

# Energy Industry



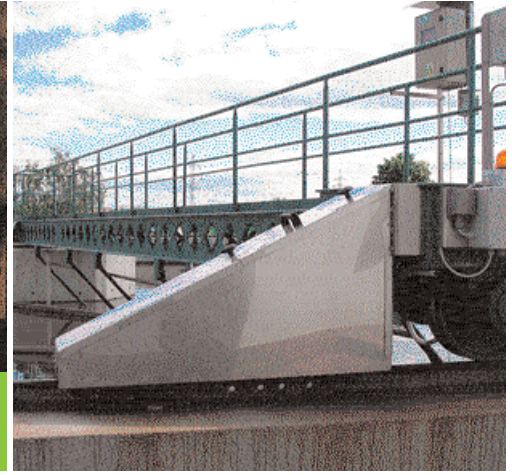
The energy sector, comprising fossil fuel mining and the production of coke, gas, electricity and heat, has steadily developed over the last few years.

Coal has traditionally been the main energy source for electricity and heat production and, though its share of primary energy production has fallen considerably since 1991, it is still relatively high. It represents nearly 60% of the fuel power balance. After the decrease in heavy industry in the early 1990s, the Czech Republic became a major exporter of electricity to Europe. The energy sector has been striving to harmonise its norms with the EU standards and gradually decrease its dependence on solid fuels, brown and black coal. The Czech government is encouraging renewable and alternative energy resources, which should help to reduce CO<sub>2</sub> emissions and dependence on oil and secure the energy supply of the country. In this regard, the Czech Republic has achieved very rapid development of its renewable energy buyout strategy, with two systematic investment subsidies in the form of feed-in-feed tariffs and additional green bonuses, both guaranteed for 15 years. The development and potential use of renewable and other innovative energy resources is a very promising segment of the Czech economy. A whole number of universities operate their departments specialised in tasks related to environmental issues and are involved in international projects. Due to the involvement of universities and a strong base of public research organisations, the Czech Republic has been very successful in basic and applied research in the energy sector and biofuels, whose emissions are as much as 90% lower and do not threaten the availability and the price of food.

The Czech Republic has both black and brown coal mines. Brown coal is mainly exploited in strip mines in Northern Bohemia. The black coal mines are located in Northern Moravia, near the cities of Ostrava and Karviná. The high-quality black coal is further processed into coke used in the metallurgy and chemical industries. The Czech Republic also has small deposits of high-quality oil, which is further used in the chemical industry for the production of lubricants.

Due to the long tradition of mining, there are renowned, well-performing and successful companies manufacturing and selling mining industry machinery and equipment. These companies have experience with complete deliveries for mining and raw material processing within the Czech Republic as well as abroad and provide full-scale services ranging from a mine project, the selection and determination of appropriate technology, project elaboration, the delivery of the technology including its assembly, the setting in operation and the financing, if required by the client. These companies take advantage of the theoretical knowledge, skills and know-how of their employees with deliveries of investment units.

70% of the electricity in the Czech Republic is generated by the state-owned company ČEZ and the remaining 30% by over a hundred independent producers. Thermal power stations located near coal mines account for 66% of the total electricity production. Over 30% of electricity is produced in the nuclear power plants situated in Temelín in South Bohemia and Dukovany in South Moravia, where an intermediate storage facility for spent radioactive fuel has been built. Hydro power stations may only operate on dams, as local rivers are long with gentle currents and



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thus they are used mostly to balance the peak output. Wind power stations are built in suitable locations in Western Bohemia with regular wind. More and more emphasis has been shifting towards renewable resources like water and wind, solar and waste-related energy in the last few years and, due to state subsidies, this trend is expected to continue in the future.

The Czech electricity market was fully liberalised in 2006. The largest electricity producer is ČEZ, followed by E.ON, the leading foreign investor, operating primarily in the South Bohemian and South Moravian regions. The territory of Prague is covered by Pražská energetika.

The Czech Republic has a long tradition in manufacturing machinery and equipment for the energy sector. CzechTrade encouraged the establish-

ment of the following alliances: Czech Energy Team, Czech Extraction and Mining Technology, Czech Valves Alliance and Czech Surface Treatment Works. Czech Energy Team associates companies specialised in electrical equipment used in the opencast mining of mineral resources and equipment designed for low-voltage and high-voltage distribution networks. Czech Valves Alliance associates companies delivering boiler systems, feeding and high-pressure pipes for power plants and heating plants (e.g. high-pressure fittings and valves).



### Czech Trade Promotion Agency

Head Office  
Dittrichova 21, Prague 2  
Czech Republic  
info@czechtrade.cz  
www.czechtradeoffices.com

Czech Gas Union <http://www.cpu.cz>  
Czech Association of Energy Sector Employers <http://www.csze.cz>  
Association of Energy Manager, <http://www.aem.cz/>  
Czech Exporters Directory <http://exporters.czechtrade.cz/en/>