

## Chapter II

### 2. Performance Audit relating to Government Companies

#### 2.1 Odisha Power Transmission Corporation Limited

##### Transmission Activities

##### Executive Summary

*The Company, incorporated in March 2004 as a wholly owned Government Company, is engaged in the business of Transmission of electricity and Grid operations. The activities of the Company include construction and operation of Extra High Tension (EHT) transmission network, i.e. 400 KV to 132 KV level Sub-stations (SSs) and lines. As of March 2012, the Company had 100 SSs with installed capacity of 10,262.50 MVA and transmission lines of 11,295.963 Ckm. The Performance Audit of the Company for the period from 2007-08 to 2011-12 was conducted to assess the economy, efficiency and effectiveness of its operations and ability to meet the objectives of its establishment.*

##### **Capacity Additions**

*The Company could add 19 EHT SSs, 3,105 MVA transformer capacity and 1,809.121 Ckm EHT lines during the five year period 2007-12 as against its actual planned addition of 33 EHT SSs, 6,227.50 MVA transformer capacity and laying of 2,987.768 Ckm of EHT lines. Achievement was 57.58, 49.86 and 60.55 per cent respectively. The shortfall was attributed to delay in execution of projects beyond the scheduled dates. Delayed execution of projects resulted in cost overrun of ₹165.56 crore, blockade of fund of ₹328.52 crore and non-achievement of projected benefits of ₹650.18 crore.*

##### **Project Management**

*The Company could not complete its projects as per the original schedule. In respect of 22 cases, the time overrun was between 15 and 154 months. The mismatch between generation capacity and evacuation system resulted in non*

*evacuating the share of the State from one IPP and two hydro power stations forgoing benefit of earning ₹97.98 crore towards transmission charges on 4,067.68 MU of energy. The capacity of the SSs at different voltage levels exceeded the norms fixed. The Company installed inadequate number of capacitor banks in its SSs to regulate fluctuation in the voltage and failed to install the required software to bill the DISCOMs for reactive energy charges.*

##### **Grid Management**

*Absence of SCADA/RTU connectivity in all the SSs despite investment of ₹108.85 crore, the SLDC function was not integrated resulting in inadequate monitoring of transmission system. SLDC did not enforce Grid discipline through operation of ABT and DISCOMs were not penalised for overdrawal of power over the approved schedules.*

##### **Transmission Losses**

*Transmission losses though reduced from 4.82 per cent in 2007-08 to 3.97 per cent in 2011-12, the same was, however, above the approved norms of OERC. Energy Audit has so far not been conducted to identify factors contributing to such losses and arresting the same.*

##### **Financial Management**

*The Company incurred losses in all the years 2007-11 and the accumulated loss as at the end of March 2012 was ₹181.98 crore. The Company's borrowing as of March 2012 was ₹818.63 crore. Due to incorrect filing of ARR, the Company could not recover ₹77.27 crore through the tariff.*

### **Material Management**

*The closing stock of the Company ranged between 13 and 40 months of consumption. As of March 2012 there was a huge surplus/non-moving stores valued at ₹38.93 crore awaiting disposal.*

### **Monitoring and Control**

*Monitoring by the Management was inadequate and there were deficiencies in internal control system prevailing in the Company.*

### **Conclusion and Recommendations**

*Proper planning for capacity addition and project management could have enabled the Company to meet the peak demand, avoid cost overrun, supply stable power, earning benefits towards*

*reduction in transmission loss and additional revenue. The Performance Audit contains eight recommendations to improve the performance of the Company i.e., preparation of capacity addition plan in line with the NEP; creation of adequate transmission facilities for evacuation of state share of power from generators; execution of the transmission projects as per the recommendation of Task Force Committee of MoP, GoI; adherence to the norms of MTPC/Grid Code for effective functioning and maintenance of transmission network; Installation of adequate number of capacitor banks, bus bar protection panels to protect the lines and SSs; maintenance of strict Grid discipline and operation of intra State ABT; earn additional revenue through reduction of transmission losses by enforcing energy audit; and Strengthening inventory management to avoid blockade of funds.*

## **Introduction**

**2.1.1** With a view to supply reliable and quality power to all by 2012, the Government of India (GoI) formulated the National Electricity Policy in February 2005 which stated that the Transmission System required adequate and timely investment besides efficient and co-ordinated action to develop a robust and integrated power system for the country. It also, *inter alia*, recognised the need for development of National and State Grid with the coordination of Central/State Transmission Utilities (STUs). Transmission of electricity and Grid operations in Odisha are managed and controlled by Odisha Power Transmission Corporation Limited (Company) which is mandated to provide an efficient, adequate and properly coordinated Grid management and transmission of energy. The Company was incorporated on 29 March 2004 under the Companies Act, 1956 after unbundling of GRIDCO Limited (GRIDCO)<sup>20</sup> by virtue of Orissa Electricity Reforms (Transfer of Transmission and Related Activities) Scheme, 2005 of Government of Odisha (GoO). In addition to function as a STU, the Company was also entrusted with the State Load Despatch functions. The Company is under the administrative control of Department of Energy, GoO. The Management of the Company is vested with a Board of Directors (BoD) comprising eleven members appointed by the State Government. Day to day operations are carried out by the Chairman-cum-Managing Director (CMD) with the assistance of Director (Engineering), Director (Human Resources), Director (Finance) and Company Secretary.

<sup>20</sup> Now engaged only in power trading activity

**2.1.2** During 2007-08, 19,407.66 Million Units (MUs) of energy was transmitted by the Company which increased to 21,824.08 MU in 2011-12 i.e. an increase of 12.45 *per cent* over five years. As on 31 March 2012, the Company had a transmission network of 11,295.963 Circuit kilometer (Ckm) and 100 Sub-stations (SSs) with installed capacity of 10,262.50 Mega Volt Ampere (MVA), capable of annually transmitting 54,538.23 MUs at 220 Kilo Volt (KV) and above. The turnover of the Company was ₹ 591.98 crore in 2011-12 which was equal to 0.26 *per cent* of State Gross Domestic Product (₹ 2,26,236 crore). It employed 3,482 employees as on 31 March 2012.

Performance Audit on Procurement, Performance, Repairs and Maintenance of Transformers was included in the Report of the Comptroller and Auditor General of India (Commercial), GoO for the year ended 31 March 2007. The report is yet to be discussed (October 2012) by the Committee on Public Undertakings (COPU).

### Scope and Methodology of Audit

**2.1.3** The present Performance Audit (PA) was conducted during February to July 2012 and covers performance of the Company during the period 2007-08 to 2011-12. Audit examination involved scrutiny of records of different wings at the Head office, State Load Despatch Center (SLDC), 6<sup>21</sup> out of 7 Construction Divisions and the Operation and Maintenance (O&M) Divisions each headed by an Assistant General Manager (Electrical). The Construction Divisions were selected on the basis of value of works for execution of projects. The Company constructed 19<sup>22</sup> SSs (1,062.5 MVA) and 48<sup>23</sup> lines (1,809.121 Ckm) during audit period, of which five SSs (140 MVA) and 13 lines (889.870 Ckm) were examined. Besides, the ongoing works of six SSs (150 MVA) and five lines (759.798 Ckm) were also examined. The examinations of the completed and ongoing works were limited to the selected divisions.

### Audit Objectives

**2.1.4** The objectives of the Performance Audit were to assess whether:

- Perspective Plan was prepared in accordance with the guidelines of the National Electricity Policy/Plan and Odisha Electricity Regulatory Commission (OERC) and to assess impact of failure to plan, if any;
- Transmission system was developed and commissioned in an economical, efficient and effective manner;
- Operation and maintenance of transmission system was carried out in an economical, efficient and effective manner;

<sup>21</sup> Angul, Balasore, Bhubaneswar, Bolangir, Cuttack and Jharsuguda

<sup>22</sup> Includes 10 switching stations

<sup>23</sup> Includes 7 associated lines of SSs and 26 deposit works

- Disaster Management System was set up to safeguard its operations against unforeseen disruptions;
- Failure analysis system set up was effective;
- Financial Management system was efficient with emphasis on timely raising and collection of bills and filing of Annual Revenue Requirement (ARR) for tariff revision in time was in place;
- There was an efficient and effective system of procurement of material and inventory control mechanism;
- Efficient and effective energy conservation measures were undertaken in line with National Electricity Plan (NEP) and a proper Energy Audit System was established; and
- There was a monitoring system in place to review existing/ongoing projects, corrective measures to overcome deficiencies identified and response to Audit/Internal audit observations.

### **Audit Criteria**

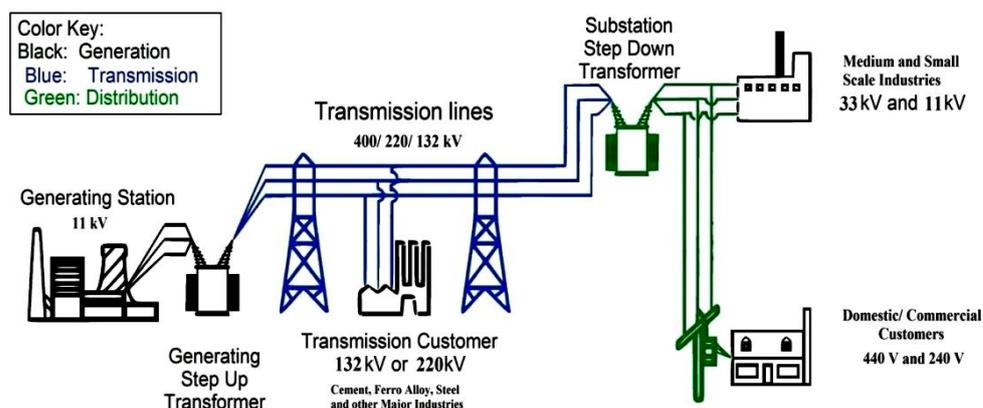
**2.1.5** The audit criteria for assessing the achievement of the audit objectives were adopted from the following sources:

- Provisions of National Electricity Policy/Plan and National Tariff Policy;
- Perspective Plan and Project Reports of the Company;
- Standard procedures for award of contracts with reference to principles of economy, efficiency, effectiveness, equity and ethics;
- ARR filed with OERC for tariff fixation, Circulars, Manuals and MIS reports;
- Manual of Transmission Planning Criteria (MTPC);
- Code of Technical Interface (CTI)/Grid Code consisting of planning, operation and connection codes;
- Directions from GoO/Ministry of Power (MoP);
- Norms/Guidelines issued by OERC/Central Electricity Authority (CEA);
- Report of the Committee constituted by the MoP recommending the Best Practices in Transmission;
- Report of the Task Force constituted by the MoP to analyse critical elements in transmission project implementation; and
- Reports of Regional Power Committee (RPC)/Regional Load Despatch Centre (RLDC).

## Brief description of transmission process

**2.1.6** Transmission of electricity is defined as bulk transfer of power over a long distance at high voltages, generally at 132 KV and above. Electric power generated at relatively low voltages in power plants is stepped up to high voltage power before it is transmitted to reduce the loss in transmission and to increase efficiency in the Grid. SSs are facilities within the high voltage electric system used for stepping up /stepping down voltage from one level to another, connecting electric systems and switching equipment in and out of the system.

Electrical energy cannot be stored. Therefore, every transmission system required a sophisticated system of control called Grid management to ensure balancing of power generation closely with demand. A pictorial representation of the transmission process is given below:



## Audit Findings

**2.1.7** Audit objectives, criteria, scope and methodology were shared with the Company during an Entry Conference held on 07 June 2012. Subsequently, audit findings were reported to the Company and the State Government in September 2012 and discussed in an Exit Conference held on 19 October 2012. The Entry and Exit Conferences were attended by the Secretary, Department of Energy and the CMD of the Company. The Company/GoO furnished replies to audit findings in October 2012. The views expressed by them have been considered while finalising this report. Audit findings are discussed in the subsequent paragraphs:

## Planning and Development

### *National Electricity Policy/Plan*

**2.1.8** The Central Transmission Utility (CTU) and State Transmission Utility (STU) have the key responsibility of network planning and development based

on the National Electricity Plan (NEP) in coordination with all the concerned agencies. At the end of the X Plan i.e., March 2007, the transmission system in the country at 765/HVDC/400/230/220 KV was 1.98 lakh Ckm of transmission lines which was planned to increase to 2.93 lakh Ckm by end of XI Plan i.e., March 2012. The NEP assessed the total inter-regional transmission capacity as 14,100 MW at the end of 2006-07 and further planned to add 23,600 MW in XI plan bringing the total inter-regional capacity to 37,700 MW.

The Company's transmission network at the beginning of 2007-08 consisted of 81 Extra High Tension (EHT) SSs with a transformation capacity of 7,157.5 MVA and 9,486.842 Ckm of EHT transmission lines. The transmission network as on 31 March 2012 consisted of 100 EHT SSs with a transformation capacity of 10,262.5 MVA and 11,295.963 Ckm of EHT transmission lines.

### ***Long Term Load Forecast***

**2.1.9** The STU is responsible for planning and development of the intra-state transmission system. Assessment of demand is an important pre-requisite for planning capacity addition. As required under Orissa Transmission and Bulk Supply License, 1997, the Company had to prepare and submit a long term load forecast every year alongwith the methodology and assumptions to OERC for succeeding ten years. The peak demand assessed as per the long term load forecast is to be considered as the basis for long term perspective plan for transmission system.

**Capacity addition was planned without approved load forecast for peak demand**

We observed that the Company submitted (August 2008 to July 2012) long term load forecasts every year for the five years 2007-12. OERC, however, approved (September 2010) the load forecast for 2009-10 only. Reasons for not seeking approval for the other four years were not on record. Thus, lack of persuance in obtaining approval for four years resulted in planning the capacity addition without any approved load forecast for peak demand.

### ***Long Term Perspective Plan***

**2.1.10** As per the Orissa Grid Code (OGC) Regulations, 2006, the STU was responsible for preparing and submitting a long term perspective plan to OERC based on long term load forecast for expansion of transmission system. The Company submitted (April 2011) the long term transmission plan for the period 2007-12 by engaging a consultant, Power Research Development Corporation Private Limited (PRDC). The transmission plan was based on the peak demand of 4,459 MW as projected by CEA for the State. OERC did not approve the plan since it was submitted belatedly and relied on 2007-08 as base year which had lost its relevance. It, however, directed (May 2011) the Company to submit a revised plan for the period 2012-17 with 2010-11 as base year. The revised plan was yet (October 2012) to be submitted.

We observed that in the absence of any approved transmission plan for 2007-12, addition to the transmission system was made on an adhoc manner by obtaining approval of OERC through the ARRs every year which resulted in inadequate and deficient transmission system for supply of quality and reliable

**In the absence of long term perspective plan 134.10 MW of power could not be transmitted leading to loss of revenue of ₹ 54.14 crore**

power and evacuating State share of power from IPPs/hydro power projects as discussed in subsequent paragraphs. Further, the Company failed to transmit 134.10 MW of power to 8 out of 20 test checked upcoming EHT consumers. This resulted in forgoing revenue of ₹ 54.14 crore during 2007-12.

While accepting the fact of delayed submission of the long term perspective plan for XI plan period, the Government/Management stated (October 2012) that submission of XII plan in compliance to the observations of OERC was in process.

### Transmission Network and its growth

**2.1.11** Transmission network comprises SSs, transformers in the SSs and transmission lines. The transmission capacity of the Company at EHT level during the PA period is given below:

Sl. No	Description	2007-08	2008-09	2009-10	2010-11	2011-12	Total
<b>A. Number of Sub-stations</b>							
1	At the beginning of the year	81	86	87	95	97	
2	Additions planned for the year	8	4	11	13	17	53 <sup>24</sup>
3	Added during the year	5	1	8	2	3	19
4	Total sub-stations at the end of the year (1 + 3)	86	87	95	97	100	
5	Shortfall in addition (2-3)	3	3	3	11	14	34
<b>B. Transformers Capacity (MVA)</b>							
1	Capacity at the beginning of the year	7,157.5	7,537.5	7,805	8,832.5	9,595	
2	Addition/augmentation planned for the Year	2,512.5	3,732.5	4,495	3,927.5	3,790	18,457.5 <sup>24</sup>
3	Capacity added during the year	380	267.5	1,027.5	762.5	667.5	3,105
4	Capacity at the end of the year (1+3)	7,537.5	7,805	8,832.5	9,595	10,262.5	
5	Shortfall in additions /augmentation (2-3)	2,132.5	3,465	3,467.5	3,165	3,122.5	15,352.5
<b>C. Transmission Lines (Ckm)</b>							
1	At the beginning of the year	9,486.842	10,064.852	10,310.258	10,545.038	11,152.586	
2	Additions planned for the year	2,146.55	1,584.017	1,553.914	1,793.469	1,322.024	8,399.974 <sup>24</sup>
3	Added during the year	578.01	245.406	234.78	607.548	143.377	1,809.121
4	Total lines at the end of the year (1+3)	10,064.852	10,310.258	10,545.038	11,152.586	11,295.963	
5	Shortfall in additions (2-3)	1,568.540	1,338.611	1,319.134	1,185.921	1,178.647	6,590.853

<sup>24</sup> Includes spill over of 20 SSs, 12,230 MVA transformer capacity and 5,412.20 Ckm lines

It could be seen from the above table that against the planning for addition of 53 SSs, 18,457.5 MVA transformer capacity and 8,399.974 Ckm transmission lines during 2007-12, the Company could add 19 SSs, 3,105 MVA transformer capacity and 1,809.121 Ckm transmission lines.

**Shortfall in addition of transmission capacity resulted in higher percentage of loading and voltages**

We observed that PRDC, the consultant appointed by the Company, recommended loading of SSs by 15.43 to 97.52 *per cent* of the capacity and voltages by 128.44 to 228.1 KV for 132/220 KV SSs to meet the peak demand of 4,459 MW. Due to shortfall in transmission network, the actual peak demand was restricted at 3,511 MW during 2011-12. Even at this lower peak demand, the percentage of loading and voltages of SSs was between 18.66 to 102.21 *per cent* and 134 to 254 KV respectively which were on a higher side than that recommended by PRDC. This reflected on inadequacy of transmission network for ensuring quality and reliable power supply to the consumers.

Particulars of voltage-wise capacity additions planned, actual additions, shortfall in capacity etc. during the audit period are given in the **Annexure 7**. The shortfall in transmission network was mainly due to time overruns caused by right of way (RoW) problem, delay in site allocation, non availability of forest and railways clearances etc. as discussed in subsequent paragraphs.

The Government/Management while accepting the fact of shortfall in addition of transmission system as planned stated (October 2012) that the shortfalls were due to RoW problem, delay in site allocation, forest and railways clearance etc. The shortfall, however, could have been reduced with proper planning and coordination with the Departments concerned.

### **Project management of transmission system**

**2.1.12** A transmission project involves various activities from concept to commissioning. Major activities in a transmission project are project formulation, appraisal, approval and project execution. For reduction in project implementation period, the MoP, GoI constituted (February 2005) a Task Force Committee (TFC) on transmission projects with a view to analyse the critical elements in transmission project execution, implementation from the best practices of CTU/STUs and suggest a model transmission project schedule of 24 month duration.

The TFC recommended (July 2005) that preparatory activities such as surveys, design and testing, processing for statutory clearances, tendering activities etc. be undertaken in advance/parallel to project appraisal and to go ahead with construction activities once transmission line project sanction/approval is received. It also recommended breaking down the transmission projects into clearly defined packages which could be executed with minimal disruptions.

#### ***Delay in execution of work***

**2.1.13** During 2007-12 the Company executed 53 works involving construction of SSs and lines, of which 24 works were completed and 29

works were in progress. The following table indicates delay in execution and consequential time/cost overrun of 29 test checked works.

Capacity in KV	Total No. of works executed		No. test checked by audit		Delay in construction (Numbers)		Time overrun (range in months)		Cost overrun (₹ in crore)	
	SSs	Lines	SSs	Lines	SSs	Lines	SSs	Lines	SSs	Lines
400	2	3	-	3	-	3	-	24-126	-	96.56
220	8	8	1	6	1	6	20	45-153	5.22	61.28
132	20	12	10	9	10	9	1-18	72-154	1.05	1.45
<b>Total</b>	<b>30</b>	<b>23</b>	<b>11</b>	<b>18</b>	<b>11</b>	<b>18</b>			<b>6.27</b>	<b>159.29</b>

(Source: Monthly Progress Reports and Unit Records)

The work-wise details are listed in **Annexure 8**.

**22 projects were delayed in execution upto 154 months**

We observed that despite the recommendations of TFC to break down the works to different packages, all works were executed on turnkey basis. Further, 22 works were delayed in completion/execution by 15 to 154 months. The delays in execution of the works were attributed to RoW problem, impediment in obtaining statutory clearances, land acquisition problems, etc.

The Government/Management stated (October 2012) that to avoid interfacing problems between various executing agencies and to have single source of responsibility for smoothening of the project execution, projects were awarded on turnkey basis. The fact remained that the Company did not adhere to the recommendations of TFC which led to abnormal delays in execution of the works.

#### ***Delay on account of statutory clearances***

**2.1.14** The Company was required to solve the RoW problem and obtain statutory clearances like Power and Telecommunication Co-ordination Committee (PTCC) and forest clearances along with acquisition of land in terms of the recommendation of the TFC to ensure timely execution of works. We noticed that in the case of 11 works, the Company failed to solve the RoW problem and obtain Power and Telecommunication Co-ordination Committee (PTCC)/forest clearances. Further, seven works were awarded prior to acquisition of land over which the SSs and lines were to be constructed and in eight cases, the Company could not hand over the sites on time to the contractor due to absence of proper coordination with the related departments/agencies. This has resulted in delay in commencement of works by the contractors/stoppage of works during execution, affecting the completion of the works.

The Government/Management stated (October 2012) that to save time, tendering process was initiated after administrative approval without waiting for possession of land and forest clearance. The reply was not acceptable since land acquisition and statutory clearances were pre-requisite for execution of projects and should have been planned in advance.

***Delay in awarding of works***

**2.1.15** As per the recommendation of the TFC, once the sanction/approval is obtained for execution of works, the Company was required to go ahead with the construction activities. We noticed that the Company awarded three works for execution after a delay of 24 to 28 months from their sanction/approval. The delay was mainly due to change in scope of work, non finalisation of site and delayed selection of contractors etc. These delays could have been avoided with proper planning and coordination.

***Delay due to change in scope of works***

**2.1.16** To accelerate the completion of works TFC had included the preparatory activities such as survey, design etc. We noticed that the Company awarded 14 works without proper soil and site survey. This resulted in change in scope of work on account of revision of Bill of Quantities, additional sand filling, construction of approach road etc., which delayed execution of works.

***Delay in supply of transformers***

**2.1.17** In terms of the agreements with the contractors, the Company was required to supply transformers in time to make the SSs ready for operation. The Company supplies transformers either through procurement or by repairing the available defective transformers. In execution of four projects, the Company did not synchronise procurement of transformers/repairing defective transformers in order to provide the same to the contractors in time which resulted in delay in completion of the works.

