

## **Chapter 5**

### **Audit on Material Management and Inventory Control in JBVNL**



**CHAPTER 5**  
**ENERGY DEPARTMENT**  
**JHARKHAND BIJLI VITRAN NIGAM LIMITED (JBVNL)**

**Audit on Material Management and Inventory Control in JBVNL**

**Executive Summary**

*Maintenance of an efficient power distribution network involves significant inputs in the form of material, and, as such, material management and inventory control are critical for any power distribution company. The Audit of material management and inventory control in Jharkhand Bijli Vitran Nigam Limited was taken up to assess: (i) whether an adequate system was in place to plan and execute procurement of material (ii) effective monitoring of procurement procedures was being carried out (iii) Inventory Control Mechanism of the Company was scientific and effective (iv) physical verification of inventory was being carried out and (v) obsolete stock were disposed of in time.*

*Audit covered the period from FY 2017-18 to FY 2020-21 and focused on the procurement of major items, which comprised almost 80 per cent of the stock value, and the existing inventory control system. The audit objectives, criteria, scope and methodology were explained to and the audit findings were discussed with the Principal Secretary, Energy Department, Government of Jharkhand (GoJ).*

*Audit observed that the Company did not adhere to the provisions of the Works and Procurement (W&P) Manual, it had adopted (March 2017), relating to preparing annual budgets in time which ultimately led to short release and short utilisation of funds. This also resulted in non-commencement of proposed works in time. The Company also did not adhere to the provisions of W&P Manual in deciding procurement tenders within the prescribed timeline, allowing sufficient bid period to get competitive offers and incorporating uniform guarantee clauses in notice inviting tenders (NITs). The provisions of Jharkhand Procurement Policy (JPP) regarding procurement of material from state Micro and Small Enterprises (MSEs) were not followed. Distribution Transformers (DTs), which were not energy efficient and did not meet the prescribed standards, were procured and installed. Meter accessories were procured on nomination basis and payment made to the vendors, without verifying the status of supply and installation. System meters were procured without prior site verification, as a result of which, they could not be utilised for more than three years. Procurement of aluminium conductor steel reinforced (ACSR) conductors and pre-stressed concrete (PSC) poles were made without conducting quality tests and inspections.*

*The Company failed to ensure real time material management through a well-developed Management Information System (MIS) and monitored the position of stocks over telephone. Sufficient manpower was not deployed for management of stores and hence proper stock accounts could not be maintained. Materials were issued by the central stores without ascertaining the actual requirements, which was fraught with the risk of*

*misuse of material. Periodic physical verification of stores/scraps, had not been carried out, leading to material and scrap lying idle, for long periods, in the central stores.*

*The Company failed to procure required material in time or ensure efficient utilisation of issued material resulting in non-completion of works. Commencement of departmental execution of work was also delayed leading to non-utilisation of material procured. Due to poor material management, material worth ₹ 29.99 crore were in the custody of a private contractor whose contract had already been terminated. No action was taken for more than 16 months, to transfer un-utilised material, issued to field officials, into its stores.*

*As such, the material management and inventory control of the Company was not up to the mark and needed all round improvement.*

### **Recommendations**

- 1. The Company may adhere to the timelines for preparation of the budget and ensure utilisation of funds.*
- 2. Procurement may be done as per the W&P Manual, JPP and prescribed norms.*
- 3. MIS for material management may be put in place and annual physical verification of stores may be carried out.*
- 4. The Company may initiate action for early recovery of unutilised material lying with private contractors or field officials.*

*The Department appreciated (May 2022) the observations of Audit on the various aspects of material management, tendering process and other issues and stated that it would help JBVNL in maintaining free, fair and transparent transactions, as per set norms and guidelines. JBVNL also assured that all efforts would be made to follow the audit recommendations.*

## **5.1 Introduction**

Regular and uninterrupted availability of power is a key ingredient for continuing economic growth and overall development. The Power Sector consists of three major segments, viz. generation, transmission, and distribution. Distribution is considered the most critical segment, as it contributes to the revenue stream of the Sector and is directly responsible for the satisfaction of end consumers. Distribution companies are required to maintain a robust distribution network, to ensure a regular and uninterrupted supply of power to their consumers. Maintenance of an efficient power distribution network involves significant inputs in the form of material, and, as such, economy, efficiency and effectiveness in material management and inventory control, are critical for any distribution company.

