(5)

REVISED PROJECT REPORT

FOR

PAREJ EAST OPENCAST

(1.75 MTY)

OF

CENTRAL COALFIELDS LIMITED

UPDATED COST ESTIMATE

FEBRUARY, 2001

REGIONAL INSTITUTE-III
CENTRAL MINE PLANNING & DESIGN INSTITUTE LIMITED
(A Subsidiary of Coal India Limited)
DARBHANGA HOUSE,
RANCHI - 834 001

14/8/18

PROJECT OFFICER
PAREJ EAST PROJECT

CMPDI

UCE FOR RPR OF PAREJ EAST OCP (1.75 MTY)

SUMMARISED DATA

Figs. of RPR approved from 1-4-0 as co by P.J. H.R. Kai

SL No	PARTICULARS	UNITS	As per Sanctioned Report	As per uce of RPR (FEB'2001)
1	MINEABLE RESERVES	MT.	41.45	33.34
2	VOLUME OF O.B	M.Cu.M	114.78	94.99
3	TARGET OUTPUT a) COAL	MT.	1.75	1.75
	b) O.B (Peak)	M.Cu.M	5.53	5.53
4	AVERAGE STRIPPING RATIO	Cu.M/T	2.77	2.85
5	LIFE OF THE MINE	YEARS	27	20
6	GRADE OF ROM COAL		Gr - W IV	Gr - W IV/F
7	TOTAL CAPITAL OUTLAY	Rs.Cr.	116.19	162.88
8	CAPITAL OUTLAY /TONNE	Rs.	663.94	930.74
9	CAPITAL FOR P&M	Rs.Cr.	90.19	122.30
10	CAPITAL FOR P&M /TONNE	Rs.	515.35	698.86
11	ESTIMATED COST OF PRODN.	Rs./T		
	a) at 100 %		192.74	380.33
	b) at 85 %		217.38	428.33
12	AVERAGE SELLING PRICE	Rs./T	287.20	632.76
13	PROFIT (+)/ LOSS (-)	Rs./T		
	a) at 100 %		94.46	252.43
	b) at 85 %		69.82	204.43
14	INTERNAL RATE OF RETURN	%		
	a) at 100 %		27.35	35.97
	b) at 85 %		18.95	26.42
15	NO. OF PERSONNEL	NO.	980	980
16	OMS (old)	T	6.76	6.76
17	E.M.S	Rs.	153.18	461.28
18	DATE OF ACHIEVING TARGET PRODN.		5th Yr Production	2nd year

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SUMMARISED DATA

Sl. No	PARTICULARS	UNITS	As per Sanctioned Report	As per uce of RPR (FEB'2001)
1	MINEABLE RESERVES	MT.	41.45	33.34
2	VOLUME OF O.B	M.Cu.M	114.78	94.99
3	TARGET OUTPUT a) COAL	MT.	1.75	1.75
	b) O.B (Peak)	M.Cu.M	5.53	5.53
4	AVERAGE STRIPPING RATIO	Cu.M/T	2.77	2.85
5	LIFE OF THE MINE	YEARS	27	20
6	GRADE OF ROM COAL		Gr - W IV	Gr - W IV/F
7	TOTAL CAPITAL OUTLAY	Rs.Cr.	116.19	162.88
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PAREJ EAST OCP

1.0 INTRODUCTION

Parej East Opencast Project occupy the southern sector of Parej East Block is located in West Bokaro Coalfield of Bihar State. It is part of Hazaribagh area of M/s Central Coalfields Ltd. (CCL), Ranchi. Parej East OCP is approachable by a 12 Km. metalled mines board road connecting Charhi on National Highway No.33. The Project is located at distance of 90 Kms. from Ranchi and 30 Kms. from Hazaribagh town.

2.0 PROJECT REPORT FOR PAREJ EAST OCP (1.75 MTY)

The Project report for Parej East OCP was sanctioned by Government in March '93 at an estimated initial capital investment of Rs.116.19 Crs. for a rated capacity of 1.75 MTY of ROM coal per anum. The itemwise break-up of the sanctioned investment is given below :-

		(Amount in Rs. Crores)
Sl.No.	Particulars	Sanctioned Capital
1	Land	1.77
2	Building	
	(a) Residential	5.93
	(b) Service	4.94
3	Plant & Machinery	90.19
4	Furniture & Fittings	0.10
5	Railway Sidings	-
6	Vehicles	0.54
7	Prospecting & Boring	1.01
8	Development	9.29
9	Revenue Expenditure Capitalised	0.21
10	Land Reclamation	2.21
	Total	116.19

Shovel-Dumper mining system is envisaged in the sanctioned Project Report. For coal winning, 2 Nos. of 3.2/3.8 cu.m. Hydraulic shovels along with 7 Nos. 35 Te. Rear Dumpers (Coal body) were envisaged, whereas for OBR 7 No.4.6/5 cu.m. Electrical Rope Shovels along with 61 No. 35 Te. Dumpers were envisaged.

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3.0 FINANCING UNDER CSRP

The Parej East OCP has been identified to be financed under CSRP for the procurement of major HEMM, and the EMP measures are proposed to be financed under ESMP. The allocation of loan is Rs.7.487 Crores under ESMP and Rs.75.18 Crores under CSRP. Most of the HEMM have already arrived at the project. 31 No. of RD-50 Te. Dumpers hve been procured under CSRP in place of sanctioned 35 Te. Dumpers. This is in addition to the existing 9 No. (as on 31.3.2000) of 35 Te. Dumpers and nos. of 35 T Dumper to be procured. Some more modifications in the equipment configuration has been sought to be done under CSRP scheme, e.g. additional 1 No. wheel dozer of 410 up, and 1 No.280 up grader in place of 2 No.145 up grader has been proposed.

4.0 PRESENT PERFORMANCE OF PAREJ EASTOCP

Sl. No.	Particulars	94-95	95-96	96-97	97-98	98-99	99-2000
1	Coal production (MT)	0.35	0.63	0.80	0.70	0.54	0.89
2	OB Removal (Cu.m.)	1.13	1.24	1.17	1.13	1.36	2.21
3	Cost of production (Rs. Te.)	289.31	342.13	387.46	398.00	458.96	479.00
4	Selling Price (Rs. Te.)	366.38	420.88	584.14	660.81	430.35	442.75
5	Profit (Rs. Te.)	77.07	78.75	196.68	262.81	(-)28.61	(-)36.25

5.0 PHYSICAL PROGRESS OF THE PROJECT UPTO APRIL 2000

5.1 STATUS OF LAND ACQUISITION

Sl.No	Particulars	Land in Ha.			
		Tenancy	GMK	Forest	Total
1	Total land required	82	271.96	45.04	399.00
2	Physical possession of land	36 95 Ha	31.41 ~~95 Ha~~ ~~48.41 Ha~~	43.52 7.10 50.62	110.93
3	Land to be acquired	46	240.55	1.52	288.07

Tenancy 82
Physical possession of L.A. 5 Hect → 77 Hect

31.41
17.00
GMK 48.41 Ha

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Details of GMK land (For 1st 10 years)

Parej village - (59.5 Ha.)

- Authentication completed.
- Out of total 59.5 Ha. 8.17 Ha. has been authenticated in favour of tenants and compensation paid and is under physical possession.
- For balance 51.33 Ha. The demand of compensation received from State Authority. Out of this only 20.20 Ha. encroachment free Govt. land for which the demand has been sent to Department of Coal for consideration and sanction. Rest 31.13 Ha. of Govt. land is encroached.

Duru village (107 Ha.)

- Authentication of Tenancy land completed. Compensation payment is being processed.
- Authentication of GMK land completed. Report from District authority awaited.

As per order of Hon'ble Supreme Court, Forest Conservation Act would also be applicable to all GMK land recorded as Jungle Jhari irrespective of ownership. In view of the above directive of Supreme Court, State Govt., Forest Dept. are finding it difficult to process company's forest land release applications for want of NOC to be issued by the concerned Dy. Commissioner in respect of GMK land recorded as Jungle Jhari.

5.2 REHABILITATION

(a) Phasing of resettlement of Project affected Families (PAFS)

PAFs Shifted till 3/2000	2000-01		01-02	Total
	Plan	Ach.	Plan	
55	75	28	160	290

- Total PAFs to be shifted - 290.
- 83 PAFs have already been rehabilitated till January 2001.

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- 75 PAFs have been planned to be shifted during 2000-01.

- Balance 47 families shall be shifted by March 2001.

- A total of 76 Ha. of land (51.33 Ha. GMK land & 24.67 Ha. Tenancy land) shall be available after shifting of 75 PAFs during 2000-01 which will be sufficient for minimum of next 5 years of mining. Balance 160 families have been planned to be shifted during 2001-02.

5.3 PLANT & MACHINERY

HEMM

Most of the HEMM have already been procured and commissioned. The Project has been posed for World Bank funding. Now the loan for HEMM procurement under CSRP has been sanctioned.

Electricals

Sub-station along with overhead line (OHT) for power supply has been completed.

