitted in the revised ETS directive. The declining absolute amount of free allowances in the scheme will make the ETS sufficiently stringent and prevent over-allocation.

- Compensate for indirect cost effects

Since the beginning of the ETS in 2005, electricity-intensive industries have been strongly affected by indirect cost effects through an ETS-induced increase in electricity prices. The current revision of EU environmental state aid guidelines must be adopted as soon as possible to allow for adequate compensation of these costs by Member States.

The energy-intensive sectors subject to the EU Emission Trading Scheme should also be able to use a hardship clause concerning additional costs such as those indirectly imposed by renewable energy support schemes.

- Ensure future use of offset credits

Credits from the Kyoto flexible mechanisms are playing an important role in the development of cost-efficient reduction strategies for companies within the ETS. Use of these credits are already strictly controlled and plans to further limit the usage of credits from the Clean Development Mechanism (CDM) within the EU ETS could be to the detriment of this still unfurling market.

In addition to an increased use of credits from project-based mechanisms options for domestic offsets or sectoral crediting should be explored. However, the implementation of these mechanisms will take time; Kyoto-based mechanisms remain the only channel to attract low-carbon investments in developing countries for the time being.

- Refrain from imposing border adjustment measures

Given the EU's dependency on open markets and a rules-based international trading system BUSINESSEUROPE opposes unilateral trade measures to enforce non-trade objectives. Proposals to impose "border adjustment measures" for carbon-intensive imports will not solve the carbon leakage problem. Even if made compatible with World Trade Organisation rules, such measures would fail to address the competitiveness concerns of European industries. Only if import restrictions were taken by main trading partners (e.g. the USA), the EU would have to consider appropriate reactions.

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