Chapter-4

COAL MINING POLICY AND MAJOR INITIATIVES

4.1 COMPETITIVE BIDDING

4.1.1 With the progressive allocation of coal blocks, the number of coal blocks available for allocation is declining, while the number of applicants per block in increasing, as the demand for coal keeps increasing. This has made selection of an applicant in respect of a block difficult and vulnerable to criticism on the ground of lack of transparency and objectivity

4.1.2 While efforts are on hand to continuously add blocks to the captive list, it is also expected that the demand for blocks would remain far ahead of supply. Therefore, there is an urgent need to bring in a process of selection that is not only objective but also demonstrably transparent. Auctioning through competitive bidding is one such acceptable selection process

4.1.3 With a view to bringing in more transparency, the Mines and Minerals (Development and Regulation) Amendment Act, 2010 for introduction of competitive bidding system for allocation of coal blocks for captive use, has been passed by the both Houses of Parliament and it has been notified in Gazette of India (Extraordinary) on 9th September, 2010. The Amendment Act seeks to provide for grant of reconnaissance permit, prospecting licence or mining lease in respect of an area containing coal and lignite through auction by competitive bidding, on such terms and conditions as may be prescribed. This, would however, not be applicable in the following cases:-

- where such area is considered for allocation to a Government company or corporation for mining or such other specified end use;
- where such area is considered for allocation to a company or corporation that has been awarded a power project on the basis of competitive bids for tariff (including Ultra Mega Power Projects).

The Government has finalised Rules for allocation of blocks through the competitive bidding and same are notified on 2.2.2012. The commencement of the Amendment Act has been notified on 13.02.2012.

4.2 GUIDELINES FOR MINE CLOSURE

With a view to restore mined out areas to the primary level to the extent possible, it has been decided to make it mandatory to prepare mine closure plans for which Ministry of Coal has issued guidelines for adoption by coal mine owners. This would help in addressing environmental issues related to coal mining. These guidelines are available on the website of this Ministry.

4.3 DRAFT POLICY ON WASHERY REJECTS/SURPLUS COAL

The draft policy of surplus coal, by products and midlilngs/rejects from captive blocks has been circulated for Inter Ministerial consultations.

4.4 STATUS OF COAL MINES (NATIONALIZATION) AMENDMENT BILL 2000

The Cabinet Secretariat has notified the constitution of a new Group of Minister (GOM) under the Chairmanship of Hon'ble Finance Minister to consider issues related to Coal Mines (Nationalization), Bill, 2000. The GOM will make specific recommendation on

policy measures regarding exploration and mining of coal, including the issues relating to pursuing the said Bill.

4.5 REGULATOR FOR COAL SECTOR

It is proposed to set up a Coal Regulatory Authority for which a Draft Bill has been finalized after consulting various Ministries/Departments. Draft Cabinet Note alongwith the Bill has been forwarding to the Cabinet for setting up of independent Regulator for Coal.

4.6 CAPTIVE COAL MINING BLOCKS

4.6.1 Under the Coal Mines (Nationalisation) Act, 1973, coal mining was mostly reserved for the public sector. By an amendment to the Act in 1976, two exceptions to the policy were introduced viz., (i) captive mining by private companies engaged in production of iron and steel and (ii) sub-lease for coal mining to private parties in isolated small pockets not amenable to economic development and not requiring rail transport.

4.6.2 The Coal Mines (Nationalisation) Act, 1973 was amended in June, 1993 to allow coal mining for captive consumption for generation of power, washing of coal obtained from a mine and other end uses to be notified by Government from time to time. As per the provisions in Section 3 (3) (a) (iii) of the Coal Mines (Nationalisation) Act, 1973, a company engaged in production of iron and steel, generation of power, production of cement, and production of syn-gas obtained through coal gasification (underground and surface) and coal liquefaction only can do coal mining in India for captive consumption.

4.6.3 The Central Government, a Government company (including a State Government company), a Corporation owned, managed and controlled by the Central Government can do coal mining without the restriction of captive use.

4.6.4 So far, production has commenced in 29 coal blocks and the production from these coal blocks for the year 2010-11 was 34.224 million tonnes and for the year 2011-12 (upto December, 2011 Prov.) was 26.930 million tonnes as reported by the Coal Controller's Office.