The electricity distribution network in Jharkhand is managed by the Jharkhand *Bijli Vitran Nigam Limited* (the Company), a State-owned Company, incorporated on 23 October 2013. The administrative control of the Company is vested with the Energy Department, Government of Jharkhand (GoJ).

The opening stock of the Company, in its central stores, was ₹ 1,264.68 crore, as on 1 April 2017. It received stock of ₹ 2,522.08 crore and issued stock of ₹ 3,602.61 crore, during the period covered by Audit, *i.e.* from 2017-18 to 2020-21, leaving a closing stock of ₹ 184.15 crore, as on 31 March 2021. The Company maintains its inventory under two heads of account, *viz.* Capital and Operation & Maintenance (O&M). During the financial years (FYs) 2017-18 to 2020-21, the Company had placed purchase orders of ₹ 846.55 crore, centrally, under the Capital Head, for procurement of material, of which ₹ 654.05 crore (**Appendix 5.1**) was for major material, such as: (i) transformers (ii) cables and conductors (iii) electric poles and (iv) meters. The remaining ₹ 192.50 crore was utilised for the procurement of other material, such as GI wires, stay sets, distribution boxes, fabrication items, disc insulators etc.

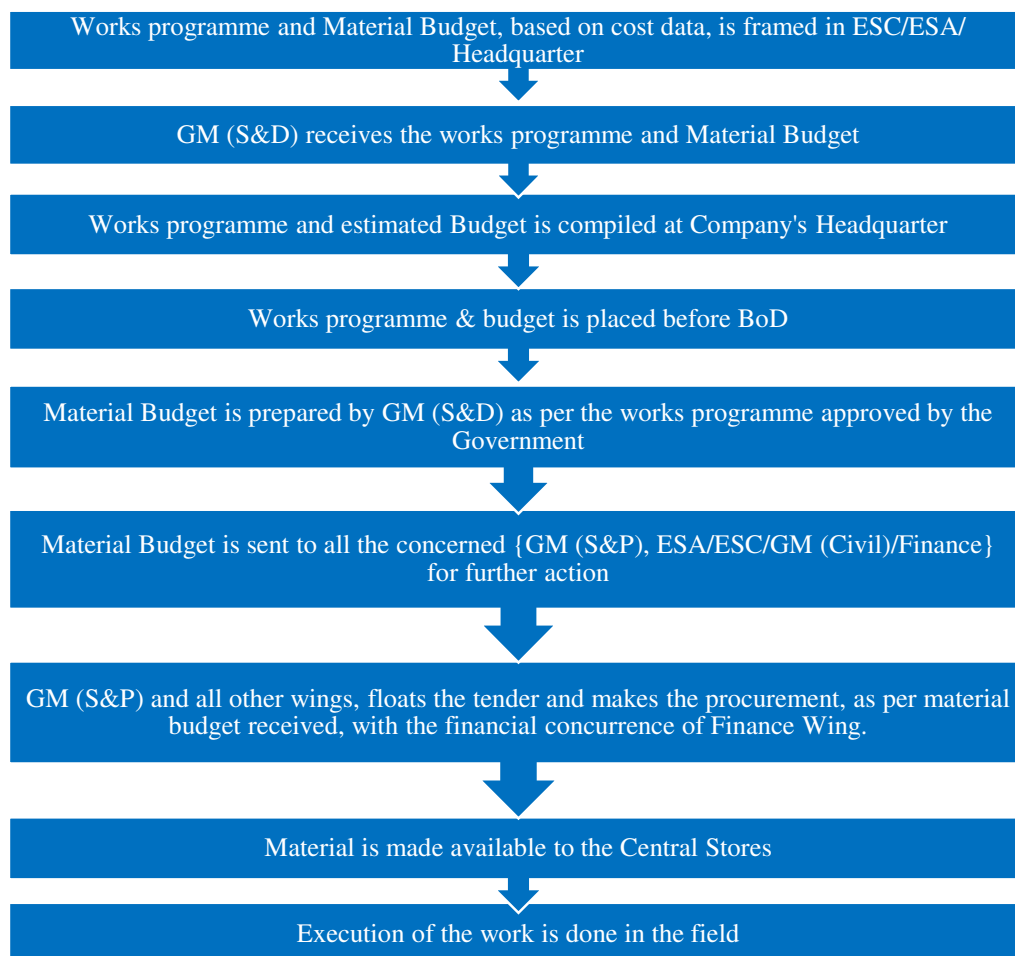
## 5.2 Organisational setup

The Management of the Company is vested with the Board of Directors (BoD), comprising four Directors. The Managing Director (MD), appointed by the State Government, is assisted by Executive Directors (EDs), General Managers (GMs), Deputy General Managers (DGMs) and Senior Managers (SMs), at the Company Headquarters in Ranchi, as given in **Appendix 5.2**. At the field level, there are seven Electric Supply Areas (ESAs), headed by General Managers; 15 Electric Supply Circles (ESCs) headed by DGMs; and 44 Electric Supply Divisions (ESDs) headed by SMs. Every ESC has one Central Store and one Transformer Repair Workshop (TRW). Further, ESDs are divided into Sub-Divisions and Sections, which are headed by Managers and Junior Managers, respectively. Material is issued to the Managers and Junior Managers from the central stores, on the basis of indents placed by them.

## 5.3 Material management and Inventory control functions

Material management and inventory control are the responsibility of the Stores and Purchase (S&P) wing of the Company, headed by GM (S&P). The GM, Supply and Distribution (S&D), prepares the material budget, based on the assessment of materials, for various electrification schemes to be implemented by ESAs. GMs of the ESAs are also responsible for monitoring the utilisation of materials. Major materials are procured centrally by Headquarters, in case of the Company's own works and by ESCs, in case of deposit works, *i.e.* works executed for other agencies. Following the Purchase Orders (POs), Dispatch Instructions (DI) are issued to the suppliers, for delivery of the material to different central stores. The central stores maintain inventory, as per guidelines issued by GM (S&P). A chart showing the processes, related to Material Management, is given below:

