

Chapter II

2. Performance Audit relating to Government Companies

2.1 GRIDCO Limited

Activities of GRIDCO Limited including Power Purchase Agreements with Independent Power Producers

Executive Summary

GRIDCO, as a wholly owned Government Company, is engaged in the business of bulk purchase of energy from generators of Central/State Government and Independent Power Producers (IPPs)/Captive Generating Plants (CGPs) for bulk supply to DISCOMs. The Company is a deemed licensee to carry out power trading under section 14 of the Electricity Act, 2003 (EA 2003) subject to regulations of OERC. Performance Audit of the Company for the period from 2008-09 to 2012-13 was conducted to assess efficiency, economy and effectiveness of its operations with special emphasis on PPAs.

Planning

The Company neither prepared the corporate plan in terms of the MoU with DoE nor prepared the business plan as required under the Regulations of OERC.

In absence of proper planning and due to inaccurate demand projections in ARRs submitted to OERC, Company procured 5,989.20 MU of CGP power during 2008-13 beyond the approval of OERC incurring additional expenditure.

Procurement of Power

As the State designated agency, the Company signed PPAs with IPPs for generating capacity of 39,010 MW by 2016-17 against an estimated requirement of 6,362 MW in the State without any corresponding arrangement for evacuation of power. PPAs with IPPs were signed on cost plus route in violation of EA 2003 requiring bidding route. Suboptimal operationalisation of PPAs resulted in payment of higher price

to the IPPs to the extent of ₹554.80 crore.

Irregularities in procurement of power from CGPs like adoption of higher rate and unjustified determination of CGP status led to incurring extra expenditure. Non-procurement of cheapest hydro power as per merit order policy as well as for procurement of renewable power below the target resulted in incurring extra expenditure of ₹372.70 crore. Besides, Company procured power from OPGC paying higher cost due to its failure in obtaining approval of PPA from OERC.

Financial Management

Sale of power to DISCOMs is the main source of revenue for the Company. Despite escrow agreement, not collecting its dues regularly resulted in outstanding of ₹3,372.29 crore as of March 2013. Company has allowed rebate of ₹155.40 crore to DISCOMs without recovering the delayed payment surcharge of ₹706.80 crore. The Company borrowed ₹4,505.22 crore to pay the generators.

Trading of Surplus Power

While approving the ARRs OERC did not allow full cost of the Company to be recovered through tariff and instead directed the Company to meet the gap through trading of surplus power. The Company, however, could earn ₹498.18 crore only during 2008-13 as against the revenue gap of ₹5,914.43 crore in the tariff orders. Shortfall was partly attributable to delay in decision making and absence of required policy framework.

Manpower Management and Internal Control

The Company is yet to have its own organisation structure. Despite assessment of manpower and formulation of organisation structure etc., by engaging ASCI in 2008, the Company did not consider/implement recommendations till 31 December 2013.

There were deficiencies in internal control system prevailing in the Company.

PA contains five recommendations on the need to:

Prepare corporate plan as well as the business plan for achieving its long term goals/objectives and to submit the ARR with current picture of demand and supply of power; Operationalise the PPAs effectively safeguarding its financial interest; Streamline its power trading activities with adequate policy frame work; Enforce escrow mechanism to recover its dues from the DISCOMs to avoid borrowings and strengthen its internal control mechanism.

Introduction

2.1.1 GRIDCO Limited (Company) was incorporated on 20 April 1995 as a wholly owned Company of Government of Odisha (GoO) with the main objective to engage in business of purchase, transmission and bulk supply of power consequent upon enactment of The Orissa Electricity Reform Act, 1995 (OER Act). All assets and liabilities relating to transmission and distribution activities of the erstwhile Orissa State Electricity Board (OSEB) were transferred (1 April 1996) to the Company under the Reform Act. Subsequently, four²¹ Distribution Companies (DISCOMs) were incorporated (19 November 1997) as wholly owned subsidiaries of the Company. The distribution activities were transferred (26 November 1998) to four DISCOMs. The DISCOMs were subsequently privatised²² by divesting 51 per cent of shareholding in favour of private partners. Transmission activities were later transferred (1 April 2005) to another newly created State owned utility, Odisha Power Transmission Corporation Limited (OPTCL).

Role of the Company in Odisha Power Sector

2.1.2 The Company is a deemed trading licensee under Section 14 of The Electricity Act, 2003 (EA 2003). It procures power from Central/State sector power generating stations/Independent Power Producers (IPPs)/Captive Generating Plants (CGPs) by entering into Power Purchase Agreements (PPAs)/issuing Letter of Intents (LoIs) and supplies the same to DISCOMs through Bulk Power Supply Agreements (BPSAs) for onward supply to consumers by utilising transmission network of OPTCL and Power Grid Corporation of India Limited (PGCIL). After meeting demand of the State, the Company sells the surplus power, as and when available, outside the State through Indian Energy Exchange (IEX) and bilateral trading.

²¹ North Eastern Electricity Supply Company of Odisha Limited (NESCO), Western Electricity Supply Company of Odisha Limited (WESCO), Southern Electricity Supply Company of Odisha Limited (SOUTHCO) and Central Electricity Supply Company of Odisha Limited (CESCO)

²² NESCO, WESCO and SOUTHCO : 01 April 1999 and CESCO : 01 September 1999

Company projects its procurement and sale of power annually and submits the same to Odisha Electricity Regulatory Commission (OERC) through Annual Revenue Requirement (ARR) for approval. Matching of power generation with demand of DISCOMs on real time basis is done by State Load Despatch Centre (SLDC²³) by obtaining day ahead schedules from the generators and the DISCOMs. Rates for procurement and sale of power are determined by OERC in terms of section 86(b) of EA 2003. It also regulates procurement of power by Company under PPAs with generators.

Organisational set up

2.1.3 Company is under the administrative control of Department of Energy (DoE) of Government of Odisha (GoO). Management of the Company is vested with a Board of Directors (BoD) consisting of ten Directors including four independent Directors. Chairman-cum-Managing-Director (CMD) is the Chief Executive of the Company who is assisted by two Directors, one Senior General Manager, two General Managers, two Deputy General Managers and seven Assistant General Managers for day to day work of the Company.

Audit Objectives

2.1.4 Objectives of Performance Audit were to assess whether:

- The Company has planned for supply of power in line with the plan of GoO for creation of generating capacities in accordance with National Electricity Plan (NEP), policy and whether implementation thereof is monitored in an effective manner;
- PPAs entered into by Company were in line with established guidelines/rules/regulations and Memorandum of Understanding (MoU) of GoO and terms and conditions were in the interest of the Company/consumers;
- PPAs were operationalised as per their terms and conditions, obligations on the producer and purchaser to fulfill responsibilities related to environmental clearances, permits, creation of infrastructure etc.;
- Company has synchronised its activities of bulk procurement and bulk supply through timely arrangement of finances and other resources; and
- Effective monitoring system was in place and Internal Control system was commensurate with size and nature of business.

²³ A body under the control of OPTCL

Audit Criteria

2.1.5 Audit criteria adopted for assessing achievements of audit objectives were based on the following:

- ARR submitted by power utilities and OERC Tariff orders;
- Perspective plan, Annual Budgets and Annual Reports;
- PPAs/LOIs with generators, IPPs, CGPs and BPSAs with DISCOMs;
- Provisions of EA 2003 and Rules, Regulations and policies issued thereunder, NEP and National Tariff Policy (NTP);
- Orders/guidelines/regulations of the State/Central Government/Central Electricity Regulatory Commission (CERC)/OERC etc. with regard to procurement and sale of power from time to time;
- Sovan Kanungo Committee Report on Power Sector Reform; and
- Corporate Governance Manual issued by GoO.

Scope and Methodology of Audit

2.1.6. Performance Audit conducted during March to July 2013 covered overall functioning of the Company in procurement and supply of power during 2008-13. Audit examination involved scrutiny of records at Department of Energy (DoE) of GoO, different wings of the Company and SLDC. Audit methodology adopted for achieving the audit objectives with reference to audit criteria were:

- examination of minutes/agenda papers of meetings of the BoDs and guidelines/financial statements/instructions issued by GoO/Government of India/CERC/OERC from time to time;
- examination of records of the Company relating to procurement of power from power producers such as Odisha Hydro Power Corporation Limited (OHPC), Odisha Power Generation Corporation Limited (OPGC), NTPC Limited (NTPC) etc.;
- examination of records of Company relating to sale of power to DISCOMs and other agencies and recovery of dues thereagainst;
- issue of audit queries and interaction with Management; and
- Entry and Exit conference.

Audit Findings

2.1.7 Audit objectives, criteria, scope and methodology were explained to the Company during the 'Entry conference' held on 8 May 2013. Subsequently, audit findings were reported (19 September 2013) to Company and GoO and discussed in 'Exit conference' held on 7 December 2013. Both Entry and Exit Conferences were attended by Commissioner-cum-Secretary of

DoE and CMD of the Company. Government also furnished (4 December 2013) replies to audit findings. The views expressed by them/replies furnished have been considered while finalising the report. Audit findings are discussed in the following paragraphs.

Financial Position and Working Results

2.1.8 Financial position and working results of the Company for the last five years ended 2012-13 are given in **Annexure 7**. From them audit observed the following:

Financial position

Company's net worth turned negative from 2010-11 and stood at ₹ 1,163.95 crore in 2012-13 due to losses during 2009-12. Company was incurring losses due to its failure to increase its revenue. Odisha Electricity Regulatory Commission (OERC) while approving the ARRs, however, advised Company to meet the gap by increasing its revenue from power trading besides sales to DISCOMs.

Audit observed that though an inter State trading licence was a prerequisite for trading of power outside the State, negative net worth of the Company rendered it ineligible for obtaining such licence. Company did not try for such licence when net worth was positive upto 2009-10. Current Assets, Loans and Advances as on 31 March 2013 included ₹ 3,372.29 crore which was lying unrealised from DISCOMs towards cost of power sold despite an escrow mechanism being available to recover such dues as discussed in **Paragraphs 2.1.36 to 2.1.39**. Due to non-realisation of dues from DISCOMs leading to its inability in meeting power procurement cost, the Company resorted to borrowings from Financial Institutions from time to time which accumulated to ₹ 2,445.56 crore as on 31 March 2013.

Government stated that since availability of power was inadequate to meet the State demand, interstate trading licence would not have contributed much. Since trading does not mean selling of surplus power and the Company accepted OERC's direction for power trading, in compliance therewith, it should have explored feasibility of boosting revenue by such trading/alternative means through procurement and sale of power beyond the State boundary.

Working results

Company incurred losses during five years 2008-13 except for 2008-09 and 2012-13. Loss of ₹ 936.81 crore in 2011-12 turned to profit of ₹ 31.79 crore in 2012-13 due to accounting of ₹ 306.37 crore in terms of notification issued (October 2013) by GoO, towards waiver of dues payable to Government (₹ 443.71 crore) as revenue for the year with adjustment against dues receivable from Government (₹ 137.34 crore).

Planning

The Company did not prepare business plan despite requirement under OERC Regulation and MoU with the GoO

2.1.9 In terms of MoU with DoE, GoO, Company is required to prepare a Corporate Plan for a period of three years envisaging its long term goals and objectives. OERC (Conduct of Business) Regulations 2004 also require submitting a Business Plan within three months of Trading Licence for such a period as OERC may direct and update it annually. Company, however, did not formulate any such plan until December 2013. Audit observed that while submitting ARR, Company furnished quantum of power to be procured on the basis of demand projection of the DISCOMs. In case of non-response from the DISCOMs, Company submitted its demand projections on the basis of actual consumption of previous years and did not ensure submission of information by DISCOMs as detailed in the following table:

(In MU)

Year	DISCOMs projected demand	Projected demand of Company	OERC approval for procurement	Actual sales as per Accounts	Variation between projection of Company and Actual
2008-09	Not furnished	19,110.05	18,460.26	19,211.36	101.31
2009-10	Not furnished	19,619.11	19,719.38	19,966.10	346.99
2010-11	22,005.10	21,793.10	21,003.75	22,011.31	218.21
2011-12	Not furnished	23,689.08	23,489.18	21,918.98	(-)1,770.10
2012-13	23,931.85	24,887.58	24,096.88	23,098.30	(-)1,789.28

As projected requirement was not based on assessment of demand in the State, either by DISCOMs or by the Company, there was variation between projected and actual demand. Audit noticed that due to inaccurate projections Company procured 5,989.20 MU CGP power during 2008-13 beyond the approval of OERC incurring additional expenditure. Hence, Company should ensure submission of information by the DISCOMs through proper coordination with them as stipulated in the MoUs.

Government stated that Company would formulate Business Plans for effective power trading in future.

Budgetary Control

2.1.10 Company prepares its annual Budget Estimate (BE) on purchase and sale of power based on approved tariff orders. Year wise BE and the actuals during last five years (2008-13) is given in **Annexure 8**.

Budgeting was not realistic in case of revenue from power trading although it was crucial for the Company to meet the revenue gap

Audit observed that while approving ARRs for period 2008-13, OERC left definite revenue gaps with advice to meet the same through revenue from trading of power. For trading of power during 2009-12 while no target was set against 'revenue from sale of surplus power (Unscheduled Interchange/trading)' the target against 'revenue from sale of surplus power including CGPs' were between 3 and 42 *per cent* only of the actuals. Company had not taken initiatives for setting realistic targets and achievement thereof, despite it being crucial for Company to meet the revenue gap.

In Exit conference Government accepted the Audit observation.

Power Procurement

2.1.11 Company purchases power from State/Central generating units and IPPs. It also procures surplus power of CGPs and from renewable power units. Based on Company's projection through ARR, OERC decides quantum of power to be procured from generators. Deficiencies in the process of procurement of power from various sources are discussed in the following paragraphs.

Procurement of Power from Independent Power Producers

2.1.12 Under EA 2003 IPPs are encouraged for growth of electricity industry. IPPs develop power plants at their cost and supply power to buyers by signing PPAs with them. During June 2006 to January 2011 DoE signed MoUs with 29 IPPs designating the Company to purchase power from IPPs. Accordingly Company entered into (September 2006 to January 2011) PPAs with the IPPs. In addition to PPAs with 29 IPPs, the Company also signed PPAs with two other IPPs which had no MoU with the DoE. As per PPAs total installed capacity of 31 IPPs was 39,010 MW which included Odisha share of 6,621 MW (**Annexure 9**). In addition to this the Company also signed 16 PPAs with Central/State utilities with installed capacity of 26,020 MW with Odisha share of 8,519 MW in the upcoming power projects.

Audit observed that as per assessment of Company, projected demand of power for the State by 2016-17 is 6,362 MW against which the existing source of supply from the State and Central utilities is 3,828 MW. Considering PPAs signed with IPPs total availability of power to the Company for the State will be 18,968 MW. To avail such surplus power, simultaneous planning for its evacuation and utilisation is necessary. Company, however, had not planned for evacuation and utilisation of such capacity addition. Following further deficiencies were noticed in the PPAs.

Non-reservation for trading right

2.1.13 Company signed PPAs with IPPs for capacity addition of 39,010 MW with State share for 6,621 MW. Power Purchase Agreements (PPAs) signed with the IPPs did not have any stipulation for enabling Company to trade the surplus power beyond the State share. It was noticed that five IPPs had already signed agreements with other inter State power traders. Thus, absence of enabling clause in the PPAs resulted in foregoing benefit of earning potential revenue towards trading which was crucial for the Company.

Government stated that it was not appropriate to assume trading considering the present state of affairs which may not continue in future as many generators are coming up. It also added that in case of non-availability of intending buyer, the Company would have to pay fixed charges irrespective of availment of power. Even so, Company could have benefited from offers of IPPs, which were much beyond its requirement.

