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WORKSHOP ON RESTRUCTURING OF COAL INDUSTRIES IN CENTRAL AND
EASTERN EUROPE: POLICY, INVESTMENT AND SOCIAL ASPECTS

Katowice (Poland), 1-3 June 1993

Statements submitted by the Governments of the Czech Republic,
Hungary, Poland, Romania and the Russian Federation*

TOPIC I: RESTRUCTURING POLICY FOR THE COAL INDUSTRY IN CENTRAL
AND EASTERN EUROPE

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decision of the Workshop (ENERGY/WP.1/R.24, para. 67 (d)).

Romania

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Russian Federation

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The following papers, which were presented under this topic by consultants and western experts but were not reproduced in this document, may be obtained from the authors directly:

- Restructuring of coal industry in the United Kingdom
(Mr. Bradley Charles Lewis, consultant, John T. Boyd Company,
400 Oliver Building, Pittsburgh, PA 15222, USA,
Telefax: ++1 412 - 562 1953).
- Restructuring of coal industry in France (Mr. M. Benech, Ingénieur
en chef, Direction générale de Charbonnages de France,
Tour Albert 1er, 65 avenue de Colmar, Rueil Malmaison,
France, Telefax: ++33 1 475 124
66).

CZECH REPUBLIC

THE PRESENT STATUS OF RESTRUCTURING OF THE COAL INDUSTRY
IN THE CZECH REPUBLIC

- (1) There are four brown coal and three hard coal geographically separated deposits in the Czech Republic,
- (2) All of these deposits are mined either by State enterprises or by joint stock companies which are nowadays totally State-owned,
- (3) The following principle is applied in managing the exploitation of small coal deposits,

"One Deposit or one basin = One mining organization"
- (4) The output of these "small" organizations averages less than 20% of brown coal production and about 10% of hard coal production in the Czech Republic a year,
- (5) The two largest coal basins - the first brown coal one in Northern Bohemia and the other hard coal one in Northern Moravia - covering the rest of the coal output are exploited by several competing mining companies,
- (6) The organizational structure should be one of sources to introduce the competition into the coal mining industry,
- (7) The structure described was created at the beginning of 1991 and has not yet changed since that time although the Government of the Czech Republic adopted a programme in December 1992 to unite some State enterprises in the form of joint stock companies respecting the organizational principles mentioned above,
- (8) The process of organizational restructuring of the coal industries has slowed down these days because of discrepancies in our legal order on one hand and uncertainties about evaluation of environmental costs of the past and future on the other hand,
- (9) The competition in the hard coal sector is based on creating several institutionally separated subjects and introducing a limited volume of imported coals on the home market,
- (10) The competition in the lignite sector is based on the same organizational features and furthermore on establishing step-by-step price liberalization,
- (11) When the last Workshop in Tirgu-Jiu took place in 1992, there was a strict coal price regulation in the Czech Republic. This has changed. The coal prices for power utilities are now fully liberalized. To compare the coal production for the electricity generation represents about one third of total coal output. The pricing of the rest of the

production is still regulated preserving two different price levels, the higher one for industries and the lower one for households. The abolition of the price limits is in preparation for the end of this year.

GENERAL CONCLUSIONS

- I. Organizational and institutional framework of restructuring of the coal industry in the Czech Republic has been set up.
- II. Price liberalization has substantially progressed after establishing the coal prices for the energy sector without State interference.
- III. The progress of restructuring now preferably depends on results of ecological audit to evaluate realistically environmental costs and thus to set the veriflicated market value of mining companies for the famous experiment of the Czech Republic which is called Coupon Privatization.

HUNGARY

RESTRUCTURING OF HUNGARIAN COAL MINING

The abt. 17 Mt annual production of the Hungarian coal mining is in 70% supplying fuel to the coal-fired power stations. The remaining part is for household and communal use. From this amount of coal are also covered the requirements of the domestic briquette industry.

In consequence of market ratios the future of the coal mining companies is essentially defined by the electrical energy production of the coal-fired power stations. The interdependence of power stations and mines is obvious: fuel supply of the power stations projected for low quality (6 to 12 ThKJ/k) coals cannot be ensured from other sources, but also the coal dust produced in the mines has no other alternative.

