



Annual Report 2010

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Message from the President



Dr.-Ing. Hartmuth Zei
President of EURACOAL

It is my great privilege to address EURACOAL Members and our stakeholders for the first time as President. 2010 was an eventful year for the coal industry in Europe. We witnessed a slow, but sustained recovery from the difficulties following the financial crisis of 2008 and saw the European Commission launch a number of new initiatives that will shape the energy sector in the EU over the coming decades. At the global level, the fifth Conference of the Parties to the UNFCCC in Copenhagen will be remembered as a high-water for climate negotiations.

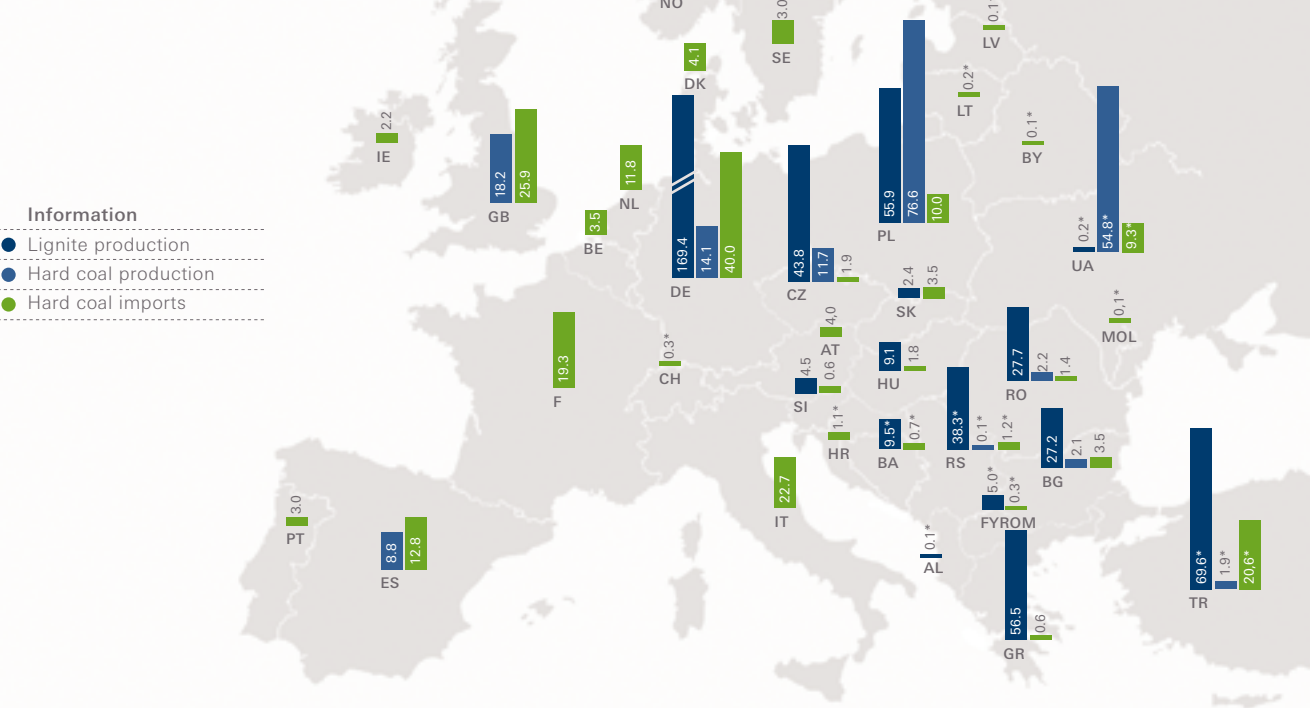
Our own new initiatives, notably the successful European Coal Days hosted in the European Parliament by Dr. Christian Ehler MEP, enabled us to present a positive image to policymakers and others who will influence the future of coal in Europe. As we look forward to an animated debate on energy and climate during 2011, EURACOAL Members can be sure that their joint efforts under our umbrella association will ensure that coal remains visible and properly understood, if not always loved. With its 28% share of electricity production, coal is central to a secure, sustainable and, above all, competitive energy supply in Europe.

Outside Europe, coal is enjoying a renaissance. It is the fastest-growing energy source with annual growth approaching 5% over the last decade, mainly driven by Chinese consumption which reached an estimated 3,300 million tonnes in 2010. Elsewhere in the developing world, coal has become the fuel of choice for electricity generation. Domestic coal producers in India have struggled to keep up with rising demand; South Africa continues with its ambitious policy goal of universal access to grid electricity by 2012; while Indonesia, the world’s fourth most populous nation, will rely more and more on coal as it expands its economy.

Alongside this story of growing consumption, is the remarkable growth in global coal trade which likely reached one billion tonnes in 2010, having doubled since 1990. Coal trade is mainly seaborne. Recent growth has been in response to import demand from China and India, rather than from OECD countries that have long enjoyed competitive coal supplies from the world market. Prices for imported coal have become higher and more volatile with the rising and somewhat unpredictable demand of China and India. Trade patterns have changed significantly, and it is likely that the EU must rely more on coal from its neighbours, including Russia, and from North and South America. Coal from South Africa and Indonesia will command higher prices in the closer Asian market.

These international developments should be positive for indigenous coal and lignite producers. Higher prices have made the sector more attractive. However, there is a caveat. As coal prices rise, it becomes a less competitive fuel for power generation, especially given the current glut of natural gas following large investments in LNG supply and the remarkable growth of shale gas production in the USA. Markets will find a balance, of course, but coal’s position will depend on a complex set of factors.

1 — Coal in Europe
Lignite production, hard coal production and imports in Mt in 2010
Sources: EURACOAL,national statistics, BGR
partly preliminary figures
*2009



1.

Message from the President

A key factor, over and above price, will be the impact on coal demand of the EU Emissions Trading Scheme. Now about to enter its third phase with full auctioning of allowances in the electricity sector, it will strongly influence the energy mix. Under the Lisbon Treaty, Member States remain free to determine their energy mix, but in practice, the mix will be determined by the availability of emission allowances. There are two ways forward: firstly, a Member State could shift its fuel mix for electric power generation to natural gas; secondly, it could maintain a balanced fuel mix by improving efficiency in power generation. The latter will require continuous investment in new, highly efficient generation capacity. If the way forward is a dash for gas, then this will place a heavy burden on those Member States who are reliant on coal for power generation because they will be obliged to fuel switch to more expensive imported gas. This important topic, explored in more detail later in this annual report, raises many questions for policymakers, in particular, how to maintain a policy framework which favours investment. The proposed revision in 2011 of the Energy Taxation Directive, after being put on hold in 2009, is of further concern.

Energy-sector investment has become a dominant challenge for governments. Policies that uniquely favour renewable sources have to be questioned. In any event, the expansion of renewables makes investment in retrofit and new coal-fired power plants necessary for back-up and flexibility. Unfortunately, public opposition to any type of new development in the energy sector has become a real problem. The European Commission explored this in its Energy Infrastructure Package published in November 2010 and, by identifying projects of “European interest”, hopes to speed up the approvals process for key projects. Important gas pipelines and electricity interconnectors will be identified by the Commission. There are also carbon capture and storage (CCS) demonstration projects that are of European interest. Their CO₂ pipelines and storage facilities will form part of a growing infrastructure that becomes an asset to Europe as it moves towards deep cuts in CO₂ emissions and a low-carbon economy. According to the International Energy Agency, Europe should have a large number of CCS plants operating by 2030. A common infrastructure needs to grow that links these projects with suitable storage locations.

The EU has taken a leading position on CCS and this is welcomed by the coal industry. To maintain this position, Member States must ensure that the planned CCS demonstration projects are built. Once proven, CCS technologies can begin to deliver the very substantial CO₂ emission reductions that the EU has agreed. The Commission will no doubt highlight this in its 2050 Roadmap scheduled for mid-2011. The 2050 Roadmap builds on the Energy 2020 strategy agreed by the collège of commissioners moments before Commissioner Oettinger addressed EURACOAL Members and MEPs at the European Coal Days in November. In addition to the priority given to energy infrastructure and completion of the internal market, we should note that targeted funding for CCS projects is called for by the Commission to speed implementation of the European Strategic Energy Technology Plan (SET-Plan) agreed back in 2007.

Message from the President

Looking ahead to 2011, the European Commission will devote much effort to its 2050 strategy for a low-carbon economy and, specifically, DG Energy’s 2050 Energy Roadmap. EURACOAL will engage fully with the debate that takes place in Brussels over the coming months.

Here, I note that most of the CO₂ emission reductions that are needed to achieve the 80-95% target by 2050 will take place post 2020. The strategy suggested by the coal industry would see the construction of high-efficiency CCS-ready power plants, to achieve modest emission reductions of up to 30%, followed by deep reductions when CCS is added after 2020. This strategy is affordable, coherent and keeps all options open. However, there must be a framework that is attractive to investors in power plant modernisation and renewal projects. For the coal industry, this is perhaps the most important challenge – how to secure new investment.

In conclusion, I wish to highlight three critical areas that EURACOAL will focus on in the coming year:

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- addressing the slowdown of investment in new coal-fired power plants;
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- promoting the successful demonstration of CCS, including transport and storage infrastructure; and
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- ensuring a rational EU energy policy that values a diversified energy mix, including coal.

EURACOAL will host events throughout 2011 that promote solutions to these challenges – some in co-operation with the European Commission, others with the support of parliamentarians. I look forward to meeting with Members and stakeholders at these events.

Finally, I would like to pay tribute to our past President, Mr. Petr Pudil who, until recently, was CEO and Chairman of the Czech Coal Group. He accomplished a great deal for our association over his many years of service, firstly as a member of our Executive Committee and, over the last two years, as President. With his dedication and commitment, he led EURACOAL through some important changes that enabled us to attain a new level of influence. I look forward to building on his accomplishments. On behalf of EURACOAL Members, I wish Mr. Pudil every success in his future endeavours. My thanks also go to Dr. Ritschel, who chaired the Market Committee for many years and served as a Vice President over the past two years. Last but not least, in pursuit of EURACOAL’s objectives, I appreciate the productive input of Members, committee chairs, the team in Brussels and the many others who help with our work. Thank you all for your co-operation. I ask and hope for your continued support to promote our mutual interests.

Dr.-Ing. Hartmuth Zeiß President

II.

Report by the Secretary-General

Mr. Brian Ricketts

The highlight of EURACOAL’s 2010 calendar were undoubtedly the European Coal Days held in the European Parliament during November. This successful week-long event was made possible by the generous support of EURACOAL Members. Physically, we placed the coal and lignite industry centrally within the Parliament building, and can be sure that the perception of our industry was improved as a result of the debates, presentations and exhibition. A full report appears later in this Annual Report.

Together with EURACOAL’s committees, the secretariat kept Members informed on the coal-related activities of the EU institutions during 2010. Meetings were held to promote the interests of the coal sector with the European Commission, European Parliament and Member State representations, as well as other bodies such as the European Economic and Social Committee. In addition, presentations were made at a number of important conferences, including at Helsinki, Finland; London, UK; Plovdiv, Bulgaria; Amsterdam, the Netherlands; and Freiberg and Darmstadt in Germany.

In June, EURACOAL hosted a mini conference following its General Assembly and Executive Committee meetings. Senior representatives from the International Energy Agency (IEA) and European Commission presented their thinking on coal, energy efficiency and carbon capture and storage (CCS). In his opening remarks, EURACOAL President Petr Pudil set out a series of robust messages in support of coal. Recognising that coal use is growing strongly outside the EU, Mr. Didier Houssin, Director of Energy Markets and Security at the IEA showed the important role of CCS at the global level, agreeing that it would be needed also at gas-fired plants. Mr. Philip Lowe, Director-General at DG Energy similarly saw CCS as “coal’s ticket to the future” and outlined the supportive measures taken by the EU.