PPAs with ineligible IPPs

2.1.14 EA 2003 and NTP provide for determining tariff through transparent competitive bidding mechanism. NTP, however, allowed cost based tariff upto 30 September 2006 subject to fulfillment of condition of completion of financial closure by IPPs and submission of PPAs with OERC by that date. Audit noticed that to avoid competitive bidding Company executed (28 September 2006) PPAs on cost plus basis with 13 IPPs who had not completed their financial closure as per the stipulation of NTP. It further revealed that though Company sought for (December 2007) comments of the Ministry of Power (MoP) on these 13 IPPs towards exemption from competitive bidding basis, MoP in response observed that PPAs would have adverse implications on their maintainability keeping in view provision of EA 2003 and NTP. Thus Company signed PPAs on cost plus basis compromising transparency in bidding procedure.

The Company signed PPAs with ineligible IPPs on cost plus basis instead of competitive bidding basis as required under NTP

Government while accepting the audit observation stated that the PPAs were filed hurriedly to adhere to the timeline.

PPAs not in line with MoUs

2.1.15 As per MoUs with IPPs signed by DoE, the IPPs are to fulfill social obligations like employment of local people, investment in other sectors for revenue generation, promotion of ancillary and downstream industries and compensation for hydro power loss for use of water, etc. DoE also directed (September 2006) Company to sign PPAs in line with MoUs. Audit observed that Company signed PPAs without specific inclusion of the aforesaid social obligations despite instruction from DoE. Non-inclusion of these obligations with corresponding penal remedial measures against their non-performance deprived GoO from getting their social obligations/benefits and also allowed undue benefit to IPPs not paying for the cost of the commitments.

Government stated that IPPs pay for cost in shape of Electricity Duty (ED) and cess to GoO. The fact, however, remained that statutory dues like ED and cess are payable by the IPPs even otherwise. Hence, commitment towards social obligation should not have been compromised against those payments.

Fixation of entitlement of power

2.1.16 Company signed PPAs with IPPs for procurement of State share of power which was fixed at 25 *per cent* of power sent out from their plants. Consequent upon notification (August 2008) of power policy of the State, its share was reduced to 14 *per cent*. Audit observed that since plant capacity stipulated in PPAs are subject to change after placement of order for the same, entitlement of State share would be uncertain in case of low/non-generation of power by the IPPs, as discussed in **Paragraphs 2.1.20 and 2.1.21**. Thus, fixation of entitlement of power on percentage basis instead of on specific quantity would deprive the Company of sound planning for power procurement and evacuation.

Government in the Exit conference stated that the advantages of fixing a stipulated quantity would be examined in course of revision of policy.

Absence of clause against non-performance

There was no clause in the PPAs against non-performance by the IPPs

2.1.17 There was no penal clause in PPAs against non-performance by IPPs enabling Company to procure power at the cost of IPPs. Audit noticed that two IPPs, after signing PPAs with Company for power supply, backed out there from and got themselves converted to CGPs through representations to OERC since their demand for higher tariff was not acceptable to OERC. Thus, in the absence of any penal clause against their non-performance, the Company could not take any action although it lost opportunity to get 26.32 MW being 14 per cent of State share of power from them.

Government replied that IPPs are entitled to return on equity at the rate of 16.5 per cent if the project is completed in time and it gets reduced to 16 per cent in case of delay. This automatically takes care for non-performance. The reply does not address concern of IPPs not fulfilling their commitments under PPAs. It is not so much a case of completing the project in time rather than insufficiency in PPAs to address the infirmity.

Absence of transmission planning

2.1.18 Company can get power from IPPs only when there is a transmission system for evacuation of such power. Under EA 2003 only State Transmission Utilities (STU)/Central Transmission Utilities (CTU) can construct transmission lines. The Company neither made OPTCL, the STU a party to the PPAs nor initiated any transmission planning in coordination with OPTCL to avail power from IPPs. No transmission planning was made by OPTCL till September 2011 to evacuate power from IPPs when OERC directed them for the same. Transmission planning is, however, yet to be finalised (December 2013).

Absence of transmission planning for procurement of IPP power resulted in non-availment of 3,712.45 MU of power with consequential loss of revenue

Audit observed that in terms of PPA, one IPP was to make available power to the Company at the bus bar of the station connected to transmission line of STU. Instead of arranging for construction of required transmission line connecting the bus bar with transmission lines of OPTCL, the IPP was supplying about 250 MW instead of State share of 768 MW through the existing 220 KV transmission network. As a result the Company could not procure 3,712.45 MU out of the entitlement of 6,635.52 MU during 2012-13 from the IPP. Such non-availment of entitled power impacted revenue of the Company adversely which was already insufficient to meet its expenditure due to its failure to increase the same through power trading as suggested by OERC. Had the Company procured and sold 3,712.45 MU of power, it would have earned a revenue of ₹ 1,941.61 crore²⁴ so as to meet the revenue gap left by OERC while approving the ARR.

Government stated that it was not necessary to make OPTCL a party because the responsibility for constructing evacuation system lies with the transmission

²⁴ Calculated at the average earning of ₹ 5.23 per unit from trading during 2012-13

Company and the IPPs. The fact, however, remains that IPPs are required to co-ordinate with the STU for transmission of electricity generated by them (Section 10 of EA 2003) and STU is the authorised entity for such transmission activity (Section 12 of EA 2003). Hence the Company was to ensure required co-ordination between the IPP and the STU. In absence of that evacuation of IPP power could not be effected resulting in aforesaid loss (₹ 1,941.61 crore) of revenue to the Company.

Operationalisation of PPAs with IPPs

2.1.19 The Company signed PPAs with 31 IPPs between September 2006 and January 2011, of which only three²⁵ were operationalised until July 2013. Deficiencies in operationalisation of PPAs are discussed below:

Irregularity in declaration of Commercial Operation Date

2.1.20 In terms of PPAs with IPPs, electricity generated prior to commercial operation was to be considered as infirm power which would be made available to State at variable cost. As per CERC Regulation 2009, commercial operation date (COD) is the date declared by generator after demonstrating maximum continuous rating (MCR) or installed capacity through a successful trial run before the beneficiary.

Audit observed that in case of one IPP, MCR demonstration before officials of the Company from 29 October to 1 November 2010 was unsuccessful. Despite this, Company accepted COD as 10 November 2010 retrospectively pursuant to a decision taken in a meeting (11 March 2011) without mentioning any justification and treated drawal of power from the IPP as firm power from 10 November 2010. This resulted in payment of energy charges at higher rate of (₹ 2.75) instead of at the rate (₹ 1.75) as applicable for infirm power and thus incurred excess payment of ₹ 542.95 crore for 5,564.858 MU of power injected by the IPP from November 2010 to April 2013.

Acceptance of arbitrary date of commercial operation resulted in excess payment of ₹ 542.95 crore

Government stated that in event of non-declaration of COD, the IPP would not have generated power which would have caused loss to the Company in a power deficit situation. The fact remains that excess payment was made in violation of terms of PPA.

Non-safeguarding of financial interest

2.1.21 Company entered into (September 2006) PPA with one IPP for availing 25 per cent power of installed capacity (350 MWx4). In terms of PPA, the IPP was to construct a dedicated transmission line from the plant to grid substation of OPTCL. Power Purchase Agreement (PPA), however, did not have any penal provision for non-supply of power by the IPP. The plant was scheduled for commissioning by June 2011. Only one unit (350 MW), however, became commercially operational from 30 April 2013. Audit observed the following:

²⁵ Sterlite Energy Limited, GMR Kamalanga Energy Limited and Aarati Steel Limited

- The IPP did not construct dedicated transmission line for evacuation of power. This resulted in evacuation of power through Loop in Loop out arrangement with PGCIL line at higher cost by ₹ 0.35 per unit. In absence of specific clause in the PPA, on the basis of minutes of discussion, the IPP agreed to bear such charge.
- The Company in violation of NTP signed PPA with the IPP on cost plus basis instead of competitive bidding basis as discussed in **Paragraph 2.1.14**. It was, however, revealed that the IPP signed PPAs with two buyers²⁶ outside the State on competitive bidding basis, in compliance with legal requirement, for supply of power from the same plant at the rate of ₹ 2.49/₹ 3.69 per unit. Further, the IPP was claiming higher rate of ₹ 3.70 per unit from the Company on cost plus basis.
- As per PPAs with the two outside State buyers the IPP was liable to supply contracted power either from procurement outside at its cost or pay liquidated damage. Company, however, signed PPA with the IPP without any such penal clause. Though the IPP stopped generation unilaterally since 26 May 2013, in absence of any penalty clause in PPA, Company could not act upon against non-performance by the IPP for non-generation of power.

While accepting observations, Government stated that the Company would take reference of competitive bidding price during finalisation of tariff. The reply is silent as to why bidding process was not followed before signing the PPA.

Lack of transparency in procurement of power

2.1.22 DoE signed (February 2009) MoU with one IPP for installation of a 500 MW (2x250 MW) thermal power plant at Ghantikhal, Cuttack by August 2012. Contrary to this, Company signed (October 2009) PPA with the IPP as IPP with a stipulation that one unit of 50 MW out of the 500 MW plant would be commissioned by November 2009. Scrutiny of records revealed that the 50 MW unit synchronised to grid in March 2010 was actually conceived as one of its two CGP units. OERC declined (September 2011) to fix tariff for the unit as IPP since the Company was not able to furnish information of separation of IPP from CGP, details of COD etc. The Company, however, paid for power already procured at the rate of ₹ 2.43 to ₹ 2.75 to the IPP alongwith another IPP. For such power, OERC, however, fixed (September 2011) a higher rate of ₹ 3.02 per unit on the basis of cost of power procured from plants of NTPC in the Eastern Region (ER) from where power would have been sourced alternatively. Consequently, Company paid (March/April 2012) a differential extra amount of ₹ 11.85 crore on the basis of ₹ 3.02 per unit for the power already procured during March 2010 to June 2011. Subsequently, OERC ordered (April 2013) that power availed by the Company would be paid at CGP rate. However, the Company did not carry out rectification based on revised orders of OERC.

Lack of due diligence by the Company resulted in signing PPA with a CGP as IPP with consequential extra expenditure of ₹ 11.85 crore

²⁶ Bihar State Electricity Board in November 2011 and Dakshin Haryana Bijili Vitaran Nigam Ltd. in August 2008.

Thus, signing PPA with a CGP unit as IPP without inquiring into the status of the unit's commissioning schedule and treating the CGP as IPP, resulted in payment of power cost at higher rate with consequential extra expenditure of ₹ 11.85 crore.

In the Exit conference Government accepted the fact and assured better due diligence in future.

Procurement of Power from State Power Utilities

2.1.23 Company procures hydro power from Odisha Hydro Power Corporation Limited (OHPC) and thermal power from Odisha Power Generation Corporation Limited. Irregularities noticed in such procurement of power are discussed in following paragraphs.

Avoidable expenditure due to non-procurement of cheapest power

2.1.24 Among all sources of power procured by the Company, hydro power procured from OHPC is the least costly. It is, thus, imperative for Company to maximise procurement of hydro power. In this connection OERC observed (March 2008 and March 2010) while approving ARR for 2008-09 and 2010-11 that as per Merit Order Procurement Policy the cheapest power is considered first. In a shortage scenario any excess drawal by DISCOMs will force the Company to source from costly CGP sources. Based on availability of water and machines OHPC communicates generation schedules indicating quantum of power which can be supplied to the Company.

Audit scrutiny revealed that OHPC was reporting to the DoE, short generation of hydro power vis-à-vis generation schedule submitted to SLDC at the end of each fortnight due to short drawal by OPTCL/Company. In 16 months²⁷ during 2009-13 Company availed 5,699.118 MU power against the schedule of 6,964.944 MU. The shortfall quantity of 1,265.826 MU could have been availed by restricting procurement from costly CGP sources with whom the Company does not have any commitment. Company did not, therefore, comply with Merit Order Procurement Policy for procurement of cheapest power first. The rate of hydro power varied from ₹ 0.63 to ₹ 0.71 during the period 2008-13 against the average CGP power cost which varied from ₹ 2.85 to ₹ 3.27 per unit during that period and resulted in avoidable expenditure of ₹ 309.33 crore.

Non-drawal of cheaper hydro power from OHPC resulted in procurement of high cost thermal power

Government stated that due to poor hydrology there was drastic reduction in hydro generation for which the Company purchased costlier power from different sources. It is pertinent to mention here that as intimated by OHPC to the GoO there was loss of generation of hydro power due to lower off take by the Company.

²⁷ During five months of 2009-10, nine months of 2010-11 and two months of 2012-13

Power Procurement at higher cost

2.1.25 Company entered (13 August 1996) into a PPA with OPGC for procurement of thermal power from its Unit 1 and 2 with installed capacity of 210 MW each in supersession of earlier PPA (July 1991) with erstwhile OSEB for an installed capacity of 1,840 MW²⁸. The PPA excluded Unit 3 and 4 from its ambit for which some infrastructure was already developed. It also specified various parameters for determination of tariff. As per Orissa Electricity Reform (OER) Act, 1995 OERC was authorised to determine tariff and their prior consent was necessary for supply of electricity by any generator to any licensee. The PPA, however, did not include any such clause. As per the record notes of discussion (13 August 1996) between Company and OPGC, the PPA was to be placed before OERC/GoO, as required under the OER Act, 1995 and pending approval, bills would be raised by OPGC as per PPA. Company, however, filed (February 2002) the PPA belatedly with OERC after six years for determination of tariff. The delay in filing was attributable to its oversight and incorrect interpretation of the provisions of Law.

OPGC disputed such filing of PPA with OERC upholding the legal validity of the PPA. OPGC did not construct Unit-3 and 4 making the resolution of dispute relating to PPA a prerequisite (February 2003) for such construction. The Company went on paying tariff as per norms of the PPA even after enactment of the Electricity Act (EA), 2003 under which OERC was the only authority for determination of tariff. The GoO, to resolve the dispute, decided (June 2008) that all other tariff parameters, except plant load factor, would stand unchangeable till the validity of the PPA. It was also decided that OPGC would take expeditious steps for commissioning of Unit 3 and 4 in the greater interest of the State and would make half of the power generated from these units available to the Company. However, no PPA has been filed with OERC for determination of tariff so far (December 2013).

Audit observed that:

- Procurement of power from OPGC was made through PPA for which it did not have the prior consent of OERC. Further, payment was made at tariff based on parameters as per PPA without approval of OERC as was required under the OER Act. Hence, the PPA was inconsistent with Act which enabled OPGC to dispute role of OERC in tariff determination.

²⁸ Stage-I : 4 units x 210 MW and Stage-II : 2 units x 500 MW

Failure in obtaining approval of PPA from OERC resulted in procurement of power from OPGC at higher cost

- As per Section 61(d) of the EA, 2003, OERC was to determine the tariff with the consideration of safeguarding of consumers interest and recovery of cost of electricity in a reasonable manner. Due to failure in obtaining approval of PPA from OERC, the Company was reimbursing various expenses as per the norms of the PPA resulting in excess payment over the actual cost/CERC norm making the procurement costlier²⁹ during 2008-13.

Hence, by signing a PPA which was not in consistence with Law, Company incurred additional power procurement cost. Further, cheaper power was not available due to non-commissioning of Unit-3 and 4.

In Exit conference Government stated that the issue of filing of PPA with OERC for Unit 1 and 2 is being resolved.

Procurement of Power from Captive Generating Plants

2.1.26 Annual power procurement from various sources projected by the Company in its Annual Revenue Requirement (ARR) submitted to OERC included procurement of power from Captive Generating Plants (CGPs). CGPs are required to consume at least 51 *per cent* of their generation to maintain their CGP status as per Electricity Rules, 2005. Power from CGPs is available to the Company only when there is a surplus with CGPs after meeting their own consumption. This, being short term source, procurement is made by placing Letter of Intents (LoIs) in case of necessity. The following irregularities were noticed in procurement of CGP power.