**Chart: 5.1**



#### **5.4 Audit Scope and methodology**

A Compliance Audit on Material Management and Inventory Control in JBVNL, covering the period from the FY 2017-18 to the FY 2020-21, was conducted between December 2020 and October 2021, to assess the compliance of the Company with applicable rules and regulations, in regard to procurement, storage, utilisation and management of material. The audit focused on the procurement of major items of material<sup>1</sup>, which comprised almost 80 *per cent* of the stock value, and the effectiveness of the inventory control system. During the audit, records and data maintained by GM (S&P), GM (S&D), GM (R-APDRP<sup>2</sup>) and seven<sup>3</sup> out of 15 ESCs, were test-checked.

The audit objectives, criteria, scope, and methodology were explained in the entry conference (09 February 2021) and the audit findings were discussed exit conference (02 June 2022) held with the Principal Secretary, Energy

<sup>1</sup> Transformers, Cables & Conductors, Poles, and Meters

<sup>2</sup> R- APDRP: Restructured Accelerated Power Development and Reforms Programme

<sup>3</sup> ESCs with Central Stores and TRWs: Chaibasa, Chas, Hazaribag, Jamshedpur, Koderma, Ranchi and Sahibganj.

Department, Government of Jharkhand. The response of the Government/Department has been suitably incorporated in the Audit Report.

## 5.5 Audit Objectives

Audit was conducted to assess whether:

- an adequate system was in place to plan procurement of material and it was being followed;
- procurement was done in compliance with rules and regulations, in an economic, efficient, and effective manner;
- monitoring of adherence to terms and conditions of procurement contracts and payments to suppliers, were adequate and effective; and
- Inventory Control Mechanism of the Company was scientific and effective, the system for physical verification of inventory was adequate and obsolete stock was disposed of in time.

## 5.6 Audit Criteria

The criteria for achieving the audit objectives were derived from the following sources:

- Jharkhand Procurement Policy, 2014
- Work and Procurement (W&P) Manual of the Company, as approved by the BoD in March 2017, Accounts and Finance Code of the Company and orders/ circulars issued thereunder
- Budget, the delegation of financial powers of the Company and Agenda and minutes of Committees involved in the procurement of material
- Instructions issued by the Ministry of Power, GoI
- Terms and conditions of NITs, agreements, and purchase orders and
- Management Information System and other related records of the Company.

