

# Energy Industry



The power industry has a privileged position within the Czech economy. It is a dynamically-developing sector including fuel exploitation, the production of coke, gas and electricity and the production and distribution of heat.

The main fuel in the Czech Republic is coal, which accounts for approximately 90% of all power sources. The share of coal in the fuel-power balance is almost 60%. Following a decline of heavy industry in the nineties, the Czech Republic has become an important exporter of power to Europe. Within the process of harmonization, the Czech Republic has harmonized its standards in the sector of the power industry with EU standards and its dependence on solid fuels as a primary power source is gradually declining.

The Czech Republic supports an increase in the use of renewable and alternative power sources, which should help to reduce the production of greenhouse gases and the dependence on oil and to increase the power security of individual countries. The Czech Republic has great potential in the development and use of renewable and alternative power sources. There are a number of universities engaged in this area; their students already participate in international projects during the studies. Owing to the participation of the universities and a strong base of public research institutions, the Czech Republic has achieved a high level in basic and applied research in the field of the power industry and also for the second and third generation of bio-fuels, that is, bio-fuels which have up to 90% lower greenhouse emissions during their entire life cycle and bio-fuels whose production does not threaten the availability and price of food.

## Exploitation of raw materials

Brown and black coal is mined in the Czech Republic. Brown coal is exploited mostly using a surface procedure in the northern part

of the Czech Republic. Black coal is exploited in the Czech Republic mostly in northern Moravia, in the area around the towns of Ostrava and Karviná. The quality of black coal is of a high level, which is why it is further processed into coke, which is used for its qualities in the smelting and chemical industries. A small field of quality oil is also situated in the Czech Republic and it is used in the chemical industry for the production of lubricants.

The Czech republic has a long tradition in the exploitation of raw materials and, as a result of this, renowned, profitable and economically-advanced companies operate on the market which have practical experience of complete deliveries for the exploitation and treatment of raw materials not only within the Czech Republic but also abroad. These companies provide their own planning of mines, the selection and determination of proper technology, the elaboration of the project, the ensuring of complete production, including the assembly, and the putting into operation and the including of the financing of the entire business case. Theoretical knowledge, practical skills and know-how in the area of capital investment from the area of exploitation of raw materials represent a significant quality in these companies.

## Production and supply of power

Approximately seventy per cent of the production of power in the Czech Republic is ensured by the joint-stock company ČEZ, owned by the state. Moreover, more than one hundred independent producers operate on the market. Thermal power plants situated close to coal-beds prevail, with a 66% share of the total production of power. Another important power source in the Czech Republic are the two nuclear power stations, in Temelín in the southern part of the Czech Republic and in Dukovany in southern Moravia, where an interim storage facility of spent radioactive fuel has been built. Their share of the production of power is 31%.



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There are also a number of hydroelectric power stations in the Czech Republic but, due to the nature of the water courses, which are long and only slowly flowing, only artificially created dams can be used for the production of power. Their share of the production of power is therefore only 3% and they serve primarily to adjust performances during the peak season. In the last few years, the share of renewable sources in production has significantly increased. Wind power plants are built in convenient places where regular winds blow, which are most frequent in the west of the Czech Republic, in Krušné hory. Owing to the subsidies granted, an increase in the share of wind power is expected, as well as a share of power from solar plants and plants burning biomass.

The Czech power market was completely liberalized with effect from 1 January 2006. The largest supplier of power is ČEZ, followed by the largest foreign investor on the Czech power market, the multinational corporation E.ON, which operates primarily in the region of the Southern Czech Republic and Southern Moravia. The third largest supplier of power is Pražská energetika, supplying power to the territory of Prague and Rostoky.

In the Czech Republic there are many quality suppliers of equipment for energetics which include a device usable for the surface exploitation of minerals or equipment for low and high voltage distribution networks. Under the auspices of CzechTrade, export alliances have been created in this sector - Czech Energy Team, Czech Extraction and Mining Technology and Czech Valves Alliance, associating companies which provide completion orders for electrical and heating plant complexes in the field of boiler systems, power supply and high-pressure pipelines (high-pressure fittings, low-pressure valves and gate valves, control clacks and valves and regulation and safety valves).



[www.export-alliances.com/czech-extraction-and-mining-technology](http://www.export-alliances.com/czech-extraction-and-mining-technology)



[www.export-alliances.com/czech-energy-team](http://www.export-alliances.com/czech-energy-team)

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