Coal has traditionally been an essential part of the European electricity and energy supply system. Indigenous production and imported fuel together supply some 15% of the European primary energy market. About 25% of the EU’s electricity is coal based, while large quantities of coal are also required by the steel and raw-materials industries.

Coal’s importance in Europe is set to grow with EU enlargement, as Europe’s coal deposits will then constitute the Union’s largest indigenous energy resource. The challenge facing governments and the coal industry will then be to find ways in which this resource can best be used for the future of Europe. EURACOAL intends to play a constructive role in this important undertaking.

As the Continent of Europe is relatively deficient in natural resources it is important that each one is enlisted into the European energy plan. As a reliable and, in many cases, cost-effective fuel, coal must therefore be included as an integral part of any future European energy policy.

**Cornerstone of the energy supply structure**

In 2002 the Community of Fifteen produced a total of 340 million tonnes of coal. This figure will almost double with the entry of Bulgaria, Poland, Romania and Hungary, along with Slovenia, Slovakia and the Czech Republic. To this must be added the 170 million tonnes of coal that are imported into the EU every year. Coal will therefore be a key ingredient in the energy mix of the new enlarged Europe.
A major task for integration planners

The lifespan of today’s energy-supply structure, which is based primarily on fossil fuels, has still many decades to run. Only after this will it be possible to judge whether renewable energies are really capable of serving as a viable source of fuel for the energy market. The forthcoming enlargement will give the European Union the opportunity to establish a more future-proof energy supply system. Harmonizing EU standards for energy recovery, transport and utilisation will allow us to use coal as a competitive and stable resource without incurring structural disruption. The entire process chain beginning with coal extraction and transportation right through to its utilisation offers significant potential for value creation that can be made more sustainable through technological development. This will not only secure a large number of jobs within the EU but will also open up significant export opportunities for plant engineering companies.

The EU’s power supply system is currently based on a mix of nuclear energy, coal, gas and hydro-electric power. The diverse strategies adopted by the Member States reflect the differences in resource availability as well as national energy-policy decision making. When viewed from an overall Community perspective the specific characteristics of each national strategy combine to create a balanced and efficient European energy mix. In EURACOAL’s view energy policy should be based not on an „either or‟ approach but on a more pragmatic all-inclusive strategy that will make use of all available energy sources – and this is likely to apply well into the future.
In the enlarged EU coal now accounts for about 32% of the total primary energy needs of the electricity suppliers. As power consumption in the European Community continues to increase, outdated power generating plant will have to be replaced and it is estimated that between 10,000 and 20,000 megawatt of new capacity will be required annually from about 2010 on. Coal-based generating technology is now highly developed and fully competitive. These new systems also incorporate a great deal of additional innovative technology. However, the continued modernisation of European power stations is essentially dependent on the political will for preserving coal utilisation and on the readiness to create an appropriate framework within which coal can be used in a cost-effective manner.

Security of supply as the key factor

Now that important steps have been taken towards achieving a single energy market in Europe, the subject of energy-supply security has taken on a new relevance as far as the EU is concerned. The European Commission brought this topic to greater public attention with the publication of a Green Paper in 2001. EURACOAL supports every effort that is directed towards improving security of energy supply in Europe. However, in this respect it is important to achieve the correct balance: the supply side must be included as a key element in the energy-security structure, which means that coal - as Europe’s predominant fuel - also has to be part of the equation.

Towards a greater energy efficiency

The problem of depleting resources and increasing dependence on imports can be significantly reduced not only by diversifying our energy mix and maintaining a substantial intra-Community coal industry, but also by promoting a strategy for more-efficient energy use. Over the course of the last three decades modern coal-fired power stations have increased their specific power yield by about one third - and there is further untapped potential in this area. Power-generation technology has now been developed that can guarantee efficiency rates of between 40 and 45% along with greater plant availability.

Plant modernisation has enormous implications as far as the world’s resources and climate are concerned. If all coal-fired power stations worldwide - that are more than thirty years old - were refurbished over the next twenty years it would be possible to reduce global CO₂ emissions by something in excess of one billion tonnes a year. The resulting energy savings and the reduction in environmental emissions would be sufficient to meet the Kyoto objectives of every industrialised nation.
Power generating structure of EU members and other European countries in 2001

TWh

Poland 145.7
Greece 53.7
Germany 581.6
Denmark 37.7
Ireland 25.0
United Kingdom 385.8
Spain 238.0
Portugal 46.5
Netherlands 93.7
Finland 74.5
Belgium 79.7
Italy 279.0
Austria 64.1
France 549.2
Sweden 161.7
Luxembourg 1.2

EU-15 2,671.4

Czech Republic 74.6
Serbia (2000) 32.7
Bulgaria 43.8
Romania 53.9
Slovenia (2000) 13.6
Turkey 123.2
Hungary 35.7
Slovakia 32.0

Coal
Oil
Nuclear energy
Gas
Others
However, while plant modernisation makes sense from an environmental point of view, it also brings economic benefits. New power plant and generating stations that have been modernised are much cheaper to operate when it comes to preventing the emission of trace gases that are harmful to the climate and environment and, furthermore, guarantee low-cost electricity.

Further technical innovation in the field of power-plant construction is anticipated in the long term. CO₂ capture may also become a reality in the very long term, and indeed research in this area has already started. This particular approach is supported by EURACOAL.

The question of how to reconcile economic and energy targets with environmental objectives is all tied up with the strategy of „emission rights trading“. This instrument can be deployed for greater efficiency as part of a balanced energy portfolio – an approach that is also being advocated by EURACOAL. The opposite scenario, on the other hand, is one which promotes the switch from low-cost coal to more expensive fuels. The resulting price increases would prove especially detrimental to the international competitiveness of Europe’s energy-intensive industries and would also adversely affect consumers. If the cost-free allocation of emission trading rights, as proposed in the EU Directive, is applied in a need-based way and is linked to actual emission levels, then such negative price effects could be avoided or at any rate reduced.
Coal & Europe

Key messages

- Coal – whether home produced or imported – will continue to make a vital contribution to the security and economic efficiency of Europe’s energy supply, especially for electricity generation.

- The economic importance of coal as a fuel will further increase as EU enlargement brings in countries where indigenous coal production plays a leading role in the domestic energy market.

- At the same time coal is coming under intense scrutiny as part of Europe’s commitments under the Kyoto Protocol: the keyword here is CO₂. Regulations such as those on emission rights trading are therefore designed to curb coal consumption.

- Given the conflict between the need for security of energy supply on one hand and efforts to reduce CO₂ emissions, on the other, it is imperative to structure the political framework in such a way that both objectives can be made compatible.

- Governments must therefore abandon those regulations that result in simple substitution processes without practical ecological benefit – and in this respect a careful approach is needed when drawing up national allocation plans for emission rights trading.

- Promotion efforts should rather focus on research and technology that is aimed at reducing CO₂ emissions by means of improved efficiency levels, with the long-term objective being the low-emission power station.

- The European coal industry is ready to participate constructively in drawing up and implementing the medium and long-term R & D strategies being proposed in this area.

- As the umbrella organisation of the European coal industry, EURACOAL sees itself as a political partner and platform for the discussion and coordination processes required in this context.

Further information

The brochure *Coal Industry Across Europe* contains detailed information on coal’s importance throughout Europe and also presents the mandate and activities of EURACOAL. This publication can be obtained from the EURACOAL secretariat or can be downloaded at [www.euracoal.org](http://www.euracoal.org).