***Delay on the part of the contractors***

**2.1.18** The Company should exercise proper control over execution of works by the contractors so as to ensure completion of the works in time. We noticed that the execution of ten works were delayed due to delay on the part of the contractors towards mobilization of their resources in time and thereby did not adhere to the stipulated date. The Company, however, extended the contract period from time to time without imposition of penalty despite delay in completion of the works as per schedule.

As a result of delay in execution/completion of works, the Company was not able to achieve the intended benefits towards improvement in voltage profile, strengthening of the transmission system, minimising interruption in the power supply, availability of alternative power supply, reduction in transmission loss and enhancement of flow of power in the system as envisaged in the Detailed Project Reports (DPRs).

### ***Non availment of financial benefits***

**2.1.19** Projects were implemented availing term loans from Rural Electrification Corporation Limited (REC)/Power Finance Corporation Limited (PFC)/World Bank and equity from Government. As such projects should be planned and executed adhering to the time schedule to achieve the financial benefits as envisaged in the DPRs. Failure of the Company to execute the projects in time has resulted in forgoing benefit amounting ₹ 988.34 crore as discussed in the succeeding paragraphs:

#### ***Idle Investment***

**2.1.20** Sub stations are made functional when the associated lines are synchronised to it. As such the completion period of SSs should match with the completion of the associated lines. We observed that the Company constructed (September 2005 to October 2008) six SSs incurring an expenditure of ₹ 168.56 crore. The SSs, however, could not be made functional due to delayed completion of associated lines for a period of 18 to 72 months. We, further noticed that construction of 11 other line and SS works were delayed by 36 to 60 months where the Company invested ₹ 159.96 crore. Thus, due to delay in execution of the lines/SSs, the investment of ₹ 328.52 crore remained idle leading to loss of interest ₹ 127.97 crore.

**Delay in execution of 17 works led to idle investment of ₹ 328.52 crore with resultant loss of interest of ₹ 127.97 crore**

#### ***Cost overrun***

**2.1.21** We noticed that in respect of 12 completed works, there was cost overrun of ₹ 91.71 crore varying from 9.05 to 126 *per cent* against their estimated cost of ₹ 139.67 crore due to delay in completion. Further, due to delay in execution of nine works, which were in progress, the estimated cost of ₹ 132.57 crore was increased by ₹ 73.85 crore and varied from 2.36 to 85.30 *per cent* of estimates. Thus, delay in completion/non completion of works within the scheduled period led to cost overrun of ₹ 165.56 crore.

**Delay in completion/non-completion of 21 works resulted in cost overrun of ₹ 165.56 crore**

#### ***Loss of revenue***

**2.1.22** The DPRs of the individual projects envisaged the projected financial benefits towards additional units proposed to be transmitted through the system and reduction in the system loss. We observed that due to delayed execution of 14 works (5 completed and 9 ongoing) the Company had to forego the projected annual revenue of ₹ 650.18 crore (completed works ₹ 41.65 crore and ongoing works ₹ 608.53 crore).

**Non-achievement of projected financial benefit of ₹ 650.18 crore due to delay in execution of 14 works**

#### ***Avoidable/unfruitful expenditure***

**2.1.23** It is incumbent on the Company to achieve economy in the execution of works where there is scope for availing financial incentives from any source. We noticed that in execution of four works, the Company could not avail the benefit of ₹ 2.65 crore since the contractor did not extend the benefit of discount against the additional supply and erection value which exceeded the contractual quantity. Besides in execution of nine works, it could not avail the deemed export benefit of ₹ 0.22 crore on excise duty due to expiry of World

**Non-availment of financial benefits of ₹ 10.31 crore**

Bank funding. We further noticed that the Company also incurred an avoidable/unfruitful expenditure of ₹ 7.44 crore due to construction of separate line as completion of original line was uncertain (₹ 1.64 crore), non rerouting of a line where execution was uncertain due to RoW problems (₹ 0.98 crore) and restoration of a line out of own source which was to be at the risk and cost of the contractor (₹ 4.82 crore).

#### ***Avoidable payment of consultancy fees***

**2.1.24** The Company decided (October 2005) to execute seven works through Power Grid Corporation of India Limited (PGCIL) with consultancy fees varying from 12 to 15 *per cent* of the project cost on the ground of expertise in executing transmission projects and their approach in solving RoW problems which would help for timely completion of works. We noticed that while awarding the works, the Company did not include a suitable clause regarding responsibility of PGCIL to address RoW problems of the works. As such tackling the RoW problems were undertaken by the Company itself. Further, no benefit of PGCIL's expertise could be available to the Company since against the schedule completion of works by July 2012, PGCIL could complete only 10 *per cent* of erection of tower and 2 *per cent* stringing of conductors. Moreover while reviewing the execution of the projects, OERC directed (May 2011) the Company to execute the projects with their own expertise through competitive bidding instead of through PGCIL as payment of consultancy fees would be a burden to the consumers. Thus, the very purpose of award of works to PGCIL did not yield the desired result. Further while releasing payment, the Company had not fixed any responsibility on PGCIL for their lapses in executing works in time. Thus, the Company incurred an avoidable expenditure of ₹ 34.32 crore towards consultancy fee paid/payable to PGCIL.

**The Company incurred an avoidable expenditure of ₹ 34.32 crore towards consultancy fees**

The Government/Management stated (October 2012) that for better co-ordination, gaining expertise and saving overhead expenditure the works were awarded to PGCIL. The reply is not acceptable as no benefit could be accrued to the Company from their expertise as the execution was abnormally delayed and the very purpose of engagement of expertise was defeated.

#### **Mismatch between generation capacity and transmission facilities**

**2.1.25** National Electricity Policy envisaged augmenting transmission capacity taking into account planning of new generation capacities to avoid mismatch between generation capacity and transmission facilities.

Scrutiny of records revealed that 29 IPPs had entered into MOUs with GoO during June 2006 to January 2011 for generation of 40,620 MW of which State share was 10,653 MW. Two<sup>25</sup> out of the 29 IPPs started generation in March/August 2010. The Company was required to develop adequate transmission system to evacuate the State share of power generated by the IPPs and the existing hydro power projects. The Company, however, was not

<sup>25</sup> Sterlite Energy Limited (SEL) and Arati Steel Limited

able to evacuate the State share of power of one IPP (SEL) and one existing hydro power station (MHEP). In addition, the existing transmission network provided for the other hydro power project (BHEP) was not upgraded as per the conditions of CEA. The following table indicates the mismatch between the generation and evacuation plan of the Company against these three power projects:

Sl. No.	Project	Generating Company's plan	Company's plan	Result of mismatch
1.	Sterlite Energy Limited(SEL)	Synchronisation of 768 MW power in four units by December 2011.	Construction of 400 KV Ib-Meramundali DC line by November 2012.	Non-availability of transmission system in time for evacuation of power.
2.	Machkund Hydro Electric Project(MHEP)	To avail the entire State share of 57 MW being 50 <i>per cent</i> of the designed energy of the plant.	Absence of any plan to avail the full State share.	Non-drawal of cheaper power for the State.
3	Balimela Hydro Electric Project(BHEP)	Commissioning of two new units of 150 MW.	Conversion of existing 220 KV Balimela-Jayanagar SC line into multi circuit line.	Not able to evacuate full output of power due to inadequacy of transmission system.

### ***Sterlite Energy Limited***

**2.1.26** GoO signed (September 2006) an MoU with SEL wherein GRIDCO, the power trading State PSU, was entitled to get 25 *per cent* (revised to 32 *per cent* from August 2008) of their generating capacity of 2,400 MW (4 units @ 600 MW) consisting of the entire power (600 MW) of first unit and 7 *per cent* of other three units. Accordingly, GRIDCO entered into PPA (September 2006) with SEL for purchase of the State share of power. In terms of both MoU and PPA, the Company had to arrange for evacuation of such power. Out of four units, the first unit was synchronised (August 2010) to the Grid SS of the Company through a 220 KV DC line owned by Vedanta Aluminium Limited (VAL). Subsequently, the second unit of SEL was synchronised (March 2011) to the PGCIL Grid, where the State share of 7 *per cent* was to be evacuated by the Company through its transmission network. We observed that the Company did not plan any addition to its transmission lines for evacuation of power for which it had to depend on the line of VAL and PGCIL. Further, the decision for capacity addition by construction of 400 KV DC line of the Company was taken as late as in November 2010 which was still in progress (November 2012). Due to inadequacy of the existing transmission line of the Company to evacuate the power of both the units, SEL got the opportunity to inject its major part of the power to VAL and to sell outside the State, which resulted in short drawal of State share by 3,983.09 MU with consequential loss of transmission charges to the Company by ₹ 96.84 crore. Had power been available to GRIDCO it could have sold the same outside the State under Unscheduled Interchange (UI) route at a higher rate and earned maximum revenue of ₹ 742.11 crore.

**Failure of the Company to provide transmission network to evacuate 3,983.09 MU of SEL power resulted in loss of transmission charge of ₹ 96.84 crore and loss of revenue of ₹ 742.21 crore**

Government/Management stated (October 2012) that it would be prudent to start construction of transmission lines based on the advance stage of

construction of power plant and accordingly renovation of IB-Meramundali line was started in 2010.

The reply is not acceptable because as per the MoU, the Company should have planned for completion of the 400 KV DC line for evacuation of power by August 2010.

### ***Machkund Hydro Electric Project (MHEP)***

**2.1.27** GoO was entitled to draw 50 per cent (262 MU) of energy generated by Machkund Hydro Electric Project (MHEP), jointly owned by GoO and Government of Andhra Pradesh. A mention was made in the Report of Comptroller and Auditor General of India (Commercial) for the year ended 31 March 2007 that due to system constraints of the Company in evacuation of the required power there was a short drawal of power of 168.6845 MU during 2003-07. Despite this being pointed out, the Company had not developed the then existing transmission system so as to evacuate the entire State share of power. During 2007-12 also, the Company could not draw the entire State share leaving a shortdrawal of 84.59 MU and thereby had to forego transmission charges of ₹ 1.14 crore. Further, due to non-availability of the State share of low cost power, GRIDCO was burdened with an avoidable expenditure of ₹ 16.36 crore towards procurement of high cost power which was ultimately passed on to the consumers.

**State share of 84.59 MU power could not be evacuated from MHEP resulting in loss of transmission charges ₹ 1.14 crore and loss of revenue ₹ 16.36 crore**

The Government/Management stated (October 2012) that the area load of Southern part of the State could never match with Odisha share in MHEP. The reply is not acceptable since in the absence of adequate transmission system the Company was not able to draw entire State share of power of MHEP.

### ***Balimela Hydro Electric Project (BHEP)***

**2.1.28** CEA accorded (January 2001) Techno Economic Clearance for commissioning of two units of 75 MW each at Balimela Hydro Electric Project (BHEP) with the condition that the Company (erstwhile GRIDCO) should provide adequate transmission capability to evacuate full output of power of 510 MW including 360 MW power of existing six units either by providing one separate 220 KV SC line from Balimela-Jayanagar or re-conductoring the existing 220 KV DC lines. Accordingly, the Company conducted (December 2003) a technical feasibility study and concluded that though the project was not financially viable, it was technically justified strictly in accordance with Transmission Planning and Security Standards since line overloads occurred when there was a single circuit outage. Subsequently, while reviewing (May 2006) the stand of the Company regarding financial unviability, the CEA again opined for the commissioning of the above projects for facilitating the evacuation of full power. Accordingly, the BOD accorded (August 2008) its 'in principle' approval for upgrading the existing line at an estimated cost of ₹119 crore.

We noticed that though both the units were commissioned during December 2008/January 2009, upgradation of the line was not undertaken so far (November 2012) due to its financial unviability. Thus, the Company failed to

provide adequate transmission capability to evacuate full output of power as required strictly in accordance with Transmission Planning and Security Standards.

The Government/Management stated (October 2012) that the peak generation of BHEP in rainy season was 406 MW which could be evacuated through the existing three lines each carrying 200 MW power and even after outage of one line, the other two lines could carry the power. The reply is not acceptable because the Company had not adhered to condition of the CEA's directive for upgradation of the existing line.

## Performance of transmission System

**2.1.29** Performance of the Company mainly depends on efficient maintenance of its EHT transmission network for supply of quality power with minimum interruptions. Performance with regard to transmission system is discussed in the succeeding paragraphs.

## Transmission Capacity

**2.1.30** National Electricity Policy emphasised creation of adequate margins in the transmission system. Transmission capacity would be planned and built to cater to both the redundancy levels and margins keeping in view international standards and practices. Reliability and operation margins would be generally of the order of 25-30 *per cent* of the transmission capacities required for meeting the firm transmission needs of the long term commitments and sufficient margins for trading needs.

Transmission capacity (220 KV) created vis-à-vis transmitted capacity (Peak Demand met) at the end of each year by the Company during the 5 years ending March 2012 are as follows:

Transmission Capacity (in MVA)					
Year (1)	Installed (2)	After leaving 30 <i>per cent</i> towards margin (3)	Peak demand including non-coincident demand (in MW) (4)	Peak demand equivalent (5)	Excess (Shortage) (3-5)
2007-08	4,050	2,835	2,906	3,059	(224)
2008-09	4,290	3,003	3,021	3,180	(117)
2009-10	5,120	3,584	3,150	3,316	268
2010-11	5,320	3,724	3,347	3,523	201
2011-12	5,620	3,934	3,511	3,696	238

Poor planning led to excess transmission capacity of 238 MVA costing ₹ 8.85 crore

From the above table it could be observed that overall transmission capacity was in excess of the requirement for last three years. The existing transmission capacity excluding 30 per cent towards redundancy was excess by 238 MVA to the end of March 2012 which worked out to ₹ 8.85 crore (₹ 5.95 crore per 160 MVA Auto Transformer). This was a burden passed on to the consumers. Existence of extra/idle capacity in the transmission network and prevalence of overloads, high voltages on certain places is indicative of unscientific planning in creation of transmission network.

The Government/Management replied (October 2012) that power flowing through the power transformers has to pass through the Auto Transformers and similarly, power flowing through Auto Transformers has to pass through the Inter Connecting Transformers, resulting in addition of same power in three stages taking one particular voltage transformation ratio. The reply is not tenable since poor planning by the Company led to creation of excess transmission capacity.

## Sub-Stations

### Adequacy of Transformers

Transformers capacity at 28 SSs were not upgraded to meet 80 per cent of peak load

**2.1.31** Manual on Transmission Planning Criteria (MTPC) stipulates the permissible maximum capacity for different SSs i.e. 320 MVA for 220 KV and 150 MVA for 132 KV SSs. Scrutiny of the maximum capacity levels of 100 SSs revealed that six 220 KV SSs and one 132 KV SS exceeded the permitted levels. NEP also stipulates at least two transformers for each 132 KV and above capacity SSs. We observed that two out of 100 SSs, were having only one transformer each. Further, the Transmission Planning and Security Standards issued by CEA indicated that the size and number of transformers in the SS shall be planned in a way that in the event of outage of any single transformer the remaining transformers could still supply 80 per cent of the load. We observed that in the event of outage of single transformer at 28 out of 100 SSs, the remaining transformers were not capable of meeting 80 per cent of the load (Peak Demand).

While accepting the fact of inadequacy of transformers in the SSs, the Government/Management stated (October 2012) that the same would be met by 2013-14 by installation of third transformers/upgradation of SSs capacity.

### Adequacy of Circuit Breakers

Inadequate circuit breakers rendered the SSs unable to withstand maximum fault level

**2.1.32** As per MTPC, the rated rupturing capacity (KA) of the circuit breakers (CBs) in any SS shall not be less than 125 per cent of the maximum fault levels at the SSs. We observed that as per the short circuit study done by the Company, fault current at one (Meramundali) out of 100 SSs was 40.08 KA. As such the capacity of CB should have been more than 50 KA, against which the rupturing capacity of the installed CB was 40 KA only violating the said norm of MTPC. Further, the standard rated rupturing capacity of CBs at 132 KV, 220 KV and 400 KV SSs should be 25 or 31 KA, 31 or 40 KA and 40 KA

respectively. We noticed that 23 out of 100 SSs were not having the minimum rupturing capacity of 25 KA. As such these CBs in service were not capable to withstand the maximum fault levels

The Government/Management while accepting the fact stated (October 2012) that all the CBs would be phased out with SF6 breakers within next two years with priority given to areas, where fault levels were more.

## Voltage Management

**2.1.33** Licensees using intra-state transmission system should make all possible efforts to ensure that Grid voltage always remain within limits. As per Indian Electricity Grid Code (IEGC), STUs should maintain voltage ranges between 198-245 KV and 119-145 KV in 220 KV and 132 KV lines respectively.

A test check of 17 out of 20 bus voltages of 220 KV for the period 2007-2012 revealed that in five SSs the maximum voltage recorded was between 250 to 270 KV against permissible limit of 245 KV and minimum voltage in 12 SSs was between 157 to 195 KV against norm of 198 KV. Similarly, in 132 KV bus voltages, two SSs recorded maximum voltage between 146 to 148 KV as against norm of 145 KV and minimum voltage in six SSs between 90 to 108 KV against the permissible limit of 119 KV. The Company, however, was not able to maintain the maximum and minimum voltages as per the norms and thereby could not provide quality power and reduce the transmission losses.

### Capacitor Banks

**2.1.34** As per the provisions of IEGC/OGC, the Company as an STU was required to keep the voltage profiles within +/- 3 per cent of the rated voltage. As voltages and reactive power are strongly inter-related, power system voltages can be controlled through the supply and absorption of Volt Ampere Reactive (VARs) by providing suitable reactor/capacitor banks. Accordingly, the Company identified 23 Grid SSs for installation of 33 KV capacitor banks with a combined rating of 275 MVAR so as to improve the system voltages and reduce the system loss, which was approved (May 2010) by OERC for ₹ 18.59 crore with a scheduled date of completion by March 2011. We noticed that in none of the identified SSs, the Company could install capacitor banks so far (July 2012). This resulted in non achievement of required system voltages, as well as reduction in system loss of 22.672 MW and equivalent saving of ₹ 1.36 crore *per annum*.

The Government/Management while accepting the fact of delay in installation of capacitor banks stated (October 2012) that though compliance to the directives of OERC took a considerable time, orders, however, were placed for installation of capacitor banks which was expected to be completed within the financial year 2012-13. However, the Company could not achieve the required system voltage as well as reduction in system loss so far by installation of capacitor banks.

**Non provision of capacitor banks to regulate voltage profiles at 23 SSs resulted in foregoing benefit of ₹ 1.36 crore per annum**

### **Pricing of Reactive Energy**

**2.1.35** As per the provisions of OGC on Reactive Power Pricing Policy, beneficiaries/power distribution companies should be discouraged to draw reactive power (VAR) during low frequency condition of the Grid i.e., when voltage would be below 97 *per cent*. For any drawal during low frequency period they would be billed for reactive power at the rate of 5 paise/KVARh with effect from 14 June 2006 which shall be escalated at 0.25 paise/KVARh every year, unless otherwise revised by OERC. The Company was required to install hardware and software for billing reactive power. We observed that despite repeated directions of OERC, the Company failed to submit the reactive power pricing policy due to non installation of required hardware and software, which resulted in non billing of reactive power so far with consequential non imposition of penalty for drawal during low frequency period.

The Government/Management while accepting the fact of non-billing of reactive energy charges stated that for Reactive Energy billing WIPRO had been engaged to develop the required software and the same was ready for trial run.

### **EHT Lines**

**2.1.36** As per norms of MTPC, permissible line loading cannot normally be more than the Thermal Loading Limit (TLL). The TLL limits the temperature attained by the energised conductors and restricts sag and loss of tensile strength of the lines. The TLL limits the maximum power flow of the lines. As per MTPC the TLL of 220 KV line with ACSR<sup>26</sup> Zebra conductor and 132 KV line with ACSR Panther conductor was 540 Amps (180 MW) and 400 Amps (80 MW) respectively. Scrutiny of the line loadings revealed that in 17 out of 22 segments of 220 KV lines and in 15 out of 20 segments of 132 KV lines were loaded above 540 Amps and 400 Amps respectively during the last three years ending 2011-12. Loading of the lines beyond capacity resulted in voltage fluctuations, higher transmission losses and frequent interruptions/breakdowns.

The Government/Management while accepting the fact of the loading of the lines beyond TLL stated (October 2012) that the Amp/MW drawals in most of the identified 132/220 KV lines have been experienced in exigency conditions during peak load period. Thus, the Company had not taken adequate steps for the required addition to the EHT lines to meet the peak load in exigency conditions.

### **Bus Bar Protection Panel**

**2.1.37** Bus bar is used as an application for interconnection of the incoming and outgoing transmission lines and transformers at an electrical SS. Bus Bar

**17 segments of 220 KV lines and 15 segments of 132 KV lines were over loaded causing voltage fluctuations and transmission loss**

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<sup>26</sup> Aluminium Conductor Steel Reinforced

Protection Panel (BBPP) limits the impact of the bus bar faults on the entire power network which prevents unnecessary tripping and selective to trip only those breakers necessary to clear the bus bar fault. As per Grid norm and Best Practices in transmission system, BBPP is to be kept in service for all 400 KV SSs to maintain system stability during Grid disturbances and to provide faster clearance of faults on 220/400 KV buses. The Company was required to install BBPP at its 22 SSs of 220/400 KV. We noticed that in 21 out of 22 SSs, the Company installed BBPPs of which only eight were in service and the other 13 were not put to service due to obsolescence or change in switchyard configuration which requires modification/ upgradation of the existing systems.

The Government/Management while accepting the fact of non operation of BBPP at 13 SSs stated (October 2012) that the procurement of numeric Bus Bar Protection Relays with Panels was in process.

## Maintenance

### *Planning for maintenance*

**2.1.38** In terms of the master maintenance plan of the Company, the BoD decided (June 2008) for installation of third transformer bays with third transformer in different Grid SSs to accommodate the future area load growth and to have redundancy for maintenance of power transformers with uninterrupted power supply, for ensuring the longevity of transformers and preventive maintenance without loss of revenue. Accordingly, the Company obtained (December 2008) the approval of OERC for installation of third transformer bays with transformers in 48 Grid SSs during 2008-10 at an estimated cost of ₹ 278.12 crore.

We observed that as on 31 March 2012, work of 20 SSs only could be completed with a delay of 19 to 34 months and the work of the balance SSs were yet to be completed even after a delay of 24 to 36 months due to delayed placement of work orders. Thus, due to delay/non-execution of the planned Operation and Maintenance (O&M) works, the very purpose of uninterrupted power supply and preventive maintenance without load shedding could not be achieved and as well as the envisaged reduction of system losses of ₹ 4.77 crore could not be achieved.

The Government/Management stated (October 2012) that the unfinished SS works which were in different stages would be completed by end of August 2013. The fact, however, remained that due to delay/non-execution of planned works, reduction in system loss could not be achieved.