Workshop

Construction of workshop buildings for excavation & E&M has been completed. Plant and machineries for workshop has been ordered. Minor portion of the workshop equipment has been supplied and commissioned.

Coal Handling Plant

Out of the total production of 1.75 MTY, 1.05 MTY is of washery grade coal and the remaining of 0.70 MTY is of non-washery grade coal. Hence, 1.05 MTY of washery grade coal is linked to Kedla washery. The remaining of 0.70 MTY of non-washery grade coal be despatched to Gidi washery, which is now a non-coking coal washery for washing.

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The CHP has a capacity to handle 1.60 MTY of coal at Kedla OCP and as Kedla OCP Expansion could not come up the plant is under utilised. Hence it is proposed to send 1.05 MTY of washery grade coal from parej East OCP to Kedla CHP. Parej East OCP coal can not be sent to kedla CHP by conveyor transport as the distance is enormous approx. 8 Kms. It is therefore suggested that 1.05 MTY coal be transported using contractor's trucks. Therefore, no need to construct a coal handling plant at Parej East OCP.

6.0 REVISED PROJECT REPORT(Sept.'99)

6.1 Reasons for RPR

(a) Change in Coal linkage

The entire coal (1.75 MTY) was linked to pithead: Parej Washery through a full fledged CHP in the sanctioned P.R. Since Parej Washery is not coming up and Kedla Washery has been commissioned, but facing shortage of raw coal feed, major quantity of coal output from Parej East OC is now linked to Kedla
washery through existing Kedla CHP and Kedla CCT which is in advance stage of construction. Out of total output of 1.75 MTY of Parej East OC, 1.05 MT of coal will be sent to Kedla Washery and balance 0.70 MTY of high ash medium coking coal (W-IV/F) is linked to Gidi Washery (non-coking).

(b) Dropping of CHP

In view of change in linkage, there is no need to make full fledge CHP at mine site. Only a Feeder Breaker (400-500 TPH) along with elevating conveyor and truck loading hoppers (2x100 T) arrangement has been proposed in RPR to handle 0.70 MTY coal.

(c) Change in HEMM configuration

In the sanctioned PR there was 5 cum Elect. Rope Shovel + RD-35 T Dumpers to handle OB work load and 3.8 cum. Hyd. Shovel + 35 T Dumpers for coal production. In the RPR following Shovel Dumper combination has been

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considered in view of recommendation of World Bank:-
5 Cum. Elect. Rope Shovel + RD 50T Dumpers to handle OB & 3.8/4 Cum. Hyd. Shovel + RD 35T Dumpers for coal production.

(d) **Revised quarry boundary**

There has been a change in the quarry boundary sanctioned earlier. On the south-eastern side, the quarry surface has been fixed leaving a 100m barrier against Baraghatu village. It may be mentioned that this village was considered for rehabilitation in the sanctioned P.R. Thus the total families to be rehabilitated will reduce from 595 sanctioned earlier to 290.

Hence, there has been a change in the scope of the sanctioned report. In the review meeting of CCL, Projects costing more than 100 crores, taken by Secretary (Coal) on 4.9.99 it was decided that a RPR for parej East OCP should be prepared excluding the CHP.

Thus, to accommodate the changed scope of the sanctioned report, this RPR for parej East OCP has been prepared for a rated capacity of 1.75 MTY of coal and 5.35 Mm^3 of OBR (Peak) per annum, considering the existing status of the mine including the geometry of the mine and the strength of HEMM etc. Accordingly, the mineable reserve of coal has been reduced to 33.34 million tonne in the RPR from 41.45 million tonne as considered in the approved PR.

7.0 APPROVAL OF RPR BY CIL BOARD

ESC of CIL Board for project appraisal, evaluation and approval in its 53rd meeting held at New Delhi and CIL HQ., Calcutta on 5.5.2000 and 23.5.2000, respectively approved the RPR of Parej East OCP for production of 1.75 MT at capital investment of Rs.169.10 Crs., and recommended for sending it to IMG/PIB for consideration.

8.0 APPROVAL BY IMG

Updated economics of the RPR of Parej East OCP was discussed by IMG in its meeting held on 17.10.2000 at MOC, New Delhi.

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After detailed deleberations Chairman, IMG directed that the following exercise should be done and put up for the consideration of the members of IMG.

(i) The selling price of the realizable coal at the mine site should be computed as the price of the washed coal minus the cost of washing and cost of transportation of coal from the mine site to the washery. The cost of middlings and rejects produced in the washery should also be taken into consideration. This exercise may be done for calculating the viability of the OC project. [Ref. Observation 6(i)].

(ii) Sensitivity analysis with decrease in selling price at different stages should also be undertaken and furnished. [Ref. Observation 6(ii)].

(iii) Different mines linked to Kedla Washery should be indicated. [Ref. Observation 6(iii)].

(iv) Manpower provision in the RPR should be restricted to 980 as per the project report sanctioned in March, 1993. [Ref. Observation 6(iv)].

IMG finally recommended the project to PIB for consideration and subsequent approval subject to compliance with the observations noted above.

8.1 COMPLIANCE WITH THE IMG OBSERVATIONS

(i) Taking a capacity utilization of kedla Washery of 69.23%, 80%, 85% and 90, corresponding raw coal feed from Parej East OCP is considered. The cost of raw coal from Parej East OCP has been worked out and given in Annexure-I.

The exercise is based on the actual supply of coking coal with ash percentage of about 18.90% of the washed coal in the year 1999-2000. In this year, raw coal quantity supply to Kedla Washery was only 0.86 M.tes. The price of washed coal at 18.90% ash was Rs.1847.30 per te. As per the agreement with SAIL the price of clean coal with ash 18.50% from Kedla Washery will be Rs.1899.00 per te. during 2000-2001.

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The profits at realizable selling price of Rs.645.57 per te. for Washery grade IV coal have been found to be Rs.265.24 and Rs.217.24 at 100% and 85% levels of capacity utilisation respectively.
The corresponding IRR based average weighted realizable selling price of Rs.567.74/te for W-IV & Gr."F" ROM coal have been found to be 28.11% and 19.45% at 100% and 85% levels of capacity utilization,which has been shown in Appendix D.5 & D.6 respectively.

Sensitivity analysis with decrease in selling price in steps of 5% to a maximum of 30% over the base price and the IRR at different steps are calculated and given in Updated Economics, Feb. 2001.

(h) As per the Annual Plan of CCL, different mines linked to Kedla washery during IXth Plan is given below :-

Laiyo U/G, Jharkhand OCP, Kedla U/G, Kedla OCP, Tapin South U/G, Tapin North OCP and Parej East OCP.

(i) As per the directive of IMG, manpower of Parej East OCP is restricted to 980 as sanctioned in March, 1993 and necessary correction has been made in the UCE, Feb.2001.

COST UPDATION OF RPR (Feb. 2001)

In view of the RPR being recommended to IMG/PIB after approval by CIL Board, the RPR is now being updated as more than six months has elapsed since its preparation. This is in conformity with the Guidelines of the Ministry of Coal.

Total Capital Investment

The project envisages to produce 1.75 MTY of coal per annum at an average stripping ratio of 2.85 cum/te. The total capital investment is estimated to be Rs.162.88 Crores. The specific investment thus works out to Rs.930.74. The phased head-wise capital investment is given in Appendix-A. Break-up of the total capital investment is given hereunder:

Effective existing Assets as on 31.3.2000	:	Rs.113.77
Balance Additional Provision	:	Rs.49.11 Crs.
Total Estimated Capital Investment	:	Rs.162.88 Crs.

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9.2 **Capital Investment for Plants & Machinery**

The total estimated capital investment for P&M is estimated as Rs.122.30 Crs. The specific investment works out to Rs.698.86/te. The break-up of investment on P&M i.e. HEMM and other than HEMM is given in Appendix-A.3 and discussed in the following paragraphs.

9.3 **HEMM**

The total estimated capital investment for HEMM alone is Rs.94.12 Crs. The effective existing expenditure on HEMM upto 31.3.2000 is Rs.84.35 Crs. Most of the HEMM have arrived and commissioned. The project is being funded under CSRP. As per schedule of supply of HEMM, all major equipment will be procured under CSRP.

9.4 **Other than HEMM**

The total capital investment for P&M other than HEMM i.e. Electricals, Workshop, Pumps & Pipes, CHP etc. is estimated as Rs.28.18 Crs. The detailed break-up is given in the Appendix-A.3.1, A.3.2, A.3.3, A.3.4, A.3.5 respectively.