4.6.5 As regards allocation of small and isolated blocks are concerned, a new policy is being formulated in consultation with the Ministry of Law and Justice and the stake holders for allocation of such bloc

4.6.6 Ultra Mega Power Projects

Ministry of Power proposes to set up four Ultra Mega Power Projects (UMPP) with capacity of 4000 MW each, through tariff based competitive bidding. The Ministry of Coal has allocated Moher, Moher-Amlori Extension and Chhatrasal coal blocks (GR 750 MT) for the proposed UMPP to be set up at Sasan in Madhya Pradesh; Meenakshi, Meenakshi-B and Dip side of Meenakshi coal blocks (geological reserve 885.24 MT) for the proposed UMPP to be set up in Orissa; Kerandari BC coal block (geological reserve 972 MT) for the proposed UMPP to be set up in Jharkhand and Puta Parogia (geological reserve 692.16 MT) and Pindrakhi (geological reserve 421.51 MT) coal blocks for the proposed UMPP to be set up in Chhattisgarh and Bankhui (geological reserve 800 MT) for the proposed first additional UMPP to be setup in Orissa.

4.6.7 Monitoring of Progress of Captive Coal Blocks Allocatd and its associated end use projects

Coal Controller monitors the progress of allocated coal blocks and associated end use projects on quarterly basis. At the level of Ministry, periodic reviews are carried out by a Committee headed by Additional Secretary (Coal), where representatives from the concerned State Governments

also attend. So far, production has commenced in 28 coal blocks (15 private and 13 public) and the production from these coal blocks for the year for the year 2011-12 (Upto November, 2011 Prov.) was 23.758 million tonnes as reported by the Coal Controller's Office. One review meeting was held 11th and 12th January, 2012 during the period. On receipt of recommendations of the Review Committee, appropriate action would be taken.

4.6.8 Action taken on the recommendations of the Review Meetings held

Development of coal blocks involves a gestation period of 3 to 7 years for reaching the production stage and another two to three years for reaching the optimal production capacity. The responsibility of developing the coal block as per the prescribed guidelines and milestones rests entirely with the allocattee company. In the terms and conditions of the allocation letters, it is categorically mentioned that in the event of willful delay in the development of coal blocks and in setting up of the end use project, the Govt. would take appropriate action to de-allocate the said block. In order to expedite the development of coal blocks, Government periodically monitors and reviews the development of allocated blocks as well as end use plants by the allocattee companies in the review meetings. Wherever delays are noticed, Government issues show cause notices and advisories to such allocattees cautioning them to bring the coal blocks into production as per the guidelines/ milestones chart. The Coal Controller's office also monitors on regular basis the achievement of different milestones. Based on the recommendations made by the Review Committees from time to time, 25 coal blocks have been de-allocated till date.

4.7 TECHNOLOGICAL INITIATIVES

Emphasis is laid on technology development through adoption of State of the Art Technologies for both underground and opencast operations for higher coal production, productivity and improved safety. Deployment of high capacity shovels and dumpers, surface miners etc. along with matching ancillary equipments and coal handling facilities for opencast mines is being practiced in various PSU coal companies.

Deployment of draglines in conjunction with shovel dumper combination is a time tested method in major projects with multiple seam extraction and high stripping ratios. Crusher conveyor technology for coal as well as overburden is also in use for quite some time in some of the opencast mines in these companies.

Of late, deployment of surface miners for selective mining, sizing and avoiding cyclic drilling and blasting operations in coal for improved productivity is assuming importance. In addition to the outsourced operations using surface miners, PSU coal companies are also procuring the same for departmental operations. Radar based monitoring of slope stability of benches in open cast mines is being adopted for improved safety of operations. GPS based truck despatch monitoring systems are also being adopted for improving productive use of dumpers.

Controlled blasting in opencast mines is being practiced to minimise ground vibrations. Coal handling plants with silos and rapid loading systems are being developed in all major open cast mines.

Similarly, planning new underground mines for adoption of mass production technologies like continuous miners and longwall equipments is continuing. Deployment of bolter miners in conjunction with longwall operations for faster gate road drivage is also assuming significance in mechanisation of workings. Planning

longwall mines with bigger blocks and longer face lengths is becoming possible due to faster rate of gate road preparation.

Adoption of continuous miners, side discharge loaders and load haul dumpers and conveyors for mechanising the underground operations wherever it is techno-economically feasible is being taken up. Man riding systems are being installed in a number of underground mines to avoid manual walking to reach the workings.

Recently, CIL and SCCL have adopted high wall mining technology to extract coal from the high walls of open cast mines which otherwise would remain sterilised. This technology provides extraction of coal using high wall mining machines from the open cast benches when the economic extraction of coal from open cast operations is not feasible. This technology is widely in use in USA.

For lignite mines specialised mining equipment comprising bucket wheel excavators with high capacity conveyor systems and spreaders are being deployed for extraction of both overburden and lignite.