The well-established Round Table on Coal or “Coal Round” in the European Parliament continued with a full schedule in 2010. This non-party political grouping of MEPs with an interest in coal, chaired by Dr. Christian Ehler MEP, allows debate on coal-related issues between EURACOAL Members, invited guests and MEPs. The three roundtables in 2010 were well attended and addressed a wide range of topics, including coal industry state aid, the role of coal in the EU, coal-related policy, CCS, coal-sector investment and coal markets. Perhaps in response to Parliament’s new powers under the Lisbon Treaty, we were delighted to see the Director-General for Energy seize the opportunity to speak at the Coal Round in November.

Together with DG Energy, EURACOAL organised the 6th Coal Dialogue in May 2010 under the chairmanship of Mr. Heinz Hilbrecht, Director, Security of Supply, Energy Markets and Networks at the European Commission. Representatives from Member States, the European Commission, the European Parliament and the coal industry attended the event. In his concluding remarks, President Pudil called for clarity on greenhouse gas emission reduction targets, an extension of the investment support allowed under the ETS Directive and a commitment to CCS. Mr. Hilbrecht agreed that with CCS, coal can look forward to a bright future.

Report by the Secretary-General

Mr. Brian Ricketts

Having noted on a number of occasions the lack of coal industry representation on the European Technology Platform for Zero Emission Fossil Fuel Power Plants (ZEP), EURACOAL successfully sought the appointment of Mr. Richard Budge, CEO of Powerfuel in the UK and developer of one of six large-scale CCS projects supported under the European Economic Recovery Package. Although his company has since experienced financial difficulties, the CCS project remains one of the most promising in Europe.

The Berlin Fossil Fuels Forum, hosted by DG Energy, was another important activity during 2010. EURACOAL was well represented at the October plenary meeting held in Berlin and was active on the various working parties, notably the Indigenous Fossil Fuels Working Party. EURACOAL Members delivered presentations and contributed to discussions that will shape the future of the Forum.

In the Sectoral Social Dialogue on Extractive Industry, overseen by DG Employment, Social Affairs and Inclusion, EURACOAL continued to play an active role, alongside other employers’ associations from the mining industry. The focus of work in 2010 was to complete the health and safety work begun in 2009. The “safer by design” and “safer by behaviour” initiatives will continue in 2011. EURACOAL was also pleased to support the “Future Role of Miners” conference in Budapest, organised by employee organisations.

On 20 July 2010, the European Commission published its proposal for a Council Regulation “to facilitate the closure of uncompetitive coal mines” by 2014 (COM(2010) 372). The majority of hard coal and lignite production in EU Member States is fully competitive. However, in some Member States (mostly in Germany, Poland, Romania and Spain), hard coal production is subsidised for a variety of reasons. EURACOAL had not previously taken a position on this state aid because it falls within the national competencies of individual Member States. Indeed, under the Lisbon Treaty, Member States were careful to retain the right to determine how they exploit indigenous energy resources, the general structure of their energy supply and their energy mix. EURACOAL responded in early October with a position paper setting out why the association believed that a flexible timeframe was needed to allow individual Member States to grant aid, having regard to the social, economic and energy supply considerations within those countries. Following strong representations by EURACOAL Members and other stakeholders, the European Commission reached an agreement at the eleventh hour that will allow aid to be paid through to 2018.

In another position paper, EURACOAL set out why implementation of harmonised rules for free emission allocations under Phase III of the EU Emissions Trading Scheme should be fuel-specific. The Commission had proposed heat benchmarks based on natural gas. These would disadvantage coal users whose emissions are inevitably higher than gas users and thus not covered by the free allocations. While DG Environment was adamant that fuel-switching to gas was a desirable outcome, representations led to a relaxation for heat supply to private households. Here, and to reduce the risk of consumers switching away from district heating, emission allocations will be grandfathered.

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Mr. Brian Ricketts

Others connected to coal-fired district heating systems, such as schools, hospitals, shops, public buildings and industry, may face additional costs for allowances throughout the transition period to 2020 – depending on Commission guidance.

Other position papers published in 2010 covered the Industrial Emissions Directive and EURACOAL’s position on CCS – see the Environment Committee report.

To support our lobbying activity in Brussels, EURACOAL published in June 2010, Guaranteeing Energy for Europe – how can coal contribute? This professionally produced and attractive brochure concisely states our position on European energy policy. An important and accessible account of EURACOAL and its predecessor organisations CEPCEO and CECISO was published by EURACOAL, also in June. This record of our history was researched and authored by Mr. Léopold Janssens, Secretary-General from 1999 to 2005. We are all greatly indebted for his diligence and determination in completing this project. Older EURACOAL Members can reflect on the events reported with a sense of pride and nostalgia, while younger Members can marvel at what has been accomplished in the name of coal since 1951.

In April, the Secretary-General led a group of a dozen officials from the European Commission on a field trip to Hambach opencast lignite mine in Germany and the nearby Niederaußern power plant, taking in the 1 000-MW Unit K, one of the world’s most efficient. A first-hand experience of our business and operations can positively influence the perception of coal and lignite. With Members’ support, field trips should be a regular feature of EURACOAL’s activities.

Finally, my thanks go to all EURACOAL Members for their co-operation and support in 2010, and to my small but dedicated team in our Brussels office. I also pay tribute to my predecessor, Dr. Thorsten Diercks who accomplished much for the coal industry during his five-year term at EURACOAL.

Brian Ricketts Secretary-General

European Coal Days 2010
in the European Parliament

At the European Parliament in Brussels, during the week commencing 8 November 2010, hundreds of stakeholders with an interest in coal gathered at the European Coal Days. Hosted by Dr. Christian Ehler MEP, this was a first for the coal industry, represented by Mr. Petr Pudil, CEO of the Czech Coal Group and President of the European Association for Coal and Lignite (EURACOAL).

At the opening ceremony, Mr. Günther Oettinger, Commissioner for Energy referred to the EU Energy Strategy 2011-2020, adopted earlier in the day, and looked ahead to the Energy Roadmap to 2050. On coal, he recognised “its important role in the European energy mix”, linking its future with technologies to capture and store carbon dioxide (CCS technologies) to achieve the deep cuts in CO₂ emissions agreed by the European Council. He promised that the EU would maintain its leading position and push ahead with the six large CCS demonstration projects located across Europe. By removing uncertainties, he hoped that the forthcoming roadmap would encourage much-needed investments, including in commercially viable CCS from 2020. Here, he spoke of the Commission’s infrastructure package that would include CO₂ pipelines and urged Member States to adopt quickly the EU CCS Directive of 2009 and so provide a legal framework for CO₂ storage.

At a public hearing of the Committee on Industry, Research and Energy (ITRE), EURACOAL Member Mr. Nigel Yaxley, representing UK coal importers, said that coal is the No. 1 fuel for electricity generation. Its use is growing faster than any other energy source, because it is the fuel of choice for electrification in developing countries, nowhere more so than in China. He predicted that coal, the most significant indigenous energy resource in Europe, will continue to be needed there for many decades to come and that the challenges it faces will be solved with the evolution of clean technologies. These sentiments were echoed by Mr. Jacek Piekacz, Chairman of the Polish Clean Coal Technologies Platform and CEO of Vattenfall Poland. He warned that “without coal, the EU would face the most expensive electricity in the world”. He called on governments to adopt CCS legislation and provide support for CCS demonstration plants, such as at Bełchatów in Poland. Also at the hearing, Mr. Isaac Pola, Director General of Mines and Energy in the regional Ministry of Industry from the Principado de Asturias, saw an important role for flexible coal plants to balance Spain’s now huge wind turbine capacity (20% of total). He cited the security value of indigenous coal production as justification for maintaining coal industry state aid. Mr. Mark Johnston of WWF disagreed, preferring to link the future of coal with climate protection and CCS, but acknowledged the need to avoid social hardship in the few mining regions that benefit from state aid.

During the Coal Days, RWE and Vattenfall hosted side events to present their coal businesses and debate with MEPs issues that affect the future of coal in Europe. Mr. Herbert Reul MEP and Chair of the ITRE Committee addressed a breakfast event where he questioned why more was not being done by policymakers to encourage more efficient coal-fired generation and the substantial CO₂ savings that could be made through the replacement and modernisation of older plants. Dr. Johannes Lambertz, CEO of RWE Power, explored the contradictions in European energy policy in a world where CO₂ emissions had risen 38% since 1990. A mix of technologies and a mix of energy sources would, he foresaw, provide us with multiple solutions to the climate challenge.

III.

European Coal Days 2010
in the European Parliament

Efficient, flexible coal plants, backing up intermittent renewables, would allow Europe to remain competitive and show leadership to developing countries as they expand their coal use, he said. At a dinner debate, Dr. Hartmuth Zeiß, CEO of Vattenfall similarly observed that no “silver bullet” solution was available to policymakers. Engineers had a high level of confidence in CCS, but, he said, more attention needed to be given to socio-economic aspects. Allaying public fears on CO₂ storage and securing adequate financial support were crucial to move forward, he said. Dr. Zeiß concluded by observing that “society has not been adequately prepared or informed on energy and climate issues: it has been sold a post-industrial story that is not compatible with a strong Europe and this has led to NIMBYism against any new developments”. In response, Mr. Heinz Hilbrecht, Director, Security of Supply, Energy Markets and Networks at the Commission suggested that a “grass-roots” approach was needed to gain public acceptance and that, in fact, communities often responded objectively to the benefits of energy infrastructure projects in terms of jobs and monetary compensation. He advised the coal industry to form a coalition with the energy-intensive industries, and even with the gas industry, since CCS would be needed by them. “CCS is not just a technology for coal-fired electricity generation”, he concluded.

At the 13th Round Table on Coal meeting with MEPs, the coal industry presented latest developments in sustainable mining practices, high-efficiency power plants and CCS, with a particular focus on the EU’s six CCS demonstration plants. Mr. Philip Lowe, Director-General for Energy at the European Commission reiterated points that he had made earlier at the ITRE hearing: the energy mix at national level is for Member States to decide; the challenge to decarbonise our energy system will require a concerted effort by the EU, its Member States and industry; and coal with CCS can maintain an important role in the future European energy mix. He highlighted the importance of the Energy Roadmap to 2050 since it would reflect national debates on energy in an EU-level scenario analysis – an aggregate assessment of the low-carbon energy options available to Europe. Dr. Ehler agreed that the challenges were enormous, but warned against an ethnocentric approach that ignored developments in the rest of the world where coal use was growing fast, notably China, India and Russia. Technological leadership, economic competitiveness and a pragmatic response on energy security were more important than populist policies that left Europe vulnerable and unable to influence the global response to the climate challenge, he said.

At the opening ceremony, where Mr. Pudil had thanked Dr. Ehler and the many supporters of the European Coal Days, he reflected that consumers want affordable energy, which often means coal, helpfully balancing the high cost of more sustainable renewables. Speaking on behalf of the coal industry, he called for:

- a European energy policy that recognises the role of coal and balances the three crucial elements of good energy policy: energy security, price competitiveness and environmental sustainability;
- a stable policy framework with incentives for those who wish to invest in high-efficiency low-emission coal-fired power plants; and
- politicians to lead public opinion on the need for new investments across the energy sector.