## Performance of Auto/Power Transformers

**2.1.39** Auto Transformers (AT) and Power Transformers (PT) are the most important and cost intensive components of electrical energy supply networks. It is necessary to prolong their normal life duration of 35 years while reducing

**Company could not provide third bay in 48 SSs and had forgone benefit of ₹ 4.77 crore towards reduction in system loss**

their maintenance expenditure. The Company had formulated (August 2009) a Maintenance Manual which stipulates various tests/analysis like the standard oil Dissolved Gas Analysis (DGA) to be conducted for these equipments periodically. In the event of non-adherence to the maintenance schedules, premature failure of the equipments cannot be ruled out. The table below indicates status of failure of ATs/PTs, during the years 2007-08 to 2011-12:

Year	No. of transformers at the beginning of the year	No. of transformers failed	No. of transformers failed within guarantee period	No. of transformers failed within normal working life	Expenditure on repair and maintenance (₹ in crore)
2007-08	160	5	0	4	6.55
2008-09	170	3	0	3	4.20
2009-10	180	2	0	1	Not Repaired
2010-11	194	0	0	0	Not Applicable
2011-12	221	2	0	2	Not Repaired
Total		12	Nil	10	10.75

As seen from the above table 10 transformers failed prematurely during the period from 2007-08 to 2011-12 after serving for a period of eight to 31 years as against 35 years of normal life. Further, due to absence of prompt action of the Company, there was delay in repair of six out of seven transformers for a period of 6 to 55 months of their failure which were repaired at a cost of ₹ 10.75 crore. Four transformers which had served only for 13 to 15 years excluding one served for 31 years, are yet to be repaired resulting in blockage of approximately ₹ 4.24 crore towards their residual value.

**Funds amounting to ₹ 4.24 crore was blocked up due to non-repair of three failed transformers**

The Government/Management stated (October 2012) that major diagnostic tests like DGA and various other tests were carried out for in-service transformers as per guidelines prescribed in the Maintenance Manual, subject to availability of shutdown. It also added that mechanism and modalities for repair activities had been streamlined for prompt repair of failed transformers.

The reply is not acceptable since diagnostic tests should have been carried out by proper scheduling of shut down periodically to avoid premature failure of PTs. Further the reply is general and not specific to the issues brought out.

## Hot Line Maintenance

**2.1.40** Regular and periodic maintenance of transmission system is of utmost importance for its un-interrupted operation. Apart from scheduled patrolling of lines, the Committee constituted (November 2001) by MoP for updating the best practices of transmission also prescribed various hot line technique (HLT) for maintenance of lines without switching off.

The Company, however, has not yet implemented the HLT for undertaking the regular and periodic maintenance of the transmission system and instead undertook the maintenance works of the lines either in dead condition with load shedding or through alternative arrangements by restoring power supply through other existing lines.

As per the available data from 4 out of 15 O&M Divisions on hotline maintenance, we observed that during 2007-12 due to non-implementation of HLT in two divisions, the Company suffered loss of ₹ 0.43 crore towards transmission charges whereas the other two divisions made alternative arrangements through other lines for supply of power.

The Government/Management while accepting the fact of non-implementation of HLT stated (October 2012) that neither the Company nor its Rate Contract holder firms, had the expertise and the Company was initiating action to implement HLT by working out the preventive maintenance schedules which would certainly help to reduce revenue losses accrued due to shutdowns.

### **Non recovery of repair and maintenance charge**

**Company failed to recover O&M charges amounting to ₹ 3.30 crore from 44 EHT consumers**

**2.1.41** The Company has extended power supply to different industries from different Grid SSs through 74 dedicated feeders for their exclusive use, out of which 22 feeders are maintained by the beneficiaries and the balance 52 are maintained by the Company. The Company was required to collect the O&M charges against the dedicated feeders maintained by it. We noticed that out of 52 dedicated feeders maintained by the Company, though the Company was collecting the O&M charges from the beneficiaries of eight feeders, the O&M charges of ₹ 3.30 crore for the period 2007-12 has not been realised from the 44 beneficiaries either due to non-claiming or for non-response to the claims of the Company. Instead, the Company claimed the O&M charges through ARR which resulted in burden on the consumers.

The Government/Management stated (October 2012) that since the ownership of such lines created under deposit works lies with the Company, it was neither supposed to ask for reimbursement of maintenance expenditure from EHT beneficiaries nor request them to look after the maintenance of the said lines.

The reply is not acceptable because the Company was realising the O&M charges from eight of such beneficiaries and on the same analogy the O&M charges should have been recovered from such other beneficiaries.

### **Transmission losses**

**2.1.42** While energy is carried from the generating stations to the consumers through the Transmission and Distribution (T&D) network, some energy is lost which is termed as T&D loss. Transmission loss is the difference between energy received from the generating station/Grid and energy sent to DISCOMs. At present, the transmission loss in the network of the Company is estimated by deducting the energy sent out to the DISCOMs from the energy input/injected to the network. Details of transmission losses from 2007-08 to 2011-12 are as under:

Particulars	Unit	Year					Total
		2007-08	2008-09	2009-10	2010-11	2011-12	
Power received for transmission	MUs	20,389.83	20,190.50	20,896.33	22,930.18	22,726.91	1,07,133.75
Net power transmitted	MUs	19,407.66	19,277.67	20,036.48	22,004.35	21,824.08	1,02,550.24
Actual transmission loss	MUs	982.17	912.83	859.85	925.83	902.83	4,583.51
	Percentage	4.82	4.52	4.11	4.04	3.97	
Target Transmission loss as per the CEA norm	Percentage	4	4	4	4	4	
Target Transmission loss as per the OERC norm	Percentage	5.00	4.50	4.00	4.00	3.90	
Transmission loss in excess of OERC norm (Valued at transmission tariff rate as approved by OERC)	MUs	--	4.04	22.99	9.17	15.91	52.11
	Rate per unit in (₹)	--	0.21	0.205	0.235	0.25	
Amount of loss at the average supply rate per unit (₹ in crore)	₹ in crore	--	0.08	0.47	0.22	0.40	1.17

**Company incurred transmission loss of 52.11 MU valued at ₹ 10.62 crore for transmission charges**

As seen from the above table transmission losses exceeded the CEA norm of 4 per cent in all the years except in 2011-12 and also the OERC norm during all the years except for 2007-08. During the period 2008-12 excess transmission loss over OERC norms was 52.11 MU valued at ₹ 10.62 crore. This was not made available to GRIDCO which was a burden passed onto the consumers. The Company was also not able to earn transmission charges amounting to ₹ 1.17 crore. Further, The Company was not able to keep transmission loss at 3 per cent as recommended by a Committee on Power Sector Reforms.

The Government/Management stated (October 2012) that transmission loss was purely a technical loss which was dependent on several factors over which the Company had no significant control.

The reply is not acceptable since it contradicts its own contention that for control/reduction in transmission loss, remedial measures were being taken up to identify the loss incurring components through energy audit.

## Grid Management

### *Maintenance of Grid and performance of SLDC*

**2.1.43** Transmission and Grid Management are essential functions for smooth evacuation of power from generating stations to the DISCOMs/consumers. Grid Management ensures moment-to-moment power balance in the interconnected power system to take care of reliability, security, economy and efficiency of the power system. The State Load Despatch Centre (SLDC) of Odisha, a constituent of Eastern Region Load Despatch Centre (ERLDC), Kolkata, and operated by the Company, ensures integrated operation of power system in the State. Deficiencies in the performance of SLDC in maintenance of Grids are discussed in the succeeding paragraphs.

### ***Infrastructure for load monitoring***

**2.1.44** Remote Terminal Units (RTUs) being an element of Supervisory Control and Data Acquisition (SCADA)/Sub-station Management System (SMSs) are essential for monitoring the efficiency of transmission system and the loads during emergency in load despatch centres as per Grid norms for all SSs.

We noticed that the Company had provided RTUs at all the nine generating stations and at 49 Grid SSs during the period 2005-06 at a cost of ₹ 108.85 crore. However, 77 SSs (33 SSs of CGPs/EHT consumers and 44 SSs of the Company) did not have RTUs facilities so far (October 2012). The Company, however, had executed (October 2009) an agreement with PGCIL for establishment of SCADA connectivity including provision for RTUs in its 35 SSs at a cost of ₹ 31.67 crore. The work scheduled to be completed in September 2013 has not commenced so far. No action, however, has been taken so far for provision of SCADA/RTUs in the 33 SSs of the CGPs/EHT consumers and in balance nine SSs of the Company.

As all the SSs were not provided with RTUs, the Grid function was not integrated with SLDC and the objectives of SLDC to monitor real time data and effecting control over the functioning of the Grids were not achieved. Besides, ₹ 108.85 crore spent for installation of SCADA in 49 SSs remained idle since September 2005. Further, the delay in installation of SCADA in 35 SSs resulted in non-achievement of the intended benefit of ₹ 4.50 crore *per annum*.

The Government/Management while accepting the fact stated (October 2012) that action is underway for integration of additional 35 SSs with SLDC for SCADA connectivity by September 2013. The reply, however, was silent on the RTU connectivity at the 46 SSs of the CGPs/EHT consumers.

### ***Grid discipline by frequency management***

**2.1.45** As per Grid Code, transmission utilities are required to maintain Grid discipline for efficient functioning of the Grid. All the constituent members of the Grid are expected to maintain a system frequency between 49 (49.5 with effect from 2010-11) and 50.5 hertz (Hz) (50.3 Hz and 50.2 Hz from 2009-10 and 2010-11 respectively). Grid frequency goes below or above the permitted frequency level due to various reasons such as shortage in generating capacities, high demand, Grid indiscipline in maintaining load generation balance, inadequate load monitoring and management. To enforce Grid discipline, the SLDC was required to issue violation messages.

We observed that during the years 2007-12 though the Grid had operated 6.56, 11.22, 125.37, 606.54 and 217.10 hours above and 823, 583.10, 740.20, 1,045.74 and 656.22 hours below the threshold frequency level, no violation message was issued to DISCOMs and no penalty was imposed on the ground that it was not possible to record exact quantum of drawal by them in the absence of SCADA. Similarly the Company has failed to maintain Grid

**No messages were issued to the Power Generators/ DISCOMs inspite of Grids operating above/below the threshold limit**

discipline with ERLDC resulting in receipt of 118 messages. However, no penalty was imposed by the ERLDC.

The Government/Management stated (October 2012) that since the commercial implementation of Intra-State ABT was not in place, penalty for Grid violation by DISCOMs was not imposed. The reply is not tenable since directions of OERC for issue of violation messages were not complied with by the Company.

### ***Backing Down Instructions***

**2.1.46** When the frequency exceeds the ideal limit i.e. situation where generation is more but drawal is less (at a frequency above 50.2/50.5 Hz), SLDC takes action by issuing Backing Down Instruction (BDI) to the power generators to reduce the generations for ensuring the integrated Grid operations and achieving maximum economy and efficiency in the operation of the power system in the State. Failure of the power generators to follow the SLDC instructions would constitute violation of Grid Code and would entail penalty. We observed that even though the State Grid operated 966.79 hours during 2007-12 at a frequency above 50.2/50.5 Hz, SLDC issued BDI to only one generating company for violation of Grid Code for 7.30 hours.

The Government/Management stated (October 2012) that in case of rising frequency SLDC instructs verbally the State hydro power stations for backing down of generation to avoid delay in issuing written message. Thus, despite availability of clear cut instruction, the Company had not adhered to the Grid Code for issue of BDI.

### ***Operation of Availability Based Tariff***

**2.1.47** As per the National Electricity Policy and Tariff Policy, intra-state Availability Based Tariff (ABT) was to be implemented latest from April 2006 with the objective to maintain Grid discipline and proper load management. OERC issued (December 2007) guidelines for implementation of ABT in the State by the SLDC from January 2008. Under ABT, the generators as well as the DISCOMs were required to furnish their daily/monthly/annual schedule of generation/drawal beforehand. Any deviation in generation/drawal of electricity is to be dealt through Unscheduled Interchange (UI) and the charges for such deviations would be collected as per the rate determined by CERC for each 15 minutes block linked with the frequency.

We observed that for operation of ABT the Company was required to establish Energy Accounting and Settlement System Centre (EASSC) for recording and settling of monthly energy account and weekly UI and also required to install four dumb terminals in the Distribution System Operation Control Centres (DSOCC) of DISCOMs to display drawal and related data. For this purpose OERC allowed ₹ 8.80 crore through tariffs for 2008-10. The Company, however, failed to install the EASSC/DSOCC for which it could not implement the intra state ABT as of March 2012. In the absence of ABT the Company was not able to exercise control over the drawals of power by

**In the absence of ABT being operated, DISCOMS had not settled 3,274.71 MU over drawal power valuing ₹ 622.96 crore**

DISCOMs. We noticed that during 2008-11 the DISCOMs got the opportunity for overdrawal of 3,274.71 MU as against scheduled drawal of 45,433.82 MU. The overdrawal was met by GRIDCO by purchasing high cost power from Central Generating Stations/UI route incurring additional cost of ₹ 622.96 crore, the recovery of the same was doubtful as GRIDCO did not hold any security against such overdrawal. Thus, in the absence of ABT, being implemented, the Company could not recover the additional cost from the DISCOMs through weekly billing.

The Government/Management stated (October 2012) that due to non availability of required infrastructure and preparedness of DISCOMs, the ABT Regulation could not be implemented. The fact remained that the notification of OERC was not complied with by the Company.

### ***Inadequate scheduling of hydro power***

**Failure of SLDC to schedule 221.45 MU cheaper hydro power resulted in avoidable expenditure of ₹ 57.49 crore**

**2.1.48** As per OGC, SLDC is responsible for optimum scheduling and despatch of electricity within the State in consultation with the power generators, DISCOMs and GRIDCO. We observed that during June 2010 and June 2011, 221.45 MU of hydro power was available for optimum scheduling at cheaper rate varying from ₹ 0.35 to ₹ 0.625 per unit. However, the same could not be scheduled by SLDC on the ground that GRIDCO had already committed to avail power from CGPs and Central Generating Stations. This resulted in purchase of high cost power from CGPs at a rate varying from ₹ 2.75 to ₹ 3.25 per unit by GRIDCO with a consequential burden of ₹ 57.49 crore passed on to the consumers.

## **Disaster Management**

**2.1.49** Disaster Management (DM) aims at mitigating the impact of a major break down on the system and restoring it in the shortest possible time. As per the Best Practices, DM should be set up by all STUs for immediate restoration of transmission system in the event of a major failure. Disaster Management Centre of National Load Despatch Centre, New Delhi will act as a Central Control Room in case of disasters. As a part of DM programme, mock drill for starting up generating stations during black start<sup>27</sup> operations should be carried out by the Company at least once in every six months as per Indian Electricity Grid Code and Odisha Grid Code.

We observed that black start facilities were available only in two generating stations out of eight generating stations identified by SLDC in the State. Only five mock drill programmes could be conducted against the required 10 programmes during 2007-12. DG sets and synchronoscopes<sup>28</sup> form part of DM facilities at EHT SSs. Against 100 Grid SSs, DG sets were available only in nine SSs of which seven were in working condition. The synchronoscopes were available only in 13 Grid SSs as of March 2012. Further, the Company

<sup>27</sup> The procedure necessary to recover from partial or a total black out

<sup>28</sup> In an AC electrical power system it is a device that indicates the degree to which two system generators or power networks are synchronised with each other.

did not identify vulnerable installations for provisions of metal detectors and handing over the sites to the security force to meet crisis arising out of terrorist attack, sabotage and bomb threats. This indicated that the facilities available for DM were inadequate.

The Government/Management stated (October 2012) that to carry out maintenance activities, portable DG sets were hired. It was also stated that the two defunct DG sets would be repaired to meet the emergency situations. Further, it was stated that synchronoscopes were available at the generating SSs, 400 KV Grid SSs and some of the important 220 KV Grid SSs. Though the available facilities were inadequate, the reply of the Government/Management is silent about effective implementation of DM.

### Energy Accounting and Audit

**2.1.50** Energy accounting and audit is necessary to assess and reduce the transmission losses. Transmission losses are calculated from the Meter Reading Instruments (MRI), readings obtained from Generation to Transmission (GT) and Transmission to Distribution (TD) boundary metering points. As on March 2012 there were 437 interface boundary metering points (TD 372 and GT 65) in the transmission system of the Company. All the TD and GT metering points were provided with 0.2 accuracy class meters. Meters installed at the TDs for energy accounting by recording the power sent out to the distribution network. The Company arrived at the transmission losses by using gross method wherein energy sent out to the distribution point was deducted from energy input at the generation point. However, there was no metering of energy received at the SSs/feeders which can facilitate the comparison of the energy flow in the system to arrive at the transmission losses. In the absence of installation of the energy audit meters, the Company was not able to assess the details of energy consumed at the Grid Station, energy lost at transformers and at feeders, leading to deficiencies in energy audit.

Company has not started energy audit so far

The Government/Management while accepting the facts stated (October 2012) that action was underway for installation of ABT compliant energy meters to assess and identify the elements with higher losses and to take follow up remedial measures.

### Financial Management

**2.1.51** One of the major objectives of the National Electricity Policy 2005 was ensuring financial turnaround and commercial viability of Power Sector. The financial position of the Company for the five years ending 2011-12 is as under:

Particulars	(₹ in crore)				
	2007-08	2008-09	2009-10	2010-11	2011-12 (provisional)
<b>A. Liabilities/</b>					
Paid up Capital	60.07	83.13	88.13	160.07	203.07
Reserves and Surplus	536.84	553.17	682.47	707.45	843.23
Borrowings (Loan Funds)	1,415.29	1,311.66	1,030.90	918.86	818.63

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12 (provisional)
Other Funds (Consumer's Security Deposit)	0.01	0.01	0.04	0.79	
Current Liabilities and Provisions (CL)	335.97	730.40	821.37	842.35	939.81
<b>Total</b>	<b>2,348.18</b>	<b>2,678.37</b>	<b>2,622.91</b>	<b>2,629.52</b>	<b>2,804.74</b>
<b>B. Assets</b>					
Gross Block	2,272.54	2,415.26	2,603.75	2,793.54	2,929.13
Less: Depreciation	1,034.01	1,143.75	1,251.98	1,375.87	1,505.11
Net Block (NB)	1,238.53	1,271.51	1,351.77	1,417.67	1,424.02
Capital works-in-progress (CWIP)	722.14	671.10	576.07	556.25	626.28
Investments	27.06	27.06	27.06	27.06	27.06
Current Assets, Loans and Advances (CA)	310.61	630.63	507.94	443.85	545.40
Miscellaneous Expenditure to the extent not written off	0.61	0.30	--	--	
Accumulated Loss	49.23	77.77	160.07	184.69	181.98
<b>Total</b>	<b>2,348.18</b>	<b>2,678.37</b>	<b>2,622.91</b>	<b>2,629.52</b>	<b>2,804.74</b>
Debt equity ratio	23.56:1	15.78:1	11.70:1	5.74:1	4.03:1
Profit/(Loss) before tax	(3.64)	(18.30)	(71.37)	(12.73)	27.64
Interest (net of Interest during construction capitalised)	110.66	97.25	54.16	42.44	50.39
Total return (Interest on borrowed funds plus net profit/loss)	107.01	78.95	(-)17.21	29.71	78.03
Capital employed (NB+CWIP+CA-CL)	1,935.31	1,842.84	1,614.41	1,575.42	1,655.89
Percentage of Return on capital employed	5.53	4.28	--	1.89	4.71

(Source: Annual Accounts)

As seen from the above table the loss incurred by the Company increased from ₹ 3.64 crore in 2007-08 to ₹ 71.37 crore in 2009-10, which, however, was reduced to ₹ 12.73 crore during 2010-11 and earned a profit of ₹ 27.64 crore during 2011-12 due to hike in transmission tariff rate. The decreasing trend of Debt Equity ratio from 23.56:1 in 2007-08 to 4.03:1 in 2011-12 was due to decrease in borrowings and increase in the capital base. Percentage of Return on Capital employed steadily decreased from 5.53 (2007-08) to 1.89 per cent (2010-11) due to decrease in Capital Works in Progress from ₹ 722.14 crore (2007-08) to ₹ 556.25 crore (2010-11) and increase in Current Liabilities, which, however, increased to 4.71 per cent during 2011-12 due to earning of profit.

**2.1.52** Details of working results like revenue realisation, net surplus/loss and earnings and cost per unit of transmission are given in the table below:

(₹ in crore)

Sl.No	Description	2007-08	2008-09	2009-10	2010-11	2011-12
<b>1</b>	<b>Income</b>					
	Revenue (transmission charges and SLDC charges)	399.76	413.15	438.05	538.08	570.54
	Other income (including interest, supervision charges and misc. receipt)	28.21	302.62	3.73	(107.38)	21.44
	<b>Total Income</b>	<b>427.97</b>	<b>715.77</b>	<b>441.78</b>	<b>430.70</b>	<b>591.98</b>

Sl.No	Description	2007-08	2008-09	2009-10	2010-11	2011-12
<b>2</b>	<b>Transmission</b>					
(a)	Installed capacity (MW)	3,918.475	3,918.475	4,048.475	4,048.475	4,048.475
(b)	Power received from state generation units (MUs) <sup>29</sup>	13,422.84	13,883.95	13,394.06	15,846.48	15,725.22
(c)	Power received from regional Grid (MUs)	6,966.99	6,306.55	7,502.27	7,083.7	7,001.69
	<b>Total</b>	<b>20,389.83</b>	<b>20,190.50</b>	<b>20,896.33</b>	<b>22,930.18</b>	<b>22,726.91</b>
(d)	Loss in transmission (MUs)	982.17	912.83	859.85	925.83	902.83
	<b>Net power transmitted (b)+(c)-(d) in MUs</b>	<b>19,407.66</b>	<b>19,277.67</b>	<b>20,036.48</b>	<b>22,004.35</b>	<b>21,824.08</b>
<b>3</b>	<b>Expenditure</b>					
(a)	<b>Fixed cost</b>					
(i)	Employees cost	210.66	500.27	302.71	219.55	286.59
(ii)	Administrative and General Expenses	17.92	18.25	26.68	33.82	90.47
(iii)	Depreciation	108.55	109.82	108.03	122.34	125.68
(iv)	Interest and Finance charges (net after capitalisation)	110.66	97.25	54.16	42.44	50.39
	<b>Total fixed cost</b>	<b>447.79</b>	<b>725.59</b>	<b>491.58</b>	<b>418.15</b>	<b>553.13</b>
(b)	<b>Variable cost – (Repairs and Maintenance)</b>	16.52	16.92	26.14	28.32	45.70
(c)	<b>Total cost 3 (a) + (b)</b>	<b>464.31</b>	<b>742.51</b>	<b>517.72</b>	<b>446.47</b>	<b>598.83</b>
<b>4</b>	Realisation ( ₹ per unit)	0.22	0.37	0.22	0.20	0.27
<b>5</b>	Fixed cost ( ₹ per unit)	0.23	0.38	0.26	0.19	0.25
<b>6</b>	Variable cost ( ₹ per unit)	0.01	0.01	0.01	0.01	0.02
<b>7</b>	Total cost ( ₹ per unit) (5+6)	0.24	0.39	0.27	0.20	0.27
<b>8</b>	Contribution ( ₹ per unit) (4-6)	0.21	0.36	0.21	0.19	0.02
<b>9</b>	<b>Profit (+)/Loss(-) (4-7) ( ₹ per unit)</b>	<b>-0.02</b>	<b>-0.02</b>	<b>-0.05</b>	<b>0.00</b>	<b>0.00</b>

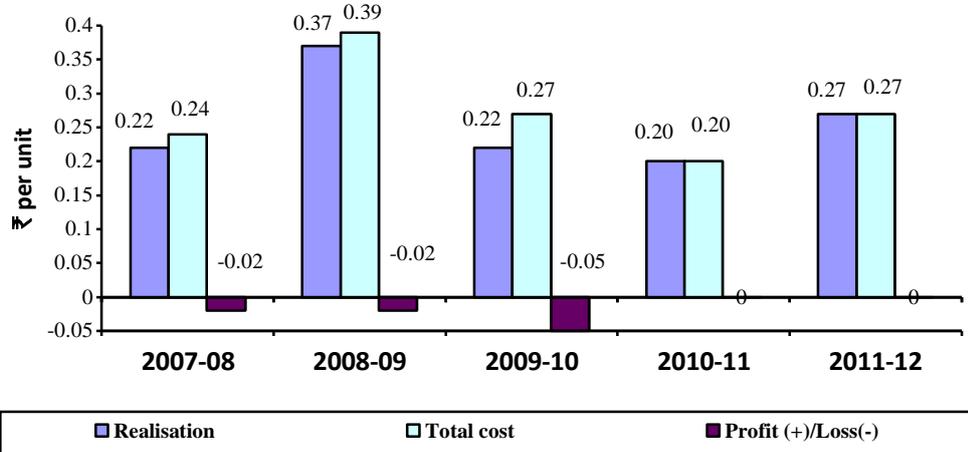
(Source: Annual Accounts)

It may be seen from the above that realisation per unit ranged between ₹ 0.20 (2010-11) to ₹ 0.37 (2008-09) during the audit period. Realisation as well as contribution per unit during 2008-09 was at a higher side due to inclusion of ₹ 265.78 crore in the other income as regulatory asset which was to be recovered in three financial years as per the orders of OERC. The cost per unit ranged between ₹ 0.20 to ₹ 0.39 during the corresponding period mainly due to decrease in interest and finance charges. It is also evident from the table above that Employee cost, Depreciation and Interest and Finance charges constituted the major elements of cost in 2011-12 which represented 48, 21 and 8 *per cent* of total cost in that year respectively. On the other hand, Transmission and SLDC charges constituted the major element of revenue during 2011-12 which represents 96 *per cent* of total revenue.