9.5 **CHP**

For supply of coal to adjacent Parej Washery a system of coal crushing using feeder breakers, transportation by conveyors, storage bunker and truck loading arrangement was proposed in approved P.R. However, the above proposal of parej Washery did not materialise due to delay in approval of Kedla OCP Expansion (2.00 MTY) and consequent starving of Kedla Washery for suitable washery grade ROM coal. The coal of Parej East OCP has been found suitable for Kedla Washery as per its design. As a result earlier linkage of coal supply from Parej East OCP to Parej Washery was revised to Kedla Washery. The revised proposal envisages supply of acceptable coking coal to the tune of 1.05 MY to Kedla Washery through Kedla Central CHP using truck transport system instead of Parej Washery as envisaged in the P.R. The balance of 0.70 MTY of coal shall be linked to Gidi washery. For this one feeder breaker having a capacity of 400-500 TPH is proposed to be installed at mine top. Therefore, funding of CHP of Parej East OCP has now been reduced to construction of a feeder breaker system with a capcity of 400-

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500 TPH amounting to Rs.3.90 Crores.

9.6 Methodology of Estimation of Capital Cost

The methodology of estimation of Capital Invesment for P&M, Civil, Development etc. is as follows :-

9.7 Prices of P&M and Vehicles

For P&M and Vehicles, as far as possible, the prices are taken from the Standard Price List published by CMPDI. Wherever the information regarding price is not available price of equipment is arrived in consultation with the Equipment Division of the producing company.

9.8 Estimated Cost of Civil Constructions

The basis of estimation of civil construction viz. Residential Buildings, Service Buildings, Roads & Culverts, Water supply has been given in Appendices-A.2.1, A.2.2, A.8.2, A.8.3. The Civil Cost Index adopted for estimation of capital in these heads is 1107.

9.9 Vehicles

Total investment under this head is now estimated as Rs.77.15 lakhs comapred to Rs.53.50 lakhs in sanctioned report. For vehicles, as far as possible, the prices are taken from the Standard Price List published by CMPDI. Wherever the information regarding price is not available, price of equipment is arrived in consulation with the Equipment Division of the producing company.

9.10 Estimated Cost of Production & Profitability

9.11 Cost of Production

The cost of production as per RPR (Feb.,2001) is estimated as Rs.380.33 and Rs.428.33 per tonne at 100% and 85% of the rated capacity respectively. The details of the cost of production have been shown in Appendix-C. The details of the cost of Reclamation are shown in Appendix-E.

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9.12 Profitability

The current weighted average selling price of W-IV & Gr. F coal is worked out to Rs.632.76 per tonne, which includes Rs.20 per tonne for proper sizing of the coal. The profit works out to Rs.252.43 and Rs.204.43 per tonne at 100% and 85% of the rated capacity respectively.

9.13 Financial Analysis

The year wise cash flow at 100% and 85% capacity utilization has been estimated and is detailed in Appendix-D1 & D2, respectively. The cash flows exclude interest during construction, depreciation and interest on loan capital. The financial IRR on total capital of the project at 100% and 85% level of rated capacity utilization is estimated as 35.97% and 26.42% respectively.

9.14 Economic Analysis

The year wise cash flow for the economic analysis at 100% and 85% capacity utilization has been estimated and is detailed in Appendix-D3 & D4, respectively. In estimating the economic prices, all taxes, duties and cess have been excluded from the cost of inputs and the shadow rate for wages & salaries have been taken as 1.00. The economic prices of coal has been assumed to be same as its average selling price. Based on above methodology, the economic IRR of the project at 100% and 85% rated capacity has been estimated 48.74% & 37.21%, respectively.

9.15 Sensitivity Analysis

The following parameters have been identified for assessing their impact on the profitability of the project :-

(a) Capital Investment
(b) Operating cost
(c) Capacity utilisation
(d) Decrease in selling price

The above parameters have been increased/decreased in steps of 5% to a maximum of 30% over the base case and the IRR have been computed.

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The results of sensitivity analysis are tabled below :-

Variable Parameter	IRR of the Project for change in Parameters by						
	100%	95%	90%	85%	80%	75%	70%
Increase in Capital Cost	35.97	33.95	32.11	30.42	28.86	27.41	26.07
Increase in Operating Cost	35.97	34.29	32.61	30.93	29.23	27.52	25.79
Decrease in sale price	35.97	32.17	28.32	24.41	20.41	16.26	11.91
Decrease in capacity utilization	35.97	32.82	29.64	26.42	23.15	19.81	16.37

Average capacity utilisation of CCL mines during 1999-2000 is 78%. The Financial IRR at above capacity utilisation works out to 21.84%.

10.0 Variance Analysis

The total capital as per the updated Revised Project Report (Feb.,2001) works out to Rs.162.88 Crores compared to the sanctioned capital cost of Rs.116.19 Crores. Thus, the total variance is Rs.46.69 Crores. This total variance has been segregated under the heads of escalation in price, both within Project Time Cycle (Rs.37.54 Crores) and beyond PTC (Rs.1.87 Crores); variance in Govt. Taxes and duties (Rs.4.61 Crores); change in scope (Rs.6.91 Crores); addition (Rs.1.53 Crores) and deletion (Rs.5.77 Crores). The net of total change in scope, escalation beyond PTC, addition & deletion works out to Rs.4.54 Crores, which works out to 3.91% of the sanctioned capital of Rs.116.19 Crors. Following table shows the summary of variance analysis.

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Summary of Variance Analysis

Sl.No.	Particulars	Amount (In Rs. Crores)	Remarks
1	Capital Investment as per UCE Feb..2001	162.88	As per Appendix-A
2	Capital as per sanctioned PR	116.19	
3	Variance amount	46.69	
4	Break-up of Variance		
(i)	Due to price increase within approved PTC	37.54	As per Annexure-III.
(ii)	Due to variation in rate of statutory taxes &duties	4.61	
	Total allowable variation (I + II)	42.15	
5	Non-allowable escalation	4.54	**3.91% of sanctioned capital of Rs.116.19 Crores.**
(i)	Due to price escalation beyond PTC	1.87	
(ii)	Due to Addition	1.53	
(iii)	Due to Deletion	(-)5.77	
(iv)	Due to change in scope	6.91	

Break-up of change in Scope and Increase/Decrease in Capital for reasons other than escalation and Government duties & Taxes & Cess

Sl.No.	Particulars	Amt. in Rs.Crores
1	Increase in capital cost due to conversion of 50 Nos. of 35Te RDCH into 31 No. of 50 Te dumper under CSRP Financing Scheme.	6.67
2	The resultant increase due to provision of 1 No. 280 HP Grader in place of 2 No. 145 HP grader as per provision in the approved report	0.04
3	Increase in capital due to provision of 1 No.410 HP wheel dozer under CSRP scheme	1.53
4	Net reduction in estimated investment on Electrical items due to change in technical parameters.,	(-)0.60
5	Increase in value of spare engine due to introduction of 50 Te. dumpers under CSRP Financing Scheme	0.80
6	Deletion in CHP capital due to revised linkage and resultant decrease in CHP capital.	(-)5.77
	TOTAL	2.67

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Appendix - A

RPR FOR PAREJ EAST OCP (1.75 MTY)

Statement showing estimated Capital Investment with Phasing

(Rs. in Lakhs)

Sl. No.	Particulars	As per Latest Sanctioned PR	As Per RPR FEB, 2001	Effective Existing Assets as on 31.03.00	Balance Provision	Phasing of Balance Capital 1st.Yr.	2nd. Yr.	3rd. Yr.	Total Variance	Reasons of Variance: Due to Price Escalation On Basic Capital	Govt. Taxes	Change in Scope Appr. Items	Add. Items	Under/Over Estimation	Additional Deletion (-)	LIFE IN YEARS	DEPRN
1.	Land	177.25	300.87	243.84	57.03	40.00	17.03		123.62	123.62						20	15.04
2.	Buildings																
	a) Residential	593.47	854.07	483.00	371.07	150.00	221.07		260.60	237.01	23.59					61	14.00
	b) Service	493.48	669.26	594.65	74.61	40.00	34.61		175.78	162.00	13.78					61	10.97
3.	P & M																
	a) HEMM	6126.11	9411.72	8435.37	976.35	976.35			3285.61	2002.53	458.19	671.42			153.47	7-12	1026.91
	b) Other than HEMM	2892.64	2818.32	877.71	1940.61	1103.75	836.86		-74.32	576.63	-93.21	19.58			-577.32	3-19	194.85
	TOTAL P&M	9018.75	12230.04	9313.08	2916.96	2080.10	836.86		3211.29	2579.16	364.98	691.00			-423.85		1221.76
4.	Furniture & Fittings	10.00	20.14	17.14	3.00	3.00			10.14	6.55	3.59					19	1.06
5.	Railway Sidings															19	
6.	Vehicles	53.50	77.15	45.65	31.50	31.50			23.65	20.58	3.07					9-13	7.77
7.	Prospecting & Boring	100.87	99.99	99.99					-0.88	-0.88						20	5.00
8.	DEVELOPMENT																
	a) COM"	255.50	448.80	75.71	373.09	230.00	143.09		193.30	193.30						20	22.44
	b) Roads & Culverts	319.26	498.42	120.95	377.47	150.00	227.47		179.16	163.39	15.77					20	24.92
	c) Water Supply	295.52	444.79	124.25	320.54	150.00	170.54		149.27	136.53	12.74					20	22.24
	d) S.R & P.R Cost	59.00	53.00	30.00	23.00	23.00			-6.00	-6.00						20	2.65
	Total Development	929.28	1445.01	350.91	1094.10	553.00	541.10		515.73	487.22	28.51						72.25
	TOTAL (01 to 08)	11376.60	15696.53	11148.26	4548.27	2897.60	1650.67		4319.93	3615.26	437.52	691.00			-423.85		1347.86
9.	Revenue Exp. Capitalised	21.00	228.35	228.35					207.35	207.35						20	11.42
10	Reclamation Capital	221.06	363.58		363.58	314.39	49.19		142.52	118.92	23.60						
	TOTAL CAPITAL	11618.66	16288.46	11376.61	4911.85	3211.99	1699.86		4669.80	3941.53	461.12	691.00			-423.85		1359.27