Mr. Pudil concluded that, “over a quarter of a million people are proud to mine coal in the EU because citizens of the EU value our end product – an electrified economy at an affordable price”.

European Coal Days 2010
in the European Parliament



1 - European Coal Days exhibition in the Altiero Spinelli building, European Parliament, Brussels, 8-12 November 2010.



2 - Mr. Günther Oettinger, European Commissioner for Energy addresses guests at the opening ceremony of the European Coal Days in the European Parliament, Brussels, 9 November 2010.



3 - Dr. Christian Ehler MEP welcomes guests at the opening ceremony of the European Coal Days in the European Parliament, Brussels, 9 November 2010.



4 - Mr. Petr Pudil, CEO of the Czech Coal Group and President of EURACOAL speaks at the European Coal Days in the European Parliament, Brussels, 9 November 2010



5 - Students visit the European Coal Days exhibition in the European Parliament, Brussels, 10 November 2010.



6 - Students visit the European Coal Days exhibition in the European Parliament, Brussels, 10 November 2010



7 - A display of coal at the European Coal Days exhibition in the European Parliament, Brussels, 8 12 November 2010

IV.

Committee Activities

Energy Policy Committee

Dr.-Ing. George Milojcic, Chairman

The Energy Policy Committee (EPC) mainly dealt with energy-, environment- and coal-policy issues, particularly in connection with initiatives of the European Commission and the decision-making processes of Council and Parliament. In an open discussion between EURACOAL Members, a co-ordinated opinion to relevant issues is developed and agreed. The arguments of the European coal industry on crucial questions are prepared in a suitable form and used to lobby in Brussels and in Member States.

In 2010, the Energy Policy Committee met on 24 March and on 15 September in Brussels. Both dates tied in with a meeting of the Round Table on Coal in the European Parliament, traditionally under the chairmanship of Dr. Christian Ehler, MEP.

The climate conference in Copenhagen in 2009 was judged a failure compared with Europe’s highly ambitious climate policy, and during 2010 all eyes focussed on Cancún. At first, a certain confusion prevailed in Brussels. The rather abrupt agreement made between the large players in Copenhagen, as well as the few concrete details, made it clear that binding restriction on CO₂ emissions and the introduction of a world-wide system to establish a CO₂ price, such as the EU ETS, will probably not be implemented in the foreseeable future.

The gap in views can be described by two quotations. On 22 December 2009, the German Secretary of State for the Environment, Mr. Röttgen sent a letter to the Members of the German Bundestag on the results of the Copenhagen Conference. Hidden on page 3 is the following sentence, “International climate policy is the ultimate test for what the future world order will look like and what role the European Union can and will play in

it.” This makes it clear that the issue is not only climate protection, but also economic and political power. This contrasts with a quotation from the Zeppelin manifesto on climate protection, published by the well-known German scientist, Professor Hans von Storch, with the following wording, “The Kyoto approach as a form of socially restrictive, wide-ranging global planning failed. A follow-up process, based on this hegemonic planning mentality, will not be purposeful.”

The two quotations describe a dilemma that the European Union has not been able to or wanted to solve. The worldwide regime wanted by the EU to control the amounts of CO₂ emitted by individual countries would presuppose that these states, in the case of non-compliance, are then subjected to major penalties from outside. Ultimately, it means giving up sovereignty over economic and energy policies. Debate today suggests that the USA and major emerging countries, with China and India at the forefront, do not want this.

In 2010, climate policy was replaced by a more urgent priority: managing the financial and economic crisis. First, measures to stimulate the economy had to be developed and implemented. During the course of 2010, it became clear that the common euro currency was exposed to massive threats because of diverging economic trends in individual Member States and, in particular, the lack of stability. The names of countries such as Ireland and Greece, but also Portugal and Spain, are used today as synonyms for the fact that the euro zone drifted apart economically and especially in terms of budgetary policy. The economic development of today’s struggling countries was initially very favourable in their early years of EU Membership. Reasons for this were, above all, the massive structural

Committee Activities

Energy Policy Committee

Dr.-Ing. George Milojcic, Chairman

assistance from the European Union and, later, the introduction of the euro providing the opportunity to borrow money inexpensively. During the recession following the financial crisis, dramatic weaknesses became obvious. The difficulty in bringing together a small number of states around a single objective within the euro-zone was highlighted by the example of budgetary discipline. A comparison with the ambitious EU objectives for international climate policy again shows a huge gap between wishful thinking and reality.

Notwithstanding the shift of focus in the EU and its Member States, energy supply and climate protection remained an important political field for action. At the beginning of 2010, the Commission stated its intention to develop an Energy Action Plan. Initially, a rapid development of short-term measures was envisaged, for example from 2010 to 2014. Later the plan shifted, in order to broaden its content and extend its time-spans.

The concepts of DG Energy developed to consider two time horizons. For the period 2011 to 2020, a strategy to support the policy objectives formulated under the heading “20-20-20” with appropriate legal packages and concrete measures. For the period to 2050, a separate strategy paper is to be presented in 2011.

The Energy Strategy 2020 was put forward by the European Commission on 10 November 2010. In parallel with this, the Energy Infrastructure Package was prepared and published on 17 November. In preparation, EURACOAL had drafted documents and positions papers that had been made available to decision makers in the European Commission and the Parliament during 2009 and 2010. In the “Energy Strategy 2020”, improved energy efficiency and the development of an energy

infrastructure to meet demand were at the forefront. Up to now energy efficiency is discussed very much in connection with energy use. Important conclusions are missing on the potential of modernising the power plant portfolio and on what measures should be taken in order to continue modernisation in the field of power generation.

As a topic, infrastructure is discussed in Brussels essentially in connection with power and gas networks. The topic of CO₂ infrastructure was addressed time and again by EURACOAL. On the one hand, Commission papers show that the question is considered important. On the other hand, concrete approaches are missing on what is to be undertaken by the EU or by individual Member States so that a CO₂ infrastructure can actually develop.

In EURACOAL’s opinion two issues therefore remain on the agenda: modernisation of the power plant portfolio, in order to maintain a diversified, secure energy mix including coal and the issue of CCS, covering CO₂ capture technologies and infrastructure for CO₂ transport and storage.

Current trends in energy markets raise the question of whether the coming years in Europe will be characterised by a dash for gas. The very strong build up of gas-fired generation capacity and the slowing down of new builds of coal-fired power plants give cause to fear that the CO₂ reduction objectives that underpin the Emissions Trading Scheme will be carried more by fuel switching than by further modernisation. Fuel switching away from coal in power generation would lead, in the long term, to the higher supply risks and higher costs associated with gas supply from more distant regions. EURACOAL argues in favour of an approach that

modernises power generation as a whole, i.e. improving efficiency of gas and coal use, taking into account the restricted CO₂ budget, while also maintaining a secure and generally competitive energy mix. It must be kept in mind that a dash for gas would burden certain Member States who have a high share of coal, not only in economic terms but also with additional supply risks.

Another important topic of discussion for the Energy Policy Committee was EURACOAL’s participation in the European Commission’s Berlin Fossil Fuels Forum. This mainly concerns the Working Groups that regularly meet in Brussels. An important date was the 6th European Fossil Fuels Forum that took place on 18-19 October 2010 in Berlin. Another topic for the Energy Policy Committee was the 6th Coal Dialogue with the European Commission on 17 May 2010 in Brussels. Preparation for the European Coal Days in the European Parliament, 8-12 November 2010 must also be mentioned. Within the Committee, an exchange of views took place on state aid to coal, current developments in the field of emissions trading, in particular the question of heat benchmarks for solid fuels, as well as current energy studies. Last but not least EURACOAL’s publications and its activities in the context of the Social Dialogue were discussed.

The participation of EURACOAL Members in the Energy Policy Committee in 2010 was again active and committed. Members’ specific competence again resulted in successful work, for which Members are cordially thanked.

IV.

Committee Activities

Environment Committee

Mr. David Brewer, Chairman

EURACOAL's Environment Committee continuously monitors any proposals put forward by the European Commission in the field of the environment which may have implications for the coal industry. The Committee endeavours to influence the development of such proposals from their inception and through the legislative procedures at European Parliament and Council level with a view to ensuring the interests of the coal industry are maintained. Common position papers are prepared.

The Committee also provides a platform for exchanging information on environmental issues in the Member countries, including the transposition of European Directives, and acts as a vehicle to represent the coal industry in stakeholder meetings at European level. Contact is maintained with other European trade associations such as EURELECTRIC and EUROFER to ensure common interests are advanced.

A large part of the Committee's work in 2010 related to the progress of the Industrial Emissions Directive (IED) through its final legislative stages. The Directive received its Second Reading in the European Parliament in June, was adopted by the Council in November and was published in the Official Journal on 17 December. Throughout the process, EURACOAL has been concerned to ensure that the maximum flexibility was retained for operators of coal-fired power plant. This was achieved with the Directive including provisions for a Limited Life Derogation through to 2023, Transitional National Plans through to 2020, an ongoing limited hours derogation for peaking plant and a limited derogation for high sulphur indigenous coals. At the same time, EURACOAL was concerned to ensure that the Directive did not include an Emission Limit Value for CO₂ and proposed

amendments to incorporate such a provision were rejected.

A related issue relates to work by the Commission on a possible trading scheme for sulphur dioxide and nitrogen oxides. EURACOAL is opposed to this and there appears to be little enthusiasm from both Member States and industry in general. It now seems that the Commission is unlikely to pursue this, although formal confirmation has yet to be received.

Also related to the Industrial Emissions Directive is a revision of the Best Available Technology Reference Document for large combustion plant (LCP BREF). Work had been due to start on this in 2010 but has now been delayed to 2011. EURACOAL is concerned to ensure that the review process includes appropriately experienced technical input from the electricity generating industry and will seek to be involved as far as possible.

EURACOAL is aware that there is a forthcoming revision of the National Emissions Ceilings Directive (NECD) which will set upper national limits on emissions. Work on this did not commence in 2010 and may not now start in 2011.

Taking the IED, the LCP BREF process and work on the NECD together, EURACOAL will seek to ensure that the outcome does not result in emission reduction requirements leapfrogging ahead of one another and thus leading to an uncertain investment climate. The same applies to any revision of the Gothenburg Protocol under the UNECE Convention on Long-range Transboundary Air Pollution.

Committee Activities

Environment Committee

Mr. David Brewer, Chairman

The Committee has continued its co-operation with EUROFER to establish appropriate benchmarks for coke oven plants which are included in the carbon leakage list which accompanies the revised EU ETS Directive. Coke works may receive initial 100% free allowances depending on benchmarks to be established in 2011 based on the 10% most efficient installations. EURACOAL also prepared a position paper on heat benchmarks under the ETS. Although a final outcome is awaited, the fuel-specific benchmarks called for by EURACOAL are not likely to be adopted. Instead, a compromise with grandfathered allocations for district heating plants that supply private households will ease the impact on coal-fired plants in this sector.

Successive European Presidencies have attempted to find common ground amongst Member States for a Soil Framework Protection Directive. EURACOAL has consistently opposed this potentially costly and administratively burdensome measure which also poses subsidiarity issues. The Directive has consistently failed to achieve the necessary level of support from Member States to allow it to progress and it now seems that the Commission has dropped its ill-founded ambitions in this area, at least for the next few years.

The Commission had also sought to bring methane emissions from active coal mines within the scope of the EU ETS. This could have been extremely damaging for deep hard coal mines. Following strong lobbying from EURACOAL, the proposal was dropped early in 2010.

