

**EFFICIENT COAL USE,
ENERGY DIVERSITY,
EFFECTIVE TRADING MECHANISMS
AND COMPLIANCE**

**Views on Major issues to be debated
at the 6th Conference of the Parties to
the Framework Convention on Climate Change
The Hague, Netherlands
November 13-24, 2000**

COAL INDUSTRY ADVISORY BOARD

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The Coal Industry Advisory Board (CIAB) is a group of high level executives from coal-related industrial enterprises. Its purpose is to provide advice to the International Energy Agency (IEA) from an industrial perspective on matters relating to coal in the world-wide energy system.

The CIAB was established by the IEA Governing Board in July 1979 to assist the IEA in the practical implementation of the “Principles for IEA Action on Coal” – measures aimed at ensuring a ready supply and trade of coal to underpin energy security. Since then, while the security issue remains important, there is an increasing emphasis on environmental compatibility (including the choice of modern technology in coal use) and issues arising from increasingly liberalized energy markets, including the restructuring and privatization of coal industries in many countries.

This paper was prepared by the Coal Industry Advisory Board (CIAB) for the use of CIAB members. It was also provided to the International Energy Agency as CIAB views on this topic. It does not represent the views of the IEA or its member governments and has not been printed under the sponsorship of the IEA.

Introduction

The Nations that are Parties to the Framework Convention on Climate Change are holding their 6th Conference (COP6) in The Hague, The Netherlands, on November 13th-24th, 2000. During this conference the Parties are scheduled to conclude their negotiations on the unresolved provisions of the Kyoto Protocol which was adopted at the 3rd Conference of the Parties. The IEA Secretariat invited the Coal Industry Advisory Board (CIAB) for its views on the major issues to be debated. This paper sets out these views, offered in the first place to the IEA and more generally to those taking part in the Conference.

The Parties at COP6 will be focusing on, among other things, the unresolved provisions of the Kyoto Protocol such as the procedures for emission reporting, monitoring, and verification, the rules for using the flexibility mechanisms - emissions trading, joint implementation and the clean development mechanism, and the system for demonstrating compliance with the emission limits and other provisions of the Protocol. The CIAB wishes to raise some detailed issues about these unresolved provisions, but first wishes to raise a fundamental point about the role of coal.

The Importance of the Role of Coal

The CIAB is growing increasingly concerned that policy makers are failing to understand the importance of coal in meeting the energy needs of the developed and developing world. Coal offers security, diversity and sustainability of energy supply at a competitive price. The application of modern combustion technologies and the utilization of combustion by-products can significantly reduce the environmental impact of burning coal. Further development and commercial up-take of clean coal technologies can reduce coal combustion's environmental impact even more. Moreover, recent life cycle analysis of coal and alternative energy sources indicates that the greenhouse gas emission

intensity of coal more closely resembles that of alternative energy sources when consideration is given to all emissions associated with production, transportation and utilization.

However, concerns over the possible exclusion of coal projects from the Kyoto Protocol's flexibility mechanisms is frustrating the commercial uptake and further development of these technologies. As a consequence future CO₂ emissions will be higher than necessary and efforts like the Kyoto Protocol are less likely to be implemented. The CIAB urges the IEA to emphasize the positive role that coal and clean coal technologies can have in achieving lower greenhouse gas emissions. Coal should not be characterized as the root of the problem. It should be embraced as an essential part of the solution.

Specific Issues For Consideration

1. Energy Supply Diversity, Efficiency and Flexibility

No energy source should be excluded from consideration under Article 6, Joint Implementation, Article 12, Clean Development Mechanism and Article 17, Emissions Trading, of the Kyoto Protocol. The IEA member countries have established the aim to create an energy policy framework consistent with a number of specific goals including a goal under which diversity, efficiency and flexibility within the energy sector are basic conditions for longer-term energy security: the fuels used within and across sectors and the sources of those fuels should be as diverse and unrestricted as practicable. Non-fossil fuels, particularly nuclear and hydropower, make a substantial contribution to the energy supply diversity of IEA countries as a group. The current draft text¹ on the principles, modalities, rules and guidelines for the mechanisms of the Kyoto Protocol is not

¹ UNFCCC, Mechanisms Pursuant to Articles 6, 12, and 17 of the Kyoto Protocol, Future FCCC/SB/2000/4, June 2000.

consistent with that goal. As currently drafted, the text contains provisions under Articles 6, 12 and 17 that, if adopted, would exclude clean coal technology projects as well as nuclear, large hydro and other fossil fuel projects. In addition, the use of the mechanisms for fulfilling a Party's commitments under the Protocol should not be limited.