4669.80

PROJECT OFFICER
PAREJ EAST PROJECT

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Appendix - A.1

PAREJ EAST (1.75 MTY)

STATEMENT SHOWING THE ESTIMATED INVESTMENT IN LAND

(Amt.in Rs.Lakhs)

Sl. No.	Particulars	Hectares	Total Amt.	Existing As on 31.03.2k	Addl. Provn (Amt)	1st Yr (Amt)	2nd Yr.& onwards (Amt)
1.	Land a) Non-Forest b) Forest	353.96 45.04	300.87	243.84	57.03	40.00	17.03
	Total :	399.00	300.87	243.84	57.03	40.00	17.03

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PROJECT OFFICER
PAREJ EAST PROJECT

RFP FOR PAREJ EAST OCP(1.75 MTY)

Statement showing estimated Capital Expenditure on Buildings

Appendix A 2

(Amount in Rs Lakhs)

Sl No	Particulars	As per sanctioned P R	As per R & E	Existing As on 31.03 2000	Balance	Phasing		Total Variance	Reasons for variance due to price escalation	
						1st Yr	2nd Yr		Within approved Project time cycle	Beyond approved project time cycle
1	Residential Buildings	593.47	854.07	483.00	371.07	150.00	221.07	260.60	260.60	-
2	Service Buildings	493.47	669.26	594.65	74.61	40.00	34.61	175.79	175.79	-

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PROJECT OFFICER
PAREJ EAST PROJECT

RPR FOR PAREJ EAST OCP (1.75 MTY)

Appendix A.2.1

Stetement Showing Estimated Capital Expenditure on Residential Buildings

(Amount in Rs.Lakh)

Sl. No.	Type of Quarters	Sanctioned P.R.Prov.		RPR Provision					
				Existing as on 31.3.2000		balance		Total	
		No.	Cost	No.	Cost	No.	Cost	No.	Cost
1.	M.Q.	326	246.24	200		126	170.71	326	
2.	A	87	80.31	-		87	144.37	87	
3.	Hostel	24	13.74	-		24	24.70	24	
4.	B	98	130.86	128		-	0.00	128	
5.	C	37	75.15	36		1	3.51	37	
6.	D	5	22.13	4		1	7.99	5	
7.	Barrack	23	7.66	8		15	8.98	23	
Total		600	576.19	376	483.00	254	360.26	630	843.26
Cont (3%) of above			17.28		-		10.81		10.81
Grand total			593.47		483.00		371.07		854.07

Note : 30 Nos. of B type quarters are being constructed beyond P.R.Provision.

PROJECT OFFICER
PAREJ EAST PROJECT

RPR FOR PAREJ EAST OCP (1.75 MTY)

Appendix A.2.2

Statement Showing Estimated Capital Expenditure on Service Buildings

(Amount in Rs.Lakh)

Sl. No.	Particulars	Sanctioned P.R. Provision.	R.P.R. provision			
			Existing As on 31.3.2000	Balance	Addl.	Total
A.	**OFFICE**					
1	P.O.Office	12.61	-	22.70	-	22.70
2	Town Admn. office	5.47	5.74	-	-	5.74
3	Boundary Wall	3.63	1.44	-	-	1.44
	Sub Total	21.71	7.18	22.70	-	29.88
B.	**WORKSHOP ETC.**					
1	Excv.& E& M Workshop	380.07	496.39	-	-	496.39
2(a)	Colliery Store *	23.37	9.05	-	-	9.05
(b)	Boundary Wall	5.47	-	9.84	-	9.84
3(a)	Magazine	8.49	-	15.28	-	15.28
(b)	Boundary wall	1.78	-	3.20	-	3.20
4(a)	Sub Station	1.29	2.13	-	-	2.13
(b)	Boundary Wall	1.17	-	2.11	-	2.11
	Sub Total	421.64	507.57	30.43	-	538.00
C.	**STATUTORY BUILDINGS**					
1	Pit head bath	3.26	-	5.87	-	5.87
2	Canteen + Rest shelters *	3.51	4.66	-	-	4.66
3	First Aid Centre	0.43	-	0.78	-	0.78
	Sub Total	7.20	4.66	6.35	-	11.31
D.	**COMMUNITY BUILDINGS.**					
1	Dispensary *	7.13	10.78	-	-	10.78
2	Workers' Institute *	3.20	-	5.76	-	5.76
3	Officers Club + Rest House *	12.05	27.00	-	-	27.00
4	Shopping Centre *	8.55	11.54	-	-	11.54
5	Primary School *	6.46	10.72	-	-	10.72
6	Bank Building *	5.04	-	9.07	-	9.07
7	Cycle Shed * (Common Garrage)	0.49	3.10	-	-	3.10
	Sub Total	42.92	63.14	14.83	-	77.97
E.	**BUILDINGS CONSTRUCTED. BEYOND P.R. PROVISION**					
1	Post Office	-	1.50	-	-	1.50
2	Childern's Park	-	5.00	-	-	5.00
3	POL Cum Compressor room	-	0.43	-	-	0.43
4	Weigh Bridge Cabin	-	0.50	-	-	0.50
5	Despatch Office & Entry Gate	-	1.06	-	-	1.06
6	Scurity Check Post	-	0.54	-	-	0.54
7	E.S.M.P. Office - cum Lab	-	3.07	-	-	3.07
	Sub Total	-	12.10	-	-	12.10
	Grand Total	**493.47**	**594.65**	**74.61**	-	**669.26**

Note :* These facilities will be shered between mine & Washery.

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PROJECT OFFICER
PAREJ EAST PRO

STATEMENT SHOWING THE BUILDING COST INDEX.
(With Ref. to 100 base in Delhi as on 1.10.76)
IN MAY 2000.

SL. NO.	DESCRIPTIC	UNIT	RATES AS ON 1.10.76 AT DELHI	RATES AT SITE	RATIO BET. Col.5 & Col.4	WEIGH -TAGE	COST INDEX
1	2	3	4	5	6	7	8
1.	BRICKS	1000	106.15	1750	16.49	16	263.7777
2.	SAND: 35% Coarse S 65% Fine Sand	Cu.m.	21.92	158.92	7.25	5	36.25
3.	CEMENT	Quintal	35.28	284	8.05	21	169.0476
4.	STONE AGGREGATE 50% 20 mm S 50% 50 mm Size	Cu.m.	27.1	460	16.97	6.5	110.3321
5.	TIMBER	Cu.m.	2021	22168	10.97	18	197.4389
6.	MILD STEEI	Quintal	183.2	1480	8.08	10	80.78603
7.	LABOUR: (a) Mason 50% 1st. Clas 50% 2nd. Class	Each	9.89	84.73	8.57	8.5	72.82154
	(b) Carpenter 50% 1st. Clas 50% 2nd. Class	Each	9.89	84.73	8.57	4	34.26896
	(c)Coolie/Bel	Each	4.41	57.19	12.97	11	142.6508
	TOTAL						1107.374
	i.e. COST INDEX					**SAY**	**1107**

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PROJECT OFFICER
PAREL EAST ZONE

REVISED PROJECT REPORT OF PARII EAST OCP(1.75 MTY)

Statement showing estimated Capital Investment on Plant & Machinery with Phasing

APPENDIX A.3
(AMT.IN RS.LAKHS)