<sup>29</sup> Including private generation

### Recovery of cost of operation

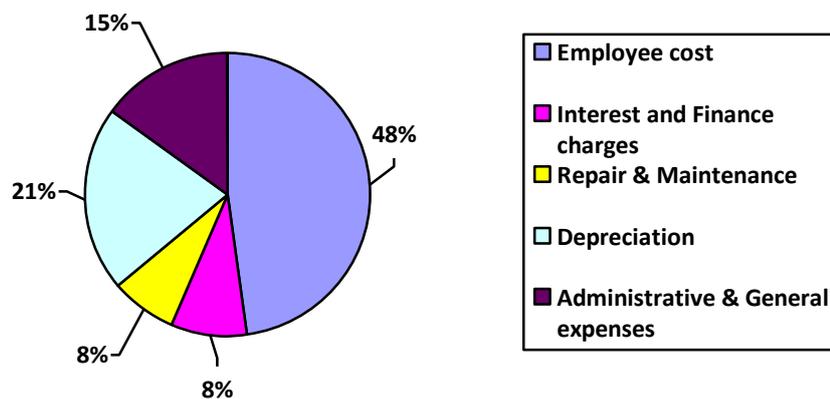
2.1.53 During the last five years ending 2011-12, the loss per unit ranged from ₹ 0.02 to ₹ 0.05 except for the years 2010-12 as given in the chart below:



It would be seen from the above chart that the Company has recovered the cost of operation only in two years i.e. 2010-12.

### Elements of cost

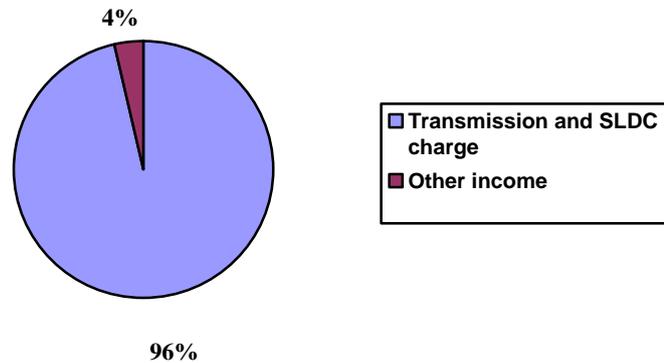
2.1.54 The percentage break-up of major elements of costs for 2011-12 is given below:



The Employee cost and Depreciation constituted the major elements of cost.

## Elements of revenue

2.1.55 Transmission charges and SLDC charges constitute the major element of revenue. The percentage break-up of revenue for 2011-12 is given in the following pie chart.



Transmission charges and SLDC charges constituted 96 per cent of the revenue of the Company.

## Loss due to claim after defect liability period

2.1.56 The Company awarded (September 1998) a turnkey contract for construction of system improvement projects in Sambalpur District to Tata Projects Limited (TPL). Terms of payment stipulated for payment up to 90 per cent of contract price while retaining 10 per cent to be payable after the defect liability period of 12 months is over after completion of the work. On successful completion of the work TPL raised (July 2002 to September 2005) bills for ₹ 2.67 crore which was not released on account of objection (May 2007) of the executing division concerned for recovery of ₹ 1.72 crore towards reduction in line length, less execution of work and theft of conductor after expiry of defect liability period. TPL initiated (April 2008) legal action and the Arbitrator directed (August 2010) for payment of ₹ 2.98 crore including interest at 9 per cent per annum up to the date of award permitting a deduction of ₹ 0.43 crore only. Subsequently, after negotiation TPL agreed (November 2010) to accept an amount of ₹ 2.48 crore including interest of ₹ 0.64 crore. Failure of the Company to claim within defect liability period resulted in loss of ₹ 1.29 crore and payment of interest of ₹ 0.64 crore.

The Government/Management stated (October 2012) that the loss was only due to theft and was beyond the control of the Management. The reply is not acceptable since the Company could have avoided the loss by recovering the dues within the defect liability period.

### Collection of SLDC charges

**2.1.57** Sub-section-3 under Section 32 of the Electricity Act, 2003 provided levy and collection of charges by SLDC from the generating companies and licensees engaged in intra state transmission of electricity. OERC issued (August 2007) road maps for implementation of independent function of SLDC and levy of fees and operating charge from April 2008. Since the functioning of SLDC could not be separated from the Company, OERC in their annual tariff orders allowed the Company to include charges of SLDC in the ARR of the Company upto 2008-09 and thereafter ARR of SLDC were determined separately by OERC.

We observed that against the System Operation Charges (SOC) and Market Operation Charges (MOC) effective from 2010-11 as approved by OERC, SLDC raised bills of ₹ 7.95 crore and ₹ 8.87 crore respectively for the years 2010-11 and 2011-12, of which an amount of ₹ 0.24 crore for the year 2011-12 was outstanding as of October 2012 against the generators and DISCOMs.

While accepting the fact and figures, the Government/Management stated (October 2012) that necessary follow up action had been taken for realisation of the outstanding amount. The outstanding amount has not been realised so far (November 2012).

### Collection of transmission charge from LTOA customers

**2.1.58** The Company supplies power through its transmission system to six<sup>30</sup> long term open access (LTOA) customers and raises bills towards transmission charges on the power transmitted at the rates specified in the tariff orders. The Company had not entered into any transmission agreement with the LTOA customers except with IMFA, during June 2011 only. The Company, however, was claiming/realising transmission charges as per the agreement of the LTOA customers with GRIDCO. Deficiencies in collection of transmission charges are discussed below:

#### *Transmission charges against DISCOMs*

**2.1.59** We observed that in the case of the DISCOMs, the Company was realising the transmission charges through GRIDCO as a first charge on its receivables upto 2009-10 and thereafter directly from the DISCOMs as per the order (20 March 2010) of OERC. Realisation was timely upto 2010-11. However, an amount of ₹ 18.79 crore, being the additional claim during 2011-12, due to revision of the tariff remained unrealised so far (July 2012).

The Government/Management stated that though no separate agreement was executed with DISCOMs, the Company enjoyed all rights and undertook all obligations in respect of the existing agreements relating to transmission activities by GRIDCO with the DISCOMs. The reply is not tenable due to the

**In the absence of agreement with DISCOMs, the Company was not able to recover outstanding transmission charges of ₹ 18.79 crore**

<sup>30</sup>DISCOMs (CESU, NESCO, WESCO, SOUTHCO), NALCO and IMFA

fact that the Company has not executed separate agreement with customers as required under Open Access Regulation of OERC of June 2005.

### ***Billing of Transmission charges to NALCO/IMFA***

**2.1.60** In the absence of any back to back agreement and specific time limit for billing and realisation of transmission charges, during 2007-12 NALCO/IMFA were billed (₹ 63.24) after a delay of 1 to 140 days<sup>31</sup>. Further, realisation of ₹ 14.41 crore was also delayed by 1 to 87 days after allowing a period of 30 days for settlement which resulted in loss of interest of ₹ 0.72 crore.

**Delay in raising and settlement of transmission bills resulted in loss of interest of ₹ 0.72 crore**

Government/Management stated (October 2012) that upto the year 2009-10 bills were settled through GRIDCO. From the year 2010-11, though bills were raised directly yet the processed data were collected from the Energy Billing Centre (EBC) of GRIDCO for billing which caused delay in raising of bills. It further stated that after implementation of ERP such problem would be overcome. The reply is silent as to why the Company is yet to provide separate billing centre for compilation of transmission data for raising of bills.

### ***Power Factor Penalty***

**2.1.61** As per CEA norm, the Power Factor (PF)<sup>32</sup> should be 0.95. As per OERC tariff order PF for consumption of power should not be less than 0.92 and for every one *per cent* decrease upto 0.60, penalty at the rate of 0.5 *per cent* should be levied. A test check of monthly bills of NALCO for the period April 2010 to March 2011 revealed that, though the PF ranged between 0.74 and 0.86 and attracted penalty of ₹ 24.88 lakh the same remained unclaimed by the Company.

**Power factor penalty was not imposed on NALCO in the absence of any agreement**

The Government/Management stated (October 2012) that in the absence of any fresh agreement with NALCO, bills were raised based on the earlier agreement with GRIDCO, which had no provision for levy of PF penalty. The reply is not acceptable since PF penalty is recoverable from NALCO as per CEA/OERC norms.

## **Tariff fixation**

**2.1.62** The financial viability of the Company depends upon generation of surplus (including fair returns) from the operations to finance their operating needs and future capital expansion programme by adopting prudent financial practices. Revenue collection towards transmission and SLDC charges is the main source of generation of funds for the Company. Issues relating to tariff are discussed here under.

<sup>31</sup> Considering a preparation period of nine days

<sup>32</sup> Power factor expresses the relationship between the working power i.e., the power actually consumed (KW) by the user utility and the capacity, which must be supplied (KVA) by the supplier to meet the working power requirement

Tariff structure of the Company is subject to revision as approved by OERC after the objections, if any, received against Annual Revenue Requirement (ARR) petition filed by them within the stipulated date. During the last five years ending 2011-12, the Company had filed the ARR by the due date of 30 November and the ARRs were given effect from the commencement of the respective financial years. The ARR proposals made by the Company and approved by OERC are given below:

Transmission Tariff						
Year	Proposed by the Company			Approved by OERC		
	Total Capacity for transmission (MW)	Revenue Requirement (₹ in crore)	Tariff /kW/ Month (in ₹)	Total Capacity for transmission (MW)	Revenue Requirement (₹ in crore)	Tariff /kW/ Month (in ₹)
2007-08	1,862	675.34	298.11	1,936	373.72	156
2008-09	2,194	655.78	245.64	2,047	376.57	148
2009-10	2,173	1,092.80	408.54	2,195	403.81	151
2010-11	2,398	1,443.50	300.40	2,336	480.93	169
2011-12	2,616	1,573.69	494.46	2,612	572.50	180

Further, as per the Regulation, whenever there is a gain or loss (excess/short) in the controllable items (O&M, Return on capital employed, Depreciation and non tariff income), the Company shall file before OERC, which would review the same and make appropriate adjustments wherever required. During 2007-11 against the actual expenditure of ₹ 1,939.72 crore, OERC approval was for ₹ 1,625.38 crore as a pass through in the ARR. Deficiencies in filing of ARRs are discussed below:

#### ***Irregular availing of infrastructure loan***

**Availment of infrastructure loan without approval of OERC resulted in non-recovery of revenue of ₹ 27.39 crore in the tariff**

**2.1.63** The Company was availing infrastructure loan at six *per cent per annum* from upcoming industries to facilitate provision of electricity to them and the same was being shown as cash inflow in the ARRs. OERC did not approve the availment of such loan from the consumers on the ground that construction of infrastructures like SSs was the responsibility of the Company and consumers would not be forced to extend loan. This has adversely affected the Company's entitlements to get relief under true up exercise and resulted in non-recovery of revenue of ₹ 27.39 crore<sup>33</sup> in the tariff.

#### ***Short-realisation of inter-State wheeling charges***

**Accounting of inter-state transmission charges at 10 paise per unit in place of 3.5 paise per unit resulted in reduction of ARR by ₹ 13.43 crore**

**2.1.64** The Company has accounted for the inter-State wheeling charges at the rate of ₹ 0.10 per unit as income against the rate of ₹ 0.035 per unit as decided by CERC in 2005-06. Thereafter, no revision of inter State wheeling rate was made by CERC. As such the Company exhibited a higher income of ₹ 0.065 per unit in the ARR. Thus, accountal of higher income resulted in reduction of the revenue requirement of the Company by ₹ 13.43 crore against wheeling of

<sup>33</sup> Pass through of past loss of ₹ 9.06 crore in 2009-10 and Special Appropriation of ₹ 18.33 crore in 2010-11

20.66 MU, which was actually not being realised from the consumers concerned. Consequently the Company could not realise ₹ 13.43 crore through the tariffs.

The Government/Management stated that the rate of 3.5 paise per unit was not acceptable as the same was indicative for the period 2001-02 to 2003-04 only and no further rate for wheeling charges was fixed since the matter is subjudice. The reply is not acceptable as the parties have settled the wheeling charges at the rate of 3.5 paise per unit as per the prevailing rate.

### ***Non-investment of Contingency Reserve Fund***

**Non-investment of contingency reserve funds resulted in forgoing of benefit amounting to ₹ 36.45 crore**

**2.1.65** As per provisions under Electricity Supply Act 1948, to meet the expenses towards unforeseen calamities, the Company was required to appropriate<sup>34</sup> to the Contingency Reserve Fund from the revenue of each year and invest it in securities authorised under Indian Trust Act, 1882 within a period of six months from the close of the year of accounts in which appropriation was made. The appropriation so made was claimed through the ARR. During 2009-12, OERC disallowed ₹ 36.45 crore<sup>35</sup> towards contingency reserve on the ground of non investment of funds as approved by OERC in earlier years. The Company did not offer any specific reply.

### ***Non-utilisation of Repair and Maintenance (R&M) expenditure***

**Company failed to utilise R&M funds amounting to ₹ 195.98 crore obtained through tariff**

**2.1.66** During 2007-12, against the Company's proposal of ₹ 358.01 crore in the ARRs towards R&M expenses, OERC approved ₹ 283.88 crore out of which the Company could spend only ₹ 87.90 crore. Deficient expenditure on R&M work has resulted in non maintenance of transmission system at the desired level as the transmission system faced 757 interruptions caused due to major incidents for 1,277.34 hours.

The Government/Management while accepting the fact stated (October 2012) that in a number of cases it was difficult to replace old equipment as per schedule due to non availability of required shut down. It also added that in future, subsequent to expansion of network and addition of redundancy, the problem could be minimised. The reply is, however, silent about the action to be taken to utilise the funds allocated by OERC identifying the old equipments for replacement.

## **Material Management**

**2.1.67** Key areas in material management are laying down inventory control policy, procurement of materials and disposal of obsolete inventory. The Company had not formulated any procurement policy and inventory control mechanism for economical procurement and efficient control over inventory. Details of the 25 area stores out of 35 showing opening stock, purchases,

<sup>34</sup> a sum of not less than 0.25 per cent and not more than 0.5 per cent of the original cost of the fixed assets subject to a maximum of 5 per cent of original cost of the fixed assets

<sup>35</sup> Company's claim of ₹ 69.12 crore less OERC approval of ₹ 32.67 crore

issues and closing stocks for the period from 2007-08 to 2011-12 are detailed in the following table:

(₹ in crore)

Year	Opening stock	Purchases	Consumption (per annum)	Consumption (per month)	Net Closing stock (as per Balance Sheet)	Closing stock in terms of months to consumption
2007-08	118.71	37.69	36.11	3.01	120.29	40
2008-09	120.29	53.18	46.73	3.89	126.74	33
2009-10	126.74	71.28	56.30	4.69	141.72	30
2010-11	141.72	158.03	143.33	11.94	156.42	13
2011-12	156.42	142.61	142.78	11.90	156.25	13

A test check of the records of 25 stores of the Company revealed that though the Company had limited its closing stock to 13 months consumption as of 2011-12, it had neither made any ABC analysis, nor fixed any standard, minimum or reorder level of their material requirement which indicated non-scientific material management.

The Government/Management stated (October 2012) that the stock positions as pointed out was average stock and were used for maintenance and construction works. The reply is not tenable since the closing stock pointed out was the actual stock at the year end but not the average stock.

### Physical verification of stocks in the stores

**2.1.68** There were 35 area stores under the control of the Company. Physical verification of all the stores was conducted annually, except for tower materials lying at one area store.

The value of non-moving, surplus, obsolete, unserviceable and scrap material in the last five years is given below:

**Failure in disposal of surplus/non-moving stores valued ₹ 38.93 crore**

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12
Surplus/obsolete/unserviceable/scrap	8.65	12.66	12.8	20.55	22.19
Non-moving	16.48	16.7	16.77	16.77	16.74
<b>Total</b>	<b>25.13</b>	<b>29.36</b>	<b>29.57</b>	<b>37.32</b>	<b>38.93</b>

(₹ in crore)

From the above table, it could be seen that the value of the scrap, obsolete stock and non-moving stock showed an increasing trend during 2007-12. Despite the increasing trend, the Company had neither taken any suitable action for its disposal nor for its utilisation elsewhere.

The Government/Management stated (October 2012) that non-moving materials were generally different types of conductor which could be utilised and the scrap materials, however, were disposed of from time to time. The reply is not acceptable since the position of scrap as well as non moving stores was on increasing trend which clearly indicates the non-availability of the effective inventory management system.

### Procurement of low capacity conductors at higher rates

Avoidable expenditure of ₹ 0.76 crore in the procurement of conductors

**2.1.69** A purchase order was placed (February 2009) on Gupta Power Infrastructure Limited to supply 250 Kms of AAAC Zebra conductor at ₹ 2.43 lakh *per* Km for restoration work of 220 KV Budhipadar-Bolangir DC line. During the same month, a turnkey contract was placed on A.K.Das for construction of 220 KV Bidanasi-Cuttack DC line which included supply of ACSR Zebra conductors of 60.35 Kms at ₹ 3.69 lakh *per* km having lower current carrying capacity compared to AAAC Zebra conductors. The Company, however, procured ACSR zebra conductor (60.35 Kms) of lower specification at a higher rate of ₹ 1.26 lakh *per* Km and incurred extra expenditure of ₹ 0.76 crore.

The Government/Management stated (October 2012) that turnkey contract could not be compared with single item procurement because of their evaluation process and payment terms. The reply is not tenable because the Company had procured conductors of lower specification at a higher rate during the same period.

### Deficiencies in the procurement of conductors

**2.1.70** The Company floated (September 2007) a tender for procurement of 559 kms of AAAC Zebra conductor for three lines where Sterlite Limited, Pune (STL) was L<sub>1</sub> bidder at an unit price of ₹ 1,98,561 *per* Km with validity of offer upto 5 February 2008. Meanwhile, the requirement was increased to 584 Kms by inclusion of another line and the bidders were asked to extend the offer validity period from time to time upto 15 May 2008. Only Teracom Limited (TCL), the L<sub>4</sub> bidder agreed to supply at L<sub>1</sub> price. However, PO for 55 Kms of conductor only was placed (May 2008) with TCL on the ground that the restoration work of the other line (529 kms) which was assessed earlier was not finalised. Subsequently, by floating (October 2008) another tender, the Company purchased 500 Kms of conductors for the earlier left over line (529 Kms) from STL being the L<sub>1</sub> and from Gupta Power Infrastructural Limited, being an SSI at the L<sub>1</sub> rate of ₹ 2.43 lakh *per* Km for 250 km each.

We observed the following:

Procurement of conductors by deferring the validity of offer resulted in incurring extra expenditure of ₹ 2.23 crore

- Due to non-completion of the restoration work of one line (529 Kms), the Company could procure only 55 Kms of the assessed quantity of 584 Kms at L<sub>1</sub> price (₹ 1,98,561 *per* Km) of STL from TCL and the balance quantity of 500 Kms were procured at higher price (₹ 2,43,086 *per* km) through another tender leading to an avoidable expenditure of ₹ 2.23 crore.

**Improper material management led the Company to saddle with 46.032 Kms of conductors valued at ₹ 0.91 crore**

- Although no deficiencies were noticed during pre-despatch inspection of the 55 Kms of conductors supplied by TCL, during stringing, the Company noticed (March 2009) that the conductors of 46.032 Kms were of below standard size and accordingly, the bank guarantee (₹ 10.92 lakh) was hastily invoked (March 2009) and TCL was black listed without issuing any notice. After protracted correspondences, claims and counter claims, the Company received (November 2011) 46.032 Kms of conductor in replacement of the substandard conductors and lifted the blacklisting imposed on TCL due to threat of legal action of the suppliers. Thus, due to improper material management, 46.032 Kms of conductors valued at ₹ 0.91 crore remained idle.

The Government/Management stated that the balance conductors which are available at the stores will be utilised for Mendhasal-Bidanasi D.C. line, whose work has not been completed due to RoW problem. The reply, however, did not address the issue of blacklisting the supplier and procurement of conductors at a higher rate.

### **Avoidable expenditure towards procurement of materials**

**Irregular reimbursement of material cost of ₹ 3.02 crore without assessing the reasons for shortage**

**2.1.71** The Company awarded (November 2010) the restoration work of 400 KV IB-Meramundali DC line to Sterlite Energy Limited (SEL) at a cost of ₹ 103 crore including the value of surplus material available with the Company which was duly physically verified. As per terms of agreement the party was to lift and utilise the materials from the store in execution of the work. During lifting the party reported shortage of materials valued at ₹ 5.62 crore and the BoD of the Company agreed to compensate SEL for such shortage on the ground that the materials were utilised in other work. Audit scrutiny however, revealed that materials valued at ₹ 3.02 crore were physically available in the store before lifting started and was not utilised in any other work. The Company did not verify the authenticity of the claim of SEL towards the shortage and thus incurred an avoidable expenditure towards reimbursement of materials cost of ₹ 3.02 crore.