Mercury emissions, including those from coal-fired power plants, are now receiving attention at UN level and the Commission can be expected to follow this with a revision of its related Thematic Strategy. EURACOAL's position

is that the application of flue-gas desulphurisation to coal-fired power plants, which is required by the end of 2015, resolves this problem.

The Committee continues to monitor the transposition in Member States of certain Directives, particularly the Mine Waste Directive and the CCS Directive, to facilitate the transfer of experience and to identify any common issues that may emerge. Members have been asked to report progress on the CCS Directive where difficulties may impede the roll-out of this essential technology.

The Commission has also developed a raw materials initiative. Whilst this does not include energy minerals, the Committee has informed Members of developments and it may be possible to develop some common themes via the Berlin Fossil Fuels Forum.

IV.

Committee Activities

Technical Research Committee

Dr.-Ing. Jürgen Czwalinna, Chairman

In 2010, the Technical Research Committee (TRC) again concentrated its activities on the EC Research Fund for Coal and Steel (RFCS), now managed by Unit G.5 in the Industrial Technologies Directorate of DG Research and Innovation. This €1.6 billion fund, created from past levies on the coal and steel industries, supports R&D to the value of approximately € 55 million each year, split between coal- and steel-related projects. Coal research itself is split into three distinct areas, with EURACOAL Members most active in TGC1 and TGC2 (Technical Group – Coal):

TGC1: Coal mining operation, mine infrastructure and management, unconventional use of coal deposits

TGC2: Coal preparation, conversion and upgrading

TGC3: Coal combustion, clean and efficient coal technologies, CO₂ capture

To help prepare a set of joint proposals for the 2010 RFCS coal research call in September, the yearly workshop was organised for EURACOAL Members and invited participants on 17-18 February 2010 in Marl, Germany. As input to the meeting, all participants submitted short descriptions of the technical content to the TRC organisers. These ideas are discussed and grouped into draft joint proposals, and co-ordinators identified for each. The co-ordinators' role is important, being in charge of preparing the actual proposal, with the assistance of project partners. Consistency with RFCS evaluation criteria is critical to avoid rejection by the Commission, so co-ordinators are empowered to exclude a partner from the project, if their contribution is regarded as unsuitable. Towards the end of the workshop, participants attended initial project meetings for discussions on project details. Altogether, ten projects were agreed

in Marl and participants welcomed the new two-day format which will be continued in the future.

A meeting with the new Head of Unit, Mr. Alan Haigh was held on 17 May 2010. Following a constructive discussion, the research priorities for TGC1 could be interpreted as:

- automation or process optimisation for increasing the efficiency of mining operations by using IT and communication technologies;
- geomechanics of the mining deposit, focusing on stress analysis or control, rockbursts or gas outbursts; and
- improved safety of operational mines by innovative means of mine ventilation, control of underground gas emissions, fire prevention or mine climate control.

On the same occasion, Mr. Haigh voiced his interest in receiving “success stories” on RFCS-supported R&D that had found application in industry. Later in the year, and following a TRC meeting on 23 June 2010 hosted by RWE in Cologne, EURACOAL provided a compilation of projects were results had been successfully applied in industry. These will help the RFCS Unit promote its activities, both within and outside the Commission.

EURACOAL continued with its voluntary pre-evaluation of RFCS proposals, beginning at the end of May. This internal exercise is carried out in order to give feedback and advice to all project partners on how best to meet the official evaluation criteria and how to improve their proposals. For each proposal, two TRC members are appointed as preview experts giving written feedback to the co-ordinators.

Committee Activities

Technical Research Committee

Dr.-Ing. Jürgen Czwalinna, Chairman

EURACOAL met again with the Head of the RFCS Unit on 16 September 2010 when EURACOAL's new Secretary-General took the opportunity to introduce himself. At this meeting, Mr. Haigh outlined his ideas for the future orientation of the programme to clearly differentiate it from the RTD Framework Programmes and to ensure its future relevance as EU hard coal production declines. He was also keen to see more involvement from non-EU partners, particularly from those countries where coal mining is of growing importance. However, for legal reasons, the RFCS is not allowed to fund non-EU partners, and he admitted that it would be therefore difficult to attract them.

As an industry-focussed R&D fund, the RFCS is of great value to EURACOAL Members and should be managed independently of the tax-funded EU Framework Programmes. However, EURACOAL agrees that the transfer of research results to the international dimension is possible and that this aspect should be included in future programme assessments. There may be pressure to incorporate the fund into the new FP8. EURACOAL would resist such a move because the fund was created and funded by industry for industry, and is specifically mentioned in the Protocols to the Lisbon Treaty.

During 2010, the Commission asked for the nomination of experts from the opencast mining industry to TGC1. Moreover, the important RFCS Coal Advisory Group (CAG) had two or three vacant seats and the Commission invited interested persons to apply. Similarly, the Commission called for experienced individuals to register in the FP7 expert database, since it is from here that the RFCS Unit selects proposal reviewers (<https://cordis.europa.eu/emmfp7/index.cfm>).

In early September, the CAG received a notification from the RFCS Unit detailing the legal requirement (Council Decision 2008/376/EC) to carry out a monitoring and assessment exercise of the RFCS programme and setting out a tentative timetable for this exercise. According to RFCS rules, a monitoring report on projects financed during the seven-year period 2005-12 is due by the end of 2013. As a first step, the Commission invited EURACOAL and CAG members to nominate candidates to carry out the assessment exercise and to join a Steering Committee. EURACOAL confirmed its preparedness to provide assistance at its meeting with the Head of Unit in September 2010. By letter of 30 November 2010, the RFCS Unit circulated a list of candidates, including three TRC members, who would prepare the terms of reference, the future tasks and specific Steering Committee activities. This Committee was scheduled to meet in January 2011 in order to agree the further procedure and to start drafting the terms of reference.

In October and November 2010, the RFCS Unit and a group of trial participants tested an electronic proposal submission system, compatible with the one used for FP7. At the CAG meeting in December, it was decided that the electronic submission system will be introduced as the sole submission system from 2011 onwards. EURACOAL welcomes this improvement.

TRC met again on 13 December 2010 in Brussels to review the outcome of the 2010 call, to consider the 2011 RFCS research programme and to discuss the RFCS assessment and monitoring exercise. In all, 22 project proposals were deemed eligible for support under the RFCS programme, of which eight passed the Commission's threshold. Only

five projects were recommended for funding. The other three made it to a reserve list, but their funding is highly unlikely in 2011, given the RFCS budget. For coal utilisation projects, 85.8 % of the available funding will be allocated, leaving just 14.2 % for coal mining projects. EURACOAL Members are participants in one TGC1 project and one TGC2 project.

Although this outcome may look biased, it brings the budget allocation closer to an informal understanding that a rolling average of 40 % will go to coal mining and 60 % to coal utilisation. For the period 2008 to 2011, it is now 44.55 % for mining and 55.45 % for utilisation.

To assist EURACOAL Members in their preparation of proposals during 2011, another coal mining engineering workshop is scheduled for 23 February 2011 in Essen, Germany and a similar workshop may be offered for those interested in TGC2. In addition, a TRC meeting will be hosted by ISSeP (Institut Scientifique de Service Public) on 18-19 May 2011 in Liège, Belgium.

IV.

Committee Activities

Market Committee

Mr. Nigel Yaxley, Chairman

The Market Committee met at the end of June and again in mid-October in Amsterdam, after the 30th Anniversary Coaltrans World Coal Conference, where committee members welcomed Mr. Eoghan Cunningham, Chief Executive of Global Coal as a special guest speaker. He presented on the new dynamics of coal trading, with banks and other third parties taking a much keener interest in coal as a tradable commodity.

The sharing of up-to-date production and trade information allows committee members to better understand coal flows within the EU and from outside, and to reflect on historic price developments. Thanks to contributions from Members and from VDKI, the committee again published three Market Reports in 2010. These are seen and appreciated as a reliable source of timely data by representatives of both the European Commission and industry.

Whilst 2010 figures are still preliminary, the general trends

described below are accurate.

World Hard Coal Market Overview

Global world hard coal production between 1990 and 2010 increased by an enormous 85%, reaching close to 6.5 Gt, of which 5.7 Gt was steam coal and 0.8 Gt was coking coal. Over the last decade, growth in coal use has been dominated by China.

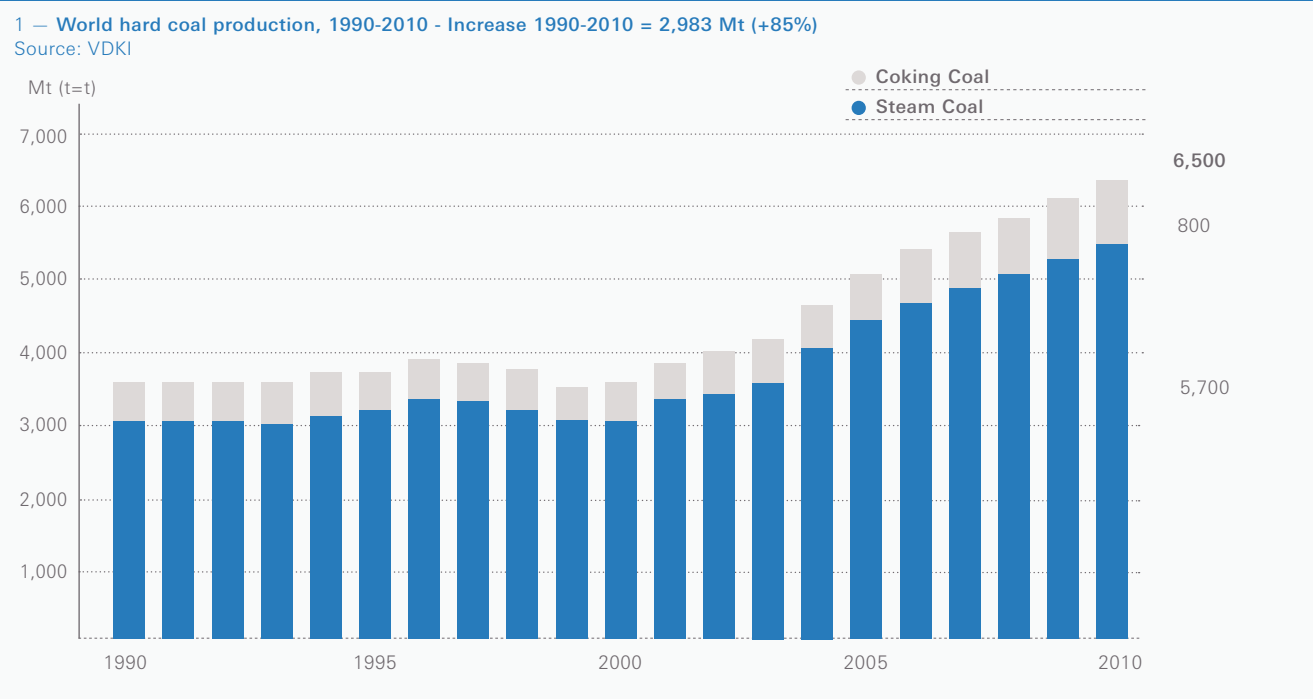
Preliminary figures on seaborne hard coal trade show an increase from 2000 to 2010 of 84%, reaching 971 Mt in 2010 (726 Mt steam coal and 245 Mt coking coal, 9% and 25% year-on-year increases respectively).