Sl No	Particulars	As per Sanctioned Report Size	No	Amount	As per RPR 2001 Size	No	Amount	Effective Existing as on 31.3.2000 No	Amount	Balance Provision No	Amount	TOTAL VARIANCE	REASONS OF VARIANCE: Due to Price Escalation Original	Replacement	Govt. Taxes & Cess	Change in Scope Approved Items	Additional Items	Under/Over Estimation	Addition/ Deletion(-)
A	COAL																		
1	Elect Hyd Shovel	3.8 Cum	2	188.81	3.8 Cum	2	222.17	2	222.17			33.33	33.33						
2	Rear Dumper (CH)	35 T	7	306.88	35 T	7	346.79	7	346.79			39.91	39.91						
3	RBH Drill	160 mm	2	95.80	160 mm	2	139.10	2	139.10			43.30	43.30						
4	Dozer	320 HP	2	114.98	320 HP	2	139.48	2	139.48			24.50	24.50						
5	F E Loader	5.74 Cum	1	48.08	5.74 Cum	1	91.91	1	91.91			43.83	43.83						
	Sub-Total COAL			754.58			939.45		939.45			184.87	184.87						
B	OVER BURDEN																		
1	Elect Rope Shovel	46/5 Cum	7	1753.50	46/5 Cum	7	2086.83	6	1751.11	1	335.72	333.33	333.33						
2	Rear Dumper	35 T	11	438.35	35 T	11	663.57	2	81.63	9	581.94	225.22	225.22						
3	Rear Dumper	35 T	50	1992.50	50 T	31	4007.94	31	4007.94			2015.44	1240.50			774.94			
4	RBH Drill	250mm	4	448.76	250mm	4	556.04	4	556.04			107.28	107.28						
5	RBH Drill	160 mm	3	143.70	160 mm	3	212.10	2	153.41	1	58.69	68.40	68.40						
6	Dozer	320 HP	3	172.47	320 HP	3	230.69	3	230.69			58.22	58.22						
7	Wheel Dozer	410 HP	4		410 HP	1	178.34	1	178.34			178.34							178.34
8	Dozer	410 HP	2	177.70	410 HP	2	211.65	2	211.65			33.95	33.95						
	Sub-Total OB			5126.98			8147.16		7170.81		976.35	3020.18	2066.90			774.94			178.34
C	COMMON																		
2	Motor Grader	145HP	2	67.62	280HP	1	129.45	1	129.45			61.83	56.54			5.29			
3	Mobile Crane	30T	1	62.69	30T	1	51.92	1	51.92			-10.77	-10.77						
4	RT Crane	12.5T	1	23.58	12.5T	1	8.96	1	8.96			-14.62	-14.62						
5	Water Sprinkler	28 KL	2	90.66	28 KL	2	134.78	2	134.78			44.12	44.12						
	Sub-Total Common			244.55			325.11		325.11			80.56	75.27			5.29			
	TOTAL HEMM			6126.11			9411.72		8435.37		976.35	3285.61	2327.04			780.23			178.34
	OTHER THAN HEMM																		
1	PUMP,PIPE &FITTINGS			71.70			163.20		15.44		147.76	91.50	91.50						
2	COAL HANDLING PLANT			1164.20			389.88		10.18		379.70	-774.32							-774.32
3	WORKSHOP			215.84			299.16		52.14		247.02	83.32	83.32						
4	ELECTRICAL			502.26			942.01		779.53		162.48	439.75	512.99			-73.24			
5	OTHER P & M			108.82			163.17		20.42		142.75	54.35	54.35						
6	SPARE ENGINE			400.36			722.00				722.00	321.64	224.78			96.86			
7	CONTINGENCY			429.46			138.90				138.90	-290.56	-290.56						

PROJECT OFFICER
P REI E ST PROJECT

APPENDIX A 3

(AMT IN RS LAKHS)

Sl No	Particulars	As per Sanctioned Report			PHASING OF BALANCE				LIFE IN YEARS	DEPRECIATION
					1st Year		2nd Year			
		Size	No	Amount	No	Amount	No	Amount		
A	COAL									
1	Elect Hyd Shovel	4.8 Cum	2	188.84					7	31.74
2	Rear Dumper (CB)	35 T	7	306.88					7	49.84
3	RBH Drill	160 mm	2	95.80					9	15.46
4	Dozer	320 HP	2	114.98					9	15.50
5	F E Loader	5.74 Cum	1	48.08					9	10.21
	Sub-Total COAL			754.58						122.45
B	OVER BURDEN									
1	Elect Rope Shovel	16/5 Cum	7	1753.50	1	335.72			12	173.90
2	Rear Dumper	35 T	11	438.35	9	581.94			7	94.80
3	Rear Dumper	35 T	50	1992.50					9	445.33
4	RBH Drill	250mm	4	438.76					9	61.78
5	RBH Drill	160 mm	3	143.70	1	58.69			9	23.57
6	Dozer	320 HP	3	172.47					9	25.63
7	Wheel Dozer	410 HP							9	19.82
8	Dozer	410 HP	2	177.70					9	23.52
	Sub-Total OB			5126.98		976.35				868.34
C	COMMON									
2	Motor Grader	145HP	2	67.62					9	14.38
3	Mobile Crane	30T	1	62.69					9	5.77
4	RT Crane	12.5T	1	23.58					9	1.00
5	Water Sprinkler	28 KL	2	90.66					9	14.98
	Sub-Total Common			214.55						36.12
	TOTAL HEMM			6126.11		976.35				1026.91
D	OTHER THAN HEMM									
1	PUMP,PIPE &FITTINGS			71.70		42.08		105.68		8.40
2	COAL HANDLING PLANT			1164.20		293.00		86.70		22.70
3	WORKSHOP			215.84		48.93		198.09		15.41
4	ELECTRICAL			502.26		77.94		84.54		48.51
5	OTHER P & M			108.82		142.75		[illegible]		[illegible]
[illegible]	[illegible]			[illegible]		[illegible]		[illegible]		[illegible]
[illegible]	[illegible]			[illegible]		[illegible]		[illegible]		[illegible]
[illegible]	[illegible]			[illegible]		[illegible]		[illegible]		[illegible]
5	OTHER P & M			108.82		100.36		129.16		
6	SPARE BODIES			161.17		122.00		138.90		
7	CONTINGENCY			98.96		321.64		290.56		224.78

PROJECT OFFICER
PAREI EAST

14/8/18

PAREJ EAST OCP (1.75 MTY) RPR ELECTRICALS
(SUMMARY)

(Amt.in Rs.'000)

Sl. No.	Particulars	As per Latest Sanctioned PR Cost	As per RPR Cost	Existing as on 31.03.2000 Cost	BALANCE Cost	PHASING 1st. Year Cost	PHASING 2 nd. Year Cost	VARIANCE Cost
1	2	3	4	5	6	7	8	9
1	11 KV SWITCHING STATION	4775	12124	12124				7349
2	COAL AND OB SUB-STATION	8462	19446	11772	7674	2816	4858	10984
3	QUARRY POWER DISTRIBUTION	29475	18962	11153	7809	4593	3216	-10513
4	COMMUNICATION	1320	5775	5775				4455
5	ILLUMINATION	3094	16970	16305	665	285	380	13876
6	MEASURING AND TESTING EQUIPMENT	230	665	665				435
7	COLONY POWER SUPPLY	1770	17259	17159	100	100		15489
8	WORKSHOP & CHP	1100	3000	3000				1900
	GRAND TOTAL	***50226***	***94201***	***77953***	***16248***	***7794***	***8454***	43975

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PROJECT OFFICER
PAREJ EAST

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Sl. No.	Particulars	As per Latest Sanctioned PR		As per RPR		Existing as on 31.03.2000		BALANCE			PHASING (Amt Rs. 000)			
											1st. Yr.		2nd. Yr.	
		Qty.	Cost	Qty.	Cost	Qty.	Cost	Qty.	U.Cost	T.Cost	Qty.	Cost	Qty.	Cost
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I.	**11 KV SWITCHING STATION**													
1.	MOCB 11KV,1000A, 250 MVA outdoor KIOSK type, complete with protection and metering	1	250											
2.	(i) Isolator, 11KV, 1000A Central rotating type	4 Sets	120											
	(ii) Isolator, 11KV, 600A Central rotating type	6 Sets	90											
3.	Lightning Arrestor, 11 KV	3 Sets	13.8											
4.	D.O. Fuse, 11 KV	1 Set	6.9											
5	Lighting Transformer, 50 KVA,11KV/ 440V, 3 Phase,Dy-11, 50HZ, outdoor	1	64											
6.	OHTL, 11KV, "Wolf" ACSR conductor with all accessories for incoming Power supply.	10 Km	3000											
7.	Sub station structure, string/tubular bus insulators, connection, joints, clamps etc	Ls	1000											
8.	Earthing, fencing and station lighting etc	Ls	230											
	Sub-Total		4775											
II.	**COAL AND OB SUB-STATION**													
1.	Transformer 2.5MVA, 11KV/6.6-3.3KV, Outdoor 3 Phase, 50 Hz, DY-11.	4 Nos.	2952											
2.	MOCB, 11KV, 600A, 250MVA, outdoor KIOSK, type complete with all protections	4 Nos.	1000											
3.	MOCB,6.6KV, 600A,150MVA, outdoor KIOSK type complete with all protections with dual ratio (6.5/3.3 KV) PT&CT	6 Nos.	1320											