While confirming the fact and figures the Government/Management stated (October 2012) that as regards the shortage of material valued at ₹ 3.02 crore final reply would be furnished after verification.

### **Monitoring and Control**

**2.1.72** To execute the lines and SSs works economically and efficiently, an effective monitoring system is essential. Deficiencies noticed in the monitoring system of the Company are discussed as under:

- The Company did not create Project Monitoring Cell to monitor the progress and final execution of all the on-going transmission projects as directed by OERC.

The Government/Management stated that a complete monitoring and control system existed at the Company. The reply is not acceptable since as per the direction of OERC, the Company could not create a dedicated project management cell for continuous monitoring of the execution of the projects.

- Submission of returns on various performance parameters of SSs and lines were not ensured and year-wise cumulative performance of the SSs and lines were not maintained for evaluation of their annual performance for all the parameters.
- As per the recommendation of the enquiry team of OERC there should be a regular review by each Circle on functioning of each O&M Division under his control at least once in each quarter and the review report with all the problems along with the suggestions/remedial measures should be sent to the Corporate office for appropriate action. However, no quarterly review was conducted by the Circles.
- The weak areas noticed during the regular/periodical patrolling were not analysed at Head Office to avoid longer interruptions deviating OERC recommendations.
- The Company decided (2007-08) to induct basic essential infrastructure in terms of Data Centres, WAN and Integrated Business Information System as part of Enterprise Resource Planning (ERP). A sum of ₹ 10.37 crore was recovered in the tariff as allowed by OERC in 2009-10. The Company, however, could spend only ₹ 1.10 crore so far and the ERP system was yet to be implemented resulting in non availability of an adequate monitoring mechanism.

In spite of availing ₹ 10.37 crore under tariff, the ERP was yet to be implemented

### Review of the envisaged benefits of transmission schemes

**2.1.73** The Company executed and commissioned 19 EHT SSs including switching stations and erected a total length of 1,809.21 Ckm of EHT lines during the audit period. While approving the transmission schemes, the Company envisaged benefits in terms of reduction in system losses, improvement in voltage levels and achievement of load growth. However, the Company has not assessed the envisaged benefits, actually derived on implementation of the transmission schemes by commissioning of these projects.

Non-assessment of envisaged benefits on implementation of transmission schemes

In reply the Government/Management stated (October 2012) that after commissioning of projects, sustainable loss reduction has taken place in the network and the voltage in the command area of the commissioned projects also improved. The reply, however, is general in nature and does not address project wise assessment of the benefit derived by the Company with reference to the envisaged benefit.

## Internal Controls and Internal Audit

**2.1.74** Internal control is a process designed for providing reasonable assurance for efficiency of operation, reliability of financial reporting and compliance with applicable laws and statutes which is designed to ensure proper functioning as well as effectiveness of the internal control system and detection of errors and frauds. The following deficiencies were noticed in the internal control system being followed by the Company.

- The Company did not have its own procurement manual to guide the departments dealing with procurement activities and ensure adoption of uniform standards. It is continuing to follow the circulars of erstwhile Orissa State Electricity Board and GRIDCO.
- There was no system of timely identification and disposal of obsolete, unserviceable and non-moving items.
- The Company did not have separate billing unit and is depending on the data furnished by Energy Billing Centre (EBC) of GRIDCO. This has resulted in delay in raising transmission bills causing loss of interest.
- The Company was not able to assess the transmission losses at different stages of power flow due to absence of energy audit meters and as such did not have control over the energy losses in the system.
- The Company was not able to monitor real time data, Grid discipline as well as to calculate flow of reactive energy for billing purposes due to non-implementation of ABT and non-installation of RTUs in each SS.

The Government/Management stated (October 2012) that the internal control system laid down by the Management was being vigorously pursued and were achieved in an optimal manner. The reply is general in nature and is silent on the specific issues raised in audit.

## Internal Audit

**2.1.75** The Company has been following the Internal Audit Manual of the erstwhile OSEB despite functioning independently from April 2005. Though it had own Internal Audit Cell yet the services of Chartered Accountants are hired every year to conduct audit of all divisions and HO. Scope of internal audit is limited to audit of expenditure on establishments, revenue and capital expenditure on projects and expenditure on O&M of lines and SSs leaving the core activities like revenue from transmission, SLDC charges, filing of ARR, compliance of OERC orders and directions. This indicate inadequacy of the internal audit system of the Company.

While accepting facts on non-existence of Internal Audit Manual, the Government/Management stated that the scope of work assigned to the

outsourced internal auditors were adequate. The fact, however, remained that core activities were not included in the scope of the internal auditors.

### **Audit Committee**

**2.1.76** The Company constituted (December 2005) an Audit Committee (AC) as required under Section 292 A of the Companies Act, 1956 which was reconstituted from time to time with the approval of the BoD. The AC had, however, met for the required 15 times during the audit period as per the Terms of Reference (TOR) of the AC. As per Section 292 A (5), of Companies Act, 1956 the internal auditors should also attend all the meetings, but the same was not complied with. Further, in terms of Section 292 A(6) of the Act, the Committee should also have discussions with the Statutory Auditors periodically on the matters of internal control system. Despite being repeatedly commented by the Statutory Auditors on inadequacy of internal control system, the AC did not take any action to strengthen the same.

The Government/Management stated that inviting all internal auditors to AC meetings was not possible. Statutory Auditors, however, participated in discussion on finalisation of accounts. The reply is not acceptable since the Company did not adhere to the provisions of the Companies Act, 1956.

### **Acknowledgement**

We acknowledge the co-operation and assistance extended by the Management and staff of the Company at various stages of conducting the Performance Audit and the Entry Conference and the Exit Conference.

### **Conclusion**

- **The Company failed to prepare plan for capacity addition as per National Electricity Plan (NEP) resulting in non achievement of peak demand projected under the NEP.**
- **Due to inadequate transmission network the Company was not able to evacuate State share of power of 4,067.68 MU from generators forgoing transmission charges of ₹ 97.98 crore.**
- **There were abnormal delays in execution of major projects due to deficient planning and project management. This has resulted in time overrun ranging from 15 to 154 months with consequential cost overrun of ₹ 165.56 crore and loss of additional power with non reduction of system loss of ₹ 650.18 crore.**
- **Due to non adherence to the norms of MTPC/Grid Code for effective functioning and maintenance of transmission network there were cases of abnormal over loading of lines and sub-stations leading to voltage fluctuation, high transmission losses and frequent interruption/breakdown.**

- **The Company failed to provide adequate capacitor banks in the sub-stations for regulating voltage and monitoring reactive energy. BBPPs were not adequate to maintain system stability.**
- **The SLDC was not able to enforce Grid discipline resulting in existence of drawl of power by DISCOMs when frequency was below threshold limit in the absence of operation of ABT.**
- **There was delay in raising transmission bills and Revenue Requirement for filing to OERC was not assessed properly.**
- **The Company did not have effective inventory management which has resulted in accumulation of obsolete and non moving items.**
- **Internal control system and monitoring mechanism were not commensurate with the growing activities of the company.**

## **Recommendations**

The Company

- **should prepare capacity addition plan in line with the National Electricity Plan;**
- **need to create adequate transmission facilities for evacuation of State share of power from generators;**
- **has to execute the transmission projects as per the recommendation of Task Force Committee of MoP, GoI;**
- **should adhere to the norms of MTPC/Grid Code for effective functioning and maintenance of transmission network;**
- **should ensure installation of adequate number of capacitor banks, bus bar protection panels to protect the lines and SSs;**
- **should maintain strict Grid discipline and operate intra State ABT;**
- **has to earn additional revenue through reduction of transmission losses by enforcing energy audit; and**
- **has to strengthen inventory management to avoid blockade of funds.**

## 2.2 Odisha Construction Corporation Limited

### Construction Activities

#### Executive Summary

*The Company was incorporated in May 1962 with the main objective of executing works like dams, barrages, reservoirs, power houses, canals etc., on allotment basis as well as through tenders. The present Performance Audit covers activities of the Company in the areas of Planning, Preparation of estimates, Execution of works, Material Management, Financial Management, Monitoring and Internal Control mechanism for the five year period from 2007-08 to 2011-12 with a view to assess economy, efficiency and effectiveness of its operations and ability to meet its stated objectives.*

#### **Planning for execution of works**

*Though the Company was in existence for more than five decades, it did not attempt to evolve any long term Corporate/Perspective Plan for effective utilisation of its resources. The Company largely depends on the works allotted by DoWR. However, it never raised the issue of a long term Perspective Plan with DoWR. Budgetary control was deficient as the annual budgets were prepared without any inputs from GoO and without assessing adequacy of budget proposals based on physical parameters. During 2007-12 the Company could execute works valued at ₹654.85 crore which was only 45 per cent of the financial targets.*

#### **Preparation of estimates**

*The Company prepares the estimates for the allotted works based on fair market rates and submits the same to DoWR for scrutiny by the Project Level Technical Committee and Tender Committee before award of work. There were deficiencies in preparation of estimates such as less provision on hire charges of machinery, non inclusion of VAT/Service Tax/Cess*

*component, incorrect provision for lead distance and quoting lower coefficient for construction materials etc. As a result the Company sustained a loss of ₹19.41 crore besides extra expenditure of ₹49.62 crore by DoWR due to acceptance of inflated offers.*

#### **Execution of Works**

*The Company had 93 spill over works valued at ₹397.47 crore as on March 2007 and was entrusted with 185 works during 2007-12. It completed 157 works and executed work valued at ₹777.99 crore against completed/121 ongoing works. There were delays of more than two years in 93 completed and 57 ongoing works which resulted in cost overrun and non-achievement of intended benefits. Delay in completion of 15 works resulted in cost overrun of ₹161.99 crore for which Government would be further burdened with an extra cost of ₹141.11 crore with a resultant loss of ₹17.88 crore to the Company. Price escalation for an amount of ₹4.72 crore was disallowed and the Company sustained loss of ₹6.11 crore due to excess consumption of material, execution of extra work without approval etc. Award of work at higher rate without analysing the cost of execution resulted in extension of undue favour to the tune of ₹27.61 crore to the subcontractor.*

#### **Engagement of Job Workers**

*Terms and conditions of engagement of job workers indicated subletting of works in violation of the terms of entrustment of works to the Company. Further, even these engagements were not made in a transparent manner. The Company had an accumulated balance of ₹14.47 crore under EPF due to empanelment of job workers without EPF registration certificate violating the provisions of EPF Act.*

**Material Management**

*The Company had neither adopted any purchase manual nor prepared materials budget though materials constituted around 60 to 70 per cent of the estimated cost of the works. The Company sustained a loss of ₹2.15 crore due to procurement of cement at higher rates and excess consumption of cement/steel. Despite availability of new machinery worth ₹8.50 crore, the Company could not gainfully utilise the same in execution of works resulting in short recovery of ₹13.53 crore from the job workers towards hire charges.*

**Financial Management**

*The Company incurred excess expenditure of ₹2.19 crore towards payment of VAT by way of composition. Deficiencies in operation of current accounts, short term deposits and security deposits resulted in loss of interest of ₹1.53 crore.*

**Monitoring and Internal Control**

*Deficient monitoring and internal control system of the Company resulted in accumulation of spill over works, non-realisation of dues against completed works, release of advances to job workers in violation of the provisions of the agreement and discrepancy in stores.*

**Conclusion and Recommendations**

*Despite the Company being largely dependent upon the works allotted by the*

*DoWR of the State Government it did not prepare the annual plan/target in line with the completion schedule of the works stipulated by DoWR resulting in huge spill over of the works. The Company sustained significant losses due to preparation of deficient work estimates, inordinate delays in commencement/completion of works, delayed engagement of job workers, poor material management and deficient monitoring and internal control mechanism.*

*Performance Audit contains recommendations on the need to prepare Annual Action Plan prioritising the works duly linked with the schedule of completion of the works; participate in open tenders to get more work orders and reduce dependence on the allotted works of Government; factor in all costs while making offers and enter into proper agreements with the Clients; dispense with subletting of works and ensure engagement of agencies in a transparent manner; frame a suitable material management policy and reassess its manpower requirement; strengthen its Project Monitoring and Internal Control mechanism; scrutinise offers with reference to prescribed guidelines; formulate a suitable policy for release of work advances so as to avoid the accumulation thereof with the Company; and monitor the execution of works for their timely completion.*

**Introduction**

**2.2.1** Odisha Construction Corporation Limited (Company) was incorporated on 22 May 1962 as a wholly owned Company of Government of Odisha (GoO). The main objectives of the Company *inter alia* included construction/development of works like dams, barrages, reservoirs, powerhouses, canals etc. In pursuance of these objectives, the Company has been executing construction contracts of the Department of Water Resources (DoWR) of GoO secured through allotment basis and also by participating in tenders for works of various Departments of GoO including DoWR and State/Central Public Sector Undertakings.

**2.2.2** The Company is under the administrative control of the DoWR of GoO. The Management of the Company is vested in a Board of Directors

(BoD) with the Principal Secretary, DoWR as the ex-officio Chairman and eight Directors, appointed by the GoO. The Managing Director (MD), the Chief Executive of the Company, is assisted by Director (Mechanical), General Managers (Civil), General Managers (Mechanical), Financial Advisor-cum-Chief Accounts Officer (FA&CAO) and Company Secretary at the Head Office (HO) to carry out the day to day operations of the Company. The Company functions through four Zones and 41 unit offices (as on 31 March 2012) headed by General Managers and Senior Managers respectively for overseeing the execution of the works.

**2.2.3** Performance Audit on the activities of the Company was conducted and included in the Report of the Comptroller and Auditor General of India (Commercial) for the year ended 31 March 2006, GoO. This report is yet to be discussed (October 2012) by the Committee on Public Undertakings (COPU). Deficiencies related to dependence on allotted works of DoWR, non-fixation of targets based on the scheduled completion period of works, irregularity in selection/engagement of job workers, ineffective monitoring and internal control system though observed earlier, still persisted, as discussed in the present Performance Audit.

### Scope of Audit

**2.2.4** The present Performance Audit conducted during April to August 2012 covers the construction activities of the Company during the period from 2007-08 to 2011-12. The audit findings were based on a test check of records of the HO of the Company/DoWR and examination of 70 works (₹ 1,155.90 crore being 70 *per cent*) out of 227<sup>36</sup> works (₹ 1,617.53 crore) selected through stratified random sampling method with agreement value of works as a size measure which were executed under 15 out of 41 unit offices of the Company.

### Audit Objectives

**2.2.5** Performance Audit on the construction activities of the Company was conducted with a view to assess whether:

- Planning for execution of the works was effective and the Annual Plan was devised in line with the Perspective Plan;
- Financial Management of the Company was effective and flow of funds was timely and optimally utilised;
- Works were executed economically, efficiently and effectively;
- Material Management system was effective in assessment, procurement and efficient utilisation of inventory;
- Deployment of man power was in compliance to the Rules/Orders of GoO; and

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<sup>36</sup> Excludes 51 Pradhan Mantri Gram Sadak Yojana (PMGSY) works and System Business Works

- Efficient Monitoring Mechanism and Internal Control system existed.

### **Audit Criteria**

**2.2.6** The audit criteria adopted for assessing the achievement of the audit objectives was from the following sources:

- Perspective Plan and Annual Action Plan of the Company and norms/targets set by the Company;
- Generally accepted commercial and financial practices, relevant codal provisions;
- Guidelines/Circulars issued by DoWR/Company for preparation of estimates, technical specifications, approved drawings and designs, terms and conditions provided in the contract documents, Odisha Public Works Department (OPWD) Code;
- Labour related regulations like The Building and Other Construction Workers (Regulation of Employment and Condition of Service) Act, 1996, The Building and Other Construction Workers Welfare Cess Act, 1996, The Minimum Wages Act, 1948, etc;
- Procurement Policy/Manual of the Company for procurement of construction materials; and
- Decisions of the BoD of the Company, circulars and office orders of the MD /other Executives, policies/instructions of the GoO and Government of India (GoI) with reference to relevant issue/activity.

### **Audit Methodology**

**2.2.7** The audit methodologies adopted for achieving the audit objectives with reference to audit criteria were:

- Study of minutes and agenda papers of the meetings of the BoD, correspondence with DoWR and other Clients<sup>37</sup>;
- Scrutiny of estimates, offers, contract documents, tendering and negotiation documents, Measurement Books (MBs), empanelment and engagement of job workers, Running Account (RA) bills, Monthly Progress Reports (MPRs);
- Study of circulars, office orders of the Executives, instructions of the GoO and GoI with reference to relevant issue/activity;
- Examination of records relating to Government policies, Perspective Plan, Project Reports, coordination and project monitoring etc; and
- Interaction with the Management and issue of audit queries.

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<sup>37</sup> Government Departments including DoWR and State/Central PSUs

## Audit Findings

**2.2.8** We explained the audit scope, objectives and methodology to the Company during the 'Entry Conference' held on 24 April 2012. Subsequently, we reported the audit findings to the Company and the Government on 29 September 2012 and also discussed the same in the 'Exit Conference' held on 17 October 2012. Both the Entry and Exit Conferences were attended by the Principal Secretary, DoWR, GoO and MD of the Company. The views expressed by them have been considered while finalising the report. The Company also furnished partial replies (October 2012) to the audit findings. The audit findings are discussed in the succeeding paragraphs.

## Financial Position and Working Results

**2.2.9** The Company has finalised its accounts upto 2009-10 and prepared the provisional accounts for the years 2010-11 and 2011-12.

### Financial Position

**2.2.10** Financial position of the Company for the last five years ended 2011-12 was as under:

(Amount: ₹ in crore)

Particulars	2007-08	2008-09	2009-10	2010-11 (Prov.)	2011-12 (Prov.)
<b>Sources of Funds</b>					
Share Capital	11.50	14.50	16.50	17.50	17.50
Capital Reserve	0.29	0.29	0.29	0.29	0.29
General Reserve	4.91	5.98	6.65	7.31	10.02
Secured Loans	3.56	1.30	1.32	7.52	6.82
Unsecured Loans	202.09	213.68	240.17	287.24	391.14
Current Liabilities and Provisions	84.62	109.23	122.14	124.74	157.60
<b>Total</b>	<b>306.97</b>	<b>344.98</b>	<b>387.07</b>	<b>444.60</b>	<b>583.37</b>
<b>Application of Funds</b>					
Fixed Assets (Gross Block)	19.77	26.81	27.97	28.12	28.37
Less: Depreciation	12.75	13.11	14.32	15.82	17.07
Fixed Assets (Net Block)	7.02	13.70	13.65	12.30	11.30
Capital Work-in-Progress	0.31	0.43	0.18	0.18	0.39
Investments	0.00	0.00	0.00	0.00	0.00
Deferred Tax Assets	1.28	0.66	0.80	0.80	0.00
Current Assets, Loans and Advances	298.20	329.60	372.44	431.32	571.68
Misc Expenditure	0.16	0.59	0	0.00	0.00
<b>Total</b>	<b>306.97</b>	<b>344.98</b>	<b>387.07</b>	<b>444.60</b>	<b>583.37</b>
Capital Employed <sup>38</sup>	217.64	234.51	260.67	315.48	422.17
Net Worth <sup>39</sup>	16.25	19.89	23.15	24.81	27.52

(Source: Annual Accounts/Annual Reports)

<sup>38</sup> Capital employed represents net Fixed Assets plus Capital Work-in-Progress and Working Capital (Current Assets- Current Liabilities).

<sup>39</sup> Net Worth represents Paid-up Capital plus General Reserve less Intangible Assets (miscellaneous expenditure)

From the table above, it can be seen that 'Unsecured Loans' being the interest free work advances received from the Clients and the 'Current Assets, Loans and Advances' showed an increasing trend ranging between ₹ 202.09 crore to ₹ 391.14 crore and ₹ 298.20 crore to ₹ 571.68 crore respectively during 2007-12. The increasing trends were mainly due to delay in/non-execution of works, non-adjustment of the same against the works, etc. The 'Current Liabilities and Provisions' also increased from ₹ 84.62 crore in 2007-08 to ₹ 157.60 crore in 2011-12 due to non-adjustment of advances to job workers in the absence of measurement of works executed by them. The Capital Employed and Net Worth of the Company also increased steadily during 2007-12 from ₹ 217.64 crore to ₹ 422.17 crore and ₹ 16.25 crore to ₹ 27.52 crore respectively due to increase in Working Capital, General Reserve and infusion of Share Capital.

### Working Results

2.2.11 Working results of the Company for the last five years ended 2011-12 were as under:

(Amount: ₹ in crore)					
Particulars	2007-08	2008-09	2009-10	2010-11 (Prov.)	2011-12 (Prov.)
<b>A. Income</b>					
Income from Contracts	100.26	139.63	160.74	145.27	208.58
<b>Total</b>	<b>100.26</b>	<b>139.63</b>	<b>160.74</b>	<b>145.27</b>	<b>208.58</b>
<b>B. Expenditure</b>					
Works expenses	89.19	122.39	146.42	132.89	187.78
Establishment expenses	13.58	22.74	19.96	19.85	25.44
<b>Total</b>	<b>102.77</b>	<b>145.13</b>	<b>166.38</b>	<b>152.74</b>	<b>213.22</b>
<b>C. Operational Profit/Loss (-) (A-B)</b>	(-) 2.51	(-) 5.50	(-) 5.64	(-) 7.47	(-) 4.64
<b>D. Revenue receipts (General)</b>	4.36	7.39	7.60	8.78	7.41
<b>E. Profit for the Year (C+D)</b>	1.85	1.89	1.96	1.31	2.77
Prior Period Adjustments	(-) 1.14	0.29	(-) 0.33	(-) 0.46	(-) 0.27
Less: Provision for taxation	0.28	0.77	0.57	0.19	0.81
Less: Appropriation for Dividend and tax on Dividend	0.00	0.34	0.39	0.00	0.00
Net Profit carried to General Reserve	0.43	1.07	0.67	0.66	1.69

(Source: Annual Accounts/Annual Reports)

The operational income of the Company showed an increasing trend during 2007-08 to 2009-10 (₹ 100.26 crore to ₹ 160.74 crore) and reduced to ₹ 145.27 crore during 2010-11 due to low execution of works which however, increased to ₹ 208.58 crore in 2011-12 mainly due to execution of flood damage repair works valued at ₹ 42.24 crore. The Company, however, incurred operational losses during all the said years ranging between ₹ 2.51 crore to ₹ 7.47 crore mainly due to cost overrun and other irregularities in execution of the works which are discussed in the subsequent paragraphs. Despite operational losses the Company could achieve overall profit during all the five years which increased from ₹ 1.85 crore in 2007-08 to ₹ 2.77 crore in

2011-12 mainly due to non operational income (₹ 2.95 crore to ₹ 5.25 crore) towards interest on fixed deposits.

### Position of works in hand

**2.2.12** The GoO in DoWR decided (June 2002) to allot work valued upto ₹ 100 crore per year to the Company without invitation of tender and allowed separately overhead charges of 15 per cent (reduced to 10 per cent from April 2011) on the value of the work executed. However, GoO may award the work exceeding above ceiling for convenience. Further, as per the Memorandum of Understanding (MoU) with the DoWR for the years 2010-12, the DoWR was to allot work value of ₹ 250 crore subject to achievement of turnover of ₹ 225 crore in each of the years. In addition to the allotted works of DoWR, the Company could also secure works from other clients including DoWR through participation in tenders.

