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EU Commission Consultation

"Towards a new Energy Strategy for Europe 2011- 2020"

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At the beginning of May 2010 the Commission launched its consultation "Towards a new Energy Strategy for Europe 2011 – 2020" and published its related stock taking document. In the following Gesamtverband Steinkohle e. V., the German Coal Association presents its stakeholder input to the consultation.

Quite rightly the Commission states a "safe, secure, sustainable and low-carbon energy at affordable and competitive prices" as a necessity for European enterprises and the EU in general. A strong economy forms the basis for progress and prosperity in Europe. Consequently both EU industry and European citizens need a reliable supply of energy at all times. This is best ensured through a balanced energy mix in which the aspects of economic efficiency, environmental acceptability and security of supply have to be taken into due account and reconciled. Any overemphasis of one of these three important aspects will create a distorted picture, will rapidly bring the situation out of balance and tilt the scale to one end only.

The three key energy-policy objectives were also debated intensively at European level, even though the EU's 'climate package' tended to adopt a somewhat one-sided approach. The objective to reduce greenhouse gas emissions by 20 % compared to 1990 levels, to increase the share of renewables in final energy consumption to 20 % and to move towards a 20 % increase in energy efficiency ("20-20-20 target") is rather ambitious. Whilst it need to be ensured that environmental acceptability remains one element of the new European energy strategy it should not counteract others like the one for growth and jobs outlined by the European Council in March of this year and re-confirmed as a main endeavour in its June meeting.

A balanced EU energy policy would also be in line with the Lisbon Treaty, which states the functioning of the internal market and security of energy supply as two of the main aims of an EU energy policy. Other energy-policy aims mentioned in the Treaty refer to the promotion of energy efficiency and energy saving and the development of new and renewable forms of energy as well as the interconnection of energy networks.

At the same time the Lisbon Treaty acknowledges each Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply. This is obvious as each Member State has an individual set of factors governing its energy supply structure. So whilst an EU-wide consensus on specific energy-policy objectives makes sense and was, indeed, defined by the European Council on various occasions, national considerations have to be accounted for as well.

In addition the EU's energy policy must take account of the global energy policy dimension and cannot act in isolation. Otherwise it would expose citizens and economy in the EU to serious risks. Likewise an adequate EU energy policy is not an aim in itself but has to act in concertation with other EU policies, e. g. in the fields of the economy and employment, environment and climate protection, external security and internal social cohesion as well as regional development.

Currently global economic developments overlie the megatrends witnessed in recent years, including the rise in global demand for energy and raw materials. The world's population continues to grow, energy demand continues to rise. Though the recent recession has resulted in declining demand and falling prices on the energy and commodities markets, overall demand and prices are still higher than they were a few years ago. And it is likely that they will continue to rally as the economy recovers.

Climate protection

The European Union unilaterally committed itself to a 20 % reduction in CO_2 emissions by 2020 compared to 1990 and repeatedly expressed its readiness to cut emissions by 30 % provided that other developed countries commit themselves to comparable emission reductions and developing countries contribute adequately. It also calls for the global temperature rise to be limited to 2° C and wants to cut global emissions by 50 % until 2050 compared to 1990 levels. Its main policy instrument of choice to achieve this reduction is the European emissions trading scheme. The related Directive adopted in 2009 for the period 2013 to 2020 implies a significant reduction in emission levels. This means that by 2020 installations participating in the scheme will have to reduce their emissions by 21 % as measured against the reference year 2005.

The great majority of the emission permits are allocated to the electricity generating companies. These permits are no longer issued free of charge but will be allocated by auctioning. This will drive up the cost of electricity and the increase will have to be borne by Europe's industrial and private consumers alike. Full auctioning of emission permits in the power generating industry will hit the two carbon-rich fuels of coal and lignite particularly hard, as the greatest increase in electricity production costs will be felt in this sector. If the competitiveness of European industries is not to be excessively disadvantaged certain exemptions from the auctioning process need to be put in place for the energy-intensive sector, which would also include coking plants. These exemptions should provide for the free allocation of emission permits for the 10 % most efficient installations in the sector concerned.

The modernisation of existing and the construction of new coal-fired power plants with higher efficiencies is one of the most effective and immediately available measures for CO_2 abatement. Currently the EU average ranges around 38 %. Increasing this to some 45-46 %, which is technically and commercially feasible today, will reduce emissions (not only those of CO_2 but also SO_2 and NO_x, for example) by some 30 %. Likewise this is a contribution to resource conservation as less fuel is required to produce the same amount of electricity as before. In future even higher efficiencies of around 50 % in 700° C plants can be reached. This improvement could reduce emissions by as much as 40 %. Research and development efforts are geared towards even higher efficiencies and towards carbon capture and storage as a promising technology for the future to curb CO_2 emissions further.