Japan was again the world’s largest coal importer with approximately 185 Mt. China’s imports again surged ahead in 2010 to reach 166 Mt, a 31% annual increase and making it the world’s second largest importer with apparently no limit to its appetite for coal. Korea and Taiwan were the next most significant importers: 119 Mt and 63 Mt respectively. Australia, with 301 Mt, was the main exporter

of hard coal (a 33 % market share), closely followed by Indonesia whose exports surged by 57 Mt to 290 Mt (+24%), and Russia with 90 Mt.

For the first time since 2007, the coking coal market returned to strong growth and recorded an increase of 49 Mt, major players being Australia (+24 Mt) and the USA (+17 Mt). Chinese demand for seaborne coking coal significantly decreased, as China relied on coking coal from Mongolia, transported by rail. World crude steel production was 1.4 Gt for 2010, an increase of 15% on 2009, with increased output in most regions.

Seaborne steam coal trade increased by 62 Mt compared with the previous year, the major driver being demand from the Pacific market. Europe and the USA, still suffering from the consequences of the economic crisis, saw their steam coal demand remain low. Major suppliers on the Pacific market were Indonesia (+60 Mt) and South Africa (+13 Mt), and Colombia on the Atlantic market



Committee Activities

Market Committee

Mr. Nigel Yaxley, Chairman

(+6 Mt). South Africa exported 9 Mt less to the Atlantic market and Russia 5 Mt less, both preferring to orientate their exports to Asian markets. The supply gap they left on the European market was largely covered by Colombian coal.

Hard Coal Prices

Spot steam coal prices to NW Europe followed a slight but stable increase over a long period since 1990, until the sharp peak in the summer of 2008. Even after the subsequent slump, prices have been generally higher than in previous years. The prices of around 130 US\$/t in early 2011 have been partly due to floods in Queensland, and partly due to the very cold winter weather in Europe. Freight rates from South Africa, on the other hand, have fallen slightly since the 2008 peak, as new bulk carriers have become available. As observed in previous reports, prices are unpredictable and nobody can foresee their future evolution.

Spot prices for coking coal varied in 2010 between 200-215 US\$/t fob. Prices are now mostly contracted on a quarterly basis, with an emerging spot market also becoming more important; analysts predict that contracts for 2011 could reach 400 US\$/t. The weak US\$ has made importing coal from the US to Europe more attractive.

Average coking coal contract prices	
	US\$/t fob
2005/06	125
2006/07	115
2007/08	95
2008/09	300
2009/10	130
Source: VDKI	

Spot prices for Chinese coke remained very high, reaching almost 500 US\$/t by the year end, and prices are expected to remain high in the future, along with prices for coking coal, due to strong demand. The floods in Australia in early 2011 will be an additional factor pushing prices up. This will certainly have an impact on the international iron and steel industry, the biggest customer for coke and coking coal. Some steam coal mines have the possibility to sell coking coal blends, thanks to careful preparation, increasing the coking coal on offer. Being traded in relatively low quantities, the coking coal market will inevitably stay volatile and unpredictable, often with a delayed response, as was observed for example with the Queensland floods. This is simply due to the fact that many customers will first use their stocks when prices are high, before negotiating new and hopefully more favourable contracts.

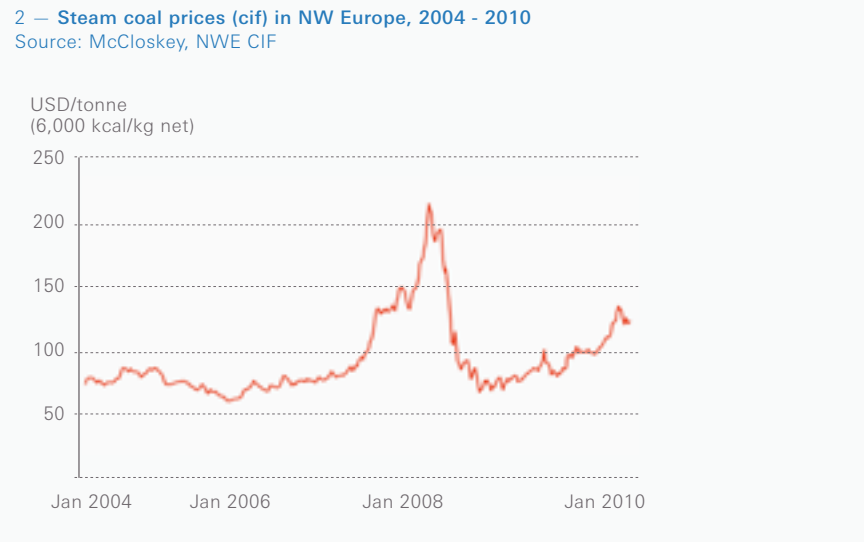
A noteworthy situation for Europe is the move by major steam coal exporters, such as South Africa, to sell more and more coal to India and China at higher prices than are available on the EU market. Asia now tends to set world prices and this will continue for as long as the Asian economies are booming.

Freight Rates

Analysis shows a clear correlation between the Baltic Dry Index, Richards Bay – ARA freight rates, and spot freight rates (capesize) for hard coal delivered to ARA ports from elsewhere. Freight rates remained low in 2010, e.g. an indicative 8–14 \$US/t on the Richards Bay – ARA route, which is hurting shipping companies, with some going bankrupt and others selling their newly acquired vessels for as little as half their purchase price. It is also having a curious affect on freight rates, which can be similar even for very different routes and distances. Once again in 2010, European cif prices dropped below Richards Bay fob prices, indicating a lack of coal movements along this once important route. Overall, the situation for shippers is not healthy, but is, nevertheless, the proper outcome of a free market.

Carbon Prices

Unlike coal prices and freight rates, carbon prices have shown little or no volatility, leaving very few trading opportunities.



V.

Energy in Europe

Dash for Gas versus Widespread Modernisation

Dr.-Ing. Hartmuth Zeiß

and Dr.-Ing. George Milojcic

What we currently observe in Europe is a dash for gas and a slowing of coal-fired power plant modernisation projects. EURACOAL is concerned and recommends maintaining a balanced energy mix with new investment in efficient clean coal technologies for electricity generation. In this way, Europe can set a good example in successfully combining all energy policy targets!

From regional monopolies to a single EU market

Some years ago, the legal framework which defined the market structure in the electric power sector was completely different from today. Electricity generation, transmission and distribution were organised in regions and one company, in many cases state-owned, was responsible for security of supply, to meet environmental standards and to deliver electricity at regulated prices. Electric power supply was a public service. There were political decisions – some pro coal, others pro nuclear – which made the electricity sector robust and provided the large generation capacities that we still rely on. Nearly all nuclear and large-scale hydro plants were built before market liberalisation, and most of the coal-fired plants too.

Under the headline of “liberalised markets and deregulation”, the vertically integrated companies were unbundled and regional borders demolished. This radically changed the shape of the electricity sector. Now we have a European industry which is split up into three major fields of activity – power generation – transmission – distribution. But the European single market for electricity is not an unregulated market. The new approach needs a lot of market regulation to work. In addition, there is environmental regulation and last, but not least, the EU cap and trade system for carbon dioxide (CO₂). Many questions concerning the functioning of the cross border market have been addressed. However, questions concerning investment in new generation capacity and networks are still to be answered.

EURACOAL believes that any regulatory framework develops over time from theory to practice. Trial and error, in a process of learning by doing, lie ahead of us. There is a need for an open debate about deficiencies and undesired consequences, such as a dash for gas in the power sector or a delay in establishing a CO₂ transport and storage infrastructure that will certainly be needed to achieve the EU’s ambitious CO₂ reduction targets.

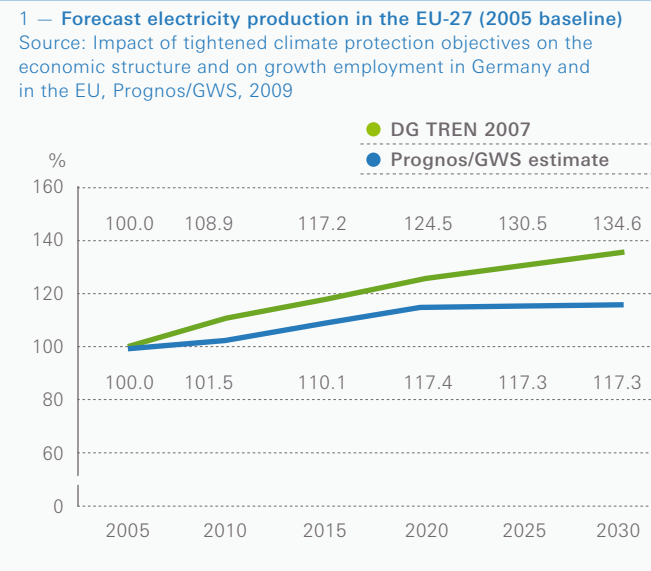
Investment is key and shapes the future

Common sense tells us that security of supply is important and that a balanced energy mix is a strategy to manage security risks. Not to be dependent on one fuel or one technology is essential. In other words: diversity is strength.

Infrastructure is crucial. This is well understood in the fields of power and gas, but is yet to be discussed in depth for CO₂ transport and storage. Everybody will agree that investment shapes the future, but questions remain. How to attract new investment in generation and infrastructure? How to provide sufficient generation capacity, this being a precondition for competition and reliable prices? How to cope with ambitious CO₂ targets? And last, but not least, who is responsible for security of supply and what must be done to achieve security of supply?

The challenges ahead

At first we need to develop a picture of EU-27 electricity demand, for which there are many forecasts. Most experts assume power demand will rise, because electricity is a clean form of energy, well suited to modern society. Electric power raises efficiency in industry, delivers comfort in homes and can be a tool to reduce CO₂ emissions. The chart shows DG Energy’s forecast of growing electricity demand, alongside one from Prognos consultancy (Figure 1).



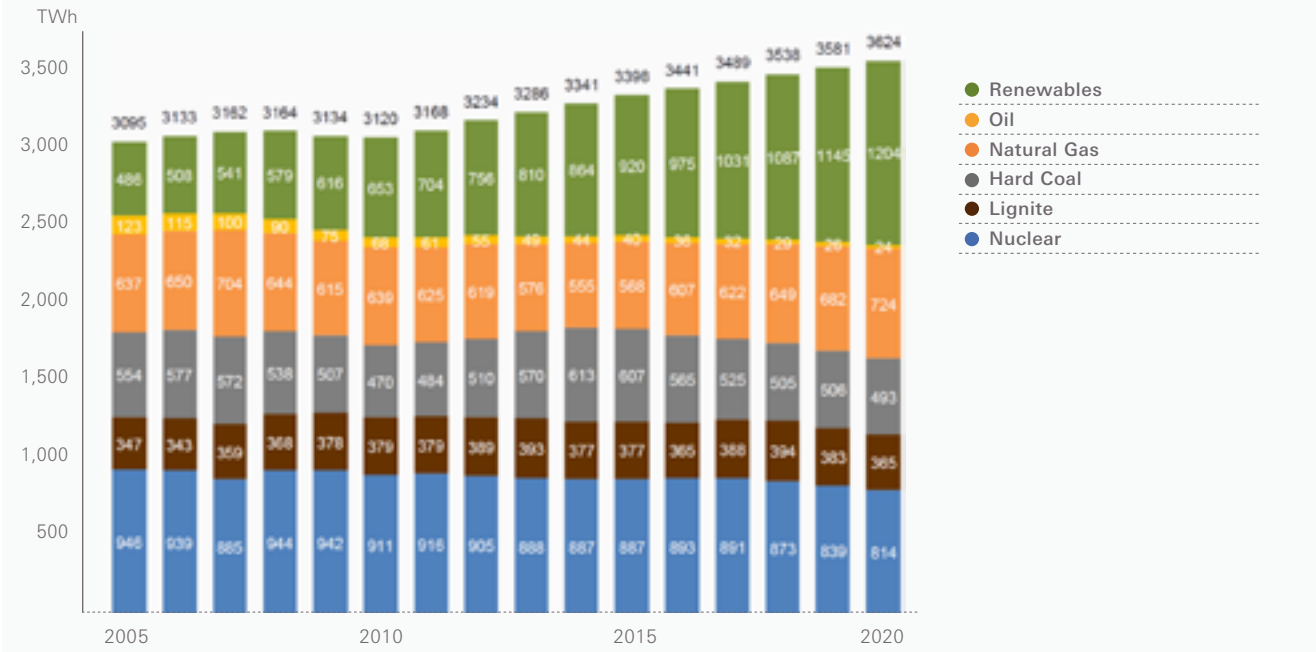
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2 — Power generation by energy source in the EU-27 (Reference Scenario)
Source: Prognos 2009



Past investments have shaped today’s power generation portfolio. Change is slow because power plants have long lifetimes. So, the accuracy of forecasts is known to be quite high up to 2020. We expect a rising share of renewables and a stable contribution from nuclear and fossil fuels – coal and gas. The future up to 2020 and 2030 will depend on investment decisions to be made in the next few years (Figure 2).