The table below indicates the position of works secured by the Company under the allotted and tender categories during the five years ended 31 March 2012.

(Amount: ₹ in crore)

Particular		2007-08	2008-09	2009-10	2010-11	2011-12	Total
Allotted works	No.	15	08	38	08	62	131
	Value	148.80	64.11	255.40	34.03	304.54	806.88
Tender Works	No.	11	32	07	03	01	54
	Value	183.67	129.09	10.26	17.89	7.42	348.33
Total	No.	26	40	45	11	63	185
	Value	332.47	193.20	265.66	51.92	311.96	1,155.21
Percentage of value of allotted works to total works		44.75	33.18	96.14	65.54	97.62	69.85
Percentage of value of tender works to total works		55.25	66.82	3.86	34.46	2.38	30.15

(Source: Monthly Progress Reports/Annual Reports)

#### Allotted works

**2.2.13** The DoWR allotted 131 works valued at ₹ 806.88 crore (70 per cent) to the Company during 2007-12. As per Government order, DoWR was to allot works valued upto ₹ 100 crore per annum and even without any limitation. The DoWR, however, did not frame any policy for categorisation of works for award on allotment and tender basis. We noticed that the DoWR allotted works valued ₹ 64.11 crore to ₹ 255.40 crore during 2007-10 and after entering into MoU, it allotted works valued ₹ 34.03 crore and ₹ 304.54 crore during 2010-11 and 2011-12 respectively. Thus, the allotment of works by DoWR was neither consistent with its order nor with the MoU during all the years.

#### Tender works

**2.2.14** The Company participated in 206 tenders for works estimated at ₹ 1,618.27 crore during 2007-12 and could obtain only 54 works (26 per cent)

with negotiated value of ₹ 348.33 crore against the bid value of ₹ 357.11 crore. The works secured through participation in tenders was meager and even as low as 2.38 *per cent* of the total work secured during 2011-12 with an average percentage of 30.15 during 2007-12. Though there was low percentage of achievement in securing works through tenders, the same was not reviewed by the BoD. Further, the decision of DoWR for award of allotted works upto ₹ 100 crore and even beyond that without any conditions, made the Company dependent on allotted works which was a disincentive for the Company in securing works through tender.

### *Status of works*

**2.2.15** The year-wise position with respect to booking, execution and balance works in hand for the last five years ended 31 March 2012 was as under:

(Amount: ₹ in crore)

Year	Spilled over from the previous year		Works booked during the year		Revision in value by (+/-)	Total		Number of works completed	Value of works executed (completed/ongoing)	Spilled over to next year	
	No	Value	No	Value	Value	No	Value			No	Value
2007-08	93	397.47	26	332.47	16.61	119	746.55	27	124.81 (17)	92	621.74
2008-09	92	621.74	40	193.20	21.66	132	836.60	16	149.22 (18)	116	687.38
2009-10	116	687.38	45	265.66	4.19	161	957.23	27	160.19 (17)	134	797.04
2010-11	134	797.04	11	51.92	-24.03	145	824.93	56	136.00 (16)	89	688.93
2011-12	89	688.93	63	311.96	66.35	152	1,067.24	31	205.91 (19)	121	861.33
<b>Total</b>			<b>185</b>	<b>1,155.21</b>	<b>84.78</b>			<b>157</b>	<b>776.13<sup>40</sup></b>		

(Figures in brackets are in *per cent*)

(Source: Monthly Progress Reports/Annual Reports)

As seen from the above table, the Company could execute work value of ₹776.13 crore during 2007-12 which were between 16 and 19 *per cent* of the year wise total value of works available with the Company for execution. The Company could complete execution of 157 out of 278<sup>41</sup> works during 2007-12. The value of works spilled over increased from ₹ 621.74 crore in 2007-08 to ₹ 861.33 crore in 2011-12 which was mainly due to booking of works at the fag end of the years, scheduled period of completion of works ranging upto three years and delay in/non execution of works. The value of spill over works as at the end of 2011-12 included work value of ₹ 235.12 crore spilled over from 1991-92 to 2006-07 and the balance work value of ₹ 626.21 crore pertains to the audit period.

<sup>40</sup> Excludes System Business Works of ₹ 1.86 crore

<sup>41</sup> Spillover: 93 works *plus* works booked: 185 works.

## Planning

The Company did not evolve any long term plan and the annual plans did not include physical targets

**2.2.16** The Company, despite being engaged in the construction activities for more than five decades, did not attempt to evolve any long term Corporate/Perspective Plan for effective utilisation of its resources. The DoWR, for the first time prepared (July 2009) a five year Perspective Plan for 2009-14 envisaging the targets for completion of different ongoing works and for the new works to be taken up to extend irrigation facilities in the State. It, however, did not specify the works to be executed through the Company. Though the Company was largely depending on allotted works, it never took up this matter with DoWR to prepare a long term Perspective Plan.

The Company prepared the annual plans based on the work-wise financial targets only without taking into account the physical targets for adhering to the scheduled completion period as discussed in succeeding paragraphs.

### Targets and Achievements

**2.2.17** For execution of works, the Company fixes work-wise annual financial targets based on the proposals collected from the field units. The table below exhibits the targets fixed/required to be fixed by the Company and achievements thereagainst during the five years ended 31 March 2012.

(Amount: ₹ in crore)

Year	Target fixed	Work value to be included in target	Target require to be fixed	Achievement against target fixed	Achievement against no target	Overall achievement	Percentage of achievement to target fixed	Percentage of overall achievements to required target
1	2	3	4 (2+3)	5	6	7 (5+6)	8 (5/2*100)	9 (7/4*100)
2007-08	250.00	54.50	304.50	108.45	16.81	125.26	43	41
2008-09	353.30	69.31	422.60	146.43	3.70	150.13	41	36
2009-10	300.00	31.55	331.55	136.74	23.50	160.24	46	48
2010-11	336.84	12.00	348.84	129.39	6.95	136.34	38	39
2011-12	225.00	70.99	295.99	133.84	72.18	206.02	59	70
<b>Total</b>	<b>1,465.14</b>	<b>238.35</b>	<b>1,703.48</b>	<b>654.85</b>	<b>123.14</b>	<b>777.99</b>	<b>45</b>	<b>46</b>

(Source: Budget documents/Monthly Progress Reports)

Shortfall in achievement of targets was between 41 and 62 per cent

From the table above, it can be seen that, the Company had fixed the annual target which ranged between ₹ 225 crore and ₹ 353.30 crore during 2007-12. Against the targets fixed, the Company could execute works value ranging between ₹108.45 crore and ₹146.43 crore with a shortfall in achievement by 41 to 62 per cent. The Company did not set any target for works valued ₹ 238.35 crore secured during 2007-12 which were either scheduled to be completed or proportionate value of which were to be executed within March of the respective years. The Company, however, executed works value of ₹ 123.14 crore during 2007-12 for which no targets were fixed. Further, the overall achievement of the Company was between ₹ 125.26 crore and ₹ 206.02 crore during 2007-12 with a shortfall of 30 to 64 per cent against the

required targets. This indicates poor planning in fixation of targets and absence of any system for periodical review of the annual targets.

The Management stated (October 2012) that shortfall in achievement of the targets was mainly attributed to non-availability of work sites, Rehabilitation and Resettlement (R&R) problems, delay in supply of approved drawings and designs, certificate on forest clearance, which were to be solved by the GoO.

The reply of the Management is not acceptable as the Company should have coordinated with GoO to obtain necessary clearances for settlement of the issues and planned accordingly for execution of the works. Further, the Company should have fixed target for all the works secured during a particular year as these are prerequisite to execute the works within the scheduled period.

### ***Budgetary Control***

**2.2.18** An effective Budgetary Control is essential to assess and monitor the actual Receipt and Expenditure against the Budget and also to take timely corrective action to avoid adverse variation. The Company prepared the budgets based on the inputs received from the field units for the years 2007-10 and thereafter it prepared the annual budget on the basis of work wise working estimates for the years 2010-12.

The table below indicates the Budgeted Receipt and Expenditure against Actuals and Excess/Shortfall over the budget during 2007-12.

(Amount: ₹ in crore)

Year	Date of approval by BoD	Receipt		Expenditure		Excess (+)/Shortfall (-) (in per cent)	
		Budgeted	Actual	Budgeted	Actual	Receipt (7)=(4)-(3)	Expenditure (8)=(6)-(5)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2007-08	4 September 2007	185.71	104.62	180.39	102.77	(-) 81.09 (44)	(-) 77.62 (43)
2008-09	20 September 2008	369.34	147.02	340.63	145.13	(-) 222.32 (60)	(-) 195.50 (57)
2009-10	31 December 2009	368.83	168.34	362.29	166.38	(-) 200.49 (54)	(-) 195.91 (54)
2010-11	Not available	343.34	154.05	320.53	152.74	(-) 189.29 (55)	(-) 167.79 (52)
2011-12	21 September 2011	231.40	216.00	228.46	213.22	(-) 15.40 (7)	(-) 15.24 (7)

(Source: Budget documents, Annual accounts/Annual Reports)

As seen from the above table, the shortfall in budgeted receipts ranged between 44 and 60 per cent and the shortfall in budgeted expenditures ranged between 43 and 57 per cent during 2007-11. However, during 2011-12, the shortfall in budgeted receipts and expenditure were reduced to 7 per cent each due to lower estimation of budgeted receipt and expenditure compared to the previous years.

**Approval of annual budget was delayed by five to nine months and reasons for wide variation were not analysed**

We noticed that the Annual Budget of the Company was approved by the BoD with a delay of five to nine months after commencement of the respective financial years and the approval of Annual Budget for 2010-11 was not obtained from the BoD. The Company neither took any inputs from the budget of the GoO/DoWR in preparation of its Annual Budget nor did it attempt to analyse the reasons for huge variations in the budget and the actuals leading to the annual budget being unrealistic.

The Management stated (October 2012) that to increase the turnover it had given higher budgetary provision to unit offices so that it can achieve at least 60 to 70 per cent of the proposed turnover.

The reply confirms that the preparation of budget was not realistic. The Company should ensure that a prudent budgetary control mechanism put in place through a realistic budget. The reply, was silent on the issues of non-analysing the variations and delay in/non-obtaining approval of budgets by BoD as well as non-obtaining inputs from DoWR.

### Funding of Projects

**2.2.19** The Company executes works allotted by the DoWR and works secured through participation in tenders. In respect of allotted works, the DoWR releases interest free work advance to the Company in accordance with the payment schedule drawn up by the Chief Engineer, DoWR. The subsequent advance is to be released after the previous advance is utilised or adjusted upto 75 per cent. For works secured through tenders, the Company arranges its own funds for execution of works where advances are not available as per the terms of the agreements. The table below indicates the adjustment of advances against the total advance received against allotted works during 2007-12.

(Amount: ₹ in crore)

Year	Opening Balance	Advance received	Total advance received	Advance adjusted out of total	Percentage of advance adjusted to total advance available	Closing Balance	Shortfall in adjustment of advance with reference to opening balance
2007-08	107.95	126.99	234.94	44.95	19	189.99	58
2008-09	189.99	60.24	250.23	46.13	18	204.10	76
2009-10	204.10	97.20	301.30	72.33	24	228.97	65
2010-11	228.97	102.92	331.89	59.91	18	271.98	74
2011-12	271.98	208.30	480.28	106.18	22	374.10	61

(Source: Information furnished by Management)

**Utilisation/adjustment of work advance was 18 to 24 per cent only during 2007-12**

From the table above, it could be seen that the Company could utilise/adjust only 18 to 24 per cent of the total advance available each year during 2007-12. Even the year wise adjustment fell short of the balance of advances lying at the beginning of respective financial years by 58 to 76 per cent during the same period. The deficiencies in release of work advances by DoWR are discussed below:

### ***Release of work advances in the fag end of the year***

**DoWR released work advance of ₹ 268.60 crore at the fag end of the years to avoid budgetary lapses**

**2.2.20** As per agreement, the DoWR was to release interest free work advance to the Company in accordance with the payment schedule of the allotted works. We observed that DoWR released work advance of ₹ 591.49 crore against 96 works of which ₹ 268.60 crore (45 *per cent*) was released in respect of 65 works at the fag end of each financial year i.e. in the month of March which were not in accordance with the payment schedule. These work advances were released only to avoid the budgetary lapses. Consequently, the works which were planned at GoO/DoWR level for execution during the year remained non commenced.

### ***Unadjusted work advances against works not commenced***

**Non commencement of nine works led to non adjustment of work advances of ₹ 20.44 crore**

**2.2.21** The Company was to utilise the work advances through execution of the allotted works. We noticed that the Company did not commence the execution of nine allotted works due to R&R problems and non-availability of work sites and could not adjust so far (March 2012) work advances of ₹ 20.44 crore released by DoWR during 2004-05 to 2011-12. This indicated absence of proper planning in commencement and execution of works which resulted in unadjustment of work advances.

### ***Irregular release of work advances***

**2.2.22** The DoWR had not laid down any norm regarding the quantum of first installment of work advances to be released to the Company. It, however, stipulated that the subsequent advance is to be released after the previous advance is utilised or adjusted upto 75 *per cent*.

**Lack of monitoring on the part of DoWR led to irregular release of work advances of ₹ 248.10 crore**

We noticed that in 70 test checked works the quantum of first installment of work advances released by DoWR varied from 5 to 77 *per cent* of the work value indicating absence of any policy for release of funds. We further noticed that DoWR released work advances of ₹ 125.54 crore to the Company against 25 works valued at ₹ 245.51 crore after the expiry of its scheduled completion period and without sanctioning the Extension of Time (EoT) and in respect of 24 works, DoWR released subsequent advances of ₹ 122.56 crore to the Company without ensuring utilisation of 75 *per cent* of the previous advances. Thus, lack of monitoring on the part of DoWR in release of work advances coupled with non-ensuring optimal utilisation of funds led to accumulation of huge work advances with the Company.

### ***Absence of policy for interest earned on unutilised work advances***

**2.2.23** The GoO had neither issued any direction nor framed any policy regarding utilisation of interest earned on unutilised work advances. The Company invested the unutilised work advances in 'Term Deposits' for ₹ 45.27 crore (2007-08) to ₹ 81.03 crore (2011-12). It treated the interest of ₹ 20.46 crore earned on the fixed deposits as its own income and paid income tax of ₹ 3.31 crore. Thus, absence of any directions/policy of GoO regarding utilisation of interest was a disincentive for timely execution of works.

## Preparation of estimates and acceptance of works

**2.2.24** The Company submits its offers for allotted works on the basis of fair assessment of market rates as per the guidelines (June 2002) of DoWR. The estimates after scrutiny by the Project Level Technical Committee (PLTC) of DoWR, are placed before the Tender Committee (TC) of the GoO for further scrutiny and thereafter forwarded to the GoO for award of the work. The Company enters into agreements with DoWR on item rate contract basis in F2<sup>42</sup> form and is allowed overhead charges at the rate of 15 per cent (revised to 10 per cent from April 2011) on the basis of actual value of work executed. In respect of the tender works, the Company submits the offers based on the terms of the bid documents. The deficiencies noticed by us in preparation of estimates of 70<sup>43</sup> test checked works are discussed in the succeeding paragraphs.

### *Excess provision of overhead charges in the estimates*

**2.2.25** DoWR prepares estimates based on the Schedule of Rates (SoRs) of GoO which has an inbuilt provision of overhead charges (15 per cent on the labour component upto May 2006 and thereafter at 10 per cent on prime cost i.e. material, labour and hire charges of machinery). Based on these estimates PLTC examines the offers of the Company to ascertain the reasonableness of the offers. As per the guidelines (June 2002) of DoWR, the PLTC was required to scrutinise the offer rates of the Company with reference to the cost estimates of DoWR by excluding the inbuilt overhead charges.

On a test check of the records for 20 out of 51 allotted civil works, we found that the estimated cost of DoWR in respect of 17 works was ₹ 257.19 crore inclusive of inbuilt overhead charges of ₹ 23.23 crore. Against these works the Company's offer rate of ₹ 280.33 crore was agreed to by DoWR and accordingly works were awarded during 2004-05 to 2011-12. We noticed that while finalising the offer rates of the Company, PLTC without excluding the inbuilt overhead charges from the estimates of DOWR compared the same with the offer rates of the Company. This resulted in award of these works to the Company at enhanced work value by ₹ 46.37 crore<sup>44</sup>. DoWR, however, neither revised the guidelines of June 2002 nor at any time reviewed the practice.

In the 'Exit Conference', the Principal Secretary assured (October 2012) to look into the matter and issue proper instructions

### *Provision for EPF dues*

**2.2.26** The estimates of DoWR are based on the prevailing SoRs which included the labour component of the works considered at the minimum wage rates, inclusive of EPF dues, as notified by the GoO from time to time.

<sup>42</sup> The standard format of contract signed by the Government for execution of works

<sup>43</sup> Includes 7 tender works and 63 allotted works (Civil : 51 and Mechanical :12)

<sup>44</sup> ₹ 23.23 crore plus (₹ 280.33 crore-₹ 257.19 crore)

We noticed that the Company separately included provision for EPF dues, at the rate of 13.61 *per cent* on labour component amounting to ₹ 3.25 crore in its offer (September 2011) for one<sup>45</sup> allotted civil work which was accepted (December 2011) by DoWR. Since the labour rate was inclusive of EPF dues, the acceptance of the additional EPF dues on labour component included separately in the offer of the Company was not justified. This resulted in increase in the cost of the work by ₹ 3.25 crore.

The Management stated (October 2012) that the market rates of labour indicated in the offer were exclusive of EPF dues and therefore was added separately in the labour component. However, the fact remained that acceptance of EPF dues separately by DoWR/GoO increased the cost of the work.

### ***Less provision for hire charges of machinery***

**2.2.27** For construction of the Spillway of Lower Indra Irrigation Project, the Company in its offer (June 2011) included hire charges of machinery at ₹ 76 *per cum* of cement concrete work of 1,94,363 cum which was revised to 1,82,832 cum. However, the actual hire charges as worked out in its analysis of rates was ₹ 122 *per cum*. Thus, adoption of a lesser rate by ₹ 46 *per cum* by the Company led to irrecoverable amount of hire charges of ₹ 0.97 crore towards execution of 1,82,832 cum of cement concrete work.

### ***Non revision of estimates by inclusion of Cess***

**2.2.28** The GoO instructed (15 December 2008) all Departments, Public Sector Undertakings (PSUs) and Government agencies to deduct one *per cent* from the contractor's bills for Labour Cess and remit it to the Odisha Building and Other Construction Workers Welfare Board. The DoWR clarified (June 2010) that in respect of agreements executed prior to 15 December 2008, Cess would be deducted from the gross bills and would be reimbursed to the Company by revision of the estimates and approval thereof.

We test checked 29 works where agreements were executed prior to 15 December 2008. In respect of 10 works, the DoWR deducted a sum of ₹ 0.98 crore towards Cess from RA bills of the Company. However, it had not revised the estimates and reimbursed the same to the Company. The Company had not taken any effective action so far (August 2012) to get the reimbursement of ₹ 0.98 crore even after a lapse of three years. In respect of the remaining 19 works, the DoWR/Govt. Departments did not realise and remit Cess of ₹ 0.65 crore to the Odisha Construction Workers' Welfare Board and thus violated the provisions of the Act.

While accepting our observation, the Management stated (October 2012) that effective measures are being taken to realise the pending amount on account of Cess from DoWR.

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<sup>45</sup> Construction of Spillway of Lower Suktel

***Non-inclusion of VAT in estimates***

**2.2.29** As per the existing provisions of F2 agreement with DoWR, the Company was required to offer item-wise rates inclusive of all taxes and duties. The Company, however, did not include the Value Added Tax (VAT) on works contract in its offer (March 2006) for a work<sup>46</sup> of ₹ 47.20 crore. Instead, the Company stated in their offer that VAT on work contracts would be reimbursed to the Company on production of proof of payment. The work, however, was allotted (June 2006) to the Company without the provisions for reimbursement of VAT on works contract. The Company completed (May 2011) the work at a value of ₹ 41.72 crore against which DoWR deducted a sum of ₹ 1.40 crore towards VAT from the RA bills. Thus, due to non-compliance to the provision of F2 agreement towards submission of offer, the Company sustained a loss of ₹ 1.40 crore.

Management stated (October 2012) that it was pursuing the matter with the DoWR to realise the claim. The fact, however, remained that the Company could not realise the amount so far (October 2012).

***Non-inclusion of Service Tax in estimates***

**2.2.30** The offer of the Company required to include all the probable expenditure including Service Tax in execution of works. We noticed that the Company did not include (August 2007) Service Tax of ₹ 0.79 crore in its offer and also in the agreement executed (March 2008) for dredging works of River Daya and Luna though dredging services were liable to Service Tax. This has resulted in Company bearing additional cost of ₹ 0.74 crore as Service Tax as of July 2011. Though the Company completed the works by March 2011, the final bills were yet to be settled (August 2012).

While accepting the fact of non-inclusion of Service Tax in the offer for dredging work, the Management stated (October 2012) that the reimbursement of Service Tax had been processed. However, the Service Tax already paid by the Company was yet to be realised (October 2012).

***Incorrect provision for lead distance in the estimates***

**2.2.31** The Company was procuring steel from the stockyards of Steel Authority of India Limited (SAIL)/Rastriya Ispat Nigam Limited (RINL) located at Bhubaneswar/Cuttack being at a distance of 300 to 500 Km from the work sites. We noticed that it submitted the offers for five works with provision for procurement of 5,604 MT steel considering a lead distance ranging from 9 to 125 Kms. Thus, inclusion of lead distance at lower side in the estimates resulted in additional expenditure/liability of ₹ 1.06 crore towards transportation charges.

Management stated (October 2012) that the lead considered was the same as that considered by the Department for their estimate. The reply is not tenable

**Incorrect provision of lead distance in the estimates led to extra expenditure of ₹ 1.06 crore**

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<sup>46</sup> Balance work of construction of LBC of Rengali Irrigation Project from RD-31.50 Km to RD-33.00 Km (Open cut along-with cut and cover) under OECF Package-7(A)

since the Company had not considered the actual lead based on the actual source of procurement which resulted in additional expenditure.

**Submission of tender at lower rates towards cement coefficient**

**2.2.32** The Company secured (November 2007) the tender work for construction of Kanupur Spillway at ₹ 135.67 crore. The tender condition stipulated the maximum coefficient of 3.21 to 5.71 quintals of cement for consumption in each cum of different grades of cement concrete. It further stipulated that the cost for less consumption of cement compared to design mix would be recovered from the Company. The Company was also required to consider the coefficient for metal/sand as per the prevailing Analysis of Rates (AoR) of GoO.