## Audit Findings

### 5.7 Irregularities in Assessment of requirement

#### 5.7.1 Work Program and Material Budget

The Work and Procurement (W&P) Manual, effective from April 2017, envisages the start of procurement activities in the current financial year, for material required for the next financial year. The requirement of material, for the next financial year, was to be finalised in the month of August, based on the average consumption during the last three years and additional estimated needs for the next year. Further, the S&P wing, with the help of field authorities, was to complete the estimation of item-wise final requirements by the third week of August. In the last week of August, the S&P wing, together with the Finance & Accounts (F&A) wing, was to finalise the budgetary allocation, and the procurement authorities would start the procurement

process, after approval of the budget by BoD. The tenders for procurement were to be floated, in a phased manner, considering the item-wise priority, lead time required for supply and the time by which the material was required to be made available for use in the field.

To meet the requirement for upgradation and extension of the electricity distribution system as per the demand, the Company prepares an Annual Development Programme (ADP), for works to be undertaken departmentally each year. The requirement of material, for works under the ADP, is worked out based on the requirement of material obtained from the field offices and is included in the material budget for procurement during the year. The proposed expenditure under the ADP is met from the funds provided by the GoJ. Details of the annual budgets under the ADP and their approval by BoD, are given in **Table 5.1:**

**Table 5.1: Details of annual budgets under ADP and their approval**

Financial year	Month when budget proposals were called for from field offices	Delays in Commencing budget preparation	Month of placing budget before BoD and its approval by BoD	Amount of approved budget (₹ in crore)	Funds received (₹ in crore)	Funds utilised (₹ in crore)
2017-18	April 2017	8 months	November 2017	431.64	431.64	245.53
2018-19	February 2018	6 months	September 2018	670.00	91.72	215.81
2019-20	October 2018	2 months	Not placed	0.00	0.00	127.92
2020-21	April 2020	8 months	November 2020	290.00	290.00	71.48
<b>Total</b>				<b>1,391.64</b>	<b>813.36</b>	<b>660.74</b>

*Source: Information furnished by the Company*

- It can be seen, from **Table 5.1**, that the Company started budget preparation with delays ranging between two and eight months, from the month of August of the previous year, which led to delays in the approval of budgets by BoD. These delays ultimately led to shortfalls in the release and utilisation of funds.

- Audit noticed that the annual approved budget of ₹ 670 crore for the FY 2018-19, had been re-appropriated, by excluding approved works of ₹ 301.65 crore, and replacing these works with new works, for the same amount. The revised budget was placed thrice, between August 2019 and August 2020, before the BoD, but the BoD had deferred its approval, without assigning any reason till September 2022.

- It was seen that, though the Company had prepared a tentative budget for ₹ 600 crore for FY 2019-20, it had not been submitted for approval to the BoD, and, hence, the works proposed in the budget could not be taken up. Only spill-over works, from the previous years, were executed during the year.

While accepting the facts, the Department stated (May 2022) that the delays in the preparation of the Budgets, were mainly due to shortage of manpower at



the field and headquarters levels. Regarding non-submission of the ADP Budget for FY 2019-20, it was stated that the same had not been submitted because the Department had released only ₹ 91.72 crore, against the approved ADP Budget of ₹ 670 crore for FY 2018-19, and, hence, the works proposed in the budget could not be taken up. The fact, however, remains that, during the audit period, JBVNL could not effectively implement works which would have upgraded the assets created for electricity distribution in the State, in a timely manner.

**Audit recommendation 1: The Company may ensure timely preparation and approval of annual budgets.**

### 5.7.2 Status of Inventory

As per the books of accounts of the Company, the position of inventory, during FYs 2017-18 to 2020-21, was as detailed in **Table 5.2**.

**Table 5.2: Inventory position of the Company for the period 2017-18 to 2020-21**

(₹ in crore)

Financial year	Head	Opening stock	Stock received during the year	Stock issued during the year	Stock adjusted during the year	Closing balance of Stock	Average Stock for the year	Average inventory during the year (In months)
1	2	3	4	5	6	7	8={ (3+7)/2 }	9={ (8/5)x12 m }
2017-18	Capital	1,273.66	1,091.19	706.67	-	1,658.19	1,465.93	24.89
	O&M	(-) 8.98	60.65	23.43	-	28.25	9.64	4.93
2018-19	Capital	1,658.19	908.12	1,617.21	(-) 695.36	253.74	955.96	7.09
	O&M	28.25	14.90	34.31	-	8.84	18.54	6.49
2019-20	Capital	253.74	296.05	307.64	(-) 36.30	205.84	229.79	8.96
	O&M	8.84	31.06	12.70	-	27.21	18.03	17.04
2020-21	Capital	205.84	99.37	145.88		159.33	182.59	15.02
	O&M	27.21	20.74	23.12		24.82	26.02	13.50