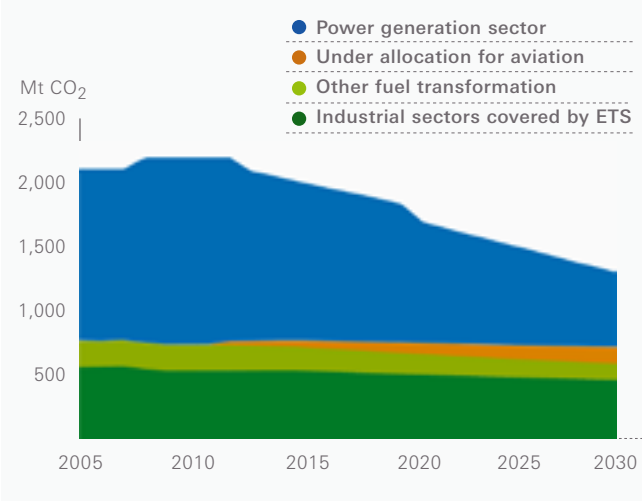
Any outlook for the European power sector has to incorporate limits on CO₂ emissions. Up to 2020, the CO₂ budgets are quite certain. After 2020, the ETS Directive defines a further reduction. CO₂ allowances available to the power generation sector will be much more limited, especially if we assume that energy-intensive industry continues with special rules to avoid carbon leakage and air transport has priority (Figure 3).

CO₂ cap and trade strongly influences the energy mix

The assumptions presented above on medium-term developments to 2030, can be summarised in a simple chart (Figure 4). According to current estimates for the period to 2020, and despite the strong development of renewables, a substantial share of power generation will be covered by coal, gas and oil. At present, these fossil fuels meet approximately 50 % of demand. We assume that their share will be lower in 2020, but that

their absolute contribution will be similar to today. For 2030, the diagram assumes that coal and gas still make a considerable contribution, although a precise forecast is difficult. Contrary to the assumption that a large share of power demand will be covered by coal and gas, is the CO₂ budget available for power generation. This will continue to decrease. As shown on the right of the figure: the CO₂ budget in 2030 is expected to be 30 % to 40 % smaller than today (Figure 4).

3 — CO₂ cap for EU ETS sectors including CDM/JI (20% scenario)
Source: Prognos, 2009



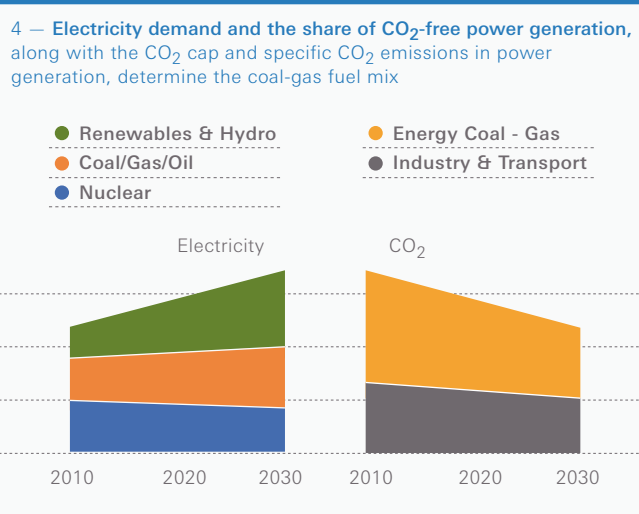
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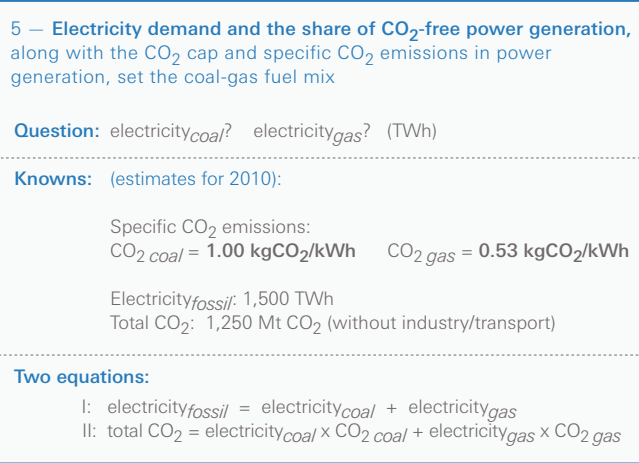
Dr.-Ing. Hartmuth Zei

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Electricity demand to be met by fossil fuels, together with the CO₂ budget, are the two main boundary assumptions. The specific CO₂ emission factors are of crucial importance to calculate how much coal and gas can be then burned to generate electric power under the CO₂ cap. With the four requirements – power generation from fossil fuels, CO₂ cap for power generation, and emission factors for coal-fired and gas-fired power generation – the mix of fossil fuels in the power sector can be determined by solving two equations with two unknowns. The fuel mix – gas and coal – is therefore predetermined (Figure 5).

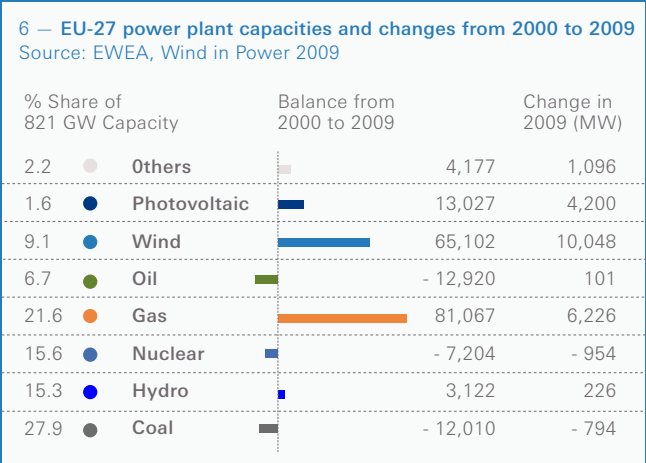
Under these circumstances, there are in principle two ways forward. Firstly, fuel switching from coal to gas, which is a high risk strategy because of geopolitics and prices. Secondly, reduce specific emission factors through investment in highly efficient plants. Then Europe can cope with a smaller CO₂ budget and maintain a balanced energy mix.



If the energy mix is predetermined, as explained above, what is the relevance of the CO₂ price? It is simply a tool to shift generation in the direction of gas, because, in any event, the CO₂ budget has to be achieved in the short and medium term by replacing coal with gas. Under this assumption, the CO₂ price is merely the link between coal and gas prices. In fact, low coal prices cannot lead to more coal-fired power generation because of the limited number of CO₂ allowance certificates. A high price difference between coal and gas will not change the energy mix – it merely reflects a high CO₂ price (and unearned profits for the gas sector). Therefore, the only way to maintain a robust energy mix is through the continued modernisation of power plants, leading, in the long term, to plants with CCS.

Statistics for capacity changes during the period from 2000 to 2009 show clearly that the generation portfolio in the EU has shifted strongly towards gas. Over the 10-year period, about 81,000 MW of gas capacity was added. Nuclear, coal and oil capacities have fallen. In 2009, about 2,400 MW of new coal came online, but 3,200 MW were decommissioned. The process of replacement is slow (Figure 6).

Decisions to invest in the power sector are strongly affected by the design of the allocation rules under the Emissions Trading Scheme. The auctioning of emission rights from 2013 will very strongly favour old facilities with sunk capital costs, under a scenario with low to medium CO₂ prices. Auctioning of CO₂ works like a tax and takes money away that could be otherwise invested. Investments in new installations become attractive only with very high electricity tariffs, but for many reasons we do not expect this outcome in the coming years. There is a lack of investment, a lack of incentive to invest and we are on a risky and, in the long run, an expensive path.

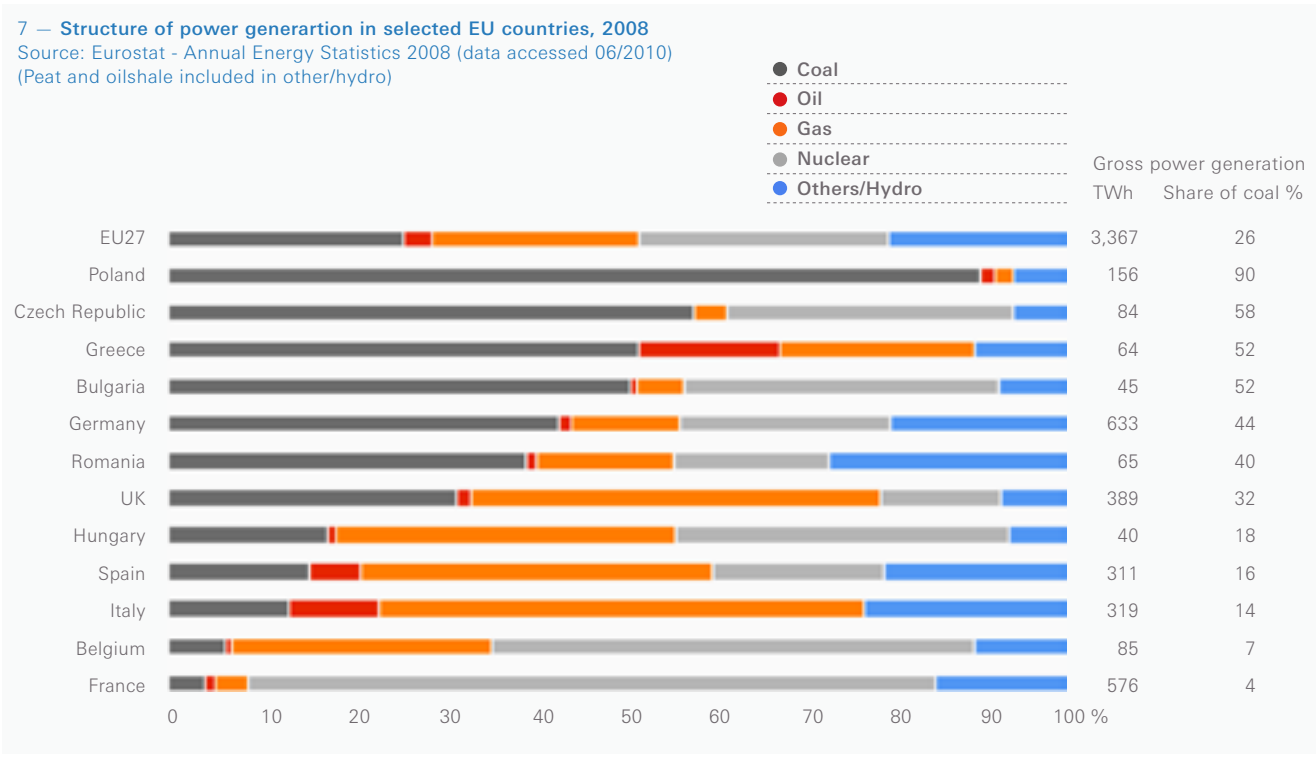


Energy in Europe

Dash for Gas versus Widespread Modernisation

Dr.-Ing. Hartmuth Zei

and Dr.-Ing. George Milojcic



Fuel switch and consequences for Member States

Fuel costs are an important criterion to be considered when analysing the question of a dash for gas or widespread modernisation. There are many forecasts and most assume high prices, especially in the more “green” scenarios. In order to estimate what fuel switching will cost, two scenarios can be considered. A Low Price Scenario is based on prices seen over the past ten years, i.e. coal at 65 €/tce (tonne of coal equivalent) and gas at 170 €/tce. While a High Price Scenario assumes that coal costs 100 €/tce and gas 270 €/tce. Given the large tonnages needed in the power sector, the differences in fuel costs are remarkable, especially in the high price scenario.