4.8 CLEAN COAL AND WASHERY CAPACITY

4.8.1 Coal washing is an important area from economic and environment point of view. A number of studies carried out earlier have clearly highlighted benefits of using washed coal in improving the economics of power generation and also reduction of emissions. The directive of Ministry of Environment & Forests restricts the use of coal containing more than 34% ash

Shearer with Longwall support – a coal mining machine in an under ground mine

content in power stations located 1000 km away from pit heads. With this as a driver, the numbers of power utilities have shown inclination to use washed coal for power generation and also coal washing is one of the clean coal technologies prior to combustion of coal.

4.8.2 Coal India is heading in a big way for Coal Beneficiation of all types of coals. The present installed capacity of washery in the country for thermal coal is about 103 Mt per annum and it is envisaged to reach about 263 Mt per annum in the next five [5] years time.

4.8.3 To meet the demand supply gap of washed coal, guidelines for setting up of coal washeries on Public Sector Coal Company's land have been issued by Ministry of Coal in September'05. Accordingly, subsidiary coal companies of CIL are extending necessary assistance to facilitate setting up of coal washeries on their land to the private operators.

4.8.4 CIL has also decided in principle to wash all inferior grade coal linked to non-pit head power stations by setting up washeries with the state-of-the art technology on Build-Operate-Maintain [BOM] concept where CIL will provide the capital funding and other infrastructure facilities to the BOM operator. Further, it has been decided that all new opencast projects of 2.5 Mt and above capacity, which are not linked to pithead power stations should be designed with integrated washery.

4.8.5 CIL had decided to set up 20 [twenty] washeries by the end of XI five years plan in its various subsidiaries with total installed capacity of 111 Mty, out of which 2 [two] washeries [one of coking coal at Dhori and another of non-coking coal at Piparwar] are proposed under "Turn-key" execution and the rest 18 [eighteen] are on BOM concept under which the capital funding and other infrastructural facilities will be arranged by CIL/subsidiaries company.

Out of above 20 washeries, Conceptual reports for 19 washeries have been completed. Tenders for nine washeries [four of BCCL, two of MCL and one each in ECL, SECL & CCL] have already been floated. The evaluation of tender for four [4] washeries under BOM concept have been completed and for five washeries are at various stages of evaluation. Letter of Acceptance [LOA] in respect of one washery i.e. Madhuband washery, BCCL has been issued to M/s HEC, Ranchi. LoA for other three [3] washeries will be issued after approval of competent authority. Meanwhile to expedite the process of installation of washeries, qualified bidders for balance washeries have been identified by CIL and the same has been communicated to the respective Bidders

4.8.6 Two [2] nos. of dry Deshaling plants are also under implementation by CMPDI under CIL R&D grant. Tenders for Radiometric dry Deshaling plant and All-Mineral All-Air Jig have been floated and evaluation of offers is expected to be completed by March 2012.

4.8.7 In addition to the above, CIL has decided to set-up 17 nos. of washeries during XII five year plan with a total capacity of 128.8 Mty on turnkey basis.

4.9 COAL BED METHANE (CBM)

4.9.1 New area of clean coal technologies like Coalbed Methane (CBM) and Coalmine Methane (CMM), Underground Coal Gasification (UCG) and Coal Liquefaction are under focus and Government is taking all the necessary steps for development of these areas within the existing legal framework.

4.9.2 CBM is one of the potent greenhouse gases which is generated during the coalification process. CBM is in adsorbed state on the coal surface and possess a potential threat from safety angle during mining operation. If extracted separately,

it forms a supplementary source of energy. In view of the abundant resource of coal in the country, there is a significant scope for commercial development of CBM. Methane associated with virgin coal beds is conventionally termed as Coalbed Methane. Similarly, extraction of methane from working mines is termed as Coal Mine Methane (CMM).

4.9.3 Consequent to the formulation of CBM Policy in 1997, Govt. of India has so far allotted 33 CBM blocks in 4 rounds of global bidding to various operators for exploration and exploitation of CBM. CBM is jointly managed by Ministry of Coal and Ministry of Petroleum and Natural Gas. CMM related activities are being addressed by Ministry of Coal separately. CMPDI is preparing data dossiers on prospective CBM blocks for their allotment in 5th round of global bidding.

4.9.4 An Expert Committee under the chairmanship of Advisor (Projects), Ministry of Coal is finalizing the issues related to simultaneous and harmonious coal mining and CBM operations.

4.9.5 CBM Specific Data Generation :

CMPDI is carrying out studies related to "Assessment of Coalbed Methane Gas-in-Place Resource of Indian Coalfields/ Lignite fields" through boreholes being drilled under Promotional Exploration (XI Plan period) under Promotional Exploration (PRE) funding amounting to ₹8.59 crore. This study will enlarge the CBM resource base of the country and facilitate delineation of more blocks for CBM development.