**Source:** Information furnished by the Company

It can be seen from **Table 5.2**, that the Company had maintained inventory of more than 12 months requirements, for capital stocks, during FYs 2017-18 and 2020-21 and for O&M stocks during 2019-20 and 2020-21, even though it was required to procure material annually, based on the ADP. Carrying excess inventory not only results in the blocking of funds, but is also fraught with the risk of material becoming obsolete due to the passage of time.

The Department stated (May 2022) that the average of inventory during the year, as mentioned in the Table, is the cumulative figure. It further stated that, to maintain the widely spread electrical network and to cover electrification in new areas, minimum inventory of different material is regularly required.

The reply is not convincing, as the Company had maintained inventory of more than 12 months in three out of four years, even though it was to procure material in a phased manner, as per the W&P Manual, i.e. thrice (June,

September and December) in a year, considering the item-wise priority and the time period by which material was required for use in the field.

## **5.8 Irregularities in the procurement of material**

### **5.8.1 Irregularities in the tendering process**

#### **(i) Preparation and finalisation of Notice Inviting Tenders (NITs)**

As per the W&P Manual, tenders for procurement of material should be finalised within three months (90 days) from the date of issue of NIT.

During FYs 2017-18 to 2020-21, the Company issued 250 purchase orders (POs), for procurement of major materials, against 59 NITs. Scrutiny of tender files revealed delays in the finalisation of tenders, shorter bid period being given for submission of bids, unjustified floating of short or emergency tenders, improper technical evaluation of tenders and variations in the guarantee period clauses in different NITs, as discussed below:

- Out of 57 NITs<sup>4</sup>, only 10 were finalised within the prescribed 90 days. In the remaining 47 NITs, there were delays of 10 to 230 days, beyond the prescribed 90 days. These 47 NITs included 24 NITs where the delay was more than 100 days. The Technical Evaluation Committee (TEC) also consumed up to 80 days, in evaluating the technical capabilities of the bidders whose financial bids were to be opened. These delays led to subsequent delays in the supply of material.
- Out of 57 NITs, 23 were short and emergency tenders<sup>5</sup>. However, 17 out of 23 tenders were finalised beyond the prescribed 90 days, with delays ranging between 21 and 230 days. Thus, calling for short or emergency tenders was not justified.
- The W&P Manual prescribes a minimum bid period of 28 days, for submission of bids, in case of open tenders. Audit noticed, however, that bid periods of only 14 to 26 days, had been allowed in all the 34 open tenders.
- For procurement of transformers, the W&P Manual prescribes a guarantee period of 54 months from the date of commissioning, or 60 months from the date of dispatch by the manufacturers, whichever is earlier. However, the prescribed guarantee period had been included only in four out of 22 such NITs. In 9 NITs, the required guarantee period had been limited to 24 months from the date of commissioning and 30 months from the date of dispatch by the manufacturer. In the remaining nine NITs, the required guarantee period had been limited to 36 months from the date of dispatch, and the guarantee period post-commissioning had been waived. Reducing the prescribed

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<sup>4</sup> Records relating to NIT No. 303/PR/JBVNL/2019-20 and 604/PR/JBVNL/2015-16 were not produced to Audit.

<sup>5</sup> 'Short and Emergency tenders' are invited for urgent procurement of material, in which seven and 14 days, respectively, are allowed for submission of bids, instead of the minimum prescribed bid period of 28 days.

guarantee period or waiving a particular guarantee clause, in violation of the provisions of the W&P Manual, was indicative of extension of undue favour to bidders.

Thus, the Company did not adhere to the provisions of the W&P Manual in deciding tenders within the prescribed timeline, inviting short or emergency tenders, allowing sufficient bid period and including a uniform guarantee clause.

In reply, the Department stated (May 2022) that the delays in finalisation of tenders were due to shortage of manpower. It was further stated that normally 21 days are given for submission of bids, which is sufficient for healthy competition and matches with the spirit of the W&P manual. With regard to the guarantee clause, it was stated (January 2022) by GM (S&P) that this provision is being followed in the recent NITs.