PROJECT OFFICER
14/8/18
P. RFT

PAREJ EAST OCP (1.75 MTY) RPR- ELECTRICALS

Sl No	Particulars	As per Latest Sanctioned PR		As per RPR		Existing as on 31.03.2000		BALANCE			PHASING (Amt Rs. 000)			
											1st Yr		2nd Yr	
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	U Cost	T Cost	Qty	Cost	Qty	Cost
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	Lighting Transformer 100 KVA, 11KV/440V, 3 phase DY-11 50Hz, outdoor type	2 Nos	110											
5	Isolator, 11 KV, 600A, Central Rotating type	9 Sets	135											
6	Lightning Arrestor, 11KV	2 Sets	9.5											
7.	Isolator, 3.3 KV, 600A, Central Rotating type	15 Sets	180											
8	Lightning Arrestor, 3.3KV	2 Sets	5.5											
9.	Incoming overhead transmission line, 11KV "Wolf" ACSR conductor with all accessories.	2 Km	600											
10.	Capacitor Bank 3.3KV with PF corrector, discharge rod, RVT, series reactance etc. (480 KVAR).	Ls	250											
11.	S/S structure, Strung/tubular bus insulators connectors, joints, clamps etc.	Ls	1500											
12.	Earthing, fencing and Sub-station lighting etc	Ls	400											
	Sub-Total		8462											
I.	**33KV SWITCHING STATION (WITH COAL SUBSTATION)**													
1.	SF6 33 KV, 1000A, 250 MVA outdoor, KIOSK type, complete with protection & metering.			5	3624	5	3624							
2.	(i) Isolator, 33KV, 1000A Central rotating type.			4		4								
	(ii) Isolator, 33KV, 600A Central rotating type.			6		6								
3.	Lightning Arrestor, 33 KV													

PROJECT OFFICER
PAREJ EAST PROJECT
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	(ii) Isolator, 33KV, 600A Central rotating type.	6		6								
3	Lightning Arrestor, 33 KV	3		3								
4	D.O Fuse 33 KV	1		1								
5	Lighting Transformer, 50KVA, 33KV/440 V 3 phase, DY-11, 50 HZ, outdoor	1		1								
6	OHTL, 33 KV, "Wolf" ACSR conductor with all accessories for incoming Power supply	LS	5500	LS	5500							
7	Sub Station structure strung/tubular bus, insulators, connectors, joints, clamps etc	LS		LS								
8	Earthing, fencing and sub station lighting etc	LS	3000	LS	3000							
	Sub-Total		12124		12124							
II.	**COAL AND OB SUB-STATION**											
1	Transformer 3 MVA, 33KV/3.3 KV, Outdoor 3 phase, 50Hz, DY-11	4	3295	3	2100	1	1195	1195		0	1	1195
2	SF6 3.3.KV,600A 150MVA, outdoor KIOSK type complete with all protections	4	2253	3	798	1	1455	1455		0	1	1455
3	SF6 3.3.KV,600A 150MVA, outdoor KIOSK type complete with protection with dual ratio (6.6/3.3KV) PT&CT	7	2298	7	2298							
4	Lighting Transformer, 100 KVA, 33KV/440 V 3 phase DY-11 50 Hz, outdoor type.	2		1		1	110	110	1	110		
5	Isolator, 33 KV, 600A, Central Rotating type.	9		4		5	55	275	2	110	3	165
6	Lightning Arrestor, 33 KV	2		1		1	50	50	1	50		0
7	Isolator, 3.3 KV, 600A, Central Rotating type.	15		7		8	10	80	4	40	4	40
	Lightning Arrestor, 3.3 KV	6		3		3	3	9	2	6	1	3
	Incoming overhead transmission line, 33 KV "Wolf" ACSR conductor with accessories		1550	Ls	1550	LS	LS					

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No		Sanctioned PR				31.03.2000								
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	U Cost	T Cost	Qty	Cost	Qty	Cost
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
10	Capacitor Bank, 3.3 kV with PF corrector, discharge rod, RVT, series reactance etc. (480 KVAR)				100	LS	100	LS	LS					
11	S/S structure, Strung/tubular bus insulators connectors, joints,clamps etc			0	7836	LS	4836	LS	LS	3000	LS	2000	LS	1000
12	Earthing, fencing and Sub station lighting.			0	1500	LS		LS	LS	1500	LS	500	LS	1000
	Sub-Total				19446		11772			7674		2816		4858
III.	**QUARRY DISTRIBUTION**													
1.	3.3 KV "Wolf" ACSR overhead line	4 Km	1000			8	3600							
2.	3.3 KV lightning Arrestor	12 Nos	22.8					12	3	36	6	18	6	18
3.	Isolator 3.3 KV onload type with flat plug arrangement.	12 Nos	360					12	10	120	6	60	6	60
4.	Transformer, 500 KVA, 3.3KV/550-440V, 3 phase, DY-11 50HZ.	1 No	156.5					1	350	350	1	350		
5.	MOCB/VCB 3.3KV, 400A, 150MVA.	3 Nos	600			2	569	1	345	345	1	345		
6.	Unitised Transformer station with incoming and outgoing breakers, protection, skid mounted outdoor type.													
	(i) 630 KVA, 3.3 KV/415V, 3Phase, 50HZ.	5 Nos	4375											
	(ii) 400 KVA, 3.3 KV/415V, 3Phase, 50HZ.	7 Nos	5950											
7.	Field Switch, 3.3KV, 150MVA	8 Nos	2420			10	2719	10	250	2500	5	1250	5	1250
8.	(i) 3.3 KV oil switch fuse unit 3 panel	4 Nos	280			2	565	3	380	1140	2	760	1	380
	(ii) 3.3 KV oil switch fuse unit 2 panel	3 Nos	400					3	150	450	2	300	1	150
9	440 V switch fuse unit 6 panel	1 No	15					1	110	110	1	110		
3.10	Cables													
3.10.1	3.3 KV grade PVC armoured copper.													
	(i) 3.5 x 50 sc.mm size	0.5 Km	150			0.3	300	0.2	350	70	0.2	70		

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PROJECT OFFICER
PAREJ EAST PROJECT

		Qty 3	Cost 4	Qty 5	Cost 6	Qty 7	Cost 8	Qty 9	Cost 10	Cost 11	Qty 12	Cost 13	Qty 14	Cost 15
	(i) 3.5 x 35 sq mm size	4 Km	1000			1.6	1150	2.4	250	600	1	250	1.4	350
3.10.2	3.3 KV grade pliable armoured EPR screend, copper cable of 3.5x35 sq mm	3 Km	5484			1.5	2250	2.9	720	2088	1.5	1080	1.4	1008
3.10.3	660V grade pliable armoured EPR screened, copper cable of sizes,													
	(i) (3x120+1x70) sq. mm	2 Km	6474											
	(ii) (3x70+1x35) sq. mm	0.4 Km	788											
	Sub-Total		29475.3		18962		11153			7809		4593		3216
IV.	**COMMUNICATION**													
1.	100 line RAX telephone exchange complete with telephone sets, charger etc	1 No	600	1		1								
2.	20 lines loud hailing system.	2 Nos	40	2		2								
3.	Overhead telephon line, cables, poles & accessories.	LS	200	LS		LS								
4.	25 lines electronic micro processor based PBX exhange for connection of 3 nos. P&T lines, deposits for P&T connection, telephone sets and accessories	1Set	150	1 SET	5775	1 SET	5775							
5.	VHF trans-receiver sets of 3 km range with master receiver set, power supply etc.	15 Nos	180	15		15								
6	Misc.items like ladders, furnitures, jointing materials, tools, testing equipment etc.	LS	150	LS		LS								
	Sub-Total		1320		5775		5775							
V.	**ILLUMINATION**													
6.1	**Quarry**													
1.	Lighting transformer, 5KVA, 3.3 KV/440V, 3 phase, 50 HZ outdoor type pole mounting	10 Nos	105	10	191	1	56	9	15	135	5	75	4	60
2.	Flood light/Mobile towers, 25m. height.	10 Nos	750	10	3885	.8	3685	2	100	200	1	100	1	100

PROJECT OFFICER

(Amt Rs, 000)

Sl No	Particulars	As per Latest Sanctioned PR		As per RPR		Existing as on 31.03.2000		BALANCE			PHASING 1st Yr		2nd Yr	
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	U Cost	T Cost	Qty	Cost	Qty	Cost
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3	3.3 KV OHTL with "Rabit" ACSR conductor	2 Km	400	LS	2579	LS	2579							
4	250 W HPSV lamps with all accessories	Ls	230	LS	996	LS	996							
5..2	**Haul Road**													
1.	Lighting transformer, 100 KVA, 3.3KV/440V, 3 phase, 50 HZ outdoor type	4 Nos	206	4	480	1	150	3	110	330	1	110	2	220
2.	250 W HPSV lamps, isolator, 440 V switch boards, cables etc	Ls	173	LS	1605	LS	1605							
3.	3.3 KV OHTL with "Rabit" ACSR conductor	2.5 Km	500	4 Km	3200	8Km	3200							
4	440 OHTL with "Mink" ACSR conductor,	1 Km	200	7 Km	2150	10 Km	2150							
5..3	Spoil Dump													
	Spoil dump illumination with 400 W HPS / flood lights connected to 2 KVA, 3.3HV/250 V unitised sub-station.	Ls	230	LS	807	LS	807							
5.4	General Area Illumination	Ls	300	LS	1077	LS	1077							
	Sub-Total		3094		16970		16305			665		285		380
VI.	**MEASURING & TESTING EQUIPMENTS**													
1.	Megger 500 / 1000 V	LS	230	LS	665	LS	665							
2.	Bridge Megger 5000 V													
3.	Earth registance tester													
4.	Transformer oil testing m/c. with stand.													
5.	Portable motor driven 15 GPM oil filtering machine.													
6.	Relay testing apparatus with electronic timer													
7.	Cable fault detector.													
8.	Duel beam oscilloscope 15 MHz.													
9.	Avometer 3.3 V													