Adoption of slab rates instead of flat rates

2.1.27 As per the LoIs issued (February 2011) by the Company to CGPs, firm power injected within 100 to 90 *per cent* of schedule, would be paid at a flat rate of ₹ 2.75 per unit. Anticipating fall in hydro generation during the water year³⁰ 2011-12 and on the request (October 2011) of the Company, DoE issued notifications (25 November 2011/23 July 2012) under section 11 of the EA, 2003 requiring the CGPs to maximise generation and injection to the grid. Validity of the notification was extended upto July 2012. Despite such authority to get maximum power from the CGPs, the Company issued (November 2011) revised LoIs stipulating higher slab rates ranging from ₹ 2.75 to ₹ 3.25 per unit to encourage the CGPs.

Thus, voluntary offer of higher slab rates in lieu of flat rates to CGPs led to extra expenditure of ₹ 26.78 crore in procurement of 1,138.33 MU from five³¹ CGPs during December 2011 to September 2012.

²⁹ Consumption of oil : ₹ 149 crore (PPA - ₹ 206 crore less Actual-₹ 57 crore), Incentive: ₹ 13 crore (PPA-₹ 32 crore less CERC-₹ 19 crore) and Return on Equity : ₹ 45 crore (PPA-₹ 360 crore less CERC - ₹ 315 crore)

³⁰ Period covered from July of current year to June of subsequent year.

³¹ Jindal Steel and Power Limited, Tata Sponge Iron Limited, VISA Steel Limited, Vedanta Aluminium Limited and Bhusan Steel Limited

Government stated that to attract CGPs the Company offered slab rates as fixed by OERC on an earlier occasion in November 2010 i.e. prior to the referred period. However, Company need not have adopted slab rates on its own.

Excess payment to CGP

2.1.28 CGPs are required to consume at least 51 *per cent* of their generation to maintain their CGP status. Loss of such status would deprive CGPs of incentives like exemption from electricity duty and higher rate of tariff for CGPs. OERC in its tariff order (November 2010) for the year 2010-11, clarified that CGPs who lost their CGP status would be paid at the weighted average price of Eastern Region, NTPC. Accordingly, Company calculated bill for one CGP unit for the year 2010-11 who lost CGP status. The CGP, however, filed petition with OERC for payment at rates applicable for CGPs with the contention that they injected more power to State grid as per demand of Company for which their own consumption was below 51 *per cent* with consequential loss of CGP status. Company submitted (September 2011) that it did not request the CGP to inject surplus power by losing CGP status. OERC, however, ordered (September 2011) that the CGP be paid at the rate for CGPs.

Company filed (December 2011) a review petition thereagainst and submitted before OERC that it had not requested any CGP to maximise their generation during 2010-11. In the mean time, the CGP submitted (October 2011) to the GoO that since they lost CGP status at the insistence of Company to inject more power to State grid, their CGP status should be restored treating such injection as deemed consumption. Thereupon, the Company instead of maintaining its earlier stand, submitted before GoO that power was received to meet a deficit situation. Consequently, GoO issued a notification (April 2012) that supply to Company would be treated as self consumption of the CGP. OERC while disposing of the review petition of Company directed (November 2012) to settle the bills of the CGP at the rate for CGPs, referring to the notification of the GoO.

Submission of facts before scrutiny/inconsistency in submission by the Company before GoO resulted in excess payment to one CGP

Audit observed that on one hand the Company submitted before OERC that it never requested the CGP for maximum injection by losing its CGP status, on the other hand it submitted before GoO that the power was received to meet a deficit situation. Submission of inconsistent stands by the Company before GoO resulted in extra expenditure of ₹ 58.23 crore besides non-collection of electricity duty of ₹ 32.96 crore.

Government stated that extra payment to the CGP was in accordance with the orders of OERC. However, Company failed to maintain its earlier defence before OERC while submitting case before GoO.

Improper calculation of power rate

2.1.29 As per order of OERC (November 2010), captive generators who lost their status as CGP during 2010-11 due to less consumption of power for

captive use were to be paid by the Company at weighted average price of NTPC (ER) power stations for power supplied to the Company. The Company was procuring power from CGPs at the rate of ₹ 2.75 per unit during 2010-11. Audit, however, noticed that six CGPs who lost their CGP status during 2010-11 were also paid at the rate of ₹ 2.75 per unit instead of weighted average rate of NTPC (ER) power i.e. ₹ 2.33 per unit applicable during 2010-11. Such payment at ₹ 2.75 per unit resulted in extra expenditure of ₹ 51.35 crore in procurement of 1,242.65 MU power. This also indicated lack of internal control in the Company.

Government stated that as per observation of Audit, a clarification to this effect would be sought from OERC based on which revision would be made, if required.

Purchase of Power from Renewable Energy Sources

2.1.30 Sources of renewable energy comprises solar energy, non-solar energy and co-generation. Bio mass and small hydro are non-solar energy sources.

Procurement of renewable energy below the target

2.1.31 Under section 61(h) and 86(1)(e) of EA 2003, State Electricity Commission shall promote co-generation and generation of electricity from renewable sources of energy and shall also specify percentage of purchase of electricity from such sources as a percentage of total consumption of the State. In case, actual purchase from renewable sources falls below specified percentage, obligated entities are required to purchase Renewable Energy Certificates (RECs) at higher cost.

Audit observed that Company could not achieve the target set for procurement of power from renewable sources during 2011-13 leading to procurement of REC worth ₹ 78.34 crore vide details furnished below:

Renewable source	Target for procurement during 2011-13 (MU)	Actual procurement during 2011-13 (MU)	Shortfall in procurement (MU)	Amount of REC to be procured for shortfall (₹ in crore)
Solar	52	12	40	43.34
Non-Solar	291 (for 2012-13 only)	272 (for 2012-13 only)	19	2.66
Cogeneration	821 (for 2012-13 only)	588 (for 2012-13 only)	233	32.34
Total	1,164	874	292	78.34

Company failed to meet the target for procurement of renewable power leading to a statutory liability of ₹ 78.34 crore

The reason for non-procurement was largely attributable to non-availability of renewable power in the State. Company neither attempted to incentivise procurement of power from renewable sources nor brought this to the notice of OERC for suitable consideration. Consequently, it incurred a statutory liability of ₹ 78.34 crore during 2011-13.

Non-availment of Generation Based Incentive

2.1.32 In order to develop Solar potential in India, Ministry of New and Renewable Energy introduced (June 2010) Generation Based Incentive (GBI) under “Roof top PV and Small Solar Power Generation Programme”. Generation Based Incentive was the differential of CERC tariff for such power and a base rate thereof at ₹ 5.50 per unit escalated at 3 per cent per annum. Under the scheme, Company entered into (April 2011) an MoU with Indian Renewable Energy Development Agency Ltd (IREDA) for disbursement of GBI. Though Company paid the power cost at ₹ 18.52 per unit as per the tariff of OERC, it did not lodge claim of ₹ 7.55 crore with IREDA towards GBI for the period from September 2012 to March 2013 so far (December 2013) for reason not on record. In addition, it sustained interest loss of ₹ 0.35 crore.

Government stated that after necessary deliberation on the matter, GBI claims would be sent to IREDA.

Avoidable payment for bio mass power

2.1.33 Company was procuring bio mass power from one generator from December 2011 in terms of PPA (December 2010). As per PPA, the generator was required to furnish details of usage of biomass fuel monthly in order to get preferential tariff of ₹ 4.80 per unit failing which they would be paid at average cost of NTPC generating stations. However, the generator did not furnish the same. Despite their failure, Company made payment at preferential rate instead of average cost of NTPC power (₹ 2.73 per unit) in violation of PPA. This resulted in avoidable payment of ₹ 5.68 crore on procurement of 27.419 MU power during April to August 2012.

Government stated that the Company would file a petition in OERC for clarification regarding payment of energy charges.

Sale of Power

2.1.34 Company sells power mainly to DISCOMs under bulk supply agreements. Besides it also sells available surplus power through IEX and bilateral trading. The following table indicates the year wise status of revenue requirement, realisation and gap during the five years ending March 2013.

(₹ In crore)

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
Revenue Requirement					
Power purchase cost	2,351.75	2,923.80	3,666.85	4,940.30	5,691.02
A&G and employees cost	5.74	6.83	8.38	7.04	8.02

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
Interest on loan	127.72	101.62	194.69	326.64	414.49
Past power purchase dues	0	89.53	4.89	8.28	199.93
Arrear Fuel Price Adjustment	0	0	0	311.56	107.03
Others	1.32	1.32	1.32	1.32	1.42
Carry forward loss	0	0	366.31	421.78	597.73
Total	2,486.53	3,123.10	4,242.44	6,016.92	7,019.64
Revenue realisation					
BST Bill	2,152.23	2,312.11	3,431.19	5,206.87	6,250.06
Past dues from DISCOMs	219.83	170	0	0	0
Past dues from outside States	16.24	0	0	0	0
Other receipts	3.3	3.3	5.1	64	69
Total	2,391.6	2,485.41	3,436.29	5,270.87	6,319.06
Revenue Gap	94.93	637.69	806.15	746.05	700.58
Loan repayment liability not allowed	315.12	245.16	366.31	421.78	1,580.66
Total of revenue gap & loan repayment liability not allowed	410.05	882.85	1,172.46	1,167.83	2,281.24
Revenue realised through trading					
Revenue from interstate sale of surplus power	4.11	5.44	0	0	420.18
Revenue from sale of surplus power (IEX)	19.81	0.78	32.04	15.82	
Total	23.92	6.22	32.04	15.82	420.18

(Source: Annual Tariff Orders of OERC)

As may be observed from table above that OERC while approving ARR did not allow entire expenditure and loan repayment liability ranging from ₹ 410.05 crore (2008-09) to ₹ 2,281.24 crore (2012-13) to avoid hike in consumer tariff and directed to bridge the gap by earning from trading of power, Unscheduled Interchange (UI) charges, recovery of arrears from DISCOMs and subvention from Government.

Audit observed that the Government has not given any subvention to the Company. Revenue from UI charges cannot be planned as it is recovered only when some generators inject power to the grid without schedule. Regarding recovery of arrears from DISCOMs, Company was not successful as discussed in **Paragraphs 2.1.36 to 2.1.39**. Hence the only recourse available to Company was earning from trading of power. During five years ended March 2013 Company realised only ₹ 498.18 crore against revenue gap and loan repayment liability of ₹ 5,914.43 crore through trading, leading to loss of ₹ 5,416.25 crore. However, the Company did not submit the matter for further consideration of OERC.

Government stated that though Company applied for higher amount of ARR to meet its requirement, OERC approved the same on lower side to keep tariff low. Reply, however, was silent on measures to bridge the revenue gap and reduction in loan liability.

Financial Management

2.1.35 Financial Management serves as tool for optimum utilisation of available resources and borrowings at favourable terms at appropriate time. Main source of funds of Company was realisation from sale of power which was mainly utilised to meet the cost of power procurement.

Irregularities in billing and realisation of dues

2.1.36 Company raises monthly energy bills to DISCOMs at rate approved by OERC with a stipulation for payment either through Letter of Credit (LC) or in cash. Rebate is allowed for payment within one month and Delayed Payment Surcharge (DPS) is levied on arrear dues. Year wise energy bills raised along with the rebate allowed and DPS charged *vis-a-vis* amount realised during the five years ending 2012-13 is detailed below:

(₹ in crore)

Year	Opening Balance	Amount of bills raised	Rebate	DPS charged	Total amount to be realised	Total amount received during the year	Amount Outstanding
1	2	3	4	5	6(2+3-4)	7	8(6-7)
2008-09	967.69	2,278.64	35.85	171.81	3,210.48	2,278.26	932.22
2009-10	932.22	2,363.80	37.85	53.34	3,258.17	2,315.45	942.72
2010-11	942.72	4,077.36	20.79	74.12	4,999.29	3,432.14	1,567.15
2011-12	1,567.15	5,304.67	36.48	156.66	6,835.34	4,313.77	2,521.57
2012-13	2,521.57	5,376.93	24.43	250.86	7,874.07	4,501.78	3,372.29
Total	6,931.35	19,401.39	155.40	706.80	26,177.35	16,841.40	

(Source: Energy bill files of the Company)

Company allowed rebate of ₹ 155.40 crore to DISCOMs despite non-recovery of DPS on outstanding dues

In all five years, DISCOMs did not pay entire amount billed. This resulted in accumulation of outstanding amounting to ₹ 3,372.29 crore as of March 2013. Though the Company allowed rebate of ₹ 155.40 crore for early payment by DISCOMs, it did not realise DPS on outstanding dues from DISCOMs amounting to ₹ 706.80 crore which resulted in extension of undue benefit to them.

Government stated that rebate is allowed as incentive to DISCOMs to pay at least current dues and it is difficult to disconnect power for non-payment of bills. The reply raises extra contractual issues. The fact, however, remains that contractual stipulations are violated in billing and realisation of dues.

Securitisation of outstanding dues

2.1.37 As DISCOMs had defaulted in payment of energy dues, OERC finalised the dues of ₹ 2,862.20 crore as on 31 March 2005 for securitisation with direction for repayment in 120 equal monthly installments starting from 2006-07. Details of realisation thereagainst are as follows:

(₹ in crore)

Particulars	Amount
Securitisation dues as on 31 March 2005	2,862.20
Collected/adjustment against securitised dues as on 31 March 2008	329.55
Outstanding as on 1 April 2008	2,532.65
Due for payment during 2008-13	1,431.60
Actual realisation during 2008-13	195.52
Net outstanding amount as of 31 March 2013	1,236.08

(Source: Tariff order for 2013-14)

As may be observed from table above despite OERC's direction, DISCOMs defaulted in payment of monthly installments which accumulated to ₹ 1,236.08 crore as on March 2013. Although Company was apprising OERC of the facts, it failed to effectively operate the escrow mechanism to recover the same.

Government stated that due to inadequate revenue of DISCOMs, no amount was available with them for securitised dues after adjustment of monthly Bulk Supply Tariff (BST) dues. However, Audit noticed following irregularities in operation of escrow arrangement.

Irregularities in operation of Escrow Account with DISCOMs

2.1.38 Company entered into (August 2000) Escrow arrangement with DISCOMs and Union Bank of India (UBI) to secure payment of bulk supply bills, in terms of which UBI was to open LC in favour of Company on annual basis and Company was entitled to recover its dues through LCs.

Audit scrutiny revealed that despite Escrow agreement as well as direction of OERC to that effect, no LC was opened so far (December 2013). Further, though DISCOMs failed to pay their monthly BST dues fully during 2008-13, Company allowed Escrow relaxation to them by which they could utilise their revenue for payment of their employees cost and Repair & Maintenance dues even before payment of BST dues in violation of the OERC orders for prioritising recovery of BST dues. This resulted in non-realisation of BST dues of ₹ 3,372.29 crore as of March 2013.

While accepting audit observations, the Government stated that despite repeated follow up, DISCOMs did not respond and relaxations were allowed to them as per orders of OERC. However, OERC stipulated for prioritising the recovery of BST dues. Further, while approving ARR for 2013-14, OERC observed that any such relaxation would be borne by Company and no recovery would be allowed in tariff.

Non-recovery of interest from DISCOMs

2.1.39 Consequent upon default in payment of energy bills towards NTPC power by DISCOMs during April 1999 to August 2000 and as decided by Company, DISCOMs issued (October 2000) power bonds of ₹ 400 crore in favour of Company which were reassigned (March 2001) to NTPC. The bonds

Inability of the Company to enforce the escrow mechanism to recover its dues resulted in accumulation of huge outstanding

carrying interest at 12.50 *per cent* were to be redeemed within seven years i.e., by October 2007.