In the future renewables will certainly make an increasing contribution to the EU's supply of energy. The EU's 20 % objective for renewables by 2020 may be achievable, but even then it should be clarified who will provide the remaining 80 %. Furthermore, a substantial further expansion of renewables is only viable if renewables become self-sufficient despite various obstacles. This may be possible in the long run but it is not reality today, it is not the only option for Europe and it cannot solve all ecological and economic problems of or energy system.

Security of supply

Any future European energy strategy cannot exist in isolation but needs to take account of global developments in the field of energy. Between 1990 and 2008 global energy consumption increased by more than 40 % and it is generally agreed that it is set to increase by a further 20 % until 2020 and by 36 % between 2010 and 2030. Even if the global economic crisis were to create a time scenario of a different kind the increasing shortage of fossil fuels is only a matter of time.

When drafting a new EU energy strategy security of supply issues have thus to be given sufficient weighting in the consideration process. The Lisbon Treaty is quite definitive in calling for guaranteed energy security and the repeated Russia-Ukraine gas disputes highlighted just how important these issues are for Europe. It is a fact that the high and growing dependence on energy imports from countries that tend to have a high risk valuation ratio (according to HERMES and the OECD) has driven up our own energy supply risk and will cause this to increase further.

Out of the three conventional fossil energies gas, oil and coal, gas has the lowest global reserves followed by oil and both have a static reach of 50 – 60 years. This means all recoverable reserves will have been used up after that time providing that consumption remains constant. Changes in consumption or the discovery of new reserves will alter this reach. For coal the static reach is much longer, namely 160 years. The technically recoverable reserves of Germany's coalfields constitute by far the largest energy reserves in the entire EU.

On a German scale coal reserves represent 63 % of the nation's total energy stocks. After 2020 Germany will be completely reliant on imported supplies of oil and gas. And if the decision to phase-out the indigenous coal industry is not revised this will also apply to coal. According to an indicator developed by the RWI institute the overall risk for German primary energy supplies has more than doubled since 1980 and will have more than tripled by 2020. A new enquiry of the EEFA institute has confirmed these tendencies for Germany, and demonstrated that the prolongation of using nuclear energy and the maintenance of domestic coal production could contribute essentially to limit the supply risks. To reduce the increasing supply risks threatening the energy markets an extended use of renewables alone will not be enough.

The role of coal in the EU and its Member States

The more energy a country needs to import the higher is its reliance on imports. According to EU Commission estimates the Union had to import 86 % of its oil demand, 64 % of its gas and 48 % of its coal last year. In future the dependence on imports will increase as the EU's domestic oil and gas reserves reached their depletion mid-points already. In just ten years time the EU will have to import 93 % of its oil, 76 % of its gas and 59 % of its coal, in 2030 95 % of the oil, 84 % of the gas and 63 % of the coal will have to be sourced from non-EU countries. In the study "World Mining Data 2010" carried out by the Austrian Economics Ministry far more than half of the imports had to be sourced from "politically unstable countries". Only 30 % of the countries producing and exporting steam coal in 2008 and 34 % of those producing and exporting coking coal could be classified as "politically stable". So it is not only the growing reliance on imports but particularly the higher dependence on imports from politically unstable countries which causes concern.

Similar views are expressed in a study entitled 'The future of coal', which was published in 2007 by the Energy Institute of the EU Commission's Joint Research Centre. According to this study it is not sure that increases in global supply will be sufficient to meet the medium- and long-term demand for coal. Coal's supply prospects on the world market are also said to be not nearly as secure in the long run as is frequently assumed. The reason for this is the relatively rapid decline in economically recoverable reserves combined with the high geographic concentration of the supplier countries and the growing corporate concentration in this market.

Security of supply is also a question of sourcing. Out of the 5.9 bn t of coal which were consumed in 2008 only 14 % were traded over the seas. This percentage will not have changed significantly by 2030. The vast majority of coal production is or will be consumed at or at least near the place of production. Fuels' trading is important as not every country using any particular fuel also disposes of it or produces less than it consumes.

