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EXISTING STATE OF HARD COAL MINING IN THE OKR

Summary. This contribution described the development and the existing state of hard coal mining in the Ostrava-Karviná District (OKR), it deals also with the opinion concerning the future importance of this raw material in the economics of the Czech Republic.

STAN GÓRNICTWA WĘGLA KAMIENNEGO W OKRĘGU OSTRAWSKO-KARWIŃSKIM

Streszczenie. Opisano rozwój i obecny stan górnictwa węgla kamiennego w Okręgu Ostrawsko-Karwińskim (OKR). Przedstawiono także opinie na temat perspektywicznej roli węgla kamiennego w gospodarce Republiki Czeskiej.

Introduction

The development of human society is integrally connected with the using of raw materials. The ore and non-ore mining and processing, later the mining and processing of precious metals can be considered as the beginning of mining industry. The development of industry on the turn of the 19th and the 20th century led to the increasing coal mining, after the World War II the intensive mining of uranium starts.

In the preceding Czechoslovakia, in the years 1945 – 1989, the mining passed through the time period of intensive development, although the ore mining, already in the 60's, is connected with the first more significant damping and liquidation of mining processing

capacities. In the half of the 60's the opinions concerning the replacement of coal by petroleum have been put through in the power industry, however the petroleum crisis in the beginning of the 70's increases again the importance of coal mining.

The significant break occurs after the year 1989 in the connection with the transformation on market economy and perseverant application of the effectiveness criterion. The ineffective hard coal districts with high mining costs are being closed or damped with the high losses of balance reserves. The restructurization program in the sphere of hard coal mining was connected both with the mining damping and with the rise of new mining joint-stock companies and privatisation.

These changes affected also the Ostrava-Karviná District, which, in the past, was and remained also nowadays the most important producer of hard coal although the volume of annual output in last years represents roughly the half of maximum production, which, in the 70's exceeded 24 mil. t of coal.

Damping of Hard Coal Mining

Hard coal mined in the Ostrava-Karviná District (OKR) was used for power generating purposes and as the coking coal for production of metallurgical and fuel coke. The restructurization of the Czech economics connected with the decreasing of the heavy industry role, competition growth, stopping of redistribution processes in economics, emphasize on ecological factors and effectiveness together with further affects decreased the possibilities of application of coal from the Ostrava-Karviná District on the market. The aim at increase of the hard coal competitiveness led to the liquidation of ineffective mines in the Ostrava-Karviná District to which especially the mines in the Ostrava's part of the OKR characterized by long-term mining activity, great depths of mining, necessity of air conditioning or shortening of the working time in underground. The consumption as well as production of hard coal from the OKR has dropped since the beginning of the 90's.

The process of adaptation of over-dimensioned mining capacities to new economic conditions including the solution of mining finishing consequences represents an economic load the origin of which consists already in the past. The solution of these old loads exceed the possibilities of new joint-stock companies which arose on the basis of restructurization

and privatisation in the coal mining industry of the Czech Republic. The liquidation of redundant mining capacities was the condition of competitiveness ability of these new coal companies. The presupposition of mining capacities liquidation was the co-participation of the state and this trend can be presupposed also in the future although, the possibilities of state budget must be taken into account. In this way the state will create the condition for completion of the restructurization process in the coal industry in a such way so the new coal companies would gradually take over the responsibility for the realization of state power policy concept.

For the program solution of the mining damping the regulatory base has been created since the year 1990, summarized in the governmental decree No. 691/1992. The aim of this decree was to create a system where, on the hand, the state was active with its participation in damping and, on the other hand, the new joint-stock companies oriented on profit and working in rival environment.

The financial participation of state is strictly addressed and, from the viewpoint of orientation, it concerns the **technical liquidation** of namely given mining capacities, solution of consequences of preceding state fuel-energy policy in the form of **obliteration of mining activity consequences** and covering of **social-health costs** connected with the damping or mining in the past.

The technical liquidation concerns the liquidation of mine workings, clearance of machines and materials, liquidation of over-ground objects, pumping of mine waters, caused investments and the whole series of further items. The obliteration of the mining activity consequences contains the compensation of mine damages, reclamation, substitute construction, measures against the gas outlet etc. The social-health costs include the health contribution for miners, compensation for earning loss, severance pay, fidelity bonus for miners and other obligatory obligations.

In the conditions of coal mining of the Czech Republic as a whole the one of main criterions of damping was the saving of social compromise. That's why, the social-health costs have been permanently increased to the detriment of technical liquidation and obliteration of mining activity consequences. For example, in the year 1998 the social-health costs represented 48 % of the total costs for damping, the share of technical liquidation made 22 % and obliteration of mining activity reached 30 % of the total costs. The change of structure of damping costs had a negative affect on the time course of liquidation and consequences obliteration (delay of works), on rational using of financial means from the state

budget (higher prices for work due to inflation) and also on economic result of single coal companies (necessity of settlement of damping costs part from the operation means).

The situation in the Ostrava-Karviná District is more dramatic than in the mining industry of the Czech Republic as a whole. The data in the following table No. 1 show the more expressive growth of social-health costs and relative decrease of costs for technical liquidation and obliteration of the mining activity damping. It is necessary to take into account that, in the year 1991 the mining of 2 mines was finished, in the year 1993 in 1 mine, in the year 1994 1 mine stopped its mining, in the year 1995 1 mine as well, in the year 1998 1 mine stopped its activity and in the year 1999 also 1 mine was closed so the costs for obliteration of the mining activity consequences concern still greater number of localities.