The radical decrease of production volume of the Hungarian industry, the collapse of industrial branches with high energy demand resulted in the decrease of the demand on electrical energy year by year in Hungary, despite the limitation of imports a capacity surplus of power stations appeared, so the loading of the single power stations are defined by economic aspects. According to forecasts decrease of use of electrical energy will stop in the coming years, but the level of electrical energy demand of 1988 will be accessed only after the millennium.

Many sided economic investigations have proven, that coal-based electrical energy production cannot be made economic compared with alternative possibilities (nuclear power station, hydrocarbon fuelled power stations because the geological conditions and bad quality are increasing the specific fuel costs on one hand, the efficiency of the coal-based power stations is bad and their operation cannot be maintained longer term due to point of view of environmental protection, on the other hand. As a result of the above said phenomena the reduction of the coal-based electrical energy production (due to sorting out of blocks of power stations and to the harmonized closure of mines) cannot be avoided. On the household coal market the demand is reducing since decades continuously, this tendency has been strengthened by the liberalization of imports from the countries where export of coal is subsidized, which is the case first of all in the countries of the Community of Independent States (CIS). This can be sensed by the fact, that the realization of household coals and briquettes reduced itself during the last two years to the half, i.e. from 4 Mt to 2 Mt.

The reduction of the coal mining had to be adjusted to the market tendencies as shown above, the measure and schedule of which is determined by the coal demand of the power stations. Taking into account that from the point of view of employment mines are in the most critical regions, when defining the measure of reduction aspects of employment policy are also to be taken into account.

The conception of reduction of the coal mining has been dealt with by the Government several times, the total transformation of the organizational, ownership and control system of the industrial branch has been developed and it is in progress.

Essence of the conception is, that mines having perspectives will get into organizational ownership integration with the power stations.

All of this will be effected in the course of liquidation processes, that the power station joint stock companies will purchase the mines providing basic material by means of shares issued on the basis of increased registered capital, which will either operate in common organization with the power station (organizational integration), or they will be organized in separate economic venture being the property of the power station (ownership integration). The mines decided to be closed will also be organized in a joint stock company, the owner of which will be the Hungarian State. This joint stock company will have the task to take over the obligations to close the mines, to arrange mine damages and reclaiming further the social loads of the past mining activities. These so-called Mining Property Utilization (joint stock) Companies will be basically loss-making, the necessary subsidization by the State will be tempered by the realization of the assets (industrial and social establishments) not becoming part of the integration. Schedule of mine closures are regulated by governmental resolutions based on reconciliation with the trade unions.

The organizational procedure described above is made more difficult due to the fact that interests of the creditors are to be taken into account, so the decisions in many aspects are not in the hands of the Government but in that of the related Courts. Influence of the industrial control on the transformation is effected through the Coal Mining Restructuring Centre (SZESZEK).

The transformation of the Hungarian coal mining shown above is now at its half-time. With date of 1 April 1993 three energetic verticums have been established (Mecsek Coal Mines - Pécs Power Station, Mátraalja Coal Mines - Mátravidék Power Station, Ajka Mines - Bakonyi Hőerőmű Rt). These measures resulted in restructuring of abt. the half of the domestic coal production. As planned also in this year the integration of the Boirsod Coal Mines and the Borsod Power Station and that of the mines having perspectives in the North-Transdanubian area and the power stations of this region.

The organizational ownership and control system with transformation shown above will ensure, that the reduction of the coal-based electrical energy production will be done on harmonized way and instead of the separate interest of the owners the optimum of the national economy will be achieved.

The two most delicate tasks of the restructuring is to manage the stresses due to radical reduction of the staff number and to ensure budgetary sources in the present condition of the Hungarian national economy which are inevitable to the restructuring.

POLAND

Forecasted role of hard coal in energy balance in Poland

The main source of covering energy needs are mineral fuels. Nothing indicates changes of situation in the forthcoming decades.

The documented resources of crude oil should be adequate for more than 40 years at present level of consumption. However almost 3/4 of all world crude oil resources are placed in the OPEC countries. The inevitable tendency is growth of contribution of the OPEC countries in crude oil production because in western and eastern European countries, according to reserves, it will be enough for just 12-13 years. The situation of growth of contribution of the OPEC countries in crude oil production can have unstabilizing influence on world market.