A total of 50 boreholes (30 by CMPDI and 20 by GSI) are to be taken up for CBM related studies during XI plan period. During this plan period from April, 2007 to 2010-11, a total of 40 boreholes, drilled in different coalfields (CMPDI-24 & GSI-16), have been tested for CBM related studies.

During 2011-12 CBM related studies have been carried out in 8 boreholes (CMPDI-5 & GSI- 3) located in different coal/ lignite fields till December 2011. Two more boreholes, one each by CMPDI and GSI will be tested by March 2012.

4.9.6 CIL R&D Project on CMM :

CMPDI has taken up a CIL R&D project for delineation of prospective CBM blocks in BCCL and CCL areas of CIL and preparation of data dossiers for 1 or 2 most prospective and commercially viable CMM blocks.

5 prospective CMM blocks have been identified in mining leasehold areas of BCCL and CCL areas and a Tender has been floated for selection of suitable developer in April 2011. The submission date of the offers has been deferred till further notice till the issue of operationalisation of commercial development of CMM within mining leasehold areas is sorted out between MoC and MoP&NG. The matter is under deliberation between MoC and MoP&NG.

4.9.7 CBM specific data generation in the projectised areas of large opencast mines Project proposals for assessment of CMM potential related to large open cast mines in Moher Sub-basin of NCL, Singrauli Coalfield and Korba Coalfield has been completed and the assessment report has been submitted by CMPDI to respective coal companies. Further action for commercialization will be taken up.

4.9.8 CIL-ONGC Collaborative Project on CBM :

4.9.8.1 Jharia CBM Block :

As per Govt. of India CBM policy, consortium of CIL and ONGC has been allotted 2 blocks on nomination basis – one each in Raniganj and Jharia coalfields

and has entered into a contract with Govt. of India for development of coalbed methane. The Govt. of Jharkhand granted the Petroleum Exploration License (PEL) for Jharia CBM block in August'2003. Slimhole drilling by CMPDI in the block commenced from Dec.'04 and all the 8 slimholes involving 8703.65 metre have since been completed. A report on assessment and compilation of data generated during slimhole drilling has been submitted by CMPDI in Feb.'08. Further, ONGC completed drilling of 2 exploratory wells and the requisite tests are being carried out. ONGC has carried out 2 Horizontal Multilateral in-seam drilling in the CBM block.

During the year, production testing in two exploratory wells is going on and dewatering of multilateral wells is also in progress.

ONGC has submitted the Final Development Plan for part area (Parbatpur Sector) within Jharia CBM block in the office of Directorate General of Hydrocarbons (DGH) in Oct.'09. DGH has advised ONGC to submit the revised Development Plan for the entire Jharia CBM Block.

The sale of incidentally produced gas from Jharia CBM block is going on in line with the approval of the Govt.

4.9.8.2 Raniganj CBM Block :

The Govt. of West Bengal granted the Petroleum Exploration License (PEL) for Raniganj CBM block in June'04. Slimhole drilling of the identified boreholes was taken up on 07.03.06 and drilling in all the 8 slimholes involving 7853.50 metre has been completed by CMPDI. A report on assessment and compilation of data generated during slimhole drilling has been submitted by CMPDI in March'09.

ONGC has completed drilling of exploratory well in the CBM block and the requisite tests are going on. CMPDI officials were associated in the activities undertaken by ONGC.

4.9.9 Establishment of CBM/CMM Clearinghouse :

A CBM/CMM clearinghouse has been established at CMPDI, Ranchi under the aegis of Ministry of Coal and United States Environmental Protection Agency (US EPA) on 17th Nov.'08. The clearinghouse has been functioning as the nodal agency for collection and sharing of information on CMM/CBM related data of the country and help in the commercial development of CMM projects in India by public/private participation, technological collaboration and bringing financial investment opportunities. An International Workshop was also organized at CMPDI on 17th & 18th Nov.'08. The experts of National/ International fame in the field attended the workshop.

As envisaged in the work programme of the clearinghouse, the clearinghouse website is being maintained and updated on regular basis. Close co-ordination is being maintained with USEPA for development of CMM/VAM etc and for the purpose a team of CIL/CMPDI officials visited operational CMM sites in US during June'10 for getting first hand experience in this field. The said visit was facilitated by USEPA. Further, a team of 2 CMPDI officials attended CMM conference and CMM/VAM sites in US during Oct.'11 under Clearinghouse funding.