Analysis of the estimates prepared by the Company for the above work revealed the following:

**Cement cost of ₹ 12.63 crore was not included in the estimate due to consideration of low coefficient**

- The Company considered a low coefficient of 2.59 to 3.99 quintals of cement per cum in its offer for execution of 3,84,678 cum of different grades of cement concrete instead of considering the maximum coefficient of 3.21 to 5.71 quintals of cement as stipulated in the tender condition. This resulted in non-inclusion of 2,81,052 quintals of cement valued at ₹ 12.63 crore (@ ₹ 449.50 per quintal as per the offer) in the offer.
- The Company did not consider the coefficient for metal/sand as per the prevailing AoR and instead quoted the rates for the same at lower side. Thus, the Company could not realise ₹ 1.58 crore in execution of 3,13,628 cum of cement concrete.

Management stated (October 2012) that the technical specification relating to maximum consumption of cement was in no way related to rates quoted by them to warrant a deduction. It also added that it had moved the DoWR for refund of the withheld amount.

The reply is not tenable because the DoWR recovered the differential value as per the tender condition and as such the realisation of the same was remote.

**Execution of Works**

**Execution of 141 completed and 81 ongoing works were delayed upto 180 and 192 months respectively**

**2.2.33** The Company secured 185 works valued at ₹ 1,155.21 crore through allotment and participation in tenders during the last five years 2007-12. Besides 93 works had spilled over with an un-executed balance of ₹ 397.47 crore at the beginning of the year 2007-08. The period of delay in respect of 141 out of 157 completed works as on 31 March 2012 was ranged between 3 and 180 months. The date of commencement and scheduled date of completion in respect of nine completed works was not furnished by the Company and seven works was completed within the scheduled completion period. Similarly, the period of delay in respect of 81 out of 151<sup>47</sup> ongoing

<sup>47</sup> Additional 30 works due to splitting during 2007-12

works as on March 2012 ranged between 1 month and 192 months. The date of commencement and scheduled date of completion in respect of 29 ongoing works was not furnished and the schedule completion period for 41 ongoing works was beyond 31 March 2012 as shown in the following table.

Scheduled time for completion of work (in months)	Total no of works	No of works completed within scheduled time	Delay in months				
			3-6	7-12	13-18	19-24	25-180
<b>Completed works</b>							
Upto 6	32	1	3	12	-	5	11
7-12	68	3	1	2	8	4	50
13-18	25	-	1	5	3	1	15
19-24	12	-	-	-	1	1	10
More than 24	11	3	1	-	-	-	7
<b>Total</b>	<b>148</b>	<b>7</b>	<b>6</b>	<b>19</b>	<b>12</b>	<b>11</b>	<b>93</b>
<b>Ongoing works</b>			<b>1-6</b>	<b>7-12</b>	<b>13-18</b>	<b>19-24</b>	<b>25-192</b>
Upto 6	9	-	2	-	2	1	4
7-12	31	-	2	3	4	2	20
13-18	19	-	2	-	1	-	16
19-24	11	-	1	-	1	-	9
More than 24	11	-	-	-	-	3	8
<b>Total</b>	<b>81</b>	<b>-</b>	<b>7</b>	<b>3</b>	<b>8</b>	<b>6</b>	<b>57</b>

In the test check of 70 works, we noticed the following reasons for delay in execution of works:

- In 23 cases delays in execution of works were attributed to local problems (9), non-availability of working sites (3), R&R problems (5), non-acquisition of lands (5) and non-availability/delay in supply of drawings and designs (1).
- In 43 cases due to delay in mobilisation/ engagement of job workers the works could commence only after expiry of 3 to 632 days of the scheduled date of commencement of works.

**Job workers were engaged after delays upto 632 days for commencement of works**

The delays in completion of the works also resulted in cost overrun and non achievement of intended benefits such as irrigation potential, development of better infrastructure, communication by improved roads etc. Delay in execution would result in delayed inflow of revenue even though the Company would continue to incur fixed overheads whether works are executed or not.

***Cost overrun due to delay in completion/execution***

**2.2.34** The MPRs of the Company exhibited only the value of works executed as per the item rates of agreements but did not exhibit the actual expenditure incurred as well as the cumulative expenditure there against.

We observed that in 15 (completed: 4 and ongoing: 11) out of 63 test checked allotted works, due to abnormal delay of 13 to 98 months in completion/execution, the value of the works were increased to ₹ 555.10 crore as against the agreement value of ₹ 393.11 crore. The cost overrun of ₹ 161.99

**Delay in execution of works led to cost overrun of ₹ 161.99 crore**

crore burdened the DoWR with an extra cost of ₹ 141.11 crore and the Company a non-reimbursable expenditure of ₹ 17.88 crore.

Management stated (October 2012) that the delay in execution of works and cost overrun was due to R&R problem, agitation by displaced persons and delay in finalisation of drawing and design which were not attributable to the Company.

The reply is not acceptable. Better co-ordination with authorities concerned to minimise delays/expedite in execution/completion of works with approvals could have checked consequential cost overrun.

### ***Non-compliance to the provisions of the Agreements***

**2.2.35** In terms of Clause 4 of the F2 agreements with the clients, the Company was required to obtain Extension of Time (EoT) within 30 days from the date of the hindrance in execution of the works and the Executive Engineer concerned of DoWR authorises the EoT when the delay is genuine. The Company was to ensure existence of a proper monitoring mechanism to identify the works against which submission of EoT was due and also to ensure timely submission of EoT application thereagainst.

We noticed that in 38 out of 106 ongoing works the Company did not apply for EoT till March 2012 even after a lapse of 2 to 36 months from their stipulated date of completion. Even after expiry of the last approved EoT, there was a delay of 3 to 88 months in submission of application for the subsequent EoT though the balance 68 works could not be completed during the approved EoT period. We further observed that in the absence of approval of EoT, an amount of ₹ 1.60 crore (two per cent of bill value) was withheld in respect of 20 works by DoWR pertaining to the period 2007-2012.

**Delay in obtaining approval of EoT led to non realisation of ₹ 1.60 crore**

This indicated absence of any monitoring mechanism with the Company to ensure timely submission of EoT applications.

Management while accepting the audit observation, assured (October 2012) to obtain sanction of EoT from the competent authority within a reasonable time.

### ***Non-availing of price escalation benefits***

**2.2.36** As per Price Adjustment clause of the conditions of contract, reimbursement on variation in the cost of materials, labour and fuel is applicable only in respect of contracts where the period of completion was more than one year and provided the work is completed within the stipulated time.

A test check of 22 out of 70 selected works where agreements were executed with price adjustment clause and with scheduled completion period of more than one year, we noticed that in respect of 14 works, the Company did not work out and claim the price escalation, for reasons not in record. Out of the balance eight works, DoWR disallowed escalation claim of ₹ 4.72 crore either due to sanction of EoT without price escalation (two cases) or non-provision of escalation clause in the agreement (one case) and for five works, the Company is yet (October 2012) to realise the escalation claim of ₹ 4.25 crore.

**The Company sustained a loss of ₹ 4.72 crore either due to sanction of EoT without price escalation or for absence of enabling clause in the agreement**

This indicated the ineffective monitoring and the casual approach in safeguarding the financial interest of the Company.

Management while accepting the fact assured (October 2012) to take steps to raise claims with DoWR relating to price escalation and review the matter.

***Excess consumption of construction materials***

**2.2.37** The Company submitted (October 2003) its offer for the work of construction of Spillway of Telengiri Irrigation Project. The offer of the Company was based on the prevailing analysis of rates with coefficient for construction materials of metal and sand ranging between 0.80 to 0.88 and 0.35 to 0.41 per cum of cement concrete respectively. The DoWR awarded (February 2004) the work to the Company for ₹ 63.55 crore with scheduled date of completion by 5 February 2006. Due to non-settlement of R&R and land acquisition problem, the Company could complete work value of ₹ 7.54 crore only as of June 2012 and obtained the EoT from DoWR upto 31 December 2012.

**Excess consumption of construction materials by job workers led to loss of ₹ 2.16 crore**

We noticed that the Company without adhering to its offered coefficient, prepared (February 2010) the first revised working estimate by adopting coefficients at higher side for metal and sand at 0.90 and 0.45 respectively for execution of 2,20,936 cum of cement concrete. Since the cost of consumption of metal and sand at higher coefficient is not reimbursable by DoWR, the Company sustained a loss of ₹ 2.16 crore<sup>48</sup> due to payment to the job workers towards consumption of metal and sand at higher coefficient.

Management stated (July/October 2012) that the first revised working estimate was prepared (February 2010) as per the prevailing SoR 2008, where there was an upward revision of the coefficient and the job workers were paid accordingly with no loss to the Company.

The reply is not tenable though job workers were paid as per SoR 2008, they were allowed for consumption of metal and sand at higher coefficient despite being aware of non-reimbursement of the cost of excess consumption. The reply is, however, silent about the reasons as to why there was a change of coefficient in their initial offer and the first revised working estimate.

***Loss due to absence of safeguard clause in the agreement***

**2.2.38** The Company executed (February 2004/November 2008) agreements with DoWR for construction of barrage over river Mahendranaya and Spillway of Telengiri Irrigation Project. The Company while submitting the tender/offer for these works stipulated the coefficient of cement consumption at 2.59 to 4.03 quintals per cum of cement concrete which was agreed to by DoWR. During execution of the works, the Company consumed cement as per the actual design mix which was at a higher side ranging between 2.65 and 4.40 quintals per cum. Agreements generally include a safeguard clause for

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<sup>48</sup> Already sustained loss of ₹ 0.21 crore: 20,585 cum and liable to sustain ₹ 1.95 crore: 2,00,351 cum.

the Company as well as for DoWR towards increase/decrease of cement consumption as per design mix and the rates for the corresponding concrete items are adjusted accordingly.

**Absence of safeguard clause in the agreements led to extra expenditure of ₹ 1.80 crore towards excess consumption of cement**

We noticed that in the absence of such a safeguard clause in the agreements for these works the Company incurred extra expenditure of ₹ 1.80 crore<sup>49</sup> towards the cost of higher consumption of cement.

Thus, lack of internal checks has resulted in non-inclusion of safety clause in the agreements with consequential loss of ₹ 1.80 crore towards cost of higher consumption of cement.

While accepting the fact for Telingiri, the Management stated (October 2012) that in the case of Mahendratanaaya, the expected variation in cement consumption, which normally happened in construction works, was taken into consideration. The reply is not acceptable since the Company incurred extra expenditure and in absence of the safeguard clause, reimbursement of the same was not certain.

### ***Execution of extra quantum of works without approval***

**2.2.39** As per clause 10 of the conditions of F2 contract, no deviation from the stipulated specifications is to be carried out by additional items of work without the approval of the Engineer-in-charge of DoWR.

**The Company executed extra work of ₹ 1.23 crore without approval**

We noticed that in respect of two<sup>50</sup> works the Company executed 1,28,093 cum of excavation/desiltation, cement concrete and earth filling work at a cost of ₹ 2.17 crore as against the agreed quantity of 78,747 cum valued at ₹ 0.94 crore. In the absence of prior approval for execution of the extra quantity (49,344 cum) DoWR restricted the payment for the agreed quantity only. Thus, failure to get prior approval for execution of extra work, the Company incurred extra expenditure of ₹ 1.23 crore.

Management stated (October 2012) that execution of the extra quantity was done as per direction of the Engineer-in-charge of DoWR and the withheld amount would be released on approval of the deviation statement.

The reply is not tenable as the recovery of extra expenditure already incurred is doubtful in the absence of approval for the extra work.

### ***Forgoing of overhead charges***

**The Company had forgone overhead charges of ₹ 0.92 crore due to execution of work at higher rate through job workers**

**2.2.40** The Company secured (March 2008) dredging work of 4,98,573 cum. in rivers Daya and Luna leading to Chilika Lagoon at a rate of ₹ 132 per cum exclusive of 15 *per cent* overhead charges. We noticed that the Company executed 3,47,393 cum and 1,51,180 cum of the works at a rate of ₹ 150 and ₹ 151.80 per cum through the job workers. Thus, due to execution of works at

<sup>49</sup> Already incurred ₹ 0.29 crore: 4726.387 quintals of cement and liable to incur ₹ 1.51 crore: 24791.455 quintals of cement.

<sup>50</sup> "Construction of cross drainage (under tunnel) and gap closing of Upper Indravati Right Canal" and "Spillway of Ret Irrigation Project"

higher rate through the job workers without limiting to the rates receivable from DoWR led to forgoing of overhead charges of ₹ 0.92<sup>51</sup> crore.

Management stated (October 2012) that the Company executed the work during 2009 within the offered rate of ₹151.80 per cum including overhead charges of 15 per cent without incurring losses.

The reply is not acceptable as the Company failed to assess the fair market price which has resulted in execution of works at higher rate forgoing its overhead charges.

### **Execution of works by job workers**

**2.2.41** In respect of works allotted by DoWR, the Company is not allowed to sub-contract the works except for piece works. The Company, however, engaged job workers either on unit rate basis or on labour contract basis. The component of works executed by the job workers ranged from 49 to 75 per cent of the total value of the works executed during the last five years ending 2011-12. The deficiencies in empanelment/engagement of job workers and execution of works by job workers are discussed in the succeeding paragraphs.

#### ***Empanelment of job workers***

**2.2.42** For empanelment of job workers, the Company invites applications in its prescribed form for submission with documentary evidences towards proof of registration for Employees' Provident Funds (EPF)/VAT, solvency certificate, previous experience, status etc. The Company empanels the job workers (Civil/Mechanical/Electrical) under four categories based on their capacity to execute value of works and the empanelment remains valid for three years.

A review of 74 out of 306 applications of the job workers empanelled during 2010-12 revealed the following:

- The Company had considered the applications without the prescribed documents like EPF registration certificates (59), solvency certificates from Banks (19), experience certificates (12) and VAT registrations (12).
- The Company empanelled super class (8), Special class (14), class A (14), class B (3) and class C (5) contractors as their job workers. However, in 30 applications the status of the contractors was not available, though empanelled.
- Though the BoD decided (December 2006) for constitution of a Committee for review of performance of the job workers, the same was constituted only in September 2011 and no meetings were held upto August 2012. Hence, the very purpose of formation of the Committee was defeated and raises a doubt on the transparency of the transactions.

**The Company empanelled job workers without obtaining required documents**

<sup>51</sup> {(₹ 150 - ₹ 132) x 3,47,393 cum} + {(₹ 151.80 - ₹ 132) x 1,51,180} = ₹ 92,46,438

Management stated (October 2012) that steps would be taken to review the performance of the job workers through the Performance Review Committee and delist the non-performing agencies. The reply, however, was silent regarding deficiencies in empanelment of job workers.

### ***Engagement of job workers***

**2.2.43** The modalities for engagement of job workers, as approved (September 2008) by the BoD included the condition that the quotation call notices should be published in two local dailies and to host it in the Company's website for work values ranging between ₹ 5 lakh to ₹ 10 lakh. In addition to this, for work values of more than ₹ 10 lakh to ₹ 1 crore, the quotation should also be published in one local English daily. We noticed the following deficiencies.

- The Company had not published the quotation call notices of any work in print media during the period 2007-08 to 2011-12.

Management stated (October 2012) that selection and engagement of job workers was done through short quotation calls from the empanelled job workers where wide circulation was not required. The fact remained that the Company had not adhered to the direction of BoD in this regard.

- As per the delegation of financial powers the Company is required to obtain administrative approval of the DoWR for award of work valued ₹ 1 crore and above. We noticed that the Company split 21 works valued at ₹ 103.65 crore into 3 to 26 parts during 2007-12 to avoid the administrative approval of the competent authority. Even works valued ₹ 1.17 crore to ₹ 9.05 crore were split to below ₹ 1 crore each and awarded to five job workers without obtaining approval of DoWR, in violation of requirement of delegation of financial powers.

While accepting the fact of splitting of the works, the Management stated that the splitting of the works ensured deployment of more machinery and working units for simultaneous execution of different reaches. The reply is not acceptable since it was done in violation of codal provision and the execution of works was abnormally delayed.

### ***Non-payment of EPF dues***

**2.2.44** Section 6 of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 read with paragraph 38 of EPF Scheme, 1952 stipulated that the employer is required to deposit the employees and employer's share of contribution within 15 days of the close of the month, and failure in compliance would attract penalty under Section 14(B) of the Act. Further, in the terms of the agreements with job workers, two *per cent* of the bill amount was to be withheld from RA bills towards statutory dues and would be released on production of documentary evidences in support of deposit of the same within three months from the end of each financial year. In case of non-production of the documents, the Company would deposit the same with the concerned authorities.

**Job workers were engaged by splitting of works in violation of financial powers**

**Absence of EPF registrations of job workers led to accumulation of EPF dues of ₹ 14.47 crore with the Company**

We noticed that the concerned Senior Managers deducted a sum of ₹ 1.67 crore towards EPF dues from the RA bills of job workers in respect of 20 works upto March 2012. The Company, however, could not deposit the same with the concerned authorities due to the fact that most of the job workers did not have PF registrations. As a result, EPF dues of ₹ 14.47 crore was accumulated with the Company as of March 2012 which was clear violation of the provisions of the Act.

While accepting the fact, Management stated (October 2012) that retention of money towards EPF was intended to insist on the job workers to obtain and submit EPF clearance certificates and would be refunded on production of the same.

Non settlement of EPF dues in violation of the provisions of the Act, which the Company had accumulated, could attract penalty also.

***Subletting of Works***

**2.2.45** As per the guidelines issued (June 2002) by DoWR and in terms of the conditions of the agreement for execution of works, the Company was not allowed to sub contract the work for execution except for piece work and the work was to be executed directly by the Company.

We noticed the following:

- In line with the F2 agreements with DoWR, the Company empanelled different categories of job workers with a condition that they should have diploma/degree Engineers to supervise the execution of works.
- The agreement executed with the job workers *inter-alia* stipulated that they would be responsible for maintaining the data and complete records of issue and consumption of materials received from the Company. The job workers would be responsible for transportation of materials to site of the work and storage thereof.
- In line with the F2 agreements with DoWR, the Company also approved the item rates for the job workers which included rates for supply of labour, material excluding cement and hire charges of machinery

**Execution of agreements with job workers in line with F2 agreements tantamount to subletting of works by the Company**

Thus, award of the works to job workers with the above conditions tantamount to subletting of the works to the job workers.

Management stated (October 2012) that engagement of agencies and ensuring their competency did not amount to subletting of contracts and the engagement was done by piecework arrangement.

The contention was not acceptable in view of the fact that the engagement of the agencies was not made in a transparent manner and also was in line with its F2 agreement with the DoWR which included supervision, material management etc., which is applicable for subletting of the contracts.

***Award of work at higher rate to subcontractor***

**2.2.46** The Company engaged (December 2010) SEW Infrastructure Limited (SIL), Hyderabad for execution of the balance work of construction of Kanupur Spillway at a total value of ₹ 106.95 crore scheduled to be completed by August 2012. As per the agreement made with SIL, 4,03,131 cum of different grades of cement concrete was required to be executed against four items of work at ₹ 97.58 crore. The receivable rate from DoWR for each item of cement concrete work was inclusive of cement cost at ₹ 449.50 *per* quintal. However, the off loading rate to SIL for the same items of work was exclusive of cement cost as cement would be supplied by the Company.

**Award of work at higher rate to subcontractor resulted in loss of ₹ 27.61 crore**

We noticed that the Company offloaded the work to SIL at the rates of ₹ 2,329, ₹ 2,624 and ₹ 2,624 *per* cum for three out of four items of cement concrete work against the receivable rates (excluding cement cost) of ₹ 1,541, ₹ 1,886 and ₹ 2,091 *per* cum respectively which resulted in off loading of the works at higher rates by ₹ 788, ₹ 738 and ₹ 533 *per* cum. In execution of 3,70,446 cum of cement concrete works, the Company incurred extra expenditure of ₹ 27.61 crore<sup>52</sup>. Thus, failure of the Company in analysing the cost of execution of work before awarding to SIL resulted in loss to the extent of ₹ 27.61 crore.

Management stated (October 2012) that there would not be any loss to the Company as the receivable rate including price escalation dues would be in excess of the rate payable to SIL.

The reply is not acceptable as the Company should have restricted the off loading cost upto the receivable rate without anticipating the benefit of price escalation. Further, the chance of getting price escalation benefit was remote as the Company could not complete the work within the scheduled completion period.

## **Material Management**

**2.2.47** Materials constitute around 60 to 70 *per cent* of the estimated cost of the works and thus, need an efficient and scientific management of material so that there is optimum use of resources. The Company procures the major construction materials like steel and cement from the reputed manufacturers. Steel is generally procured from SAIL and RINL at their prevailing rates. For procurement of cement, the Company invites quotations periodically from cement manufacturers and approves the district-wise supply rates (inclusive of tax and transportation cost) on the basis of lowest accepted quotations. The Company, however, does not have any purchase manual nor prepares the material budget to regulate the procurement. We noticed the following deficiencies in material management of the Company.

<sup>52</sup> Already incurred ₹ 4.45 crore: 57,806 cum and liable to incur ₹ 23.16 crore: 3,12,640 cum.

### **Procurement of steel**

#### **MoU with Steel Authority of India Limited**

**2.2.48** The Company entered into (April 2011) an MoU with SAIL which *inter alia* included that interest free credit (IFC) upto 15 days would be allowed on monthly lifting of 100 MT and above and for more than 15 days upto 60 days IFC would be allowed subject to separate approval of the SAIL authorities.

**Failure of internal control mechanism led to non-availment of IFC facility of SAIL**

We noticed that though the Company had procured 2,490.190 MT<sup>53</sup> of steel (ranging between 115.450 to 634.920 MT per month) valued at ₹ 11.36 crore from SAIL during 2011-12 to meet the requirement of its Central Workshop (CWS) only, it had never approached SAIL for IFC facility. Instead, the Company procured the above quantity on 105 *per cent* advance payment basis and thereby sustained a loss of interest of ₹ 3.92 lakh and ₹ 15.69 lakh (@ 8 *per cent per annum*) considering credit facility of 15 and 60 days respectively towards non-availment of the IFC facility.

Management stated (October 2012) that SAIL allowed IFC facility against equivalent amount of Bank Guarantee (BG) and for obtaining BG, the Company had to pay BG charges. In the Exit conference, the Principal Secretary, DoWR, however agreed to undertake a cost benefit analysis as cost of BG was very less.

#### **Procurement of cement at higher rates**

**The Company had to incur extra expenditure of ₹ 0.67 crore due to procurement of cement at higher rates**

**2.2.49** The Company placed (July-December 2011) six Purchase Orders (POs) on Orissa Cement Limited (OCL) (20,000 bags) and Associated Cement Companies Limited (ACCL) (1,40,000 bags) for supply of 1,60,000 bags of cement at a cost of ₹ 3.36 crore at ₹ 210 *per bag* as approved by the Company to be delivered at work site of Kanupur Spillway Project, Keonjhar. The Company did not stipulate the delivery schedule against the POs. The approved rate was valid upto 31 December 2011. We noticed that ACCL supplied 57,595 bags only during August 2011 to January 2012 leaving a balance of 82,405 bags. OCL did not supply the entire 20,000 bags. Subsequently, the Company procured (January to March 2012) the balance quantity at higher rate of ₹ 275 *per bag* from the same suppliers. In the absence of a delivery schedule and any binding clause for supply of the total quantity or for levy of penalty, the Company had to incur extra expenditure of ₹ 0.67 crore.