Geographic placement of documented resources of natural gas is more advantageous. The OECD countries possess nearly 12% of reserves, Near East and Middle East countries 30.7%, but the countries of former eastern Europe in that mainly former Soviet Union 38.3% according to information given in paper of M.P. & H., I.P.P.T. Polish Academy of Science, June 1992.

The research also results that till 2050 year global documented resources of coal in the World in category of overall costs up to \$50/tpu* will be sufficient to cover total world demand even for the high consumption variant.

According to experts esteems should be expected increase of turnover on world coal market. In the course of the 15th World Congress of Energy Council have been deliberated the most essential problems of power engineering and necessary strategy of desired directions in the field of energy engineering as well.

In the Madrid Declaration is stated that in the period of three nearest decades there is not predicted exhaustion of conventional sources of energy, also is lack of premises of appearance of new revolutionary engineering solutions which ensure new sources of energy supply.

World experts generally esteem that the criteria of deposits are changing so one should accept them with great caution. However for current criteria and output level with good approximation can be assumed that will be enough:

- crude oil for 44 years,
- natural gas for 57 years,
- hard coal for 200 years,
- lignite for nearly 300 years.

Generally speaking it could be concluded that accessed energy resources will not be the factor which limits covering of world energy demand in the first half of twenty-first century, though location is very unequal so discriminate particularly developing countries, as testified by following compendium:

	Crude oil		Natural gas		Hard coal & lignite	
	reserves billions of tons	contrib. %	reserves bill. m ³ of tons	contrib. %	reserves millions of tons	contrib. %
World total	135.4	100	124.9	100	1 040 529	100
North America	5.3	4.2	7.5	6.1	249 183	23.9
Latin America	16.9	12.0	6.8	5.4	11 430	1.1
Middle East	89.4	66.1	37.4	30.1	62 271	6.0
Africa	8.0	6.0	8.8	7.4		
Asia & Australia	5.6	4.4	8.4	6.8	303 625	29.1
Europe	9.9	7.3	55.1	44.5	413 020	39.9
in this former USRR	7.8	5.6	49.5	40.0	241 000	23.2
Poland	0.0	0.0	0.2	0.1	41 200	4.0

Source: No. 5.

Contribution of fuels consumed in World for production of electrical energy in %.

Bearers of energy	1990 contrib. %	1995 contrib. %	2000 contrib. %	2005 contrib. %
Solid fuels	42.4	42.2	41.9	41.7
Oil fuels	12.8	9.8	8.0	6.6
Natural gas	17.8	19.2	22.7	25.7
Nuclear energy	19.5	19.3	17.5	15.8
Water energy	7.0	7.8	8.0	8.3
Geothermal energy	0.4	1.1	1.2	1.3
Other renewed	0.6	0.6	0.6	0.6

Source: No. 6.

Contribution of natural gas to production of electrical energy in the future fuel balances shows distinctly significant increase which overrun grandness of 1/4 that is right tendency taking into consideration ecological aspects of this matter. Continuously the main source of world energy production is coal.

In the complex fuel-energy economy of world appears the problem of determination of coal role as energy bearer. As have been mentioned above there is many reasons that coal will have strong position. During programming of coal utilization experts indicate that have to be taken into account such its utilization to increase quantity of gained serviceable energy, simultaneously fulfil very rigorous necessary and very important requirements of environment protection.

Taking perspective problems of rationalization of fuel-energy demands covering of Poland, should be intensified research works which taking into consideration all sphere of conditions.

Power engineering structure of Poland on background of well-developed countries is characteristic by richness of deposits mainly of hard coal and possibility of winning of reasonable quantity of methane that appear in deposits of hard coal.

The structure of consumption of prime energy in Poland in 1990 in comparison to the OECD countries is presented below:

Bearers of energy	Poland %	OECD %
1. coal	74.9	26.5
2. crude oil	14.9	32.2
3. natural gas	8.9	19.5
4. nuclear energy	-	4.6
5. water energy	0.1	5.7
6. remaining	1.2	11.5

Sources: No. 1 and No. 4.