Subsequently, due to default in payment of interest and redemption of the bonds by DISCOMs and consequential claim of NTPC, the Company in order to restore power supply by NTPC, settled (March 2007) bond liability at ₹ 603.50 crore including interest and approached OERC. Odisha Electricity Regulatory Commission directed (February 2012) the DISCOMs to pay ₹ 308.45 crore³² to settle the issue and further directed (March 2012) DISCOMs to pay ₹ 100 crore by April 2012 and balance by March 2013 with a stipulation for monthly payment of not less than ₹ 10 crore from May 2012 and simple interest at 8.5 *per cent per annum* on balance amount of ₹ 208.45 crore on reduced amount on monthly basis. It also stipulated that the arrangement would be treated as non-existing for any violation of these conditions.

Audit observed that three DISCOMs paid ₹ 110 crore to the Company up to May 2012 and defaulted in paying ₹ 10 crore per month from June 2012 leaving a balance amount of ₹ 198.45 crore as of July 2013 which was to be liquidated by March 2013 along with interest of ₹ 14.06 crore. Though orders of OERC became (June 2012) non-existing, the Company did not take any action so far for realisation of its dues.

Government stated that an affidavit has been filed (November 2013) before OERC to give suitable orders to DISCOMs for payment of the aforesaid dues.

Implementation of Capital Expenditure Programme

2.1.40 With a view to providing quality power at a stable voltage, strengthening the dilapidated distribution network, reducing high AT&C loss etc. the GoO notified (21 October 2010) Capital Expenditure (CAPEX) programme for the DISCOMs. Under the notification, the Company was to act as “Nodal Agency” for implementation of the programme, co-ordinate with the Department of Finance, GoO, DISCOMs and the Monitoring Committee. The Monitoring Committee was to meet as frequently as required or at least once in a month and take stock of progress of work and sort out the bottlenecks in implementing the programme. The main focus of the CAPEX programme was to control AT&C loss through system improvement with annual target of 3 *per cent* reduction of such loss during the programme implementation period of 2010-14. On that basis the investment proposal was considered feasible as each one *per cent* reduction in AT&C loss would mean additional generation of about ₹ 50 crore revenue per annum. The programme envisaged an investment proposal of ₹ 2,400 crore in power distribution sector, comprising State budgetary support of ₹ 1,200 crore being loan to Company for on-lending to DISCOMs and counterpart funding of ₹ 1,200 crore by DISCOMs.

³² ₹ 603.50 crore less ₹ 295.05 crore (₹ 110.80 crore being the interest paid directly to NTPC plus ₹ 184.25 crore towards adjustment of excess BST dues paid to the Company during 2005-09)

Audit noticed that the GoO had contributed ₹ 555.83 crore up to 2012-13 against the target for ₹ 600 crore of which ₹ 105.08 crore was spent towards procurement of materials without any execution and the remaining amount of ₹ 450.75 crore was lying idle with the Company. DISCOMs did not contribute any amount against stipulated ₹ 483.33 crore.

Achievement of Company as nodal agency for implementation of project was analysed in audit which *interalia* revealed the following.

Regarding monitoring of physical progress the Monitoring Committee did not meet monthly as required under the programme and there were instances of meetings once in three months. Scrutiny of minutes of meeting of Monitoring Committee revealed that the pace of placement of orders by the DISCOMs was very slow. The DISCOMs failed to submit their compliance report on the ring fencing and metering arrangement at various import and export points of project as stipulated by GRIDCO. It was very important to assess reduction in AT&C loss by detecting power theft. Despite the directions (September 2012) of GoO, Company did not put in place a web-based monitoring system to monitor its physical and financial progress.

Thus, ineffective implementation of CAPEX programme by Company led to tardy achievement of the envisaged benefit towards additional revenue generation of about ₹ 150 crore as of 2012-13 by reduction in AT&C loss.

Government stated that span of the programme has been revised to 2011-16 and its results will be assessed as per orders of Government.

Power Trading through Indian Energy Exchange (IEX)

2.1.41 Company was doing power trading through IEX for which it had to submit day ahead bids with necessary data collected from SLDC and to quote maximum price. Prompt decision making for quantity and rate of power was a prerequisite. Besides, an effective arrangement needs to be in place clearly indicating who can take decision for how much quantity and at what price.

Test check of records revealed that due to late arrival of monsoon, Company assessed peak (1,000 MW)/Round the Clock (RTC) shortage of power (400 MW) and proposed (2 July 2009) to procure 200 MW through IEX at a price of ₹ 2.80 to ₹ 3.00 per unit. Due to belated submission (17 September 2009) of bid at a price of ₹ 2.50 per unit (on the basis of IEX price prevailing between 03 to 08 September 2009) and clearing price exceeding the quoted price, the Company could not procure power through IEX. This resulted in procurement of CGP power at a higher cost (₹ 3.00 to ₹ 3.10 per unit) during July to September 2009 with consequential loss of revenue of ₹ 36.96 crore³³.

Government stated that procurement of power from CGPs and from IEX are not comparable, because the former is decided for a period while the latter on day ahead basis. However, to meet the shortage the Company was constrained

Power trading in IEX was done without a proper policy framework rendering it ineffective

³³ 77 days (1st July 15 September 2009) x 400MW x 24Hrs x 1000 x 0.50 (CGP Power ₹ 3-IEX Price ₹ 2.50) = ₹ 36.96 Crore.

to procure CGP power at higher cost which could have been avoided by timely decision for procurement from IEX. Government stated that a policy for power trading is under active consideration.

Bilateral Power Trading

2.1.42 The Company was engaged in short term power trading within the State boundary through inter-state power traders as a consequence of not having its own inter State trading licence. Company through tender negotiation with inter-state traders enters into agreements for sale of surplus power, if any, with agreed terms and conditions. Scrutiny of records revealed that such trading was not effective as discussed below:-

- Considering availability of hydro power from OHPC, Company proposed (4 March 2011) bilateral trading of 150 MW power during March/April 2011 and issued (7 March 2011) tender notice inviting price bid from interested buyers. The tender, however, was cancelled due to participation of only two bidders. This resulted in non-availment of 94.644 MU of hydro power for trading and Company sustained a revenue loss of ₹ 31.80 crore³⁴.

Government stated that tender was cancelled as top management decided to stop generation and wait for better opportunity to realise higher revenue in future and however, added that a policy framework would be put in place.

- Assessing surplus hydro power (395 MW) during September and October 2012, Company invited (August 2012) tender and issued (September 2012) LoI in favour of a single bidder for sale of power at ₹ 4.40 per unit only during September 2012 assuming that IEX price would be higher during October 2012 and Company would get a still better price. Company, however, without going for retendering in October 2012 charged the same price of ₹ 4.40 per unit for October 2012 when the IEX price was between ₹ 4.70 to ₹ 6.00 per unit. This resulted in sale of 132 MU in October 2012 to the earlier bidder at a minimum lower price of ₹ 0.30 (₹ 4.70-₹ 4.40) per unit and Company could not reap an additional revenue of ₹ 3.96 crore due to non-tendering for sale in October 2012 as envisaged earlier.

Government stated that sale of power on firm basis cannot be compared with sale of power on day ahead basis at the IEX. However, there was inconsistency in Company's approach since here it accepted a single bid whereas earlier (April 2011) it had cancelled the tender due to only two bidders being in the fray.

Man Power Management

2.1.43 Consequent on transfer (April 2005) of transmission activities of the Company to OPTCL along with its man power, 78 employees engaged in

³⁴ Bilateral price : 94.644 MU x 10,00,000 x {₹ 4.00 (IEX Price : ₹ 3 + ₹ 1) less cost of hydro power (₹ 0.64)} = ₹ 31.80 crore

power trading were identified and were placed (April 2007) on deputation from OPTCL as a temporary arrangement pending finalisation of organisational structure. Company had only two³⁵ employees of its own and the others are on deputation having no executive authority. Even the CMD and the Director (Finance) were on additional charge.

Company was running without formal organisation structure and delegation of power

Company engaged (April 2008) Administrative Staff College of India (ASCI), Hyderabad for assessing manpower requirement and its organisational structure along with delegation of power. Administrative Staff College of India submitted (July 2008) their draft report indicating requirement of more employees. However, no action was taken on their recommendations so far (December 2013). CMD would be functioning on the basis of various Government orders, circulars, etc. till delegation of power to different officials is finalised.

Government stated that ASCI report along with the suggestions of the Directors thereon is being presented to the Board. The reply, however, was silent on the reasons for delay in consideration of the matter.

Information Technology Issues

2.1.44 According to NEP 2005, modern Information Technology (IT) systems should be implemented by power utilities on priority basis, after considering cost and benefits in important areas like load management, correct billing and collection etc. As per MoU with DoE, Company aims at leveraging IT to increase efficiency in all spheres.

Company is yet to bring IT solutions in important areas like load management and online accessing of metering data

Audit noticed that Company does not have any IT wing to take care of its IT requirement and provide solution thereto. In absence of online accessing of metering data from all over the State, bills are prepared after physical transfer of such data to Energy Billing Center requiring more time for preparation. Though OPTCL took up (July 2006) an ERP project in an integrated manner including Company with scheduled completion by 29 March 2011, project is yet to be completed (December 2013).

Thus, Company failed to comply with relevant policy guidelines and instructions for IT users.

Government stated that IT applications at tactical and strategic level for energy commercials for Company would be taken up as part of next stage IT initiatives.

Monitoring

2.1.45 An effective monitoring mechanism is a pre-requisite for ensuring physical/financial progress as well as timely completion of projects. OERC directed (September 2011) that status of all IPPs should be reviewed by Secretary, DoE and Chief Secretary once in every month and quarterly

³⁵ Assistant Company Secretary and Director (Commercial)

respectively. It was noticed that only one such review was done (July 2012) by Secretary, DoE and none by Chief Secretary until July 2013.

Internal Control

2.1.46 Internal control system is an essential part of the management control system. An efficient and effective internal control system helps Management to achieve organisational objectives efficiently and effectively. Following deficiencies were noticed in internal control system being followed by the Company.

- Improper calculation of rate of power procured from CGPs resulted in incurring extra expenditure of ₹ 51.35 crore as discussed in **Paragraph 2.1.29**.
- The Company could not procure cheaper hydro power due to delayed decision making.
- Delegation of powers along with organisational structure has not been finalised so far.
- The Company delayed in raising claims for its entitlement towards GBI despite payment of higher cost for procurement of renewable energy as discussed in **Paragraph 2.1.32**.

Government stated that the IT system would take care of all commercial activities and ensure timely discharge of obligation.

Internal Audit

2.1.47 Company did not have its own Internal Audit (IA) wing. IA was being carried out by Chartered Accountant firm. The Auditor was required to submit the report on quarterly basis and after suitable compliance to internal audit observations it was to be placed before the audit committee for review and taking necessary action.

Audit noticed that the said reports were submitted after a lapse of one month to six months by Auditors. Matter of delayed reports was not discussed in audit committee meetings.

Government stated that action would be taken for timely conduct of internal audit.

Acknowledgement

Audit acknowledge the co-operation and assistance extended by GoO, Management and staff of the Company at various stages of conducting the Performance Audit.

Conclusion

- **Company neither prepared corporate plan in terms of the MoU with DoE nor the business plan as required under the Regulations of OERC.**
- **Company failed to execute PPAs with the IPPs through competitive bidding route in compliance with the legal framework and their operationalisation was ineffective resulting in excess expenditure of ₹ 554.80 crore. Further, there was absence of safety clause in the PPAs against non-performance of the IPPs.**
- **Company's failure in realisation of power dues from DISCOMs resulted in accumulation of dues of ₹ 3,372.29 crore necessitating Company's borrowing ₹ 4,505.22 crore as of March 2013 for payment to generators.**
- **Company allowed rebate of ₹ 155.40 crore during 2008-13 to DISCOMs despite accumulation of Delayed Payment Surcharge (₹ 706.80 crore) against arrear dues.**
- **Delay in decision for procurement and sale of power resulted in loss of revenue of ₹ 72.72 crore.**
- **Monitoring and Internal control mechanism was found to be ineffective in the Company.**

Recommendations

The Company may consider the following.

- **Prepare corporate plan as well as the business plan for achieving its long term goals/objectives and to submit the ARR with a current picture of demand and supply of power.**
- **Operationalise the PPAs effectively safeguarding its financial interest.**
- **Streamline its power trading activities with adequate policy frame work.**
- **Enforce the escrow mechanism to recover its dues from DISCOMs to avoid borrowings.**
- **Strengthen its internal control mechanism.**

2.2 The Industrial Development Corporation of Odisha Limited, IDCOL Kalinga Iron Works Limited and IDCOL Ferro Chrome and Alloys Limited

Activities of The Industrial Development Corporation of Odisha Limited and its two subsidiaries viz. IDCOL Kalinga Iron Works Limited (IKIWL) & IDCOL Ferro Chrome and Alloys Limited (IFCAL)

Executive Summary

IDCOL was incorporated as a wholly owned Government Company in March 1962 to promote industrial development of Odisha and to carry out mining, buying and selling of mineral products. Though IDCOL established 13 subsidiaries and one joint venture (JV) company during 1963-98, 10 subsidiaries and the JV Company were hived off during 1993-2010 due to heavy losses. Balance three are working, of which IKIWL is engaged in mining of iron ore and production of pig iron and spun pipe while IFCAL is engaged in production of chrome based products like HCFC. Functions of IDCOL are now limited to mining of chrome ore and overseeing activities of three subsidiaries.

Modernisation/expansion of IKIWL & IFCAL

Pig iron plant of IKIWL and ferro chrome plant of IFCAL were established in 1963 and 1969 respectively and are running with old technology. IDCOL could neither inject funds nor carry out modernisation and expansion to utilise mineral resources and make them competitive. Disinvestment proposal initiated in October 2005 is yet to materialise.

Exploration of minerals

Due to delayed action by IDCOL to obtain environmental and forest clearance, mining lease obtained for Tailangi B mines from GoO remains unoperated. This has resulted in scarcity of chrome ore for IFCAL with consequent loss of production and productivity of plant, higher consumption of raw material and fines, utilisation of

chrome concentrate in place of ore. Deficient monitoring of raising contracts and despatch plan by IDCOL, IKIWL and IFCAL resulted in loss of ₹47.09 crore. Besides, GoO imposed penalty of ₹222.63 crore for operation of Tailangi A mines without obtaining EC till April 2010.

Production and sale of finished products

Capacity utilisation at IKIWL was only 27 per cent while at IFCAL it was 82 per cent. Due to low plant availability, lower production and productivity and high cost of operation, IKIWL and IFCAL sustained loss of ₹65.75 crore and ₹68.14 crore respectively. Likewise, due to deficient sale procedure, incorrect sales decisions and inadequate monitoring, sales realisation could not be maximised and there was accumulation of inventory.

Monitoring and Internal Control

Monitoring mechanism was not adequate. Audit Committees have not met as per norms and did not review internal control system and internal audit reports. Internal audit was not conducted regularly.

Conclusion and Recommendation

IDCOL needed to expand/modernise existing plants of its subsidiaries to optimise use of mineral resources. Use of inferior quality raw material, higher cost of sales and lower sales realisation increased its loss. Sales activities of IKIWL and IFCAL were not commensurate with production activities and did not adequately address market

demand. Performance Audit contains four recommendations to improve performance of Companies which include expansion/modernisation of existing industries as per mandate; optimise utilisation of mineral resources;

reduction in cost of production of finished products; and strengthening internal control and monitoring mechanism.

Introduction

2.2.1 The Industrial Development Corporation of Odisha Limited (IDCOL) was incorporated (29 March 1962) as a wholly owned Government Company with primary objectives to promote and establish industries, promote and operate schemes for industrial development of Odisha and carry out all kinds of exploration including buying and selling of mineral products.