Depending on the speed of a possible fuel switching to gas, the additional costs will be in the range of €100 billion in the decade up to 2020. In the following decade, up to 2030, hundreds of billions of euros in extra costs can be expected, if there is a phase out of coal. But when coal is gone and gas is the dominant source for power generation, CO₂ emissions will still be far above the long-term targets. Burning natural gas still emits CO₂, so CCS will be needed to make the necessary deep cuts in emissions. However, it will cost much more with gas because CCS is energy intensive and gas is an expensive fuel.

With the “Widespread-Modernisation” scenario, more investment is needed in the short term than in the dash for gas case. CCS demonstration is also needed to ensure that this abatement technology is available from 2020 onwards.

Investment requirements can be estimated fairly easily. Today, the total capacity of coal-fired power plants is about 240 GW in the EU-27. Assuming a plant lifetime of 40 to 50 years, then 5 to 7 GW replacement each year is desirable and feasible. This equates to a €5 to €10 billion investment each year. In addition, some gas-fired plants must be built. This is what can be done starting today and the costs are lower than fuel switching. Modernisation leads down a much more economic path than a dash for gas.

An important point related to “dash for gas” versus “modernisation” is who has to carry the financial burden if the Emissions Trading Scheme leads to fuel switching. The answer is clear: those countries who rely on coal have to pay most and early on. Solidarity leads down the modernisation path. There is a need for European and national legal frameworks for investments that enable Member States to determine their energy mixes and create added value in their economies (Figure 7).

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Energy in Europe

Dash for Gas versus Widespread Modernisation

Dr.-Ing. Hartmuth Zeiß

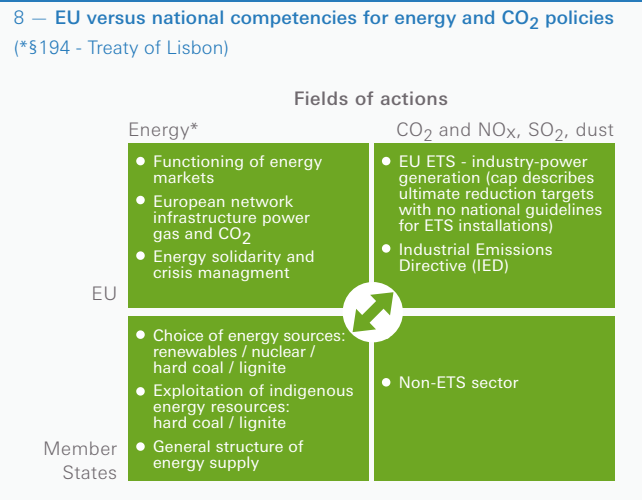
and Dr.-Ing. George Milojcic

This should be of concern to all energy consumers. When power prices rise, because the share of competitive coal is reduced, consumers all over the EU will have to pay more. Market integration within the EU means that everyone will pay the price.

Competences and instruments

European- and national-level competencies overlap in the field of energy and climate policies. The EU has made many important decisions under the 20-20-20 headline. But Member States still have the competence to choose their energy sources and decide on how indigenous energy resources are used. There are many policies in Member States that favour renewables, and others that encourage nuclear and coal (Figure 8).

Yet, we see investment is slow in capital-intensive generation capacity, namely coal and nuclear. Undoubtedly, markets are short-termist and not disposed towards infrastructure investment, like power plants and networks, which have long time horizons. There is a contradiction between long-term benefits and short-term decisions. EURACOAL is afraid that unwanted side effects could harm our common energy policy targets and those of Member States.



Conclusions

At the centre of EURACOAL’s interest are two points.

→ The European institutions – Commission, Parliament and Council – should encourage Member States to use indigenous resources like coal to improve security of supply and to maintain important industry clusters. Even in changing market conditions, coal will provide the backbone to power supply in many Member States for a long time to come. Fossil fuels – coal and gas – have to provide backup for renewables. These two requirements are good reasons to keep the conventional power plant fleet highly productive through investment. We need to discuss the investment framework under the Emissions Trading Scheme. Innovations – like capacity markets which can provide planning security for investors – are one solution. Other ways to incentivise investment are long-term contracts or modified rules for the allocation of CO₂ emission rights. We see a challenge rising ahead of us and there is a need for serious debate.

→ Concerted effort on CCS demonstration and preparation for the development of a CCS transport and storage infrastructure are crucial, even if there are obstacles to overcome. CCS acts as a safety valve on the CO₂ trading system, giving relief if CO₂ prices push power prices so high that they would otherwise destroy industry and harm consumers’ interests.

If Europe maintains an energy mix including coal and goes down a technology-driven path, it can provide a leadership example to other important regions outside the EU. A dash for gas would be a bad example that others cannot possibly follow. EURACOAL believes policymakers need to consider the importance of these issues and is available and willing to be part of that discussion.

VI.

UNFCCC Kyoto Protocol – Cancún Meeting

Mr. Brian Ricketts, Secretary-General

In November and December 2010, the 16th annual meeting of the Conference of the Parties (COP 16) to the UN Framework Convention on Climate Change (UNFCCC) took place in Cancún, Mexico. It was also the 6th Meeting of the Parties to the Kyoto Protocol (CMP 6). After the failure of the previous COP 15 meeting, held in Copenhagen, there were no great expectations for the Cancún meeting. However, parties recognised that another “failure” could cripple the UN process.

For the coal industry, the most significant outcome of COP 16 was that there is now a clear route to including CO₂ capture and storage (CCS) in the Clean Development Mechanism (CDM). Over the last five years, since COP 10 in 2005 when it was first proposed, CCS has been blocked, mainly by Brazil, but also by small island developing states, despite strong support from Australia, Norway, Saudi Arabia and the UK. During 2011, the issues identified in Copenhagen, and listed below, must be resolved (ref: FCCC/KP/CMP/2009/21/Add.1, Decision 2/CMP.5, paragraph 29, 30 March 2010):

UNFCCC and Kyoto Protocol timelines

1979	First World Climate Conference (WCC)
1988	International Panel on Climate Change (IPCC) established
1990	IPCC First Assessment Report and second WCC call for global treaty on climate change September, United Nations General Assembly negotiations on a framework convention
1991	First meeting of the Intergovernmental Negotiating Committee (INC)
1992	May, INC adopts text for UN Framework Convention on Climate Change (UNFCCC) June, Convention opened for signature at Earth Summit
1994	March, Convention enters into force
1995	March and April, COP 1 (Berlin, Germany) • Berlin Mandate IPCC Second Assessment Report
1996	COP 2 (Geneva, Switzerland)
1997	December, COP 3 (Kyoto, Japan) • Kyoto Protocol adopted
1998	November, COP 4 (Buenos Aires, Argentina) • Buenos Aires Plan of Action
1999	COP 5 (Berlin, Germany)
2000	November, COP 6.1 (The Hague, Netherlands) • Talks based on the Plan break down
2001	April, IPCC Third Assessment Report July, COP 6.2 resumes (Bonn, Germany) • Bonn Agreements October and November COP 7 (Marrakesh, Morocco) • Marrakesh Accords
2002	August and September progress since 1992 reviewed at World Summit on Sustainable Development October and November COP 8 (New Delhi, India) Delhi Declaration
2003	December, COP 9 (Milan, Italy)
2004	December, COP 10 (Buenos Aires, Argentina)
2005	16 February, Kyoto Protocol enters force – Ad Hoc Working Group (AWG-KP) to negotiate post 2012 agreement COP 11 / CMP 1 (Montreal, Canada) • Global Environment Facility guidelines
2006	COP 12 / CMP 2 (Nairobi, Kenya)
2007	IPCC Fourth Assessment Report COP 13 / CMP 3 (Bali, Indonesia) • Bali Action Plan & AWG on Long-term Cooperative Action (AWG-LCA)
2008	COP 14 / CMP 4 (Poznan, Poland)
2009	June, parties to Convention negotiate draft Copenhagen agreement (Bonn, Germany) COP 15 / CMP 5 (Copenhagen, Denmark) • Copenhagen Accord “noted”: 2°C limit and voluntary targets
2010	January to November, >130 nations agree to Copenhagen Accord , >80 make specific pledges November and December, COP 16 / CMP 6 (Cancún, Mexico) • Cancún Agreements
2011	COP 17 (Durban, South Africa)
2012	COP 18 (Qatar or South Korea) Kyoto Protocol commitment period ends

VI.

UNFCCC Kyoto Protocol – Cancún Meeting

Mr. Brian Ricketts, Secretary-General

- (a) non-permanence, including long-term permanence;

(b) measuring, reporting and verification;

(c) environmental impacts;

(d) project activity boundaries;

(e) international law;

(f) liability;

(g) the potential for perverse outcomes;

(h) safety; and

(i) insurance coverage and compensation for damages caused due to seepage or leakage.
- Other outcomes from Cancún built on the Copenhagen Accords that were eventually agreed by over 130 nations during 2010:

→ An **aspirational target to keep global warming below 2°C** (and periodic reviews to consider strengthening this to 1.5°C).

→ Voluntary **pledges to reduce GHG emissions**. Developing countries want developed countries to reduce emissions by 25% to 40% below 1990 levels, as recommended in the latest IPCC report. Japan has unconditionally pledged 25% and the EU 20%, or 30% if other major emitters follow.

This is a very important development; not because it will see any new CCS projects, but because it gives credibility to CCS as a legitimate carbon reduction technology. CCS projects under the CDM will only come forward if the Kyoto Protocol is extended, and the prospects for that remain distant, even though the Kyoto Protocol’s commitment period ends shortly, in 2012.

The timeline shows the slow pace of climate change negotiations. Yet, for the coal industry, what is negotiated and agreed is of great concern. EU climate and energy policies are driven by the UNFCCC process and the targets that are agreed. However, the global economic crisis has pushed climate change down the agenda, and it seems unlikely that any new international agreement will emerge that threatens coal use. Unilateral actions by nation states or by the EU are a more likely outcome that would put pressure on coal use in certain countries and regions.