The reply regarding delays in finalisation of tenders, due to shortage of manpower is not convincing, as the S&P wing had sufficient manpower<sup>6</sup> compared to its sanctioned strength. Delays in finalisation of short and emergency tenders also defeated the objective of emergent procurement and compromised fair competition. Further, the contention that generally a bid period of 21 days was allowed which was sufficient for healthy completion and matched with the spirit of W&P Manual, is contradictory to the provisions of the Manual, which prescribe a minimum bid period of 28 days in open tenders. Moreover, in 14 out of 34 open tenders, bid periods ranging between 14 and 20 days were also allowed.

**(ii) Procurement made in violation of the provisions of the Jharkhand Procurement Policy (JPP), 2014**

As per Paragraph 8.1 of the Jharkhand Procurement Policy (JPP), Pre-Stressed Concrete (PSC) Poles and Aluminium Conductor Steel Reinforced (ACSR) conductors, were to be purchased exclusively from Micro and Small Enterprises (MSEs), located<sup>7</sup> within Jharkhand. Further, as per Paragraph 4 (d) of the JPP (inserted in July 2019), it is mandatory to purchase items mentioned in the exclusive list, from local MSE suppliers, on the Government e-market place (GeM) portal.

Audit noticed that the Company had procured 2,16,883 PSC Poles and 14,820.35 km of ACSR conductors, at a cost of ₹ 129.54 crore, from April 2017 to March 2021. Of these, 17,500 PSC Poles and 6,107.62 km of ACSR Conductors, costing ₹ 30.49 crore, had been procured through 17 Purchase Orders (POs), from outside suppliers, whose corporate or head offices were

<sup>6</sup> Eleven against sanctioned strength of nine during March 2019 to March 2021.

<sup>7</sup> As per the provisions of the JPP, the Head or Corporate office of such registered units/enterprises should be within the territorial jurisdiction of Jharkhand.

not situated in Jharkhand. Further, the Company had procured 44,295 Poles and 2,521 km of conductors, costing ₹ 29.29 crore, after July 2019, through an open tender for procurement of material included in the exclusive list and available on the GeM portal.

In reply, the Department stated (May 2022) that a vendor of PSC Pole (M/s Precision Pre-Stress Unit) was registered as MSE by GoJ and hence it was a State MSE under the definition of JPP 2014. The Department further stated that in the larger interest of timely execution of work and considering the capacity and consent of MSE units of Jharkhand, it became necessary to consider other bidders, even though the said items are included in the exclusive list of JPP. It was further stated that the Company cannot afford to purchase any quantity of items, under the exclusive list, only from the State MSEs, without being sure of their capacity to supply the items within a set time frame.

The reply regarding procurement of PSC pole from a State MSE is factually incorrect, as the Corporate office of the said MSE was in Jaipur, Rajasthan, whereas, as per the JPP, it should have been within the territorial jurisdiction of Jharkhand. Further, the Company had neither assessed the capacity of State MSEs, nor obtained their consent regarding supply of PSC poles within time, as all the tenders were also open for outside bidders, who would have got the tenders if they were found to be the lowest bidders. The reply was silent regarding procurement not having been made through the GeM portal.

***Audit recommendation 2: Provisions of W&P Manual should be adhered to in allowing sufficient bid period and deciding contracts in time. State MSEs should be given preferences in procuring listed materials as per JPP. Material should be procured through GeM portal, if available.***

**(iii) Irregular procurement on nomination basis**

As per the Delegation of Financial Powers (DoFP) of the Company, the DGM of the ESC can accord approval for procurement of material upto ₹ 50,000 on nomination basis, only in cases of emergency. Further, as per the W&P Manual, the guidelines of the Central Vigilance Commission (CVC) shall be applicable *mutatis mutandis* over the Company. The CVC order of July 2007 stipulated that the tendering process is a basic requirement for the award of a contract by any Government Agency, as the award of a contract, on nomination basis, would amount to a breach of Article 14 of the Constitution, guaranteeing the right to equality. The CVC circular (July 2018) had reiterated that procurements on nomination basis, without adequate justification, amounted to a restrictive practice, eliminating competition, fairness, and equity.