PROJECT OFFICER
PAREJ EAST PROJECT

Sl. No	Particulars	As per Latest Sanctioned PR		As per RFR		Existing as on 31.03.2000		BALANCE			PHASING (Amt. Rs. 000) 1st Yr		2nd Yr	
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	U Cost	T Cost	Qty	Cost	Qty	Cost
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
10.	Techometer 300-3000 rpm													
11.	Tong tester 550 V													
12.	Tong tester 3.3 KV													
13.	Crimping tools													
14.	Lux meter upto 500 lux													
15.	Distilled water plant													
16.	Discharge rod													
17.	Rubber hand gloves													
18.	Insulation mat.													
	Sub-Total		230		665		665							
7.0	**COLONY POWER SUPPLY**													
1.	11 KV OHTL with DOG ACSR conductor with all accessories.	3 Km	750											
2.	Transformers, 50 KVA, 11KV/440-250V, 3 phase, DY-11 50 HZ.	7 Nos	210											
1	33 KV OHTL with DOG ACSR conductor with all accessories.			LS	5056	LS	5056							
2	Transformers, 50KVA, 33 KV/440-250V, 3 phase, DY-11 50 Hz			7	756	5	656	2	50	100	2	100		
3	440 OHTL with Fly AAC conductor with all accessories.	3 Km	600	LS	6000	LS	6000							
6	440V Cable.			LS	3763	LS	3763							
7	D.O. Fuse, isolators fuses, switch gear, distribution boards etc	Ls	170	LS	1191	LS	1191							
8	Miscellaneous items.	Ls	40	LS	493	LS	493							
	Sub-Total		1770		17259		17159			100		100		

PROJECT OFFICER

PAREJ EAST SSP (1.5 MTPA) [illegible]

(Amt Rs. 000)

Sl. No	Particulars	As per Latest Sanctioned PR		As per RPR		Existing as on 31.03.2000		BALANCE			PHASING 1st. Yr.		PHASING 2nd. Yr.	
		Qty	Cost	Qty	Cost	Qty	Cost	Qty.	U.Cost	T.Cost	Qty.	Cost	Qty	Cost
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
8.0	WORKSHOP & CHP	LS	1100	LS	9000	LS	9000							
	GRAND TOTAL		502263		94201		77953			16248		7794		8454

14/8/18 PROJECT OFFICER
PAREJ EAST PROJECT

APPENDIX-A 3.2

PROJECT REPORT FOR PAREJ EAST OCP (1.75 MTY.)

ESTIMATED PHASED CAPITAL EXPENDITURE ON P&M - WORKSHOP.

SUMMARY SHEET

[AMT. IN RS. LAKHS]

SL. NO.	DESCRIPTION	AS PER SANCTIONED REPORT	AS PER RPR Feb, 2001	EXIST. AS ON 31.3.00	BALANCE PROVISION	PHASING 1ST.YR.	PHASING 2ND.YR.	TOTAL VARIANCE
A.	EXCAVATION WORKSHOP	193.26	255.00	42.55	212.45	40.30	172.15	61.74
B.	E&M WORKSHOP	22.58	44.17	9.59	34.58	8.63	25.95	21.59
	GRAND TOTAL	215.84	299.17	52.14	247.03	48.93	198.10	83.33

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PAREJ EAST PROJECT

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PAREJ EAST PRC

PROJECT REPORT FOR PAREJ EAST O.C.P [1.75 MTY.]

ESTIMATED PHASED CAPITAL EXPENDITURE ON P&M - WORKSHOP

[AMT. IN RS. LAKHS]

Sl No	PARTICULARS	AS PER SANCTIONED REPORT		AS PER RPR F-5.00		EXISTING AS ON 31.3.00		BALANCE PROVISION		PHASING OF CAPITAL		TOTAL VARIANCE
		No.	AMT	No	AMT.	No	AMT.	No.	AMT	1st Yr.	2nd Yr.	
1	2	3	4	5	6	7	8	9	10	11	12	13
(I)	(A) EXCAVATION FIELD WORKSHOP											
	MACHINE SHOP											
1	HEAVY DUTY CENTRE LATHE C.H. - 450mm, D.B.C. - 3000mm, POWER - 18.5 Kw.	1	16.68	1	30.37			1	30.37		30.37	13.69
2	HEAVY DUTY CENTRE LATHE C.H. - 260mm, D.B.C. - 2000mm, POWER - 11 Kw.	1	5.16	1	8.79	1	8.79					3.63
3	MEDIUM DUTY CENTRE LATHE C.H. - 220mm, D.B.C. - 1500mm, POWER - 9 Kw.	1	3.29	1	7.86			1	7.86		7.86	4.57
4	LIGHT DUTY CENTRE LATHE C.H. - 200mm, D.B.C. - 1000mm, POWER - 3 Kw.	1	1.27	1	2.00			1	2.00	2.00		0.73
5	POWER HACKSAW TO CUT ROUND UPTO 300 mm DIA, POWER- 1.5 kw	1	0.49	1	0.94			1	0.94	0.94		0.45
6	SHAPING MACHINE STROKE 630 mm POWER - 2.25 kw	1	1.88	1	1.25			1	1.25		1.25	-0.63
7	RADIAL DRILL, DRILLING CAPACITY IN STEEL 50 mm RADIUS 1500 mm, POWER-4.5 kw	1	4.06	1	7.90	1	7.90					3.84

PROJECT OFFICER
PAREJ EAST PROJECT

Sl No	PARTICULARS	AS PER SANCTIONED REPORT No	AS PER SANCTIONED REPORT AMT	AS PER REPORT No	AS PER REPORT AMT	EXISTING AS ON 31.3.00 No	EXISTING AS ON 31.3.00 AMT	BALANCE PROVISION No	BALANCE PROVISION AMT	PHASING OF CAPITAL 1st Yr	PHASING OF CAPITAL 2nd Yr	TOTAL VARIANCE
1	2	3	4	5	6	7	8	9	10	11	12	13
8	BENCH DRILL, DRILLING CAPACITY IN STEEL, 13mm, POWER-0.55 kw	1	0.22	1	0.25	1	0.25					0.03
9	SLOTTING MACHINE STROKE 250-mm, POWER-5.5kw	1	7.50	1	14.24			1	14.24		14.24	6.74
10	DOUBLE ENDED PEDESTAL GRINDER WHEEL DIA,-300mm, POWER-0.66 kw	1	0.18	1	0.30	1	0.30					0.12
11	WORKING TABLE, BENCHES, CABINETS, PART STORING RACKS, HAND TROLLEYS ETC. FOR SHOP FLOORS	LS	0.20	LS	0.26			LS	0.26	0.10	0.16	0.06
12	NON STANDARD ITEMS - SURFACE PLATES, TOOLS, TACKLES, CABINET, PARTS, RACKS, CARTS ETC.	LS	0.35	LS	0.47			LS	0.47	0.15	0.32	0.12
	SUB-TOTAL AMOUNT		41.28		74.63		17.24		57.39	3.19	54.20	33.35
	ELECTRICAL REPAIR SHOP											
1	COIL WINDING M/C FOR ARMATURE OF DYNAMO & SELF-STARTER, WIRE RANGE 0.5-5 mm	1	0.09	1	0.16			1	0.16		0.16	0.07
2	TABLE FOR TINNING OF COMMUTATOR	1	0.02	1	0.03			1	0.03		0.03	0.01
3	SOLDERING IRON 1500 WATTS	1	0.02	1	0.01			1	0.01	0.01		-0.01
4	CABLE VULCANISER	1	0.31	1	0.17	1	0.17					-0.14
5	AUTOMATIC BATTERY CHARGING SET WITH CONTROL DEVICE 72 VOLTS	1	0.31	1	0.31			1	0.31		0.31	

PROJECT OFFIGER
PAREJ EAST PROJECT

PROJECT REPORT FOR PAREJ EAST O.C.P [1.75 MTY.]

