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Coal Consumption Sources

Coal as one of commonly used types of fuels still takes a very specific place. It is known to be a combustible, sedimentary, organic rock, composed mainly of carbon, hydrogen and oxygen. However, coal is not just a fuel as such things as clothes, cosmetics, household chemicals without which we don't represent our life, are produced from coal. Coal continues to be primarily used for the generation of electricity and commercial heat, with 65.5% of primary coal being used for this purpose globally in 2016, and 83.2% in OECD countries. Coal is also used as raw material for metallurgical and chemical industry, and also for extracting rare elements. It is used for producing steel that is necessary for production of the equipment, cars, pipes and medical facilities. The large increase in coal consumption for iron and steel is evident. Of all the fossil-fuel sources, coal is the least expensive for its energy content. It is the world's largest source of electricity, which provide near 40% of electricity production. In 2016, a huge amount of energy produced from coal cost approximately \$2, compared to \$5 for natural gas and \$10 for petroleum. About 1,5 billion people in the world do not have access to electricity. It partially stops their advance, their development. However, coal burnt at electric power plants is still a main source of CO₂ emissions, and its application can cause long-term negative results. Mining activities dealing with coal extraction effect on natural resources and are followed by the changes in chemical composition of underground waters, thus making influence on the quality of water resources. Such harmful substances as nitrogen oxides, sulfur dioxide and heavy metals resulted from emissions can cause air pollution and effect on human health. To reduce such harmful emissions and improve the productive efficiency of these electric power plants special environmental laws and clean coal technologies" are developed.

Forecasts of long-term coal usage as a major energy source can be supported by the following reasons as law regulations, demanding market forces and environmental protection issues. Unfortunately, nowadays there is no available possibility to substitute power plants worked on coal products by another alternative element having similar characteristics. As for short-term and long-term forecasts, the research demonstrates consumption increase but claims the gradual share decrease in terms of power plants based on coal usage. Coal is likely to keep its primary place as main fuel especially in distant places with no access to other alternative types of energy. As for Ukraine, coal is still a major source of energy for the electricity generation, but its role is declining in favor of natural gas and other energy sources due to low natural gas prices, state renewable energy standards and environmental regulations.