Audit noticed that six, out of seven test-checked ESCs, had procured material by inviting quotations which had been finalised by the Tender Evaluation

Committee (TEC). However, ESC, Jamshedpur, procured material worth ₹ 10.56 crore, through 59 POs, issued (January 2018 to September 2020) to vendors on nomination basis, following telephonic communication, without inviting quotations or tenders, in violation of the Delegation of Financial Powers (DoFP) of the Company and CVC guidelines.

In reply, the Department stated (July 2022) that procurements had been made on nomination basis, in order to safeguard the interest of work. The reply is not acceptable, as similar procurements had been made by other ESCs, after inviting quotations or tenders.

## 5.8.2 Procurement of Transformers

### (i) Procurement of Distribution Transformers not meeting specified standards

The Ministry of Power (MoP), GoI, in consultation with the Bureau of Energy Efficiency, through notification published (December 2016) in the Gazette of India, deleted three-star rating (Energy Efficiency Level-1) Distribution Transformers (DTs) from its technically viable equipment list, with instructions not to manufacture, procure, store, or use them in future. MoP also issued (February 2017) instructions, to treat transformers which did not meet the specified standard, as having expired by 30 June 2017. Further, the Power Finance Corporation Limited (PFCL) issued (March 2017) an advisory to procure standard ratings DTs, which met the loss levels of four-star (Energy Efficiency Level-2) specified in IS: 1180 (Part-1, 2014).

Audit scrutiny of POs issued by the Company, from FYs 2017-18 to 2020-21, revealed that the S&P wing of the Company had centrally procured 4,755 DTs, costing ₹ 45.30 crore, with three-star rating, in August 2017. The S&P Wing had discontinued procurement of DTs not meeting the specified standards after August 2017. However, the seven test-checked ESCs had procured 241 DTs<sup>8</sup> (valuing ₹ 2.76 crore) not meeting the specified standards, during July 2017 to March 2021.

Thus, the Company procured 4,996 DTs costing ₹ 48.06 crore and installed 4,739 deemed to be expired and energy inefficient DTs, in its distribution network, despite instructions and advisory of GoI and PFCL.

The Department stated (July 2022) that four ESCs (Chas, Koderma, Chaibasa and Ranchi) had procured DTs as per the specifications prescribed by the S&P wing.

The reply is factually incorrect, as the S&P wing itself did not procure DTs not meeting the specified standards after August 2017. Moreover, the reply was

<sup>8</sup> Chaibasa: 17, Chas: 30, Hazaribag: 49, Jamshedpur: 4, Koderma: 18, Ranchi: 106 and Sahibganj: 17.

silent on the procurement of energy inefficient DTs by the remaining three ESCs.

**(ii) Loss of energy due to procurement of DTs with high energy losses**

MoP, GoI, notified (December 2016) standards for energy loss of DTs of different capacities, at 50 and 100 *per cent* load, at four-star ratings. The prescribed norms were made applicable from January 2017 and were also incorporated in the W&P Manual.

Audit scrutiny of POs, issued from FY 2017-18 to FY 2020-21, by the S&P wing and four<sup>9</sup> ESCs, revealed that the Company had procured 2,849 four-star rating DTs, with energy losses at 50 *per cent* load, that were higher than the prescribed norms. Higher energy losses would lead to a loss of 8.60 crore kWh of energy<sup>10</sup>, with purchase cost of ₹ 37.60 crore<sup>11</sup>.

In reply, the Department stated (May 2022) that the loss calculated by Audit related to those NITs which had been floated prior to the circulation of the W&P Manual, and the calculation of loss and average life expectancy assumed by Audit, is arbitrary. The reply is not factually correct, as the NITs had been finalised and energy inefficient DTs had been procured, despite adoption of the W&P Manual. Further, the loss has been calculated considering an average life expectancy of 25 years, which has been considered by the Central Electricity Regulatory Commission (CERC) in its depreciation schedule.

**5.8.3 Procurement of Meters**

**(i) Excess expenditure on procurement of meters**

As per W&P Manual, guidelines of CVC shall be applicable *mutatis mutandis* over the Company. CVC guidelines<sup>12</sup> stipulate that the Minimum Annual Average turnover (MAAT) of a bidder, during the last 3 years, ending 31<sup>st</sup> March of the previous financial year, should be at least 30 *per cent* of the tendered cost, as a pre-qualification criteria.