World market prices are set to rise significantly in any case. This was the very scenario that took place in 2008, albeit temporarily. Consequently it appears to be logical that the EU's indigenous coal reserves should be exploited also in the future. The Commission itself emphasised the importance of indigenous coal in its Second Strategic Energy Review published in November 2008. This was re-confirmed repeatedly by the Heads of State and Government on the occasion of their EU Summits. Currently a paper is being drafted on the best use of indigenous fossil fuels with the objective to focus on the benefits of producing fossil fuels in the EU itself, i. a. for security of supply reasons. In addition domestic production also has economic advantages as the mining industry is a significant factor in several regions of the EU, e. g. Poland with its large hard coal industry, Germany as one of the world's biggest lignite producing countries and still leader in coal mining technology, the Czech Republic and others, where the coal industry plays a role in the regional economies.

The necessity of an new state aid regulation for the European coal industry

In some cases indigenous coal production would be impossible without subsidies for various reasons at current world market prices. The current EU Regulation for granting State aid to the coal industry will expire at the end of this year. A new EU regime on

State aid to this sector will then be required for the period commencing 2011. In the past the European Commission justified the current Regulation also on the basis of the contribution that coal production makes to energy security. According to the Commission a complete dependence on imported coal from third countries could increase the risks and uncertainties affecting long-term security of energy supplies to the EU.

Also in the case of national decisions to phase out coal subsidies there is the requirement of a new regulation for reasons of social and regional policy and managing inherited liabilities. But in any case it has to be taken into account that continuing coal mining will help safeguard access to the deposits. The cessation of coal mining in the EU member states would mean that production for the European market would increasingly relocate to third countries where environmental standards are generally much lower than in the European Union.

Retaining a minimum production level of subsidised indigenous coal would present obvious benefits. It would provide incentives and improve opportunities in the Member States. The additional emissions generated, for example, as a result of long-distance coal transport operations would also have to be taken into account. Overall, the global ‘eco-balance’ of the coal production sector would certainly not be improved as a result, and in fact would probably worsen.

A domestic coal industry also serves as a base for the development, deployment and marketing of modern mining machinery. It sets standards in health and safety with its stringent legislation and it provides for the further development of coal utilisation technologies, particularly in the electricity generation sector.

Moreover not all coal-fired power stations in operation at the present time can be switched over to burn world market-sourced coal – and even if they could this would only be possible after carrying out comprehensive conversion work and/or changing the transport infrastructure. Additional changes may therefore have to be made to existing generating plant to the detriment of a balanced energy mix in the electricity generation sector.

New challenges

There is no doubt that energy security depends on more than merely reducing the risks to primary-energy supplies. The EU also suffers from serious deficiencies in energy generation, processing and distribution capacity. What is more, the power supply companies are being deterred from new investment projects because of climate and environment policy-related planning uncertainty in conjunction with the comprehensive deregulation of the energy markets and the overall economic instability that has recently taken hold. Increased capital costs have now led to a further decline in planned investment throughout the European power station sector. In early 2009 the consultancy firm A. T. Kearney published a study presenting the projected downturn in investment levels to 2020. The result was an estimated capacity deficit of 20 - 25 %.

The German Energy Agency (dena) has repeatedly warned of an electricity shortfall in Germany: according to existing plans drawn up by the German electricity industry for the construction and replacement of conventional power station capacity in response to the proposed nuclear phase-out and the extension of renewables usage the country will have a 12,000 megawatt deficit in generating capacity by the year 2020. This represents about 15 % of the projected electricity demand, which means that supply interruptions at peak-load times could well be experienced.

Admittedly, integration into the European single market for electricity will help alleviate the peak-load problem. However, it will not resolve the capacity shortfall. Studies carried out by the European electricity grid operators (UCPTE) show that given the increase in electricity demand experience capacity shortages are more likely than capacity surpluses on a Europe-wide basis. And if the national and transboundary transmission networks are not developed and extended quickly enough shortages in supplies to consumers could arise even when there is sufficient production capacity. This applies equally well to other parts of the energy infrastructure. The need for major action in the energy supply sector has now been confirmed by the Energy Transmission Line Extension Law and other Government measures.

Energy resources will gradually become scarcer and more expensive as the twenty-first century progresses. There have been warnings of a forthcoming oil crisis. And there is now also talk of an impending gas shortage and the threat of an international gas cartel. When it comes to coal the problem is not so much an issue of quantity but their regional availability which has become a critical factor. The next economic upturn will bring with it renewed growth, with demand on the world coal markets tending to shift further towards Asia.

The new Energy Strategy for Europe 2011 – 2020 would be well advised to take account of all these facts. It should seek to maintain a balanced energy mix in which all energy carriers, be they domestic or imported, and all developed energy technologies are given their unbiased place. Then, without any doubt, coal has and will have a major place in the European Energy Strategy in the years to come.