Of more immediate concern is how CDM and Joint Implementation (JI) projects will continue if there is a gap between the end of the Kyoto Protocol and the start of a new protocol. Credits from these projects can be brought into the EU Emissions Trading Scheme, so they have an influence on carbon prices in Europe. In June 2010, the UNFCCC Secretariat published a note on the legal considerations of a possible gap between commitment periods. The aim is to find a way for the flexibility mechanisms to continue (CDM, JI and international emissions trading). A post-2012 international carbon market is of vital importance to those who seek action on climate change. Without that, the UN response to climate change could collapse.

- A **Green Climate Fund** worth \$30 billion to developing countries under a “fast-start” deal between 2010 and 2012, and rising to \$100 billion per year by 2020. Managing a fund of this size in an accountable and transparent way will not be easy. A new institution is proposed, but in the meantime, the World Bank will act as trustee. This large transfer of wealth (and technology) from rich countries to poor countries may not be popular with voters and, in any event, governments alone cannot afford the proposed level of funding, so it must include private finance. That means new instruments which must be attractive to the private investor.
- Developing countries agreed to implement **nationally appropriate mitigation actions** (NAMAs) aimed at reducing emissions relative to “business as usual” and, for the first time, to report progress every two years. This draws developing countries closer into the UNFCCC process.
- Recognising the role of **forestry protection and renewal** – REDD (reduced emissions from deforestation and forest degradation) – is clearly important to protect tropical rainforests. It will provide developed nations with a supply of carbon offsets, and developing nations can profit by preserving forests instead of exploiting the wood and land. Policing this will be difficult, but imperative.

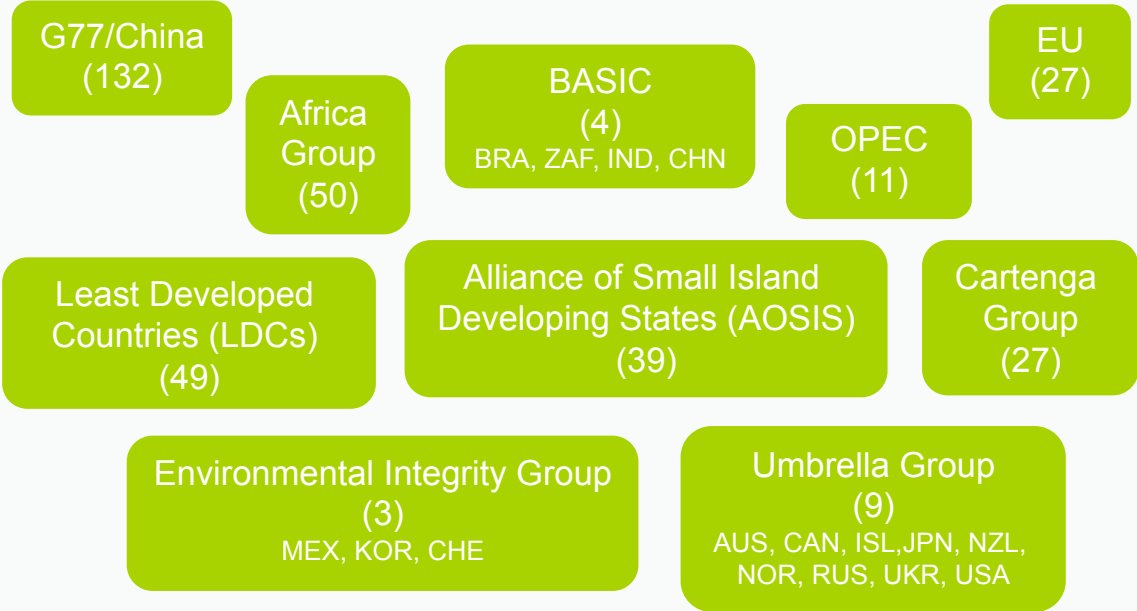
UNFCCC Kyoto Protocol – Cancún Meeting

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The question now, is how long it will take to turn the Cancún Agreements into a legally binding international protocol. At Cancún, countries agreed to work towards extending the Kyoto Protocol as early as possible and in time to ensure no gaps.

It has taken almost two decades to reach an agreement that falls well short of what scientists say is necessary to prevent the worst impacts of climate change. In 2009 at Copenhagen, it was the “Big Five” – the USA, China, India, Brazil and South Africa – that reached agreement. The EU, despite taking its progressive position on climate, was excluded from these important negotiations. For the coal industry, it seems that the pressure to reduce CO₂ emissions will come not from the international community, but from fragmented regional and local actions. Whether these will have any discernable climatic benefit deserves further debate.

1 – UNFCCC negotiating groups
National Delegations (193 signatories to UNFCCC - 121 to Kyoto Protocol:
37 with binding targets accounting for c. 30% of global emissions)



VII.

Members & Activities

1 – Members

Country	Member Association / Companies	as at February 2011
Belgium	ISSeP – Institut Scientifique de Service Public (Scientific Institute of Public Services)	
Bosnia-Hercegovina	RMU Banovici d.d.	
Bulgaria	MMI – Mini Maritsa Iztok EAD	
Bulgaria	Vagledobiv Bobov dol EOOD	
Czech Republic	ZSDNP – Zamestnavatelský svaz dulního a naftového prumyslu (Employers’ Association of Mining and Oil Industries)	
Finland	Finnish Coal Info	
France	BRGM – Bureau de Recherches Géologiques et Minières (Research Institute of Geology and Mining)	
Germany	DEBRIV – Deutscher Braunkohlen-Industrie-Verein e.V. (German Association of Lignite Producers)	
Germany	GVSt – Gesamtverband Steinkohle e.V. (German Hard Coal Association)	
Germany	VDKI – Verein der Kohlenimporteure e.V. (Hard Coal Importers’ Association)	
Greece	PPC – Public Power Corporation SA	
Greece	ISFTA – Institute for Solid Fuels Technology and Applications	
Hungary	Mátraí Kraftwerk AG	
Poland	PPWB – Porozumienie Producentów Węgla Brunatnego (Confederation of Polish Lignite Producers)	
Poland	ZPWGK – Związek Pracodawców Górnictwa Węgla Kamiennego (Polish Hard Coal Mining Employers’ Association)	
Poland	GIG – Główny Instytut Górnictwa (Central Mining Institute)	
Poland	EMAG Institute of Innovative Technologies	
Poland	KOMAG Institute of Mining Technology	
Romania	APFCR – Asociatia Producatorilor si Furnizorilor de Carbune din Romania (Coal Producers and Suppliers’ Association of Romania)	
Romania	PATROMIN – Asociata Patronala Miniera din Romania (Mining Employers’ Association of Romania)	
Serbia	EPS – Elektroprivreda Srbije (Electric Power Industry of Serbia)	
Slovak Republic	HBP – Hornonitrianske bane Prievidza, a.s.	
Slovenia	Premogovnik Velenje d.d.	
Spain	CARBUNION – Federación Nacional de Empresarios de Minas de Carbón (National Coal Mining Employers’ Association)	
Sweden	Svenska Kolinstitutet (Swedish Coal Institute)	
Turkey	TKI – Turkish Coal Enterprises	
Ukraine	DTEK	
Ukraine	Ukrvuglerobotodavtsy (All-Ukrainian Coal Industry Employers’ Association)	
United Kingdom	CoalPro – Confederation of UK Coal Producers	
United Kingdom	Coallmp – Association of UK Coal Importers	
United Kingdom	Coaltrans Conferences Ltd.	
United Kingdom	Golder Associates (UK) Ltd.	
United Kingdom	University of Nottingham	

2 - Committees

Committee	Chairman	Secretary
Energy Policy Committee	Dr.-Ing. George Milojcic (DEBRIV)	Mr. Zygmunt Borkowski (ZPGWK)
Environment Committee	Mr. David Brewer (CoalPro)	Mr. Bernd Bogalla (GVSt)
Market Committee	Mr. Nigel Yaxley (Coallmp)	Mrs. Gitta Hulik (EURACOAL)
Technical Research Committee	Dr.-Ing Jürgen Czwalinna (Evonik)	Mr. Bernd Bogalla (GVSt)

3 - Executive Committee

Executive Committee Members			as at February 2011
Dr.-Ing. Hartmuth Zeiß	Germany	President EURACOAL and Chairman of the Managing Directors, Vattenfall Europe Mining & Generation AG	
Mr. Phil Garner	UK	Vice President EURACOAL and Commercial Contracts Director, UK Coal Mining Ltd.	
Dr. Maksymilian Klank	Poland	Vice President EURACOAL and Vice President, ZPGWK	
Prof. Dr. Franz-Josef Wodopia	Germany	Vice President EURACOAL and Chief Executive, GVSt	
Dr. Selahaddin Anaç	Turkey	General Director, TKI	
Mrs. Galia Antova	Bulgaria	Vagledobiv Bobov Dol EOOD	
Mr. David Brewer	UK	Director General, CoalPro	
Mr. Tomas Bruce	Sweden	Chief Executive Officer, Swedish Coal Institute	
Mr. Zdeněk Bučko	Czech Republic	Sokolovská uhelná pravni nastupce a.s.	
Mr. Munever Cergic	Bosnia-Herzegov.	Director General, RMU Banovice d.d.	
Prof. Dr. Sc. Eng. Józef Dubiński	Poland	General Director, Central Mining Institute	
Dr. Jürgen Eikhoff	Germany	Production Director, RAG AG	
Dr. Renata Eisenvortová	Czech Republic	European Affairs Manager, Czech Coal a.s.	
Dr. Nikolaos Galitis	Greece	Human Resource Director, Public Power Corporation SA	
Mr. Milan Jakovljević	Serbia	Director – Coal Production Department, EPS	
Ing. Rastislav Januščák	Slovakia	Director of the Supervisory Board, Hornonitrianske bane Prievidza a.s.	
Mr. Constantin Jujan	Romania	Director General, Compania Nationala a Huilei s.a.	
Eng. Ivan Karaivanov	Bulgaria	Director of Mining, Mini Maritsa Iztok EAD	
Dr. Nikolaos Koukoulzas	Greece	Director of Research, CERTH/ISFTA	
Mr. Mirosław Kugiel	Poland	President, ZPGWK	
Dr. Johannes Lambertz	Germany	Chief Executive Officer, RWE Power AG	
Dr. Marios Leonardos	Greece	Director Mines Planning & Performance Dept., Public Power Corporation SA	
Mr. Roman Łój	Poland	Chairman of the Board, Katowicki Holding Węglowy SA	
Mrs. Mercedes Martín Gonzáles	Spain	Director General, CARBUNION	
Dr. Milan Medved	Slovenia	General Manager, Premogovnik Velenje d.d.	
Dr.-Ing. George Milojcic	Germany	Chief Executive, DEBRIV	
Mr. Constantin-Viorel Petcu	Romania	Chairman, APFCR	
Dr. Erich Schmitz	Germany	Chief Executive, VDKI	
Mr. Sergey Stepanov	Ukraine	Coal Production & Enrichment Director, D.TEK	
Mr. Evgeni Stoykov	Bulgaria	Executive Director, Mini Maritsa Iztok EAD	
Mr. Radim Tabášek	Czech Republic	Chief Reclamation Officer, OKD a.s.	
Mr. Bernd Tönjes	Germany	Chairman of the Board, RAG AG	
Dr. Catherine Truffert	France	Research Director, BRGM	
Dr. Joachim Witzel	Hungary	Member of the Board, Mátraí Kraftwerk AG	
Mr. Stanislav V. Yanko	Ukraine	Head of the Union, Ukrvuglerobotodavtsy	
Mr. Nigel Yaxley	UK	Managing Director, Coallmp	
Mr. Stanislav Zuk	Poland	President, PPWB	