As is known in the above figure the structure of prime energy consumption that is dominated in Poland by coal is extremely high. Moreover what is significant is the structure of energy reserves in Poland which is presented below:

Bearers of energy	billions of t.c.e.	Natural units	Contribution %
Hard coal	50.3	63.5 bill. tons	91.2
Lignite	3.5	12.9 bill. tons	6.4
Natural gas*	0.16	164.0 bill. m ³	0.3
Peat	1.0	2.0 bill. tons	1.8
Wood	0.05	3.0 mill. t/y	0.1
Water energy	0.13	12.0 bill. kWh/y	0.2

Source: No. 1.

* Without documented reserves of in coal deposits.

According to assumptions of prospective programme of energy economy should be taken into account necessity of undertake activity that ensure changes in structure of primary energy consumption, just realize, that achievements of meaningful effects in the prospect of 20-30 years will be very difficult whereas:

- increase of contribution of petrol fuels will be made difficult considering the fact of uncompetitive prices of these fuels in comparison to coal prices, lack of own reserves and undoubtedly increasing cost of gaining crude oil from import.

Increase of demand for natural gas is to meaningful extend conditioned by extension of internal and international connections by gas pipelines that requires considerable financial effort which can be afforded by the country just in limited extend.

- nuclear energy engineering in Poland can appear in experts' opinions not quicker than after 2005 year. Very high investment cost and determined negative society opinion are vital obstacles,
- gaining energy from other sources will not have meaningful influence on energy balance of the country considering the fact of minor possibilities of gaining it from these sources and cost complexions. Taking into consideration above-mentioned reality, scientific publications of Polish experts and papers of Upper Silesian Mining Chambers can be stated univocally that longer than till 2010 year basic bearer of energy in Poland will be hard coal and lignite however their contribution will reach in future to above 33% while 24.9% in 1990 year.

From the paper of Institute of Basic Problems of Engineering of Polish Academy of Science under leading of professor Wł. Bojarski and with cooperation of Department of Energy and Fuels of Ministry of Industry and Trade consequent that future demand for fuel and energy and structure of their contribution will depend on mainly following factors:

- forecasted scenario of economic growth of country,
- access to energy reserves and cost level of fuels and energy gaining,
- the level of environment protection against secondary wastes and power engineering process wastes.

In study reports is taken assumption that in the period till 2010 year in the country will succeed vital structural changes which tend towards assimilation of Polish economy to economy of developed countries. Taking into account trends and predicted economic situation after 2000 year it seems be more concrete in coming true "low scenario" that assume medium growth of Gross National Product which will reach 2.3% per year. Contribution in demand on primary energy will be figured (in basic variant):

Bearer of energy	Prognosis for		Low scenario	
	1990y statst. %	1995y contr. %	2000y contr. %	2010y contr. %
Hard coal	60.6	59.3	56.7	52.0
Lignite	13.3	12.6	10.7	9.9
Natural gas	9.5	10.6	11.0	13.1
Liquid fuels	15.4	15.3	18.6	20.2
Nuclear fuel	0.0	0.0	0.0	0.0
Remaining	1.3	2.2	3.0	4.8
Total	100.0	100.0	100.0	100.0

Source: No. 1.

Production of more important energy bearers. The proposal of policy assumptions and programme of power engineering in Poland till 2010 year M.P. and H., I.P.P.t. - Polish Academy of Science - Warsaw, March 1992 year.

Item bearer of energy	Unit 1990 acc. stat.	Scenario					
		low			high		
		1995	2000	2010	1995	2000	2010
a) Internal production							
1. Hard coal	mill.t 147.6	140.7	142.6	146.9	141.1	142.7	147.0
2. Lignite	mill.t 67.6	69.0	60.0	60.0	69.0	60.0	60.0
3. Nat. gas*	bill.m³ 2.9	5.3	5.9	5.4	5.5	5.9	5.4
b) Export							
1. Hard coal	mill.t 28.01	23.6	27.3	31.9	13.9	14.0	14.3
c) Import							
1. Hard coal	mill.t 0.7	-	-	-	-	5.8	12.7
2. Nat. gas	bill.m³ 8.2	9.1	9.4	14.4	9.9	12.8	19.1

* Natural gas of caloric value 34.33 MJ/m³.

Output projection of hard coal according to study report of Upper Silesian Mining Chamber, June 1992 is figured as follows:

Variant	Unit	1990	1995	2000	2010
Low variant	mill.t	147.5	138.3	136.2	133.1
High variant	mill.t	147.5	149.1	145.4	141.9

Source: No. 2.