4.10. (a) UNDERGROUND COAL GASIFICATION (UCG)

In India, UCG was taken up in mid 1980's by ONGC and CIL under technical collaboration with erstwhile USSR. Although one lignite block "Merta Road" in Rajasthan was found suitable, pilot

appraisal could not be taken up due to apprehension of contamination of ground water.

Subsequently, consequent to signing of MoU between CIL & ONGC in November'05 for taking up pilot scale studies for UCG, CMPDI prepared data packages for 5 prospective UCG sites. Out of the five sites, one Kasta block in Raniganj coalfield was selected by the consultant engaged by ONGC. As required, drilling of 12 nos. of slimholes for generation of additional data has been completed in Kasta block for examining possibility of taking up pilot scale UCG project and an assessment report has been prepared and submitted to ONGC for their examination.

A tender was floated for selection of a suitable service provider for commercial development of UCG in two identified coal blocks within CIL area, namely Kaitha in Ramgarh Coalfield within CCL command area and Thesgora-C in Pench Valley Coalfield within WCL command area. Good responses were received against both the tenders. The tender, however, could not be finalized on technical reasons and re-tendering has been advised.

4.10 (b) DELINEATION OF SHALE GAS BLOCKS

CMPDI is preparing data dossiers on 06 prospective Shale gas blocks in Gondwana basin for DGH on paid consultancy basis. The work is likely to be completed by March 2012.

4.11 REVISION OF RATES OF COAL ROYALTY ON COAL/LIGNITE

A Study Group was constituted on 04.02.2010 for revision of royalty rate on coal and lignite. With a view to consult all the stake holders, prescribed questionnaires were circulated to the major coal producers/consumers and coal bearing State Governments for their views/comments. The said Study Group, after collecting the views/ comments of the concerned stakeholders through questionnaires as well as direct meetings, has submitted its report to the Government. The report on the Study Group has been circulated for inter-ministerial consultation.

Royalty paid by CIL (₹ in crore)

Year	West Bengal	Jharkhand	Orissa	Madhya Pradesh	Maharashtra	Chhatisgarh	Uttar Pradesh
2008-09	9.44	1067.22	773.07	950.18	501.80	894.19	114.95
2009-10	9.60	1142.34	859.63	981.24	514.08	943.07	149.29
2010-11	9.68	1284.51	936.66	961.14	499.82	1011.35	168.83

(₹ in crore)

Royalty Paid by SCCL		Royalty paid by NLC	
2008-09	560.69	2008-09	137.20
2009-10	637.13	2009-10	155.66
2010-11	780.00	2010-11	158.42

4.12 MAHARATNA STATUS TO CIL

CIL had been a Navratna company since 24.10.2008. However, considering its importance in country's economy and its achievements, CIL has been conferred with the Maharatna status from 11.4.2011. As Maharatna company, CIL has now been delegated with vast financial powers and greater autonomy in its functioning.

4.13 NAVRATNA STATUS TO NLC

NLC had been a Miniratna (Category-I) company since 30.8.2004. With the growth in lignite production and increased power generation, the financial growth of the company increased many folds during these years. Considering the same NLC has now been conferred with the Navratna status from 11.4.2011. As Navratna Company, NLC has been delegated with vast financial powers and greater autonomy in its functioning.

4.14 REVIVAL OF SICK PSU's

Eastern Coalfields Limited (ECL): Revival plan of Eastern Coalfields Limited was approved by the Government of India on 5.10.2006. As per approved plan, net worth of the Company was slated to become positive in 2009-10 which did not fructify. Due to delay in implementation of various projects, it is apprehended that company will not be able to come out of BIFR in 2011-12 as well. A review hearing was held on 22.11.2010 by the BIFR. As advised by BIFR, the company has prepared Draft Modified/Revised Proposal for revival of Eastern Coalfields Limited which was discussed in the joint meeting held on 22nd December, 2010 for its further consideration/acceptance.

The data in regard to ECL is as follows:

Profit : 2010-11 - `106.57 crore

(**Source :** Annual Report of Accounts of CIL for 2010-11)

Manpower : 2010-11 - 81,128

(**Source :** Annual Report of Accounts of CIL for 2010-11)

Bharat Coking Coal Limited (BCCL):

A revival plan for BCCL was submitted to BRPSE and BIFR. Both BRPSE and BIFR have accorded their approval to the revised scheme and the Government order conveying the sanction has been issued to CIL/BCCL on 25.2.2010. Data pertaining to above para is as follows:

Profit :

Pre-tax Profitfor 2010-11-`1093.69 crore

(Source: Annual Report of Accounts of CIL for 2010-11)

Manpower 2010-11- 67,934

(Source: Annual Report of Accounts of CIL for 2010-11)