IDCOL established/promoted 13³⁶ subsidiaries and one³⁷ joint venture (JV) company during 1963 to 1998 out of which 10 subsidiaries and the JV Company were liquidated/disinvested during 1993-94 to 2009-10. Remaining three subsidiaries viz. IDCOL Kalinga Iron Works Limited (IKIWL), IDCOL Ferro Chrome and Alloys Limited (IFCAL) and IDCOL Software Limited (ISL) are carrying out their business.

IKIWL and IFCAL were both incorporated on 26 March 1999 as IDCOL's wholly owned subsidiaries. Primary objective of IKIWL is to produce, buy, sell, export and import iron, steel and raw materials used in iron and steel production. Main objective of IFCAL is to manufacture, buy, sell and export all kind of chrome based products.

Presently activities of IDCOL are confined to operation of a chrome ore mine and to oversee functioning of three working subsidiaries. While IKIWL is engaged in operation of its iron ore mines, production/sale of pig iron/spun pipe, IFCAL is engaged in production and sale of high carbon ferrochrome after obtaining chrome ore from IDCOL.

Organisational Set up

2.2.2 Management of IDCOL is vested in a Board of Directors (BoD) consisting of nine Directors including Chairman-cum-Managing Director (CMD). CMD being the Chief Executive of IDCOL looks after day-to-day operation. Subsidiaries are managed by their respective BoD and Managing Directors. These Companies are under the administrative control of Industries Department of Government of Odisha (GoO).

³⁶ ABS Spinning Orissa Limited, East Coast Breweries and Distilleries Limited, East Coast Salt and Chemicals Limited, Hirakud Industrial Works Limited, Hira Steel and Alloys Limited, IDCOL Cement Limited, IDCOL Ferro Chrome & Alloys Limited, IDCOL Kalinga Iron Works Limited, IDCOL Piping and Engineering Works Limited, IDCOL Rolling Mills Limited, IDCOL Software Limited, Konark Jute Limited and ORICHEM Limited

³⁷ S N Corporation Limited

Scope of Audit

2.2.3 Performance Audit conducted during March to July 2013 covers activities of IDCOL and its two subsidiaries, IKIWL and IFCAL for five years ended 31 March 2013. Audit findings are based on test check of records at head offices of these companies.

Audit Objectives

2.2.4 Performance Audit of activities of IDCOL and its two subsidiary Companies was conducted to assess whether:

- Plans for setting up and modernisation/expansion of the existing units were formulated to promote industrial units ensuring optimum utilisation of available resources with IDCOL and in line with policy of Government;
- Exploration, identification, raising and utilisation of mineral resources was planned and executed economically and efficiently adhering to rules and environmental regulations;
- Fixation of targets by IKIWL and IFCAL for production and sale of pig iron and high carbon ferrochrome was based on installed capacity, availability of raw materials and other resources, market demand for product and resources available to achieve the same in an effective manner; and
- Internal control mechanism and monitoring system were effective and commensurate with the size and operations of the Companies.

Audit criteria

2.2.5 Audit criteria adopted for assessing achievement of audit objectives were drawn from the following:

- Industrial Policy Resolution 2007 of GoO including papers relating to Cabinet decision on restructuring and disinvestment of State Public Sector Undertakings and other orders/manuals issued by GoI/GoO;
- Acts and Rules governing operation of mines and plants including guidelines and circulars of various statutory authorities;
- Annual budget and long term perspective plans of Companies;
- Companies Act, 1956, Memorandum and Article of Association of the Companies, Memorandum of Understanding (MoU) signed by Companies with GoO and Corporate Governance Manual;
- Installed capacity, production and consumption parameters set for plants as per Original Equipment Manufacturers (OEM) and plant design and industry standard; and
- Procurement policy of GoO/Companies.

Audit methodology

2.2.6 For purpose of collection of data and gathering evidence, following methodologies were adopted:

- Examination of minutes and agenda papers of meetings of the Board of Directors, budgets, targets, consumption of raw materials and other inputs and production of finished goods;
- Examination of records, reports, documents etc. related to the activities of the Companies; and
- Issue of Audit queries and interaction with the Managements.

Financial Position and Working Results

2.2.7 Financial position and working results of IDCOL, IFCAL and IKIWL for the five years ended 2012-13 are given in **Annexure 10**.

From financial position and working results audit observed the following:

- During 2008-13 IDCOL earned profit in all the years except 2011-12 when it incurred loss of ₹ 1.84 crore. Loss was due to transfer (April 2009) of iron ore mine to IKIWL and stoppage of production and sale of chrome ore on account of statutory violations and consequent restrictions imposed by GoO as discussed in **Paragraph 2.2.10**. Net Worth and Reserves and Surplus which were increasing up to 2010-11 reduced from ₹ 94.54 crore and ₹ 37.42 crore to ₹ 92.70 crore and ₹ 35.58 crore respectively in 2011-12 due to incurring loss. This again increased to ₹ 100.22 crore and ₹ 43.10 crore in 2012-13 due to earning profit. Increase in investment from ₹ 65.36 crore in 2008-09 to ₹ 140.36 crore in 2012-13 was mainly due to conversion of Loans and Advances of ₹ 75 crore extended to IKIWL to Share Capital.
- During 2008-13 IKIWL incurred losses in all years except for 2012-13. Profit for 2012-13 was mainly due to increase in turnover from sale of iron ore. Accumulated losses were ₹ 103.82 crore as of March 2013 mainly due to higher cost of production as discussed in **Paragraphs 2.2.26 to 2.2.37**. This resulted in decrease in net worth from ₹ 23.71 crore in 2008-09 to ₹ 16.28 crore in 2012-13.
- During 2008-13 IFCAL earned profit in all five years which accumulated to ₹ 34.53 crore as on 31 March 2013. This resulted in increase in its net worth from ₹ 39.48 crore in 2008-09 to ₹ 53.34 crore in 2012-13. Profit, however, fluctuated from year to year ranging from ₹ 0.62 crore to ₹ 14.96 crore. Decrease in profit during 2009-10, 2011-12 and 2012-13 was mainly due to settlement of arrear energy charges (₹ 14.28 crore) and increase in cost of production in procurement of chrome ore from market and use of concentrate in absence of availability of captive ore as discussed in **Paragraphs 2.2.12, 2.2.40 and 2.2.42**.

Management confirmed (December 2013) the facts and figures.

Audit Findings

2.2.8 Audit objectives, criteria, scope and methodology were shared with the Companies during Entry conference held in May 2013. Subsequently, audit findings were reported (October 2013) to the Companies and State Government and discussed in Exit conference held in January 2014. Entry and Exit Conferences were attended by Principal Secretary, Industries Department who is also the CMD of IDCOL and MDs of subsidiaries. Management/Government also furnished (December 2013) replies to audit findings. The views expressed by the Management/Government in Exit conference and replies furnished were considered while finalising this report. Audit findings are discussed in subsequent paragraphs.

Planning and Performance

Planning for setting up new industries and modernisation and expansion of existing units

2.2.9 Primary objective of IDCOL was to set up new industries and carry out modernisation/expansion of existing units for which it entered into MoUs annually with Administrative Department specifying activities to be undertaken in compliance with the objectives. Since its inception, IDCOL promoted 13 subsidiaries and one JV Company out of which 10 subsidiaries and one JV Company were disinvested/sold during the period 1993-94 to 2009-10. In seven subsidiaries, IDCOL could not recover its investment and sustained loss of ₹ 140.71 crore due to recovery of ₹ 206.73 crore only against investment of ₹ 347.44 crore towards Share Capital and Loans and Advances. Committee on Public Undertakings (COPU) in its fourth report of Twelfth Assembly recommended (March 2001) disinvestment of the subsidiaries quickly. Though disinvestment proposal was initiated in October 2005, disinvestment of IFCAL and IKIWL has not been carried out so far.

IDCOL appointed (August 2007) MECON at a cost of ₹ 0.57 crore, as consultant to prepare perspective plan for carrying out expansion programme of IFCAL and IKIWL. They submitted perspective plan report in March 2009 but the recommendations were not implemented as required funds could not be arranged by IDCOL due to depressed market condition. IDCOL, however, proposed to Government in June 2009 for disinvestment of IKIWL and IFCAL which was approved by the Government in September 2010. IDCOL signed a Memorandum of Understanding with SAIL in May 2012 to sell shares of both subsidiaries but process was not concluded till December 2013.

Audit observed that no new industry has been set up by IDCOL from 1998 for industrialisation of the State. Further, existing plants were not modernised/expanded to comply with mandate given by Government. Government also did not take policy decision till September 2010 whether to modernise or disinvest subsidiaries. This resulted in plants of IFCAL and IKIWL running with inadequate infrastructure resulting in low capacity

**IDCOL lost
₹ 140.71 crore
towards investment
made in subsidiaries**

utilisation, lower productivity and higher cost of production as discussed in **Paragraphs 2.2.26 to 2.2.42**. Besides, mineral resources viz. chrome ore and iron ore from captive mines were not optimally utilised.

Management stated that modernisation required huge funds which could not be provided either by Government or from internal resources. Considering this, disinvestment proposal has been finalised. In Exit conference, Government stated that recommendations of COPU are being acted upon and negotiation with SAIL for disinvestment of IKIWL and IFCAL is in process.

However, there was inordinate delay in finalising disinvestment proposal initiated in 2005 resulting in continuous loss to companies and poor health of plants.

Mining Activities

Exploration and identification of ore

2.2.10 IDCOL had been holding lease for operating Roida C mines having 192.81 ha with 109.47 lakh MT reserves of iron ore and 38,200 MT manganese ore as of April 2009 for captive use of IKIWL plant. Operation of mines, however, was transferred to IKIWL in April 2009 for their captive use on agency basis. Similarly, IDCOL was holding mining leases in respect of Tailangi A 65.683 ha and Tailangi B 155.583 ha from June 2003 for captive use of chrome ore for IFCAL at Ferrochrome Plant.

As Tailangi A mines was in non-forest area and no forest clearance (FC) was required, GoO while granting mining lease in June 2003 allowed IDCOL to operate mines with directions to obtain other statutory clearances. IDCOL executed lease deed with GoO in September 2003 and carried out mining activities without Environmental Clearance (EC). In respect of Tailangi B mines GoO while granting the lease in June 2003 directed IDCOL to obtain EC and FC from MoEF before operating mines. IDCOL was required to obtain EC for both Tailangi A and B mines as per MoEF notification of January 1994 and forest clearance for Tailangi B as per Forest (Conservation) Act 1980.

Audit observed that IDCOL did not take any initiative to submit application of EC for Tailangi A and EC/FC for Tailangi B mines. The GoO also did not review status of receipt of EC and FC from MoEF. IDCOL submitted application to MoEF only in July 2007. Application for Tailangi A mines was delayed due to misinterpretation of MoEF notification of January 1994 and no reason was assigned for delay in respect of Tailangi B mines. EC for Tailangi A and EC as well as FC for Tailangi B was obtained in April 2010 and January 2012 respectively. Mining activities of Tailangi A mines were suspended by Deputy Director of Mines (DDM) from September 2009 to April 2010 for want of EC and was operated thereafter. IDCOL, however, violated environmental regulations like discharge of water, dumping of over burden etc., for which DDM restricted mining activities from September 2010 to April 2011. For operation of Tailangi B mines negotiations are continuing

with various Government agencies to comply with deforestation, rehabilitation and resettlement policies.

Delay of four years in submission of application of EC and FC to MoEF by IDCOL

Delayed action on the part of IDCOL to obtain EC and FC resulted in non-operation of Tailangi B mines and stoppage of mining work at Tailangi A. Consequently, there was shortage of ore for IFCAL plant, procurement of high cost ore, blocking of inventory due to restriction on despatch and imposition of penalty by Government as discussed below.

Government stated that delay in submission of application for EC was due to mis-interpretation of 1994 MoEF notifications.

Loss of production

2.2.11 Plants of IFCAL utilise captive chrome ores from Tailangi mines in production of HCFC³⁸. Due to delay in obtaining statutory clearances and violation of statutory norms, production from mines could not be carried out during September 2009 to April 2010 and September 2010 to April 2011 resulting in shortage of chrome ore for IFCAL plant. Audit observed that plant remained shutdown for a period of 1,824 hours from March 2011 to November 2012 due to want of chrome ore resulting in production loss of 2,621 MT of HCFC.

Procurement of high cost ore

2.2.12 Captive chrome ore from Tailangi mines is available for IFCAL's plant at cost. Market price of chrome ore is higher than cost of production. Due to non-operation of Tailangi B mines and suspension of work of Tailangi A mines twice, IDCOL had to procure 17,373.620 MT of chrome ore from market to run plants during December 2010 to March 2013. While market price of chrome ore ranged between ₹ 9,371 to ₹ 10,578, cost price ranged between ₹ 1,042 to ₹ 4,638 during that period. As a result IFCAL incurred extra expenditure of ₹ 13.67 crore.

IFCAL incurred extra expenditure of ₹ 13.67 crore in procurement of high cost ore

Blockage of inventory

2.2.13 In addition to production of high grade chrome ore having chrome content more than 40 *per cent*, low grade chrome ore having chrome content between 20-40 *per cent* is also raised from mines. Low grade ore is stacked in mines for beneficiation into chrome concentrate. In absence of environmental clearance and statutory violations by IDCOL, mining activities were suspended by DDM during September 2009 to April 2010 and September 2010 to April 2011. As a result 1.07 lakh MT of low grade chrome ore raised at cost of ₹ 40.74 crore and stored for beneficiation could not be processed and blocked in inventory for six months. Similarly, 9,734 MT of chrome concentrate costing ₹ 6.41 crore produced for despatch was blocked at the mines for a period of 10 months.

³⁸ High Carbon Ferro Chrome

Imposition of penalty by Government for unlawful mining

IDCOL incurred liability of ₹ 222.63 crore due to operation of mines without EC

2.2.14 As per MoEF notification of 1994, IDCOL was to obtain EC for operation of Tailangi mines. However, Tailangi A mines was operated by IDCOL without obtaining EC till April 2010. During the period, 12,53,783.790 MT of chrome ore produced from mines without EC was treated as irregular by DDM who imposed penalty of ₹ 222.63 crore in September 2012. IDCOL, however, has requested GoO for waiver of penalty.

Raising, transportation and utilisation of iron ore

2.2.15 IKIWL engages contractors to raise iron ore lump which is processed to obtain Calibrated Lump Ore (CLO) of 5-18 mm/10-30 mm size. In the process, in addition to CLO, iron ore fines are generated. CLO and fines produced are stacked according to the grade obtained from analysis report of IKIWL laboratory. While entire 5-18 mm size CLO is sold in market, 10-30 mm size is used in Pig Iron Plant of IKIWL and sold in market on ex-mines basis. Besides this, unprocessed lump ore and fines are also sold in the market. Despatch from mines to plant/buyers is carried out after obtaining stack removal permission from DDM. Details of iron ore raised, transported to plant and sold in market are in **Annexure 11**. Deficiencies in monitoring of raising/transportation/utilisation of iron ore are discussed in following paragraphs.

Undue benefit to ore raising contractor

Wrong application of VDA resulted in undue benefit of ₹ 2.68 crore to contractor

2.2.16 Iron ore is mined through engagement of contractors by IDCOL for consumption at IKIWL plant and for sale in market. As contractors engaged manual labourers, contract rate is fixed with provision for reimbursement of increase in the Variable Dearness Allowance (VDA) by GoI. In terms of contract executed (September 2010) with the contractor for raising/processing of iron ore during the period October 2010 to March 2013, it was to be reimbursed increased VDA applicable on per MT basis considering 2.5 MT output per labour per day. Instead IKIWL while releasing payment for increased VDA to the contractor considered per day increase rate for each labourer without considering per day output. This resulted in extension of undue benefit of ₹ 2.68 crore deviating from contractual provision to the contractor in the mining of 5,56,498 MT of lump.