Consumption on of hard coal in country in individual sectors is very differentiated. In years 1990-1992 have been figured as follows. More significant receivers of hard coal in the country.

Sector/year	1990 mill.t	%	1991 mill.t	%	1992 mill.t
Total consumption	119.93	100.0	118.83	100.0	111.67
1. Power engineering	49.60	41.3	46.95	39.50	42.13
2. Fuel industry	14.25	11.9	11.92	10.00	11.44
3. Chemical industry	6.70	5.5	6.39	5.38	5.66
4. Steel industry	6.57	5.4	5.75	4.83	5.25
5. Municipal sector	5.97	4.9	6.27	5.27	6.01
6. Food industry	4.11	3.7	4.11	3.52	3.58
7. Building industry	3.77	3.1	3.76	3.16	3.29
8. Coal industry	2.73	2.2	2.73	2.29	2.84
9. Farming	2.00	1.5	1.79	1.51	1.08
10. Paper industry	1.58	1.3	1.55	1.30	1.32
11. Textile industry	1.48	1.2	1.40	1.18	1.19
12. Transport industry	1.22	1.0	1.34	1.13	1.01
13. Machine-build. ind.	1.05	0.8	1.02	0.85	0.98
14. Wood working ind.	0.87	0.7	0.88	0.74	0.85
15. Transportation	0.62	0.5	0.65	0.54	0.37
16. Metallurgical ind.	0.60	0.5	0.62	0.52	0.37
17. Non-iron met. ind.	0.54	0.4	0.56	0.47	0.48
18. Houses and services	0.52	0.4	0.47	0.39	0.65
19. Total 1-18	104.18	86.9	98.20	82.58	88.78
20. Other small rec.	15.75	13.1	20.63	17.42	22.89
Export of hard coal	28.01	-	18.08	-	18.72
Output of hard coal	147.6	-	140.3	-	131.3

Source: No. 3.

Conclusion from above figure is about internal consumption of coal now and in the nearest future. It will decide the group of first 10 largest receivers and first of all power engineering and fuel industry (coke engineering). Their prospective growth of demand have to reflect in economy boom and will be its interpretation.

Running alongside actions in order to decrease of energy consumption by production and increase of effectiveness of it utilization should be first of all noticeable in the mentioned group of tenth largest consumers of coal.

Nearest 20 years in Poland will be characteristic by the trend towards decrease of demand on coal and increase, though not comparable with developed countries, trend towards increase of contribution of liquid and gas fuels.

According to the opinion of the authors this trend should be estimated as optimum for safety of energy coverage for the country. The energy engineering policy should ensure in perspective time:

1. Full coverage of energy needs of the country through appropriate utilization and development of own internal reserves and through long time agreements referred to import of crude oil and natural gas taking into account national sovereignty.
2. Right protection of environment among others by increase contribution of natural gas imported and gained (very important) from developed own coal deposits.
3. Rationalization of energy utilization otherwise improvement of fuel and energy usage that lead to decrease of tension in energy balance, decrease of cost of gaining sources of energy and this is very important, reduction of burden to environment.
4. In stable high contribution of coal in covering of needs in order to decrease of its burden should be intensified enterprises which are aimed in further improvement of coal quality and particularly the coal designed for power engineering and heating plants.
5. Searching for ecological clean bearers, richness of methane in Polish coal deposits and decrease of the country dependence upon import of raw materials point at final cause of undertaking of specific enterprises to increase of methane recovery.

Recapitulation of above described necessary strategy should be established some priorities:

- (i) Nearest 20 years is a period of stable demand on coal in the country with simultaneously increasing contribution of crude oil and natural gas. To ensure safety of covering of national energy demand should be undertaken quick and resolute technical and modernization actions to ensure necessary output of coal within bounds of 140 millions of tons.

- (ii) The factors which determine of usage of coal are ecological conditions. Mass application of coal will have to be more and more harmonized with natural environment.
- (iii) Significant contribution of coal in energy balance of Polish economy and particularly in power engineering and heat engineering should be bound with enterprises which ensure radical improvement of coal quality.
- (iv) Gaining of internal coal should be conjugated with working out of efficient and safe technology of recovering of methane from coal deposits.
- (v) Poland which aspires to integration with Europe and to achieve western standards of living should undertake actions for more effective utilization of energy in that also to structural changes of bearers. Taking into consideration increasing deficit of fuels in the world and increase of prices as well, will be necessary undertakings to get variety of energy supply from various sources in this possibility of maximum contribution of own fuels.
- (vi) Currently the basic problem which require quick low settlement is creation of respective financing system for pro-ecology objectives.