Management stated (October 2012) that the Company would get 100 *per cent* differential cost of cement from client and would not make any loss on procurement of cement.

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<sup>53</sup> Excludes 52.390 MT purchased during July 2011 and no purchase made during August and September 2011.

The contention of Management is not acceptable as the extra cost was in turn an extension of benefit to the cement suppliers with a burden on the exchequer since the Company had failed to stipulate the delivery schedule.

### *Excess consumption of cement and steel*

**2.2.50** As per the agreements the Company issued cement and steel to the job workers for execution of works and they were responsible for transportation and storage at site.

We noticed that 1,95,429 bags of cement were consumed against the requirement of 1,80,284 bags as per agreed coefficient in execution of 34,213.231 cum (upto May 2012) out of 37,151.326 cum of different grades of cement concrete for the work of construction of left main canal with structures of Lower Indra Irrigation Project from RD-1.00 Km to 20.04 Km. We further noticed that for execution of cement concrete in respect of three works<sup>54</sup>, the Company consumed 2,564.243 MT of steel. The DoWR, however, measured the consumption to 2,262.291 MT. Thus, due to excess consumption of cement (15,145 bags: ₹ 0.27 crore) and steel (301.952 MT: ₹ 1.21 crore) the Company sustained a loss of ₹ 1.48 crore.

**Due to excess consumption of cement and steel, the Company sustained a loss of ₹ 1.48 crore**

### *Discrepancies in issue of materials*

**2.2.51** For execution of Left Bank Canal of Rengali Irrigation Project from RD-31.50 Km to RD-33.00 Km, which was completed during May 2011, the Company issued 3,64,313 bags of cement and 5,069.751 MT steel. We noticed that as per the measurement taken by the DoWR (upto 13th RA bills), the consumption of cement and steel was 3,80,095 bags and 5,323.200 MT respectively. Thus, the practice of issuing cement and steel to job workers who were made responsible for the transportation and storage resulted in excess consumption of 15,782 bags of cement and 253.45 MT of steel valued at ₹ 1.11 crore<sup>55</sup>. The discrepancy needs to be reconciled.

### *Procurement of Machinery/Equipments*

**2.2.52** To cope up with the increased volume of work, the BoD of the Company decided (December 2007) to procure construction machinery like batching plants, transit mixers etc. at a cost of ₹ 10.06 crore with budgetary support from GoO. Though the Company proposed (December 2007) to the BoD for availing loan, it, however, requested (December 2007) GoO in DoWR for a Share Capital support of ₹ 8.50 crore. The Company also intimated that the shortfall (₹ 1.56 crore) would be met from internal source/borrowings. In anticipation of the funds from GoO, the Company procured (June 2008 to January 2009) 824 items of construction machinery/equipment of 39 categories worth ₹ 8.50 crore by diverting the interest free work advances received from the DoWR against the allotted

<sup>54</sup> Excavation and construction of left main canal with structure from RD-1 Km to RD-20.04 Km of Lower Indra Irrigation Project, Construction of Lower Indra Spillway Project and Titilagarh Spillway Project.

<sup>55</sup> Calculated at the average procurement price of the work for cement @ ₹ 203.98 per bag and steel @ ₹ 30959.67 per MT.

works. However, it could receive only ₹ 6 crore from the GoO as Share Capital for procurement of machinery during 2009-12. The Company also created (June 2008) a new Division Office (Machinery Bank) to function as a profit centre by looking after all departmental machineries and preferring hire charge bills to the unit offices for collection from the job workers. Poor utilisation of the machinery and functioning of the Machinery Bank is discussed in the subsequent paragraphs.

### **Poor utilisation of machinery/equipment**

**2.2.53** The Company had envisaged that Machinery Bank Division was to be responsible for optimum utilisation of the machinery/equipment and to ensure at least 2,000 schedule total machine running hours *per annum* per machinery. We test checked the utilisation of 52 items of new major machinery under 12 categories valued at ₹ 7.72 crore and noticed that:

**The Company utilised its machinery only for 9.51 per cent of the available machine running hours**

- Against the available 3,43,200 machine running hours during January 2009 to March 2012, the Company could utilise 47 machines for 32,635 hours only (9.51 *per cent*). The machine wise utilisation of these 47 machines ranged between 43 and 1,380 hours (1 to 21 *per cent*). Besides, five machines procured (June 2008 to January 2009) at a cost of ₹ 0.93 crore remained idle since procurement.

**Poor utilisation of machinery led to non-realisation of hire charges of ₹ 13.53 crore**

- Though the Company scheduled the realisation of hire charges for ₹ 15.10 crore against these 52 machines during January 2009 to March 2012, it could realise ₹ 1.57 crore only (10 *per cent*) leaving a shortfall of ₹ 13.53 crore due to poor utilisation of its machineries.

The poor achievement of utilisation was mainly due to failure on the part of the Senior Manager, Machinery Bank in ensuring optimal utilisation of the departmental machinery in the execution of works. Further, the Company never analysed the reasons for non/low utilisation of its machineries resulting in investment of ₹ 8.50 crore in procurement of machineries not being gainfully utilised besides wasteful payment of hire charges to job workers.



Management while accepting the fact of poor utilisation of machinery stated (October 2012) that the Company did not have machinery of higher capacity to provide to job workers.

The reply is not tenable as the Company had not analysed the reasons for low utilisation alongwith poor planning in procurement of machinery of required capacity resulted in low/non utilisation coupled with short realisation of hire charges. Further, the reply confirms the fact of subletting as machinery is hired to job workers.

### ***Payment of hire charges of machinery to job workers***

**Hiring of machinery from job workers at higher rates and keeping its own machinery idle, resulted in avoidable expenditure of ₹ 1.37 crore**

**2.2.54** In execution of 1,09,262 cum of cement concrete items in four<sup>56</sup> works during the period from January 2009 to March 2012, we noticed that against the requirement of 7,284 and 18,210 hours, the Company could deploy its five batching plants and eight transit mixers for 1,241 and 4,112 hours respectively. The Company paid the hire charges of ₹ 1.57 crore to the job workers towards hiring of their machinery at higher rates against which it recovered ₹ 0.20 crore towards hiring charges of its own machinery. Thus, due to non-utilisation of its own machinery and allowing the job workers to deploy their machinery, the Company sustained an avoidable expenditure of ₹ 1.37 crore<sup>57</sup> towards differential hire charges.

## **Financial Management**

**2.2.55** Efficient fund management serves as a tool for decision making for optimum utilisation of available resources and borrowings at favourable terms at appropriate time. The main source of finance of the Company were interest free work advances received from DoWR against allotted works, interest earned on short term deposits and retention of money from job workers towards Security Deposits. We noticed the following irregularities/deficiencies in financial management of the Company:

### ***Irregularity in operation of current accounts with Banks***

**2.2.56** The Company operates two set of bank accounts i.e. one at HO level and the other at the unit level. The unit offices operate two bank accounts (one was deposit account where the funds received from the clients was deposited for onward transmission to HO and the other was the expenditure account to which funds were remitted from HO for incurring day to day expenditure). Apart from operation of 21 current accounts in 11 different banks by the HO, the unit offices of the Company were operating 97 current accounts as of March 2011 including 29 deposit accounts. We noticed that the Company neither had a system of regular monitoring of fund received from the Clients nor had fixed any minimum balance to be retained, which resulted in funds ranging from ₹ 0.05 lakh to ₹ 7 crore remaining idle for a period of 8 to 648 days during 2008-11. This also resulted in loss of interest of ₹ 0.58 crore (calculated at the rate of 5 per cent per annum).

The Management stated (October 2012) that on accumulation of appreciable amount, funds were transferred to HO in the shape of demand draft and after introduction of electronic system in banks the funds were invested in term deposits.

<sup>56</sup> Kanupur Spillway, Mahendratnaya Barrage Project, Telengiri Spillway and Lower Indra Spillway

<sup>57</sup> ₹ 1.57 crore less ₹ 0.20 crore (hire charges recovered by the Company)

The reply was not acceptable since the Company had not so far fixed any minimum balance for retention to avoid accumulation of fund leading to loss of interest.

### ***Investment in Short Term Deposits***

**2.2.57** The GoO in Public Enterprises (PE) Department issued (November 1996) guidelines for investment of surplus funds by State PSUs. The guidelines, *inter-alia*, stipulated that the investment decision were to be based on sound commercial judgement and the decision involving investment were to be reported to the BoD in their meetings. The Company was also to evolve a suitable investment procedure with the approval of the BoD.

We noticed that the Company neither framed any policy/guidelines duly approved by the BoD for investment of funds in Term Deposits nor the status of such investments appraised to the BoD at regular intervals. The Company invested ₹ 66.97 crore during 2007-11 in different banks for a period of 16 to 371 days with a lower rate of interest by 0.25 to 1.50 *per cent* while during the same period higher rates of interest were available. The details of investment for the year 2011-12 though called for was not made available. Thus, investment in short term deposit without analysing the interest rate resulted in loss of interest of ₹ 0.28 crore.

The Management stated that with a limited staff it was difficult to watch more than one hundred bank accounts located throughout the State.

The reply, however, was not specific to the audit observation regarding non-availment of higher rate of interest in investment of surplus funds.

### ***Non-admission of TDS certificates***

**2.2.58** Due to non-finalisation of accounts in time, the Company files income tax return on provisional basis and submits the revised return once the accounts are finalised and audit completed. The assessment of income tax liability of the Company was completed (December 2011) upto the financial year 2008-09 in which income tax authority adjusted the tax deducted at source (TDS) for ₹ 1 crore against the TDS claim of ₹ 6.54 crore deducted by DoWR from various bills. Though the tax authorities did not consider the TDS of ₹ 5.54 crore, the Company had not so far preferred any appeal against the assessment orders for refund and instead, requested the assessing authority u/s 154 of the IT Act for rectification of mistake towards TDS and to pass order for refund. As a result, the refund of TDS of ₹ 5.54 crore was not received as of date (October 2012).

The Management stated (October 2012) that appeal would be filed in case the assessing officer declined to rectify the mistake for passing of order for refund of the claim.

The Company, however, was yet to receive the refund towards TDS or file an appeal.

**Failure of the Company in preferring appeal for admission of TDS certificates led to non realisation of refund of TDS of ₹ 5.54 crore**

### ***Loss due to payment of VAT at higher rate***

**2.2.59** As per the provision of the Orissa Value Added Tax (OVAT) Rules, 2005 under Rule 8, the Company was permitted to pay VAT on works contracts by way of composition with effect from 14 July 2008 at the rate of four *per cent* on sixty *per cent* (2.4 *per cent*) of the gross value received or receivable towards execution of works for any year. The HO of the Company instructed (August 2008) the unit offices to ensure deduction of VAT at a rate of 2.4 *per cent* in conformity with the provision of the OVAT Rules which was reiterated on several occasions thereafter.

**Failure of the Company to ensure deduction of VAT at prescribed rate resulted in excess payment of VAT for ₹ 2.19 crore**

We observed that, the DoWR deducted VAT of ₹ 2.19 crore at higher rates ranging from 2.41 to 22.29 *per cent* in 262 out of 1,115 RA bills than the prescribed rate of 2.4 *per cent* during January 2009 to March 2012. The Senior Managers of different unit offices of the Company without ensuring the correctness of deduction of VAT by the DoWR, acknowledged the bills prepared by them. As the tax returns filed under composition is not subject to assessment, failure to ensure deduction of VAT at the prescribed rate, resulted in excess expenditure of ₹ 2.19 crore towards payment of VAT.

While accepting the fact Management stated (October 2012) that the unit offices were directed to be vigilant at the time of passing of bills by DoWR and as a result the process of deduction of VAT at higher rate was reduced. It also added that appeal was filed with the authority for refund.

The reply, so far as refund is concerned, is not tenable since the chance of refund is remote as payment of VAT by way of composition is not subject to assessment.

### ***Non conversion of Security Deposits into interest bearing deposits***

**2.2.60** DoWR allowed (January 1998) the Company to convert performance Security Deposits (SDs) deducted from the bills in respect of all its running contracts into interest bearing SDs. The interest bearing SDs shall be in the name of the Company and pledged with DoWR. The total deduction on account of performance SDs from the RA bills of the Company stood at ₹ 29.84 crore (March 2012). We noticed that SDs of ₹ 5.64 crore relating to 38 works were not converted into interest bearing deposits due to absence of any system in place for effective monitoring by the Company. This resulted in loss of interest of ₹ 0.67 crore (calculated at the rate of six *per cent per annum*).

**Ineffective monitoring of the Company led to non conversion of SD of ₹ 4.94 crore to interest bearing deposits**

Management while accepting the fact stated (October 2012) that an amount of ₹ 0.70 crore of SDs had been converted to interest bearing deposits and all the pending receivable including SDs of the Company were centralised for close monitoring. The balance amount of ₹ 4.94 crore had not yet been converted into interest bearing deposits.

## Manpower Management

### *Manpower*

**2.2.61** Consequent upon Corporate Restructuring Plan (July 2004) of the Company and as approved (February 2005) by GoO, 734 employees were categorised as core and non-core employees and 117 employees were found surplus. The Company implemented VRS in two phases (April and August 2007) under which 45 employees retired. Due to substantial increase in work load as well as in turnover, the Company assessed the requirement of 998 employees considering an estimated turnover of ₹ 150 crore. After approval (September 2008) of BoD, the manpower assessment was forwarded (November 2008) to GoO for approval. The approval of GoO, however, was awaited (August 2012). Meanwhile the employees strength reduced to 587 during 2011-12 though the turnover of the Company increased from ₹ 100.26 crore in 2007-08 to ₹ 208.58 crore in 2011-12.

In the Exit conference the Principal Secretary, DoWR stated (October 2012) that Public Enterprise Department of GoO was asked to assess the requirement of manpower afresh.

### *Training*

**2.2.62** Training and Development is an important tool to upgrade the skills and efficiency of the employees. With increased workload and reduction in manpower over the years, the Company needs to increase the productivity with better accuracy and speed with the available resources. To achieve the same, the Company needs to formulate realistic planning to impart training to the available manpower.

We noticed that the Company was not regular in conducting training programme for its employees. Training for only 687 man days during 2007-12 was provided as against its commitment to provide training programme for 2,500 man days as per the MoU with the GoO. Further, it was decided (April 2009) by the DoWR to have an annual training calendar for various units of DoWR including the Company to impart training at reputed National Institutes. However, the details of training availed, if any, by the employees of the Company through DoWR were not on record.

While confirming the facts and figures the Management stated (October 2012) that imparting training in small group would be taken up after completion of Final Accounts of 2011-12 and no programmes was obtained from DoWR so far.

## Project Monitoring

**2.2.63** To execute the works economically and efficiently as well as to watch the physical and financial progress of the works an effective monitoring is a pre-requisite.

**The Company was irregular in conducting training programme for employees**

### ***Irregular monitoring***

**2.2.64** As per the working manual of the Company, all the field units are required to send a monthly progress report (MPR) in the prescribed format by fifth of the following month and in turn the consolidated MPR is to be furnished to DoWR by twentieth of the month. DoWR takes up monthly plan expenditure review meeting in which MD of the Company participates. We noticed the following deficiencies:

**There was delay in submission of MPRs upto 31 days**

- Delay in submission of MPRs by the field units caused delay in submission of consolidated MPRs to DoWR ranging between 1 and 31 days in 45 months during 2007-12.

The Management stated that the delay was due to delay in measurement of works by the clients. The contention is not acceptable since the MPRs were to be submitted as per schedule and measurement of works was also the responsibility of the Company

**The Company did not review the monthly progress of works despite huge spill over**

- The Company was not regular in communicating the decision of the monthly plan expenditure meetings of DoWR to the field units for taking necessary remedial actions. Further, the Company did not review the monthly progress of the works though spillover works increased from ₹ 397.47 crore in 2007-08 to ₹ 861.33 crore in 2011-12.

The Management stated that sometimes the decisions of the Review meetings were communicated to the field units and the backlogs could not be fulfilled due to various reasons not attributable to the Company. The reply is not acceptable as the field units were not regularly communicated with the decisions of the Review meetings and the accumulation of spill over works could not be reduced.

- The Company had not fixed any norm as to the periodicity for field inspections by the higher officers from HO.

### ***Closure of works***

**2.2.65** The Company declares the completed works as closed and instructed (June 2003) the field units to transfer all the records relating to the completed works to the Defunct and Recovery Cell (DRC) at its HO for monitoring the post closure transactions against each closed work in coordination with the clients for settlement of its dues. The Company had declared 380<sup>58</sup> works as closed during 2005-11 of which records of 20 works closed during 2009-11 were not transferred to HO so far (October 2012).

A review of the post closure transactions of the works at HO level revealed that:

- Out of a total of ₹ 30.79 crore receivable against 360 works (withheld amount: ₹ 4.18 crore, security deposits: ₹ 3.77 crore and value of works executed: ₹ 22.84 crore), the Company could realise ₹ 3.07

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<sup>58</sup> Civil works -334 and Mechanical works-46.

crore only against 46 closed works so far (August 2012). These amounts were pending mainly due to non-sanction of EoT and non-approval of deviations by the Clients;

- in the case of 339 closed works staff advance of ₹ 0.40 crore has not been adjusted so far though the staff of the closed works were transferred to other works and no debit notes were raised to this effect;
- in respect of these 360 closed works outstanding advances of ₹ 5.64 crore against the job workers is yet to be settled; and
- in addition to the above 360 closed works, the Company also could not realise ₹ 3.32 crore against 347 works closed prior to 2005-06.

The Management stated (October 2012) that through functioning of DRC the advance against the work would be adjusted. The reply is not tenable as despite the creation of DRC, substantial amounts are yet to be recovered.

## Internal Control

**2.2.66** Internal control system is an essential part of the managerial control system. An efficient and effective internal control system helps the management to achieve the organisational objectives efficiently and effectively. The following deficiencies were noticed in the internal control system being followed by the Company:

**Irregular payment of advance to job workers resulted in non adjustments of ₹ 35.17 crore**

- Though the agreements with the job workers did not permit for payment of advance, as per circular (August 2006) of HO, the unit offices used to release *75 per cent* of the certified value of the works executed as advance instead of against actual measurement of the works and recording thereof in the measurement books (MBs). The release of advances in contravention to the provisions of the agreements resulted in non adjustment of ₹ 35.17 crore as of March 2012.
- As per the conditions of the agreements with the clients, the Company was required to prefer bills on monthly basis by measurements of the works executed during the previous month. Instead the bills were prepared by the Clients and countersigned by the Company. In the absence of any measurement by the Company, the deviations if any could not be ascertained and work valued at ₹ 28.69 crore (2007-08) to ₹ 74.64 crore (2011-12) was accounted for provisionally on the basis of the certification of unit heads.
- No physical verification of stores and stocks were carried out by any independent authority rather it was certified by the respective unit heads. Though discrepancies in stores accumulated to ₹ 1.31 crore upto 2011-12 was booked to suspense accounts, the Company failed to identify the same and settled the issue.
- The MPR exhibit only the value of works executed as per the item rates of the agreements but not the actual expenditure incurred as well

**Absence of physical verification of store and stocks by independent authority led to discrepancies of ₹ 1.31 crore**

as the cumulative expenditure there against. Failure on the part of the Company in ensuring work wise actual expenditure incurred resulted in lack of internal control on the cost overrun of the works as discussed in **Paragraph 2.2.34**.

- Non-availment of interest free credit (IFC) facility as per provisions of MoU with SAIL for procurement of steel and instead procuring the same on advance payment basis resulted in loss of interest as discussed in **Paragraph 2.2.48**.

Management while accepting (October 2012) the fact stated that steps were being taken for adjustment of outstanding advances with job workers, preparation of bills and to apprise the BoD of recruitment of staff for better internal control with the Company.

### ***Internal Audit***

**2.2.67** The Company did not have its own internal audit wing. It appointed firms of Chartered Accountants to conduct internal audit of field units as well as of HO. The scope of internal audit was restricted to compilation of accounts only and thus, the important activities of the Company were not covered in internal audit. The engagement of internal auditors were delayed by 6 to 22 months during 2008-09 to 2010-11 and the coverage of internal audit of the unit offices was not adequate as the internal audit could be conducted in 10, 14 and 20 units out of 35, 38 and 44 units respectively. The major observations of internal audit were never placed before the BoD for discussion and taking remedial actions.

Management while accepting the fact of inadequacy of internal audit stated (October 2012) that steps would be taken to cover audit of all units and observation would be placed before BoD through the Audit Committee.

### ***Audit Committee***

**2.2.68** As per the provisions of the Corporate Governance Manual of GoO, the Company should have an Audit Committee to review the financial statements, internal control mechanism and the findings of the internal auditors. It, however, did not have an Audit Committee till June 2012.

Management while confirming (October 2012) the above fact stated that Audit Committee had been constituted and assured to deal with all audit matters through the Committee.

## **Acknowledgement**

We acknowledge the co-operation and assistance extended by the Management and Staff of the Company at various stages of conducting the Performance Audit and the Entry Conference and the Exit Conference.

## Conclusion

- Despite the Company being largely dependent upon the works allotted by the DoWR, it did not prepare the Annual Plan for ensuring timely completion of works nor did it fix any annual target in physical terms in line with the Perspective Plan of the DoWR.
- The targets fixed by the Company for completion of the works fell short of the scheduled dates, leading to accumulation of spill over works valued at ₹ 861.33 crore and interest free work advances of ₹ 374.01 crore received from DoWR.
- Low/non-utilisation of available fund coupled with irregular payment/recovery of statutory dues indicates the deficient financial management of the Company.
- Irregular release of work advances by DoWR leading to accumulation of huge balances with the Company which in turn is invested in term deposits by the Company
- The Company had sustained significant losses due to preparation/submission of deficient offers/work estimates and execution of works without adhering to the terms of the agreements/bid documents. DoWR also incurred extra expenditure of ₹49.62 crore due to acceptance of inflated offers.
- There were inordinate delays in commencement/completion of works which were mainly due to deficiencies in coordination between the Company and Clients and delayed engagement of agencies.
- The terms and conditions of engagement of job workers indicated sub-letting of works in violation of the terms of entrustment of works and even these entrustments were not made in transparent manner.
- Deficiency in procurement/issue of construction materials and low/non-utilisation of its equipments and machineries indicates poor materials management system in the Company.
- The manpower management, monitoring and internal control system of the Company was also deficient and had adverse impact on the execution of works.

## Recommendations

The Company may like to put emphasis on the following:

- Preparation of Annual Action Plan prioritising the execution of the works duly linked with the schedule of completion of the works;
- Participation in open tenders to get more work orders and reduce dependence on the allotted works of Government;

- **Factor in all costs while making the offers and enter into proper agreements with the Clients;**
- **Dispensing with sub-letting of works and ensuring engagement of agencies in a transparent manner;**
- **Framing a suitable material management policy and reassessing its manpower requirement; and**
- **Strengthening of Project Monitoring and Internal Control mechanism.**

The Government may:

- **Scrutinise the offers with reference to prescribed guidelines;**
- **Formulate a suitable policy for release of work advances so as to avoid the accumulation thereof with the Company; and**
- **Monitor the execution of works for timely completion of the works.**