## JUSTIFICATION FOR LOCATING THE PROJECT IN FOREST LAND

It has been proposed to open and run a new mine over the virgin Chaturdhara block with an area of 3.06 sq.km., annexed to the mine to the west of Basundhara river (flowing on the west of Basundhara Expansion OCP).

The proposed Basundhara west Extension OCP has been formulated within Chaturdhara block in the Gopalpur Sector of Ib-valley coalfield.

The Chaturdhara block is located in north-western central part of lb River coalfield of Odisha, known as Gopalpur sector. This coalfield is the southern middle part of lower Gondwana basin of Sone-Mahanadi Valley and occupies an area of about 1460 sq.km. with potential coal bearing area of around 1050 sq.km. The lb River coalfield lies in between latitude 21°3V to 22°14' North and longitude 83°32'00" to 84°10'00" East and falls mainly in Sundergarh, Jharsuguda and Sambalpur districts of Odisha.

The Chaturdhara block, lie towards north western part of lb River coalfield in Odisha state and together covers an area of 3.57 sq.km. The block is situated between the Latitude 22°04'0"-22°05¹0"N and Longitude 83° 40\*39" - 83°42'02" E in Survey of India topo-sheet no.-64N/12 on RF 1:50,000.

A total of 55 boreholes have been drilled within the area involving a total meterage of 4196.45m. (excluding 1 borehole No. HGR - 18 drilled by GSI involving 164.10m.) in an area of 3.57 sq.km. Coal bearing area is 3.57 sq.km out of which major part is covered by forest. The borehole density/sq.km is about 15.4. Three coal seams viz. Ib, Rampur and Lajkura have been proved to occur in this block under report, Ib-seam is the bottom most seam occurring in the area. This seam is thin and impersistent and has no potentiality in this block except for eastern part of the block. Rampur seam is the thickest seam and occur in 6 sections viz. RAMPUR I, RAMPUR III, RAMPUR IV B, RAMPUR IV and RAMPUR V. Parting between Ib seam and Rampur group of seams varies from 4.62m. to 12.85m. Lajkura is the uppermost seam occurring in this area and is restricted along southern boundary and largely falling within barrier zone of Chaturdhara Nala, where it is occurring in 3 sections viz. LAJKURA I, LAJKURA II B and LAJKURA II T1 (incrop). The parting between Lajkura and Rampur seam varies from 71.04m. to 75.73m.

It is estimated that 92.73Mt of mineable coal would be available for extraction against the total net geological reserve of 113.61 Mt (excluding the reserve in Lajkura seam of 2.37Mt).

The proposed Basundhara west Extension OCP has no consumer specific linkage. A basket of new consumers may be linked to the project who have been issued LOA (Letter of Assurances) by MCL under NCDP-2007. Based on the information collected from MCL and transport logistics, the proposed new consumers for Basundhara west Extension OCP may be as below:

| SI.   | Name of the Consumer                           | Capacity | Total Linked      |
|-------|------------------------------------------------|----------|-------------------|
| No    |                                                | (MW)     | quantity<br>(Mty) |
| 1     | Paras ExpnII TPS, MSEB                         | 250      | 1.2               |
| 2     | CESC Ltd Phase-I,                              | 500      | 2.83              |
| 3     | Vishakhapatnam TPS ofHNPCL                     |          | 3.24              |
| 4     | DB Power Ltd., Bhopal.                         | 500      | 2.49              |
| 5     | Thermal Power Tech Corpn. (1) Ltd., Hyderabad. | 1000     | 4.27              |
| 6     | Sirkazhi Power Hyderabad.                      | 1000     | 4.27              |
| 7     | NCC Vansadhara Mega Power Projects, Hyderabad  | 1000     | 4.27              |
| 8     | East Coast Energy Pvt., Hyderabad.             | 1000     | 4.27              |
| 9     | Other CPP & Sponge iron plants                 |          | 462               |
| Total |                                                |          | 54.79             |

**New Consumers linked to MCU lb-Valley** 

| SI. | Name of the Consumer                                                 | Capacity | Total Linked      |
|-----|----------------------------------------------------------------------|----------|-------------------|
| No  |                                                                      | (MW)     | quantity<br>(Mty) |
| 1   | Vedanta Aluminium Ltd- CPP                                           | 675      | 3.07              |
| 2   | Sterlite Energy Ltd.                                                 | 600      | 2.57              |
| 3   | Vedanta Aluminium Ltd.                                               | 540      | 2.46              |
| 4   | Ind-Barath Energy Ltd                                                | 2x250    | 3.07              |
| 5   | Talwandi Sabo Power Ltd PSEB,                                        |          | 7.72              |
| 6   | Rajiv Gandhi Thermal Power Plant, Khedar, Hissar<br>Phase-I, Haryana |          | 3.24              |
| 7   | Parti Unit-II TPS, MSEB                                              | 250      | 1.2               |

From the above quantity of 54.79 Mty of coal linked to various new consumers who may be supplied coal from lb-valley coalfield. Basundhara west Extension OCP will meet the demand of 7.0 Mt. which will replace Basundhara west OCP in future. The consumer wise quantity may be known after signing of FSA, which are to be executed after achieving the desired milestones as per the guidelines of NCDP-2007.

Hence, the coal produced from this mine will be used in Power plants, CPP & Sponge iron plants etc. The mine has employment potential of 854 persons directly and indirectly including the existing man-power of Basundhara West OCP.

Since, availability of coal is site specific, for which the lease was granted, the project cannot be shifted/relocated out-side the forest area till depletion of the coal reserves.

General Manager
MCL Basundhara Area

General Manager
Mahanadi Coalfields Limited
Basundhara Area
At/P.O.: Basundhara - 776076
Of Sundargarh (Origina)

Area Envt Officer MCL Basundhara Area Project Officer Basundhara (W) OCP