ROMANIA

The restructuring policy in the Romanian coal industry

Author: Dr.eng.Ion Gâf - Deac, - State Secretary - Chief of the Mining and Geology Department - ROMANIA

Within the framework of the mining and geological industry, Romania are carrying out operations involving prospecting, research work, mining, dressing and marketing of solid fuels and other mineral raw materials.

Its organizational structure is made up of eight autonomous administrations, 57 State commercial societies and a private capital society. The activity is spread out in all the Romanian counties. The mining and dressing of solid mineral substances is carried out in 157 underground mines, 111 open pits, 59 dressing plants and 580 geological units which yield more than 100 products, of which 35 have a special significance for the national economy.

In the last two years the mining and geological activities being carried out in Romania - on the basis of consultation involving all the economic agents, research and design institutes in this country and abroad as well as the Department of Mining and Geology - a clear cut organizational tactic was formulated, with medium and long-term strategies.

The above-mentioned strategy implies the following:

1. All over the world, an economy can exist and is run only with the support of mineral raw materials, supplied by a mining industry, which is evidently backed up by a well-organized geological sector.
2. In Romania, there is a real industrial infrastructure, which is very diversified.

The industrial units are important raw material and fuel consumers. The industrial system need products like: coal, precious metals, uranium and non-ferrous metals (copper, zinc, lead), non-metalliferous products (limestone, dolomite, diatomite, caolin, a.s.o.), salt etc.

3. In Romania, there is a real home market for all the mining products. For some substances (coal, for instance) the demand is quite high, even acute, if one takes into account the fact that the national energy system must go on mining. Almost every year Romania imports about 2 million tonnes.
4. At present, the Romanian mining sector possesses a well-defined infrastructure in what concerns the mining capacities.

The available equipment includes, among other machines, 93 high capacity bucket-wheel excavators (complex machines on a Krupp licence), 221 continuous miners, 150 roadheaders, rubber belt conveyors covering over 70Km and others.

Today, almost one quarter of a million people work in the mining and geological sector (235,000) even if between 1990 and the present time, the total number of employees is 65,000 lower.

5. The strategy stresses the fact that it is not convenient to close certain mining units just for the sake of closing them, and then arbitrarily report that the transition to a market economy is a fact. In mining, any closure on production capacity conservation asks for expenses. In some cases - in the uranium industry, for instance - an eventual decision to close the mines without a well-founded strategy, implies the immediate allocation of funds representing a double sum if compared with that necessary for their exploitation, due to ecological reasons (contamination, the obligation to recuperate the equipment, the backfilling of mined spaces etc). Nevertheless, 78 productive capacities in non-profitable areas have been closed so far, once the reserves were exhausted; the activity was moved and focused on more profitable mining areas.

6. Within certain limits, the mining industries all over the world are granted subventions, due to the objective character of the geological mining conditions during the mining process. The above-mentioned strategy provides for an ever decreasing course of the subventions.

7. In mining, the investment activity has two sides:

- the maintaining of production capacities;
- the development of production capacities.

In the last three years, Romania did not spend any money on the development of production capacities. In 1993, the emphasis is on absolutely minimal expenses, for the acceptable proportion of maintaining coal-mining production capacities.

8. It must be emphasized that at present, the mining and geological industry is one of the very few branches of our national economy where the production decrease was recorded from the point of view of the achieved and delivered physical production.

The physical production as compared to that of 1991 recorded in 1992 growth of 19.9% for lignite and bituminous coal, of 7.7% for coke coal, 6.5% for power station coal as well as other substances, such as 4% lead concentrates, 20.2% gold, 5% copper concentrates etc. Production did not come up to the expected level in the field of non-metalliferous substances (sands, clay, bentonite), but these represent 12% of the entire mining activity.