Management stated that payment was made as per contractual provision that for every increase of ₹ 1 on VDA contractor will be reimbursed ₹ 1.06 per Metric Ton (PMT) ore produced. It, however, overlooked further contractual provision of payment of VDA to labour without considering minimum daily output.

Loss due to excess generation of iron ore fines

2.2.17 Mining work includes conversion of lumpy ore to size ore of 5-18 mm/10-30 mm through deployment of crushers by contractors. In process of conversion, besides CLO, fines are also produced. CLO fetches better price than fines in market. Fines have no requirement for plants and are meant for

sale. For carrying out mining work, IDCOL issued work order to a contractor in June 2007 for a period of three years from October 2007 based on an open tender. The conditions of tender required it to produce 67 per cent CLO and 33 per cent fines out of lumps utilised.

Due to excess generation of fines over norm in iron ore processing, IDCOL sustained loss of ₹ 12.72 crore

Scrutiny of records revealed that contractor utilised 3,63,132 MT of lump ore. As per work order though it was required to produce 2,43,298 MT of CLO and 1,19,834 MT of fines, it could produce 1,91,255 MT of CLO and 1,71,877 MT of fines. The actual production of CLO was only 53 per cent against the stipulation of 67 per cent whereas fines production was 47 per cent as against 33 per cent. This resulted in short production of CLO/excess production of fines by 52,043 MT. As market price of CLO is more than fines IKIWL could not earn an additional revenue of ₹ 12.72 crore. Reasons for excess production of fines/short production of CLO were not analysed by Management. IDCOL also did not insert any penal clause in tender for recovering loss of revenue from contractor.

Management stated (December 2013) that agreement with contractor had no specific mention about generating 67 per cent CLO and 33 per cent fines as production of CLO depends on the nature and composition of lump ore produced and utilised. In the Exit conference Government assured that it would analyse reasons for deviation.

However, tender condition authorised the party to specify percentage of production of CLO and the party specified recovery of 67 per cent. Further, in subsequent work order executed by the contractor with IKIWL, production of 68 per cent CLO was achieved.

Short production of CLO

2.2.18 Mining activities of Roida ‘C’ mines include removal of overburden (OB) from surface area, dumping of OB in space provided by IDCOL, excavation of lump ore and processing of CLO from lump ore. Lump ores are processed to obtain CLO of 5-18 mm and 10-30 mm size. While 5-18 mm CLO was meant for sale, 10-30 mm size CLO is utilised in plant. IDCOL deployed contractors from time to time for raising and processing work during the period 2007-13. IDCOL executed two work orders i.e. one covering period 2007-10 and another 2010-13 with the contractor. In terms of work orders (WO) production target for 5-18 mm and 10-30 mm size CLO was fixed annually. As such during the period 2008-13, WOs envisaged production of 6,12,000 MT of 10-30 CLO by utilising 60-63 Fe grade lump ore. In event of shortfall, WO for period 2007-10 had provision for imposition of penalty at 30 per cent of contract value of shortfall quantity and WO for 2010-13 envisaged imposition of penalty ₹ 10 per MT of shortfall quantity respectively.

Short production of CLO necessitated procurement of ore at additional cost

Audit observed that despite availability of sufficient iron ore reserve, mining for production of lump ore and 10-30 mm CLO could not be carried out to produce targeted quantity. Contractor produced only 3,25,808 MT of CLO (10-30 mm) leaving a shortfall of 2,86,192 MT during 2008-13. Shortfall was mainly due to failure of IDCOL to provide space for OB dump yard. As per terms of tender, IDCOL levied and deducted penalty of ₹ 3.32 crore from

contractor. They, however, invoked arbitration clause of the work order in April 2013 and matter is under arbitration (December 2013). Short production of CLO led to procurement of high cost CLO from market for plant during 2008-13 resulting in additional expenditure to IKIWL.

Management stated that due to non-availability of required quantity of low grade (58-59 Fe) iron ore, 10-30 mm CLO could not be produced. However, for production of CLO requirement of lumpy ore is 60-63 Fe which was available in mines. IDCOL, however, could not provide space for dumping of OB from excavation of mines.

Raising, transportation and utilisation of chrome ore

2.2.19 Chrome ore raised from mines through contractors is of different grades having chrome content of 25 to 52 *per cent* and is also friable in nature. Higher grade³⁹ chrome ore is transported to ferrochrome plant of IFCAL for consumption. Low grade chrome ore is processed in two Chrome Ore Beneficiation (COB) plants at mines of IDCOL to get concentrate which is sold in international market via Paradeep Port. Ore as well as concentrate after being raised is stacked grade-wise. Analysis reports of Government laboratory are basis of determining grade. Despatch of ore/concentrate either to plant or to port is done through transport contractors after obtaining stack removal permission from DDM mines.

Table below indicates year-wise ore raised, transported to plant/port and sold in the market.

(figures in MT)

Year	Ore raised	Ore despatched to			Concentrate		
		IFCAL	COB Plant	Sold	Produced	Despatched to IFCAL	Sold
2008-09	1,74,788	53,674	68,953	28,694	34,883	0	36,235
2009-10	66,214	29,080	51,375	0	24,592	0	22,775
2010-11	95,959	21,154	93,055	0	39,359	1,700	9,841
2011-12	55,482	13,437	9,376	0	4,121	31,124	0
2012-13	53,351	13,148	6,924	0	2,869	6,095	0
Total	4,45,794	1,30,493	2,29,683	28,694	1,05,824	38,919	68,851

Activities relating to raising of ore, production of concentrate and transportation of ore and concentrate were not monitored properly leading to shortfall in production, loss of quality and incorrect payment to contractor as discussed in following paragraphs.

Loss of Production

2.2.20 Low grade chrome ore contains 20-40 *per cent* chromium. Such ore is processed through washing either manually or mechanically through deployment of contractors. For mechanical processing, IFCAL has two COB plants installed at mines. Low grade ore after beneficiation deliver concentrate which contain higher chromium in range of 48-54 *per cent*. In process of beneficiation there occurs tailing loss of chromium which is controllable through better monitoring by contractor. IDCOL had not devised any norm for

³⁹ More than 40 *per cent* chrome content

tailing loss while awarding work for beneficiation to contractor from August 2008 to May 2012. Work awarded to contractors from June 2012, however, stipulated tailing loss of 15 *per cent* maximum without any provision for imposition of penalty on contractor for tailing loss beyond 15 *per cent*.

Audit observed that during 2008-13, 2,29,683 MT of low grade chrome ore with chromium content of 75,016 MT was utilised for production of concentrate. Concentrate produced was 1,05,824 MT carrying only 54,498 MT of chromium. Chromium loss was thus 20,518 MT (27.35*per cent*). Considering the normative loss of 15 *per cent*, loss beyond the norm was 9,265 MT valuing ₹ 3.66 crore⁴⁰. Management had not analysed reasons for such loss nor was there any penal provision in the contract to recover the loss.

In Exit conference, Government stated (January 2014) that corrective action has since been taken to limit tailing loss within 15 *per cent*. The fact, however, remained that IDCOL did not take any action to arrest loss during the period 2008-13.

Export sale of chrome concentrate

2.2.21 Chrome concentrate with a chromium content of 48-54 *per cent* produced from COB plants as well as by manual washing at mines are despatched to Paradeep port through contractors for export. For carrying out despatch, IDCOL obtained stock removal permission from Government. Despatched concentrate is assigned with a grade as per analysis report of Government laboratory. Concentrate received at Paradeep Port are kept in stockyard of IDCOL and exported thereafter. At time of export, grade analysis is carried out at port by a reputed analyst. Grade determined by the analyst forms basis of billing.

Audit observed that during 2008-11, IDCOL exported 70,600 MT chrome concentrate transporting it to Paradeep Port through transport contractors. Quality analysis reports of Government Laboratory and that of reputed analysts' showed adverse grade variation ranging from 1.48 to 2.68 *per cent* in 59,800 MT out of 70,600 MT exported. As sale price of chrome concentrate depends on chromium content in concentrate, loss of grade resulted in under-realisation of revenue of ₹ 3.20 crore. IDCOL, however, neither analysed reasons responsible for grade variation during process of transport and handling of concentrate nor put a condition in transport contract fixing responsibility on the transport contractors to recover loss.

In Exit conference Government assured that it would take steps to minimise such loss in future.

Loss due to export

2.2.22 IDCOL has been exporting chrome concentrate in international market through MMTC. It has also been selling chrome concentrate in domestic market from mines. Audit observed that during July/August 2010 when

No responsibility was fixed on transport contractors for loss due to grade variation

⁴⁰ Calculated at export realisation price during the period 2008-11

domestic price of concentrate was ₹ 12,009 per MT, IDCOL without exploring domestic market despatched 4,265 MT to Paradeep port when the export realisation was only ₹ 9,820 per MT. Despatched concentrate was exported in December 2010 with under-realisation of ₹ 0.93 crore compared to domestic price.

Management's reply that 4,265 MT was exported to meet export commitment with MMTC does not reconcile with the fact that despatch of concentrate was carried out in July/August 2010 while export commitment was made in October 2010.

Disposal of low-grade chrome ore deviating from mining plan

2.2.23 As per mining plan, IDCOL had to process low grade chrome ore for beneficiation and value addition to obtain concentrate. Concentrate is meant for sale in international market. IDCOL also stipulated (November 2007) that in event of direct sale of low grade ore in domestic market, selling price of low grade chrome ore would be decided on the basis of export price of chrome concentrate. As such while deciding to sell chrome ore in domestic market, sale price would be compared with export realisation from concentrate produced from such ore.

Loss of ₹ 23.90 crore due to sale of chrome ore instead of processing to concentrate

Audit noticed that IDCOL sold 28,694 MT of low grade chrome ore in domestic market during April to October 2008 without linking sale price of chrome ore to prevalent export price of concentrate. As related export price of concentrate was more, IDCOL could not earn additional revenue of ₹ 23.90 crore.

While accepting audit observation Government assured that it would look into the matter.

Sale of Iron ore/CLO

2.2.24 Iron ore in form of lump, CLO and fines produced in the mines are sold by IDCOL through monthly/quarterly open tenders. The tenders specified quantity of ore to be sold. During five years ending 2012-13, IDCOL, through its contractors, produced 16,64,258 MT⁴¹ (including opening stock of 28,164 MT) of lump/CLO/fines but could sell only 13,99,402 MT leaving a stock of 2,64,856 MT. Percentage of sale/consumption to available stock ranged from 24 to 85 *per cent* leading to blocking of revenue. Deficiencies noticed in disposal of stock are discussed in following paragraph.

Sale of ore at lower rate

2.2.25 Tenders were invited periodically for sale of ores. As per terms and conditions of tender, buyer has to deposit 100 *per cent* sale value within four days. If successful bidder failed to deposit the sale value within four days from date of issue of sale order, Management could terminate contract without any notice and forfeit security deposit/Earnest Money. After receipt of sale value, IKIWL need to apply for permission from DDM for stock removal from

⁴¹ Lump:8,51,007.63 MT, CLO:5,02,480.68MT and fines : 2,82,605.64 MT

mines. However, no time schedule has been prescribed in tender for applying and obtaining permission from DDM.

Audit observed that during July 2010 to April 2012 while applying for stock removal permission by IKIWL for sale of 6,450 MT of iron ore, in four occasions there was delay of 63 to 279 days. Reasons of delay by IKIWL were not on record. Due to delayed submission of application by IKIWL, lifting permission from DDM was delayed resulting in sale of 6,450 MT of iron ore below the prevailing market price with consequential under-realisation of revenue of ₹ 0.34 crore.

Government stated that steps were being taken to minimise delay in future.

Production and Sale of Finished Products

Production of pig iron

2.2.26 IKIWL produces pig iron through four blast furnaces of the plant having annual installed capacity of 2.20 lakh MT. Production process through blast furnaces (BFs) involves use of iron ore of 10-30 mm size as raw material and coke as fuel. In addition to coke used as fuel, hot air (850-900 c) is blown through narrow combustion type stoves into BFs. In the process, the ore is converted to hot metal. Hot metal is transported to pig casting machine (PCM) for production of pig iron and some hot metal is also taken to the spun pipe plant, where cast iron (CI) spun pipe is manufactured. Electricity generated from captive power plant is fed to auxiliaries. Deficiencies observed in production of pig iron are discussed in **Paragraphs 2.2.27 to 2.2.37**.

Non-utilisation of available machine hours

2.2.27 Audit observed that annual production of pig iron during 2008-13 was below the installed capacity/budgeted production. Shortfall in production was attributed by IKIWL to lower utilisation of available machine hours of the plants. Despite 1,75,296⁴² available hours during 2008-13, furnace utilisation was 58,275 hours (33.24 per cent). Out of 1,17,021 idle hours, 97,330 hours (83.17 per cent) was planned shutdown to avoid negative contribution during operation. Besides this, plants remained shutdown for 16,054 hours (13.72 per cent) for want of raw materials and 3,637 hours (3.11 per cent) was forced shutdown due to various maintenance problems.

Management stated that low plant utilisation was due to ageing of the Pig Casting Machine and reduction in its pouring capacity to handle production of three furnaces. It was, however, noticed that no action was taken so far to replace the PCM.

Under utilisation of plant during positive contribution

2.2.28 During 2008-13 IKIWL ran its plant for 58,275 hours in 53 months and there was no operation in seven months during April 2011 to October

Plant utilisation of IKIWL was only 58,275 hours as against available 1,75,296 machine hours

⁴² 1,826 days x 24 hours x 4 furnaces

2011. Month wise production performance revealed that there was negative contribution in 39 months and positive contribution in 14 months⁴³. Net loss of contribution⁴⁴ during 2008-13 worked out to ₹ 97.27 crore. Negative contribution could have been mitigated through better cost controls as observed under succeeding paragraphs.

Under utilisation of plant when there was positive contribution led to loss of revenue

Audit further observed that despite availability of plant and required inputs for production, plant utilisation was only 37 per cent in 14 months when there was positive contribution. Had the plants been utilised to normative budgeted level in months when there was positive contribution, IKIWL could have earned contribution of ₹ 7.96 crore for additional production of 72,086 MT of Pig Iron.

In Exit conference, Government stated that plant was run despite negative contribution keeping in mind better potential return from disinvestment. Reply was silent on non-operation of plants at normative\budgeted level in 14 months when there was positive contribution.

Unfruitful Joint Venture on coke oven plant

2.2.29 A Coke Oven Plant (COP) is operated through a Joint Venture (JV) agreement (September 1993) to produce High Ash Metallurgical (HAM) coke for IKIWL for which coal is supplied by IKIWL. IKIWL was to pay conversion charges of ₹ 1,250 per MT of gross weight of the converted coke with moisture tolerance of 8 per cent. Work order placed with JV partner did not envisage any penalty clause for underperformance. The observation on coke produced and supplied by JV partner is discussed in following **Paragraphs 2.2.30 to 2.2.33**.

Short production of coke

Short production of 7,350 MT of coke valued at ₹ 8.62 crore not recovered from JV partner

2.2.30 As per terms of work order, IKIWL has been supplying coal to JV partner for production of coke. Conversion ratio of coal to coke is 1.338 on dry MT basis i.e. without consideration of moisture and 21 per cent normative Volatile Material (VM) in the coal. As such, conversion ratio will vary depending on VM in the coal. During 2008-13 JV partner utilised 1,31,081 MT coal with an average VM and moisture content of 20 and 6 per cent respectively and produced 98,717 MT of coke with moisture content of 14 per cent. On Dry Metric Ton (DMT) basis production comes to 84,447 DMT. Considering VM per cent in coal, the coke output should have been 91,797 DMT and shortfall was thus 7,350 DMT. Value of shortfall comes to ₹ 8.62 crore at average cost price of JV partner HAM coke. Reasons for such shortfall in production of coke by JV partner was not analysed and no claim was lodged in absence of penalty clause in agreement.