ESTIMATED PHASED CAPITAL EXPENDITURE ON P&M WORKSHOP

[AMT IN RS LAKHS]

Sl No	PARTICULARS	AS PER SANCTIONED REPORT		AS PER RPR [illegible]		EXISTING AS ON 31 3 00		BALANCE PROVISION		PHASING OF CAPITAL		TOTAL VARIANCE
		No	AMT	No	AMT	No	AMT	No	AMT	1st Yr	2nd Yr	
1	2	3	4	5	6	7	8	9	10	11	12	13
6	DISTILLED WATER PLANT CAPACITY 5 LITRE/HR	1	0.13	1	0.08			1	0.08		0.08	-0.05
7	SET OF ELECTRICAL MEASURING AND TESTING INSTRUMENTS	LS	0.50	LS	0.63			LS	0.63	0.21	0.42	0.13
8	CABLE FAULT DETECTOR	1	0.13	1	0.15			1	0.15		0.15	0.02
	SUB-TOTAL AMOUNT		1.51		1.54		0.17		1.37	0.22	1.15	0.03
	RADIATOR REPAIR SHOP											
1	GAS TORCH FOR BRAZING OF RADIATOR	1	0.09	1	0.26			1	0.26		0.26	0.17
2	ELECTRIC SOLDERING IRON 1500 WATTS	1	0.02	1	0.01			1	0.01		0.01	-0.01
3	STAND FOR REPAIR AND TESTING OF RADIATORS, WATER TUB ETC.	1	0.18	1	0.34			1	0.34		0.34	0.16
4	HIGH PRESSURE PIPE AND OTHER APPLIANCES	LS	0.25	LS	0.42			LS	0.42		0.42	0.17
	SUB-TOTAL AMOUNT		0.54		1.03				1.03		1.03	0.49
	SMITHY SHOP											
1	BLACK SMITH HEARTH WITH ELECTRIC BLOWER POWER, 1.1 kw	1	0.22	1	0.39			1	0.39		0.39	0.17
2	ANVILS, SEWAGE BLOCK, BLACK SMITH TOOLS, KITS ETC.	LS	0.20	LS	0.26			LS	0.26		0.26	0.06
3	HYDRAULIC POWER HAMMER	1	1.84	1	3.24			1	3.24		3.24	1.40
	SUB-TOTAL AMOUNT		2.26		3.89				3.89		3.89	1.63

4/8/18 PROJECT OFFICER
PAREJ EAST PROJECT

SI No	PARTICULARS	AS PER SANCTIONED REPORT No	AS PER SANCTIONED REPORT AMT	AS PER APPROVED No	AS PER APPROVED AMT	EXISTING AS ON 31.3.98 No	EXISTING AS ON 31.3.98 AMT	BALANCE PROVISION No	BALANCE PROVISION AMT	PROPOSED CAPITAL 98-99	PROPOSED CAPITAL 99-00	TOTAL VARIANCE
1	2	3	4	5	6	7	8	9	10	11	12	13
	WELDING AND STRUCTURAL SHOP											0.15
1	PILLER DRILL, DRILLING CAPACITY IN STEEL 25mm, POWER-2.5 kw	1	0.42	1	0.57	1	0.57					0.59
2	M.G. WELDING SET 400A	1	0.63	1	1.22	1	1.22					0.20
3	TRANSFORMER WELDING SET 400A	2	0.38	2	0.58			2	0.58	0.29	0.29	0.18
4	OXY-ACETYLENE GAS CUTTING AND BRAZING SET	2	0.30	2	0.48			2	0.48	0.24	0.24	0.14
5	HAND OPERATED PLATE SHEARING M/C THICKNESS OF PLATE - 6 mm	1	0.18	1	0.32			1	0.32		0.32	0.03
6	PORTABLE HAND DRILL, 13mm, POWER 0.55 kw	1	0.04	1	0.07			1	0.07	0.07		0.05
7	PORTABLE HAND GRINDER 100mm POWER-0.55 kw	1	0.07	1	0.12			1	0.12	0.12		0.06
8	MISC. TOOLS AND TACKLES FOR DIFFERENT SHOPS	LS	0.20	LS	0.26			LS	0.26	0.10	0.16	0.06
9	WORKING TABLE, BENCHES, CABINETS, PART STORING RACKS, HAND TROLLEYS ETC. FOR SHOP FLOORS	LS	0.15	LS	0.21			LS	0.21	0.10	0.11	0.06
	SUB-TOTAL AMOUNT		2.37		3.83		1.79		2.04	0.92	1.12	1.46
	DUMPER REPAIR SHOP											0.36
1	POWER OPERATED HYDRAULIC PRESS FOR DISMANTLING AND ASSEMBLY WORK, CAP-50 Te	1	0.61	1	0.97	1	0.97					

PROJECT OFFICER
PAREJ EAST PROJECT

[AMT. IN RS. LAKHS]

ESTIMATED PHASED CAPITAL EXPENDITURE ON P&M - WORKSHOP

Sl No	PARTICULARS	AS PER SANCTIONED REPORT		AS PER RPR		EXISTING AS ON 31.3.00		BALANCE PROVISION		PHASING OF CAPITAL		TOTAL VARIANCE
		No	AMT	No	AMT	No	AMT	No	AMT	1st Yr	2nd Yr	
1	2	3	4	5	6	7	8	9	10	11	12	13
2	HYDRAULIC JACK WITH PULLER, ATTACHMENT, CAP-50 TE	1	0.31	1	0.54			1	0.54	0.54		0.23
3	HYDRAULIC JACK, CAPACITY-50 TE	4	0.76	4	1.36			4	1.36	0.34	1.02	0.60
4	AIR-COMPRESSOR 3.39 CUM/MIN WORKING PRESSURE 7kg/Sq.Cm	2	1.82	2	2.74			2	2.74	1.37	1.37	0.92
5	MASTER TOOL KIT (IN SETS)	6	1.08	6	2.52			6	2.52	0.84	1.68	1.44
6	HYDRAULIC HOSE CRIMPING MACHINE	1	0.13	1	0.21			1	0.21	0.21		0.08
7	TORQUE WRENCHES & MULTIPLIERS (IN SETS)	1	0.24	1	0.18			1	0.18		0.18	-0.06
8	TRANSFORMER WELDING SET 600A	1	0.31	1	0.39			1	0.39		0.39	0.08
9	TRANSFORMER WELDING SET 400A	1	0.19	1	0.29			1	0.29	0.29		0.10
10	M.G. WELDING SET 400A	1	0.63	1	0.66			1	0.66		0.66	0.03
11	OXY-ACETYLENE GAS CUTTING AND BRAZING SET	2	0.30	2	0.48			2	0.48	0.24	0.24	0.18
12	HYDRAULIC BEAD BREAKER	1	1.84	1	3.24			1	3.24		3.24	1.40
13	VALVE SEAT GRINDER	1	0.13	1	0.24			1	0.24		0.24	0.11
14	VALVE REFACER	1	0.13	1	0.31			1	0.31		0.31	0.18
15	PORTABLE HAND DRILL, 13 mm, POWER 0.55 kw	1	0.04	1	0.07			1	0.07	0.07		0.03
16	FLEXIBLE SHAFT GRINDER, 100mm, POWER-0.55 kw	2	0.14	2	0.16			2	0.16	0.08	0.08	0.02

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PAREJ EAST PROJECT

Sl No	PARTICULARS	AS PER SANCTIONED REPORT No	AS PER SANCTIONED REPORT AMT	No	AMT	No	AMT	No	AMT	No	AMT	No	AMT	No	AMT
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	PRESSURISED LUBRICATION SYSTEM WITH AIR-COMPRESSOR	1	1.84	1	2.76	1	2.76								
18	DIAGONESTIC TOOLS AND INSTRUMENTS	LS	0.50	LS	0.62			LS	0.62	0.31	0.31	0.12			
19	MISC. TOOLS AND TACKLES FOR DIFFERENT SHOPS	LS	1.50	LS	1.88			LS	1.88	0.63	1.25	0.38			
20	WORKING TABLE, BENCHES, CABINETS, PART STORING RACKS, HAND TROLLEYS ETC. FOR SHOP FLOORS	LS	0.50	LS	0.63			LS	0.63	0.21	0.42	0.13			
21	EOT CRANE FOR DUMPER REPAIR SHOP CAP. -10 Te/5 Te, SPAN - 16M	1	11.77	1	12.81			1	12.81		12.81	1.04			
22	EOT CRANE FOR ENGINEERING SHOPS (RADIATOR, ENGINE, ASSY. AND SUB-ASSY. M/C-SHOP) CAP-10 Te/5 Te, SPAN-12M	1	11.77	1	11.89			1	11.89		11.89	0.12			
	SUB-TOTAL AMOUNT		36.54		44.95		3.73		41.22	5.13	36.09	8.41			
	DOZER REPAIR SHOP														
1	M.G. WELDING SET 400A	1	0.63	1	0.71	1	0.71					0.08			
2	TRANSFORMER WELDING SET 600A	1	0.31	1	0.39			1	0.39		0.39	0.08			
3	OXY-ACETYLENE GAS CUTTING AND BRAZING SET	2	0.30	2	0.48			2	0.48		0.48	0.18			
4	MASTER TOOL KIT (IN SETS)	2	0.36	2	0.84			2	0.84	0.42	0.42	0.48			
5	GREASING AND LUBRICATION EQUIPMEN	1	0.60	1	0.98			1	0.98		0.98	0.38			

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8/9/18