If during the winter of 1992-1993 the production of power reached that mark, this was due to the fact that in November 1992, the coal stock provided for the existing power stations was of 6 million tonnes. However, the biggest coal stock for the producer of electric power existed in 1989, when it reached 6.1 million tonnes. At present, the power station stocks contain about

2.5 million tonnes of coal more as compared to the quantities recorded last year, even if this country had to face real problems with the import of natural gas and crude.

In 1992 almost 8 million tonnes more of coal were mined as compared to 1991, which resulted in a smaller hard currency effort by 135 million dollars.

* * *

Taking into account the above-mentioned situation, a conclusion of a macro-economic nature could be reached, which speaks of a future malfunctioning of the Romanian economy, directly connected to the discrepancy between a sector which follows an ascending course (mining) and the other branches of the economy, which continue to follow a descending one.

The elimination of this discrepancy between the mining activity and the other branches can only be achieved by the revitalization of other productive sectors of the Romanian economy.

It must be pointed out that at present, the mining and geological sector, due to its results and activities, back up the other branches of the Romanian economy, trying to bring them closer to a similar ascending course.

One should never forget that it is unconceivable to revitalize the Romanian economy without mineral raw materials and fuels. The Romanian mining and geological industry can provide all the necessary solid raw materials and fuels for the other branches of the national economy which are subjected to a revitalization process - only from the international production.

* * *

From the concrete aspects which belong to the changes taking place in the mining and geological industry, the following are more important:

- The valoric production, in comparable prices, is correlated to the growth of physical production, reaching in 1992 an industrial output of 138.1% as compared to the year 1991, of which 156% for coal;
- The concentration of production in units and sectors which have a real perspective;
- Due to the number of retired persons the staff was reduced by 16.30% in 1992, as compared to 1991;
- The growth of the physical production and the changes in the structure of the workforce led to a higher physical productivity by 3-19%;
- A number of 48 commercial societies, dealing in other or complementary activities detached themselves from the existing autonomous administrations;

- Measures were taken for the introduction of contract leasing of available capacities;
- The initiative for the cooperation with Romanian or foreign firms with a view to modernize and rehabilitate the mining activities was started and partially finalized;
- The improvement of the geological activity is going on (dewatering programmes, the revitalization of the geological research work on the Black Sea platform) etc;

The carrying out of operations is hampered by a number of incongruencies which do not belong to the system:

- The cost paid for the transportation of the mining products is too high, sometimes higher than the products themselves (for instance, the caolin clay);
- The evolution of wholesale prices for the mining products recorded higher coefficients (between 3.2 and 27.9 times higher) between 1990-1992 as compared to the price of raw materials and services (in similar conditions), which were subjected to coefficients 68.0 times higher. In the year 1992, the economic agents (those receiving subventions included) had to pay to the State budget, or that of other bodies, very high sums as taxes and interests. In 1992 the mining and geological units received from the State budget (subventions and allocations) 125.8 billion lei and paid 78.0 billion lei;
- The expropriation of land for the carrying out of mining activities (for lignite and bituminous coal - about 600-700 hectares per year) still going on with many difficulties, due to the lack of effort and stimulative results, which are significant for a mining activity which takes into account a faster recultivation of the terrain;
- The privatization of mines and open pits will start quite soon, when the regulations specific to this sector - concerning the granting of the right to carry out mining operations on the areas being State's property - are finalized;

The Mining Law is in the process of being passed; it will regulate aspects concerning:

- The protection of Romanian mining products by means of higher import taxes, meant to contribute to a better development of the mining sector;
- The setting up of regulations specific to the mining and geological activities, so that the transactions and funds for the foreign investor are guaranteed by the Government;

- The provision of normative documents concerning the exemption of duty for imports, documents which are necessary for the modernization and rehabilitation of a number of lignite mining units by means of credits from the World Bank and BERD;

The most relevant thing is the continuity and the dynamic aspect of the strategy concerning the restructuring of the Romanian coal industry, which is adapted to the realities of the transition to a market economy.

RUSSIAN FEDERATION

Restructuring policy of the coal industry in Russia

Russia's national energy programme is based on a long-term outline for the development of the fuel and energy sector with emphasis on domestic resources for the foreseeable future.

The intensive growth of energy production, including coal mining, over a protracted period in the context of extremely low energy efficiency and a constant shortage of capital investment caused a substantial lag in the technical level of production capacity and also in the development of social infrastructure, as well as in environmental conservation.