The World Energy Outlook, 1998 Edition², projects that during the first commitment period of the Kyoto Protocol (2010) 96 percent of the World's Total Primary Energy Supply will consist of fossil fuels (92%) and nuclear (4%). For the OECD countries, which must reduce their emissions under the Kyoto Protocol, fossil fuels and nuclear make up 89% and 8% respectively of the Total Primary Energy Supply. To limit projects that are projected to represent over 90% of the primary energy supply will make the flexibility mechanisms much less effective in lowering the cost of compliance with the provisions of the Protocol, raise the cost of energy in developing countries and restrict improvements in living standards. Furthermore, it will discourage the widespread use of the mechanisms and thereby eliminate the opportunities to transfer advanced, higher cost, lower emitting technologies to the developing countries and improve global environmental conditions.

The CIAB has previously advised the IEA that the demonstrated and emerging clean coal technologies offer significant improvements in efficiency and environmental performance compared to conventional pulverized coal-firing power generation technologies. For example: over the 40-year lifetime of 1 gigawatt of new coal generation it will emit 0.7 million tons per year less CO₂ than conventional technology.³ It has been projected that China alone could need 20 GW of additional generating capacity each year⁴. Widespread commercial application of clean coal technology in China could result in the elimination of

² IEA/OECD, World Energy Outlook, 1998 Edition, 1998.

³ CIAB, Regional Trends in Energy Efficient, Coal-Fired Power Generation Technologies, IEA/OECD, 1998.

⁴ CIAB, Coal in the Energy Supply of China, IEA/OECD, 1999.

billions of tons of CO₂ emissions to the atmosphere over the life of the power plants built in the next ten years. This potential reduction in 2010 would be approximately 10% of the reduction required from the developed countries if the Kyoto Protocol were fully implemented.

2. Carbon Sinks

The unlimited use of carbon sinks in the form of land use and forestry activities should be included as a means for Parties to meet their emission reduction commitments during the first commitment period of the Kyoto Protocol. Sinks can be a very effective low cost method to capture and retain carbon in natural systems. The Protocol currently restricts the use of sinks, for meeting emission limits, to afforestation, reforestation and deforestation since 1990. Sinks do not include activities like forest management and management of agricultural lands. Although the negotiating text for sinks is only now evolving, it will be an item of discussion at COP6. A broad definition of land use and forestry activities for sinks, and their unlimited use will increase the flexibility that their member countries will have to offset their carbon emissions related to fossil energy use.

The IPCC has estimated that the annual average budget for CO₂ from fossil fuel combustion and cement production is $6.3 \pm 0.5 \text{ GtCyr}^{-1}$ of which $3.3 \pm 0.2 \text{ GtCyr}^{-1}$ ends up in the atmosphere⁵. The IPCC further estimates that the relative potential for a net change in global carbon stocks due to forest and agricultural land management in 2010 is over 1 GtCyr^{-1} . This increase in carbon uptake potential could offset a significant portion of emissions in the first commitment period if it were allowed. This demonstrates the benefits of adopting a broad definition of sinks to offset the emissions from fossil fuel emissions which have been projected to remain the primary energy supply of the world.

⁵ IPCC, Special Report, Land Use, Land Use Change and Forestry, Summary for Policy Makers, 2000.

3. Emission Reporting, Monitoring and Verification

A comprehensive set of procedures should be adopted under which parties would be required to report, monitor and verify their emissions regulated under the Kyoto Protocol. The reporting of accurate emissions is the foundation upon which the Kyoto Protocol rests. Without a strong set of procedures which gives assurance that each Party is meeting its commitments, adherence to the Protocol will collapse. In addition, an accurate and transparent system for reporting emissions will enhance a Party's confidence that it can use the emission trading mechanisms to meet its commitments with minimum risk to its own position, because emission reduction units are demonstrably real. Encouraging a strong set of procedures for reporting, verifying and monitoring emissions is consistent with IEA's goal of fostering cooperation among all energy market participants to improve information and understanding. It will promote the development of efficient, environmentally acceptable and flexible energy systems and markets worldwide.

4. Compliance System

A compliance system should be adopted that will effectively identify a Party's compliance status in a timely manner and will provide appropriate incentives for Parties to rectify instances of non-compliance and disincentives for continued non-compliance. The Kyoto Protocol has broad implications for the IEA goals of free and open trade and of a secure framework for investment; investment that contributes to energy security and to efficient energy markets free of trade and investment distortions. Under the Kyoto Protocol, energy decisions by the Parties and their resulting energy costs will have significant implications for that Party's competitiveness in world markets and the attractiveness to new investment.

The compliance system must utilize the emission reporting procedures in an effective manner so that compliance of all Parties can be accurately determined on a timely basis. A system that produces a determination of a Party's compliance only two to three years after the end of the period in question is unacceptable.

The system should provide an initial phase to assist the Party to return to compliance as soon as possible. Implementation of corrective actions by the Party should be interpreted as a conditional level of compliance, but failure to take action would be interpreted as continued non-compliance. Continued non-compliance should warrant the application of penalties sufficient to reverse the conditions of non-compliance or take away any financial advantages that might be accruing to the Party because of non-compliance.

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