Management stated that shortfall was mainly due to one per cent handling loss in coal during charging into coke oven plant and one per cent handling loss

⁴³ April, July, August & November 2008, October 2009, January & February 2010 and September 2012 to March 2013.

⁴⁴ Negative contribution during 39 months was ₹ 109,17,07,420 and positive contribution during 14 months was ₹ 11,89,63,655

during handling and loading of coke produced. Audit, however, observed that conversion ratio was fixed taking into consideration handling loss for coal and coke.

Excess ash in coke

2.2.31 Volatile material and ash content in coal is main determinant for production of coke. Quality of coke is determined by ash and VM content in input coal i.e. higher quantity of ash and VM in coal will generate more ash in coke and less fixed carbon. Average volatile material and ash content of coal utilised was 20.38 per cent and 20.62 per cent during the period 2008-13. Considering ash and VM in input coal the coke received should have contained average ash of 25.90 per cent as per the work order. Coke received, however, contained 27.14 per cent average ash. As main ingredient of coke is fixed carbon which is required for fuel, more ash content reduces fixed carbon content in coke. Since fixed carbon is the determinant for pricing of coke, receipt of low fixed carbon content resulted in loss of ₹ 2.64 crore. Reasons for variation of ash in coke has not been analysed by Management.

Management stated (December 2013) that IKIWL provided coal as per availability from different collieries due to which coke produced at COP deviated from required specification.

However, audit considered actual percentage of ash and VM in coal utilised for production of coke.

Excess moisture in coke

2.2.32 As per work order placed with JV partner, they had to supply coke with moisture tolerance of 8 per cent maximum. Coal supplied for conversion to coke also contained less than 8 per cent moisture. Audit observed that during the period 2008-13, JV partner supplied 84,290 MT coke which contained average moisture of 14.31 per cent. Higher moisture content resulted in decrease in net received quantity of coke. Accordingly, excess moisture beyond 8 per cent worked out to 6,202 MT of coke which was short supplied. The value of short supplied quantity of coke comes to ₹ 7.72 crore. No action was taken by IKIWL to recover the amount from the party.

**Loss of ₹ 7.72 crore
due to excess moisture
in coke supplied by
JV partner**

Management stated that input coal quantity and output coke quantity was made on the basis of estimation only as there was no provision for weighment of the same and was not analysed at the time of feeding.

However, the fact remains that IKIWL have not acted as per terms of work order.

Non-procurement of economical/suitable coke

2.2.33 Blast furnaces of IKIWL require low ash coke for better production and productivity. IKIWL, however, utilised more high ash coke produced by JV partner. Low ash coke is purchased from private producers and also from Nilachal Ispat Nigam Limited (NINL) a central PSU situated in the adjacent

district. Low ash coke of NINL was suitable for plant due to higher fixed carbon (85 per cent)/lower moisture (1 per cent)/fines (within 5 per cent) and was economical compared to JV partner's coke as it contained more fines, ash and moisture. IKIWL instead of procuring coke from NINL procured 68,670 MT of high ash coke from JV partner incurring extra expenditure of ₹ 12.89 crore during 2008-10.

Management stated that 100 per cent charging of NINL coke would generate more scrap and would add more cost to pig iron and the two were not comparable.

NINL coke, however, is considered more suitable for smooth operation of furnaces by inhouse technical officers in 2008-09. Further it was observed that during 2012-13, 96 per cent of total coke consumption of the plant was NINL make and scrap generation was lowest during that period

Excess Consumption of iron ore

2.2.34 As per plant design, requirement of iron ore for blast furnaces (BF) was of 10-30 mm size with 60-63 Fe content and moisture content of maximum two per cent. As per annual budget norm, specific consumption of iron ore was within a range of 1.504 to 1.516 MT for production of one MT hot metal. During 2008-13 utilisation of iron ore is as follows:

Year	Iron ore consumed	Hot metal produced	Norm as per budget	(in MT)	
				Consumption as per norm	Excess consumption
2008-09	1,55,123	91,277	1.516	1,38,376	16,747
2009-10	1,53,846	89,216	1.516	1,35,251	18,595
2010-11	1,00,130	57,543	1.516	87,235	12,895
2011-12	25,668	15,714	1.504	23,634	2,034
2012-13	69,261	41,089	1.504	61,798	7,463
Total	5,04,028	2,94,839		4,46,294	57,734

It will be seen from above that there was excess consumption of 57,734 MT of iron ore above norm. Audit observed that excess consumption was due to frequent shutdown of furnaces, use of HAM coke in place of LAM coke and receipt and generation of fines during the process of handling of iron ore. However, Company has not analysed factors contributing to excess consumption of iron ore to take remedial action though it incurred additional expenditure of ₹ 19.10 crore.

Excess consumption of iron ore by IKIWL cost ₹ 19.10 crore

Further, though iron ore fines generated in the processes were to be disposed off in the market, they were not stacked properly but were stored for long period at open space resulting in quality degradation. It was noticed that 97,033 MT of fines valued at ₹ 1.99 crore was utilised for earth filling (78,087 MT) and 18,946 MT were written off from the books of accounts without assigning any reasons.

Management stated that considering allowable fines of 7 per cent, the specific consumption was 1.550 MT and there was only 11,738 MT excess consumption.

However, technical specification of the plant specified use of fines upto 5 per cent. Generation of fines beyond five per cent was not analysed by Management to take remedial action.

Avoidable expenditure on electricity

2.2.35 IKIWL has a captive power plant (CPP) with four units of 4 MW each. Gas generated from blast furnace (BF) is used as fuel in CPP for generation of electricity. Carbon monoxide (CO) in the BF gas is fuel for generation of electricity. Audit observed that during the period 2008-13 CO level in gas generated was in range of 24 to 27 per cent. Even considering the least CO level of 24 per cent and production of 634.87 million Normal Cubic Meter of BF gas, captive power plant could have generated 105 MU of electricity. As against this actual generation of electricity was 83 MU. Loss of generation was due to inefficiency of boilers and turbines of power plant. Besides this there was also leakage of gas and steam during the process of transfer to boiler. Short production of electricity of 22 MU was procured from electricity company incurring additional expenditure of ₹ 8.06 crore.

Under utilisation of CPP resulted in procurement of high cost power

IKIWL neither analysed reasons for higher consumption of BF gas nor took remedial action to arrest loss of gas and steam due to leakages leading to shortfall in generation of electricity. Further, efficiency of the boiler to generate steam by using BF gas was also not assessed.

Management stated that due to financial stringency, revamping of boilers and replacement of turbines could not be made so as to get better efficiency.

Excess generation of pig iron scrap

2.2.36 Production of pig iron involves conversion of hot metal to cold metal. In the process some scrap is generated and some invisible loss of quantity also occurs. During 2008-13 generation of scrap in pig iron production was 7.92 per cent and invisible loss⁴⁵ was 2.28 per cent of hot metal produced as against budgeted norm of 4.5 per cent and 1.5 per cent respectively. Reasons for invisible loss in process were not analysed by Management. Excess generation of scrap was mainly attributed to lack of synchronisation of production process with process of conversion. No action was so far been taken to replace the Pig Casting Machine and mechanising the loading system. Scrap being off grade quality fetches lower price over normal grade pig iron. In production of 2,94,839 MT of hot metal 10,082.431 MT of scrap was produced beyond norm and 2,285.229 MT was invisible loss beyond norm resulting in loss of ₹ 12.94 crore to IKIWL.

Excess generation of scrap by IKIWL over the norm valued at ₹ 12.94 crore

Management, while accepting the audit observation, stated that due to single furnace operation, frequent shutdown and restart of furnaces generation of scrap was more and replacement of Pig Casting Machine and mechanisation of loading system could not be taken up due to continuous loss.

⁴⁵ The term used by the Management to refer the differential in quantity of hot metal and cold metal (both GPI and UGPI).

Generation of lower grade pig iron

2.2.37 Blast Furnaces (BFs) of IKIWL are designed to produce foundry grade pig iron. Normal production of pig iron by IKIWL is of LM-II grade having silicon content of 2 to 2.75 *per cent*. During 2008-13, IKIWL produced 32,250 MT of LM-III grade and 4,482 MT of LM-IV grade of pig iron having silicon content of less than two *per cent* which are inferior to LM-II grade. As sale price of LM-III/IV grade pig iron is less than that of LM-II grade, IKIWL lost ₹ 1.39 crore. Reasons for deviation in production were not analysed by IKIWL to identify factors responsible for generation of low grade pig iron and to take corrective action.

Management while accepting audit observation stated that grade variation in output was due to variance in input of raw materials received from more than one source and frequent shutdown and restart of furnaces. They further stated that correction in furnaces could not be done timely due to proximate/chemical analysis report being made available after at least three to four hours.

The fact remains that no corrective action was so far taken to arrest generation of lower grade pig iron.

Production of HCFC

2.2.38 IFCAL produces High Carbon Ferro Chrome (HCFC) through its two electric arc furnaces. Furnace I & II are having electrical rating of 9 MVA and 6.5 MVA with installed capacity of 14,000 MT and 6,000 MT *per annum* respectively. Chrome ore/chrome briquette is basic raw material with coke used as reductant and electricity as fuel. Production process involved handling of raw material i.e., screening, sizing by raw material handling system, charging, melting, tapping including casting of hot metal by furnaces and separation of HCFC from slag, processing of finished product including cleaning, sizing and storing by finished product handling system. Deficiencies noticed in utilisation of available plant and machinery, handling and consumption of raw materials/fuel, handling of finished product during 2008-13 are discussed in **Paragraphs 2.2.39 to 2.2.43**.

Poor utilisation of plant and machinery

2.2.39 During 2008-13 against installed capacity of 20,000 MT, production ranged between 15,458 MT and 17,702 MT. Details of production and utilisation of machine hours are given in **Annexure 12**. In this connection audit noticed that as against budgeted shutdown of 2,045 hours and 5,826 hours for furnaces-I and II, actual shutdown was for 5,537 hours and 11,023 hours respectively during 2008-13 resulting in short utilisation of 8,689 hours. Main reasons attributed by Management for shortfall in production were idling of plant and machineries due to depressed market condition. Audit observed that plant remained shutdown for electrical and mechanical shutdown (5,099 hours), relining of furnaces (1,512 hours), maintenance shutdown (2,607 hours), want of raw materials (1,824 hours), water leakage (982 hours), power failure (3,609 hours) etc.

Under utilisation of plant resulted in loss of production of 8,973 MT and contribution of ₹ 21.81 crore

IFCAL has been earning positive contribution all months during 2008-13. As such it was imperative for them to run plant and machinery to available budget hours. Non-utilisation of available plant and machinery resulted in short production of 8,973 MT of HCFC and consequential loss of contribution of ₹ 21.81 crore.

Management stated that excess shutdown period was due to depleting market condition of HCFC, delay in relining period of Furnace II, higher breakdown maintenance period for ageing of furnaces and shortage of raw materials.

Production and productivity of the plant revealed that resources were not utilised optimally resulting in decrease in contribution and increase in cost of production. Factors contributing to increase in cost of production are analysed in subsequent paragraphs.

Consumption of chrome ore/briquettes

2.2.40 IFCAL produces HCFC by charging its furnaces with chrome ore lump and fines in form of briquettes. As per furnaces requirements, lump ore of 15-50 mm size were to be charged and in absence of lump ore maximum consumption of briquettes was to be ensured. Captive chrome ore mine of IDCOL supplies friable chrome ore and COBP provides chrome concentrate which are fines in nature. IFCAL has a briquetting plant which is operated through a contractor.

Audit observed that existing briquetting plant was being operated manually. Chrome concentrate/friable chrome ore utilised for production of briquettes contained higher moisture. As such briquettes produced had low comprehensive strength and tended to crumble in furnaces. This resulted in consumption of lower quality of briquettes and more fines in furnace which consequently resulted in consumption of more electricity and less recovery of chromium in finished product (HCFC). Audit further observed that there was short recovery of chromium of 4,559 MT in finished product resulting in foregoing of additional revenue of ₹ 28.99 crore during 2008-13. IDCOL has so far not installed an automated briquette plant to provide better input of briquettes to furnaces.

Management while accepting audit observation stated that action has been initiated to replace old transformer and efforts would be made to modernise briquette plant.

Excess consumption of coke

2.2.41 Coke is used as reductant to reduce moisture and oxygen in chrome ore in production of HCFC. About 0.50 MT of LAM coke having moisture and fines content of maximum of five *per cent* each and ash content of 12 *per cent* is required for production of 1 MT of HCFC. Audit observed that during the years 2008-13, rate of coke consumption for production of HCFC varied between 0.51 MT to 0.67 MT. In the production of 82,229 MT of HCFC there was excess consumption of 6,026 MT coke valued at ₹ 12.36 crore. Excess

Excess consumption of coke cost IFCAL ₹ 12.36 crore

consumption of coke above norm was mainly due to higher moisture/fines/ash content upto 13 *per cent* in coke.

In Exit conference Government stated that steps had been taken to reduce consumption of coke.

Higher consumption of electricity

2.2.42 Electricity is used as fuel for production of HCFC and constituted 30 to 34 *per cent* of total cost of production. IFCAL has been procuring electricity from the Northern Electricity Supply Company Limited (NESCO) for consumption in plant. As per IFCAL's budgeted norm, 3,800 units of power is required for production of one MT of HCFC. The actual consumption, however, varied from 3,515 units to 4,671 units per MT of HCFC production. This resulted in excess consumption of 89,18,823 units of electricity valued at ₹ 3.55 crore in production of 82,229 MT of HCFC. Main reasons attributable for higher consumption of electricity were use of more fines in place of ore and briquettes, higher percentage of moisture in fines and briquettes and operation of plant at low load due to ageing effect.

Management stated that budgeted consumption is based on recovery of 60 *per cent* chromium in finished product and loss towards excess consumption was compensated through realisation of higher percentage of chromium in finished product.

However, it was noticed that budgetary norm for chromium recovery in finished product was in the range of 60-65 *per cent* and actual recovery was within this range.

Excess generation of HCFC scraps

2.2.43 Out of total production of 82,229 MT of HCFC, 11,759 MT (14.30 *per cent*) was un-graded product in form of off size lump, slag mix metal, granules, chips and powder which were generated during process of separation and stacking of finished product by contractors. IFCAL has not fixed any norm for generation of scrap nor has identified reasons for higher generation of scrap. Further it had not obtained Industry norm or norm of any other producers to compare their own generation of scrap. Thus, generation of ungraded products which fetch less revenue than graded products resulted in loss of ₹ 1.43 crore⁴⁶ during 2008-13.

Management stated that production of chips, powder, granules are inherent in process of manufacturing of HCFC. However, IFCAL has not exercised control to arrest generation of off grade products.

Performance of Spun Pipe Division in IKIWL

2.2.44 The Spun Pipe Division (SPD) of IKIWL was commissioned in March 1982 with installed capacity of 31,200 tonnes of Cast Iron (CI) pipes per year

⁴⁶ Considering normal loss of six *per cent* as in pig iron production in absence of any norm fixed by IFCAL

for meeting requirements of pipe for water supply, sewerage lines etc. Major consumers of spun pipes are Government bodies. SPD has three induction furnaces having 3.5 MT capacities each and one holding furnace with capacity of 18 MT.