In recent years, crisis situations in the fuel and energy sector and in coal mining have stemmed largely from the dissolution of the USSR and the breakdown of the previous system of management of the national economy.

Coal production in Russia fell from a minimum level of 416.3 million tonnes in 1988 to 327.9 million tonnes in 1992, or by 23%. Output in the current year is expected to be about 320 million tonnes.

Aside from institutional factors related to the crisis period, the main reason for the decline in output is that less attention has been paid to the role of the coal industry in the fuel and energy balance.

Inadequate investment in the industry has led to a sharp reduction in the amount of new capacity brought into operation, this being three to four times less than the amount of capacity retired from service during the period since 1980. The mines currently in operation do not meet present-day requirements because of delays in reconstruction and modernization.

It must be acknowledged that, in terms of its output concentration indices and level of labour productivity, Russia's coal industry lags well behind the coal-producing countries of Western and Eastern Europe.

The need for a new Russian energy policy arose in connection with the dissolution of the USSR and the establishment of the Russian Federation as a genuinely sovereign State, and in the light of fundamental changes in the country's socio-economic structure and economic and geopolitical situation and its policy of integration into the world economic system.

The new energy policy reflects the basic changes in relations between the State authorities and economically independent enterprises, as well as the rapid growth of independent commercial entities.

The importance of the new energy policy derives from the country's critical economic and energy situation, and also from the reorientation of the fuel and energy sector to tackle social problems as a matter of priority and meet the increased requirements of environmental protection.

The new policy is designed to promote a regulated energy market and is expected to address the following issues:

Legislative problems in the energy sector - rights of ownership of resources, distribution of functions between central and local government authorities, enterprises and associations;

Strategy of restructuring, re-equipment and regional priorities;

System of prices, taxes, rental payments and other requirements for the development of the market mechanism;

The main ways in which the new energy policy is to be implemented include:

Gradually aligning energy prices (through regulation) with world prices;

Introducing charges for the use of natural resources and on that basis reducing the budget deficit and alleviating the tax burden;

Establishing an effective system to manage the operation and development of the energy sector and regulate market conditions;

Creating joint-stock enterprises in the fuel and energy sector and attracting foreign investors and domestic commercial entities;

Establishing a system of federal and regional funds to promote energy conservation and investment in programmes of re-equipment, social welfare for disadvantaged segments of the population and environmental protection.

Russia's energy policy calls first of all for the implementation of emergency crisis-prevention measures in the industrial and social spheres (more rapid commissioning of new capacity, active State support, financial recovery, etc.).

During the transitional period (1993-1997) the above-mentioned legislative, economic and institutional arrangements for the new economic system should be established in the energy sector and the parameters for regulating the energy market should be determined. This should help to overcome the crisis in energy production and in the coal and oil industries.

In the subsequent period it should be possible with very moderate growth in energy consumption to ensure a rapid improvement in living standards while at the same time reducing the energy intensity of the gross social product by 20-25% compared with 1990.

Russia's energy strategy envisages:

Increasing gas production to 680-695 billion m³ in 1995 and 735-755 billion m³ in the year 2000 (from 640 billion m³ in 1992);

Halting the decline in oil and condensate production by 1995-1996 and stabilizing output up to 400 million tonnes by the year 2000;

Reversing the protracted decline in coal production by 1995 and achieving moderate growth of up to approximately 375 million tonnes by the year 2000;

Promoting greater use of non-conventional renewable sources of energy.

Russia's new energy policy outline, once approved by the Government, will be put before Parliament for consideration.

Restructuring of the energy and fuel sector will take place against the political background of the growing role of individual federal entities and large regions in addressing industrial and socio-economic problems.

The abandonment of administrative methods of management, the granting of full economic independence to enterprises and the extension of the rights of local government authorities have fostered workers' political and social activities. Today, and especially in the future, the development of the coal industry is to be pursued in the light of the specific circumstances - industrial, environmental and social - of each major region (Pechora coal field - Republic of Komi, Kuznets coal field - Kemerovo province, regions of eastern Siberia - Kansk-Achinsk coal field, Far East - Sakhalin, Yakutia, etc).

Combining centralized principles in the policy of investment and regulation of coal prices (for a certain period) with the intensive, independent development of coal-mining regions and enterprises will encourage market relations and healthy competition among coal producers.