Table 1

Structure of costs for damping from the state budget subsidy (%)

	1991	1992	1993	1994	1995	1996	1997	1998	1998
TECHNICAL LIQUIDATION	66,1	83,0	30,1	36,5	22,7	31,6	24,9	25,9	23,6
SOCIAL-HEALTH COSTS	9,0	10,0	48,1	37,0	55,6	48,3	60,4	62,0	67,7
OBLITERATION OF CONSEQUENCES	-	-	21,8	26,5	21,7	20,1	14,7	12,1	8,7
SUBSTITUTE PRODUCTION	24,9	7,0	-	-	-	-	-	-	-
TOTAL SUBSIDIES	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0	100, 0

The specific item in the first two years was represented by costs for ensuring of substitute production where all miners from the mines closed would be employed. In further years these activities stopped to be ensured in the framework of the district and the problems of unemployment solution was transferred on state authorities.

The absolute values from which the percentages were calculated in the table No. 1 show the permanent growth in the item technical liquidation, social-health costs as well as total subsidies. On the other hand, the costs for obliteration of the mining activity consequences are decreasing in absolute values. The total state subsidy has increased in years by 26,3 % in average, however, the social-health costs between single years are increasing by 62,6 % in average and costs for technical liquidation are growing in years by 11,0 %. Costs for the mining activity consequences obliteration between single years are decreasing by 24 %.

It is necessary to emphasize that roughly 10 % of costs for damping are settled from operation costs of the mining company. This share can be increased in the future because the

difficult forecasting of long term development of financial resources of the state and problems at the state budget setting led to the situation when the financial participation of state in the mining industry damping was detailed in short intervals of 1 – 3 years. It was decided for the future that the share of state budget on the damping costs covering will be detailed each year “according to the state budget possibilities”.

Coal Mining from the Viewpoint of the State Raw Materials Policy

The development of mining industry in the Czech Republic as well as in the Ostrava-Karviná District leads, at the first sight, to pessimistic conclusions. The mining entrepreneurial activity, however, runs according to the following general scheme: survey of the deposit, construction of mining and coal preparation capacities, exploitation, mining damping with possible consequent liquidation of a mine and obliteration of mining activity consequences. The coal mining industry in the Czech Republic up to the end of the 80's was concentrated on the first three stages of this scheme and the beginning of the 90's with the mining industry damping caught the underground coal mining on the hop, in a substance.

The mining production process has a cyclic character from the long-term point of view and its development and damping is determined especially by the level of prices and conditions of ensuring of industrial minerals either by own production or by import.

Coal is understood in the world as the strategic source of primary energy with the longer service life than petroleum or natural gas. This opinion is reflected also in the important document, which is the Raw material policy in the sphere of raw materials and their sources accepted by the governmental decree of the Czech Republic in December 1999. It is emphasized in it that in the connection with the future depletion of hard coal reserves in working mines of the Karviná part of the Ostrava-Karviná District the further supplying of the Czech energetics and industry with hard coal will have to be solve in long-term perspective.

The orientation of Czech energetics and industry in the future will determine the needs of hard coal and it can lead to re-evaluation of the degree of its reserves workability. The higher workability of hard coal deposit reserves in the Ostrava-Karviná District would possibly require the state interventions but the result would be more considerate using of these non-renewable power sources and extension of service life of the whole district. Other important and not used up to now home power sources of hard coal are, from the viewpoint of mining,

characteristic by unfavourable mining and geological conditions as e.g. depth of reserves depositing, outbursts of gas and conflicts with the interest of environment protection.

Conclusion

The characteristic feature of the mining development in the 90's in conditions of the Czech Republic as well as in Ostrava-Karviná District was its damping. From the long-term point of view, however, it is the question of the gradual creation of a balance between the demand on coal and other mineral raw materials on the one hand and their offer on the other hand.

The presupposition for the realization of the mining production damping is the creation of sufficient financial sources, and namely both on the side of state and single mining companies. The damping process leads to significant changes in the economics, ecology and social sphere of the whole regions with the mining activity concentration, e.g. the Ostrava, Most or Sokolov regions. The financial sources will be necessary for damping in today's understanding – technical liquidation, social-health costs, obliteration of the mining activity consequences but also for solution of damping consequences in wider scale – for creation of new working occasions, for maintaining of employment degree in the region. It will possible to use also various state and foreign funds for the solution of socially-economic problems.

The most positive change of the last time period seems to be the official acceptance of the opinion concerning the strategic importance of stable and limited, as to the capacity, coal mining industry existence. For realization of the state energy policy its necessity minimally for next 20 years is presupposed.

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This contribution has arisen thanks to the support of the grant from the Grant Agency of the Czech Republic with the identification GAČR 105/99/0080 what is greatly appreciated.

Abstract

The mining industry in Czech countries has a rich history. Especially after the World War II this branch passes through the period of intensive development. The transformation on the market economy after the year 1989 decreases the demand on hard coal and it comes to the mining industry damping. The mining is considered especially from the economic point of view and it comes to closing of redundant and ineffective mining capacities. This activity is very demanding economically because it requires financial means for technical liquidation (e.g. backfilling of shafts, liquidation of over-ground objects), social-health cost (e.g. severance pay) and obliteration of the mining activity consequence (e.g. reclamation, compensation of mine damages). The social-health costs prevail in the structure of costs for damping which show the increasing trend. The maintenance of social compromise is the reason for it. The development in the Ostrava-Karviná District In the year 1991 – 1999 is documented in a table. This contribution emphasizes that the existing damping of mining industry in the Czech Republic must be seen as the process of the offer and demand balancing on the hard coal market and as the part of production cycle in mining industry. The government of the Czech Republic accepted in the year 1999 the document concerning the raw materials state policy which accepts the strategic importance of stable and limited, as to the capacity, mining for realization of state power policy in future decades.