Audit noticed that during 2008-13 SPD produced 33,108 MT and sold 32,881 MT of spun pipes. It incurred loss in all years ranging from ₹ 3,996 to ₹ 18,908 per MT due to increased cost of production. Increase in cost of production was mainly due to increase in cost of raw materials, fuel and power cost and fixed cost like salary and wages. Factors contributing to the loss of SPD are discussed in the following paragraph.

Excess consumption of inputs

2.2.45 In production of 33,108 MT CI pipes during 2008-13 there was a loss of ₹ 3.53 crore as actual consumption of inputs viz. Furnace Oil (FO) and electricity exceeded the norm as detailed below:

Input	Unit	Consumption norm per MT	Actual consumption per MT	Excess consumption 2008-13	Loss (₹ in crore)
F.O	Litre	52.97	65.79	4,44,654	1.52
Electricity	KWH	450.00	564.42	38,61,491	2.01
Total					3.53

Reason for excess consumption of furnace oil was not analysed by Management. Reasons attributed to higher consumption of electricity were frequent power failure, high phosphorous content in hot metal. However, above conditions were there during the year 2007-08 also where average power consumption was 432 KWH per MT, which was still lower than the norm. Moreover, the fact of continuous operation of spinning machine was recommended in electricity consumption analysis meeting for the period 2007-08. This is yet to be followed.

Management stated that due to production of more low dia pipes as per orders of buyers consumption of FO and electricity had increased. In Exit conference Government stated that IKIWL would fix a norm for consumption of inputs for production of low dia pipes.

Disposal of finished products

2.2.46 Pig Iron as well as HCFC are sold in open market on ex-plant/ex-stockyard basis through inviting monthly/quarterly tenders. In case of pig iron, a rake load quantity of 2,500-2,700 MT is put to tender. For HCFC tender quantities varied from 500-5,000 MT and parties are asked to quote a minimum quantity of 50-200 MT for different grades. The H1 bidders are offered quoted quantity and other bidders offered balance quantity at H1 rate on allotment basis.

Deficiencies in disposal and management of finished product are discussed in **Paragraphs 2.2.47 to 2.2.51.**

Accumulation of stock

2.2.47 Audit scrutiny revealed that average monthly stock holding of pig iron at IKIWL ranged between 7,903 MT to 22,461 MT against average monthly production of 1,187 MT to 6,855 MT. Similarly, average monthly stock holding of HCFC at IFCAL ranged between 3,174 MT to 6,916 MT against monthly average production of 1,288 to 1,475 MT. Despite availability of market, IKIWL and IFCAL were not able to liquidate finished products due to less realisation of sale proceeds over cost of production. This resulted in blockage of funds.

Management accepted the fact of non-disposal of finished product in time due to market condition.

Absence of security clause in the tender

2.2.48 IFCAL obtained a nominal security deposit of ₹ 1 lakh/₹ 3 lakh from H1 bidders and no security was obtained from the parties opting for purchase on allotment basis. Release order (RO) for lifting of material is issued for the amount deposited by parties. As per ROs parties are to lift materials within 15 days. Tenders did not envisage imposition of penalty for delay in lifting or not making full financial arrangement for allotted quantities. Audit observed the following deficiencies:

- On a test check of sales transaction during 2008-13, audit noticed that out of 7,947.50 MT allotted to 16 buyers, 2,959 MT were not lifted within prescribed period of 15 days. There was delay of 16 to 150 days in lifting by buyers. Due to this IFCAL sustained loss of ₹ 1.89 crore as materials were lifted by buyers at pre revised price.

Management stated that once full material value is received, the material is deemed to be sold. The fact however, remained that till materials are lifted by parties sale is not complete and materials are stored at the risk and cost of IFCAL. The reply, however, did not address issue of delay in lifting by buyers.

- During 2008-13 IFCAL allotted 53,196 MT of HCFC to 120 buyers out of which 29 buyers did not make financial arrangement to lift 2,513 MT which were disposed off in subsequent tenders at a lower price resulting in loss of ₹ 1.65 crore. In absence of any enabling clause in tender IFCAL could not recoup the loss.

Management stated that besides forfeiture of EMD any further stringent condition would disassociate buyers from participating in tender. However, in instant cases, no EMD was available for forfeiture as sale was made on allotment basis and hence buyers could not be penalised.

Non-exploration of export option

Failure to carry out export of 18,545.728 MT HCFC resulted in foregoing revenue of ₹ 9.49 crore in domestic sale

2.2.49 HCFC has demand both in domestic as well as international market. Government of India encouraged export of HCFC through offering export incentives. IDCOL, however, carried out sale in domestic market without exploring export market. During 2008-13 IDCOL had sold 82,871 MT HCFC to domestic buyers on ex-plant basis. Audit observed that 13 buyers who procured 18,545.728 MT of HCFC from IFCAL exported same at a higher price and earned additional revenue of ₹ 9.49 crore including export incentives of ₹ 3.42 crore. IFCAL, however, did not explore export option for optimisation of sale and revenue.

In Exit conference Government stated that Company would explore possibility of exporting through MMTC.

Loss due to generation of scrap at yard

2.2.50 In ex-plant sale IKIWL carried out handling operation viz., receipt of pig iron from plant, stacking, un-loading at sales yard. Scrutiny of records revealed that in handling of 2,05,589 MT of pig iron during 2008-12, 7,352 MT of scrap was generated in above process which cost IKIWL ₹ 5.33 crore. Reasons for this were not identified and no action was taken to arrest such generation of scrap.

While accepting the audit observation, Management stated that scrap generation may be reduced by modernising Pig Casting Machine (PCM).

Non-realisation of loading cost from the buyers

2.2.51 IKIWL was carrying out ex-plant/ex-stockyard⁴⁷ sale of pig iron through open tender. In terms of tender the buyers are responsible for receiving and transporting materials from factory/stockyard premises of IKIWL. As such loading cost of pig iron into rakes/trucks should be borne by buyers. Audit observed that during 2008-13 Graded Pig Iron (GPI) of 2,28,510 MT was sold at loading cost of ₹ 1.50 crore which was not recovered from buyers.

Management stated that cost of loading would be additional burden on buyers and they may like to reduce price to the extent of loading charges.

However, IKIWL had not acted as per tender terms.

Financial Management

2.2.52 Cases where Companies had not exercised due financial prudence are as follows.

⁴⁷ Ex-plant/ex-stockyard means that the seller's only responsibility is to make the goods available at his premises. In particular he is not responsible for loading the goods on the vehicle provided by the buyer.

Non-availment of rebate

2.2.53 IFCAL has been availing power as EHT consumer with contract demand (CD) of 10,700 KVA from North Eastern Electricity Supply Company of Odisha Limited (NESCO), for plant and colony consumption as per agreement entered in June 2001. Tariff structure for power consumption is determined by Odisha Electricity Regulatory Commission (OERC). Tariff structure for 2011-12 included "Take or Pay" (ToP) tariff for EHT consumers having CD more than 110 KVA and were given option for payment of energy charges as per actual drawal or at 75 per cent load factor of CD whichever is higher. For consumption at 75 per cent load factor of CD, consumers would be entitled for five per cent special concession on total bills. ToP tariff was revised (November 2011) to 70 per cent load factor of CD and special rebate of 20 per cent on bill value. For availing above benefit IFCAL was required to execute a separate agreement with NESCO.

IFCAL did not avail rebate of ₹ 5.24 crore in payment of electricity charge

Scrutiny of records revealed that in spite of load factor in consumption being more than 70 per cent in past years IFCAL did not initiate any action to enter into agreement with NESCO to avail ToP tariff and thereby had to forego cash incentive of ₹ 5.24 crore.

Management stated that no communication was received from NESCO during 2011-12 for signing of agreement under the scheme and no industry under NESCO has availed such special rebate during 2011-12. However, IFCAL could have been proactive to execute agreement with NESCO as per OERC order. In Exit conference, Government stated that vigorous action to seek rebate from NESCO would be taken again by IFCAL.

Avoidable payment of electricity charges

2.2.54 IDCOL availed 445 KVA Contract Demand power for consumption at mines through an agreement (October 2006) with Central Electricity Supply Utilities (CESU). As per contractual terms, monthly demand charges shall be at ₹ 200 per KVA of recorded maximum demand or 80 per cent of Contract Demand whichever is higher. Thus, IDCOL had to draw 80 per cent of Contract Demand power and maintain Power Factor at 90/92 per cent by installation of Capacitor Banks in order to reduce its power cost.

Scrutiny of records revealed that in spite of low Contract Demand and lower Power Factor during 2008-13, IDCOL delayed action upto May 2012 and May 2013 after four to five years to reduce Contract Demand and installation of capacitor banks respectively. This resulted in avoidable payment of ₹ 24.92 lakh towards demand charges and power factor penalty.

While confirming the fact Management stated that further steps were being taken to minimise lighting loads as well as to operate pump motors to overcome low power factor problem.

Avoidable expenditure

2.2.55 Molasses is used as an input in production of briquettes which is a raw material for production of HCFC. IFCAL procured molasses from different parties through open tender. Based on tender of March 2008 IFCAL placed (April 2008) purchase order on a supplier for supply of 1,680 MT of molasses at the rate of ₹ 9,759.38 PMT. The supplier was to supply 140 MT per month against the purchase order valid for one year. IFCAL had option of extending the purchase order for two months at same terms and condition. During contractual period of one year, the party supplied 1,057.75 MT leaving a shortfall of 622.25 MT, out of which IFCAL could have purchased 274.83 MT keeping in view the storage capacity. IFCAL, instead of extending the contract period for another two months purchased shortfall quantity subsequently through another tender where price was ₹ 16,831.56 PMT and thereby incurred avoidable expenditure of ₹ 19.44 lakh.

While accepting the observation in Exit conference Government stated that contractor could have been asked to supply molasses as per agreement and necessary steps would be taken to prevent such lapses in future.

Monitoring by Top Management

2.2.56 GoO issued a Corporate Governance Manual effective from November 2009 with a view to streamlining management practices in State Public Sector Undertakings. Audit noticed following deficiencies in implementing provisions of this manual.

Non-induction of independent Directors to the Board

2.2.57 Requirement of the manual that at least one Independent Director in the BoD of IDCOL be the Director of subsidiary companies and minutes of BoD meetings of subsidiaries had to be placed at Board meetings of IDCOL, was not followed.

Government stated that after being pointed out in audit minutes of subsidiaries are being placed before the Board of IDCOL.

Internal Control

2.2.58 Internal Control is a management tool to ensure that organisational objectives are achieved effectively and efficiently. Corporate Governance Manual envisages various Internal Control mechanisms to be followed by PSUs. Audit observed following deficiencies in internal control system.

Absence of manual

2.2.59 IFCAL and IKIWL had not prepared manuals and guidelines in respect of activities like purchase, production, storage, sales and accounting.

Non-disposal of obsolete stores

2.2.60 There was no system of identification of obsolete stores through physical verification. As a result there was no declaration, adjustment/disposal of unused/obsolete/un-serviceable and non-moving items of stores and spares. Audit observed that there were non-moving stores of ₹ 2.33 crore at IFCAL as on 31 March 2012 which were not identified for disposal.

Management stated (December 2013) that obsolete stores and spares of CPP (₹ 1.50 crore) were since identified and identification of balance non-moving spares was in progress.

Absence of records for by-products

2.2.61 IKIWL/IFCAL had not devised any system of maintaining stock of slag generated at plant. Considering the norm of 1:1.1 as production of HCFC and slag, 90,451 MT of slag valuing ₹ 0.66 crore (market price of ₹ 73 per MT) produced during 2008-13 was remaining undisposed.

Management stated that 47,000 MT of slag was sold during 2008-09 and balance quantity of slag would be disposed of after separation of metal touch.

However, slag sold during 2008-13 was generated prior to 2008-09 and slag generated during 2008-13 was yet to be sold.

Absence of codified procedure

2.2.62 IKIWL has so far not devised codified procedure for production reporting and despatch of materials. Physical verification carried out by IKIWL certified book stock as physical stock. In the absence of reconciliation of pig iron produced, handled, despatched with closing stock IKIWL could not identify the shortage of 5,490.601 MT valuing ₹ 15.63 crore till October 2012 when physical verification was conducted. Out of the above, shortage of 5,290.626 MT was written off in the account for 2012-13. Since shortage was neither accounted for annually nor reported to excise authorities, they disallowed (October 2013) remission of excise duty on the shortage and IKIWL was liable to pay excise duty of ₹ 1.74 crore.

Management accepted the observation.

Un-reconciled production data

2.2.63 As per sales records maintained at IKIWL, actual lifting was 8.28 lakh MT of lump iron ore, 1.28 lakh MT of CLO (5-18), 1.13 lakh MT of CLO (10-30) and 1.01 lakh MT of fines during 2008-13 excluding despatch to IKIWL plant whereas as per returns submitted to DDM lifting was 8.37 lakh MT lump, 1.37 lakh MT of CLO (5-18), 1.05 lakh MT of CLO (10-30) and 0.95 lakh MT of fines. The discrepancy remained unreconciled.

Reasons for shortage of 5,490.601 MT pig iron valued at ₹ 15.63 crore could not be identified in absence of codified procedure

Un-reconciled molten metal

2.2.64 There was no reconciliation of quantity of molten metal despatched from pig iron division of IKIWL to its spun pipe division as a result 1,055.582 MT valuing ₹ 3.05 crore remained un-reconciled.

Internal Audit

2.2.65 Internal audit of IDCOL and its two subsidiary companies were conducted in house by an officer without any supporting staff, posted at corporate office of IDCOL. Scope of internal audit is not defined. Audit coverage as decided by the team included only a specified area of operation at a point of time. As such internal audit of subsidiary companies did not include the entire functions covering production, purchase, sale and mining activities. Further, internal audits were not conducted regularly.

Audit Committee

2.2.66 Audit Committee has an important mandate for safeguarding integrity of business processes of the Company through oversight of Internal Control and Financial Reporting process.

Following deficiencies were noticed in the functioning of Audit Committees of IDCOL and its Subsidiaries as provisions of Companies Act and Corporate Governance Manual were not followed.

- The Audit Committees of IDCOL and IKIWL had not followed the mandatory sittings of three times annually. Against 15 mandatory sittings during 2008-13, Audit Committees of IDCOL and IKIWL had 12 and 11 sittings respectively.
- There were no written Terms of Reference defining responsibility of the Audit Committees. Audit Committees had neither deliberated on Internal Control functioning nor evaluated the work of Internal Audit. They had no discussion with the Statutory Auditors.

Acknowledgement

Audit acknowledge co-operation and assistance extended by Management and staff of Companies at various stages of conducting Performance Audit and Entry conference and Exit conference.

Conclusion

- **IDCOL could not enhance/modernise the existing capacity of IKIWL and IFCAL to optimise the use of mineral resources at its disposal.**
- **Due to improper monitoring of raising, transportation and utilisation of iron ore and chrome ore IKIWL and IFCAL**

sustained loss of ₹ 47.09 crore.

- **Installed capacities of IKIWL and IFCAL were not utilised optimally due to infrastructural bottlenecks and improper monitoring resulting in higher cost of production, lower production and productivity resulting in loss of ₹ 133.89 crore.**
- **The operation of existing coke oven plant by JV partner was not economical and IKIWL failed to monitor receipt of proper quantity and quality of coke resulting in loss of ₹ 31.87 crore.**
- **Internal control and monitoring were deficient.**

Recommendations

In the light of the audit findings, audit recommends the following.

- **IDCOL needs to carryout modernisation and expansion of existing industries as per mandate;**
- **IDCOL needs to utilise existing mines and mineral resources optimally and exercise due prudence in raising, transportation, and utilisation of minerals to maximise revenue;**
- **Subsidiaries need to reduce cost of production of finished product through improvement in infrastructure and better cost control measures;**
- **Subsidiaries need to strengthen internal control and monitoring mechanism for better managerial control.**