Audit noticed that an NIT had been floated (April 2016) at an estimated cost of ₹ 50.26 crore, for procurement of two lakh single-phase energy meters, with accessories, with pre-qualifying MAAT criteria of 30 *per cent* of the tendered cost. Subsequently, POs amounting to ₹ 41.95 crore were issued (September 2016) for the supply of meters, at the rate of ₹ 732 per meter and accessories at the rate of ₹ 1,367 per meter.

Further scrutiny revealed that the Company had floated (August 2017) an NIT, with an estimated tendered cost of ₹ 104.95 crore, for procurement of similar

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<sup>9</sup> ESCs at Chaibasa, Chas, Koderma and Ranchi.

<sup>10</sup> Considering an expected life of 25 years, of 2 DT run at 50 *per cent* load, as per CERC norms.

<sup>11</sup> Calculated at the average rate of power purchase for the financial year 2018-19, at the rate of ₹ 4.37/kwh.

<sup>12</sup> Issued vide Circular dated 17.12.2002.

meters, but without accessories, under the *Jharkhand Sampurna Bijli Achchhadan Yojana* (JSBAY). However, the pre-qualifying MAAT criteria was fixed at ₹ 400 crore (381 *per cent* of the tendered cost), to limit participation to well established, reputed and financially sound firms, for supply of quality products. Five bidders<sup>13</sup> participated in the bid and, ultimately, the lowest rate of ₹ 905 per meter was accepted (May 2018), through negotiation. The remaining four bidders also agreed (April and May 2018) to supply meters at the negotiated rate. Though the issue of much higher MAAT criteria was raised by the firm, which had supplied meters at the rate of ₹ 732 each in the previous bid, the Company did not revise the MAAT criteria and POs were issued (May 2018 and March 2019) to all the five firms, for supply of 9,28,071 meters, at the negotiated rate.

As per the Schedule of Rates (SoR) of JBVNL for the FY 2017-18, the rate of single-phase meters worked out to ₹ 745 per meter, considering the rate of ₹ 732 per meter, decided in the NIT of April 2016 and an escalation factor of 1.77 *per cent*. The Company had also procured 82,836 meters with accessories, at the rate of ₹ 732 per meter in November 2017, *i.e.* after floating the NIT with excessive MAAT criteria. Further, nothing was found on records to show that the meters procured at the April 2016 NIT rate had been found defective. Thus, the Company incurred excess expenditure of ₹ 14.85 crore<sup>14</sup>, on procurement of 9,28,071 meters at the higher rate.

In reply, the Department stated (May 2022) that the MAAT of ₹ 400 crore had been approved by the Special Purchase Committee, to procure meters from reputed manufacturers only, as it is a critical item. It further stated that the meter price of ₹ 905 each, also included cost of additional free items (meter box, free meters, MRI Software), whereas the meter price of ₹ 732 each was for the meter only, and, hence, comparison was not justified.

The reply regarding higher MAAT is not convincing, as there were no complaints in regard to the meters procured at the lower rate through the NIT of April 2016, which had been floated with lower MAAT criteria. The Company had also procured 82,836 meters, at the rate of ₹ 732 each, in November 2017 (after floating NIT with higher MAAT in August 2017), without going for fresh tenders with higher MAAT, through repeat orders from the vendors who had supplied meters against the NIT of April 2016. Further, the cost of additional free items, as stated by the Department, was approximately ₹ 43 per meter, as per the rate justification submitted by the L1 bidder. Even if this is considered, the Company had incurred extra expenditure of ₹ 10.86 crore.

<sup>13</sup> (1) M/s HPL Electric and Power Private Limited, New Delhi (2) M/s Genus Power Infrastructure Limited (3) M/s Larson & Toubro Limited (4) M/s Landis+Gyr Limited, Kolkata and (5) M/s Secure Meters Limited.

<sup>14</sup> ₹ 905 - ₹ 745 = ₹ 160 x 9,28,071 = ₹ 14,84,91,360.

## **(ii) Irregularities in procurement of consumer meter accessories**

For JSBAY, meters were procured centrally at Headquarters, whereas accessories like service pipes, PVC insulated aluminium conductors, service cables, meter boards, MCBs, support wires, piercing connectors, *etc.* were procured by the ESCs. Audit noticed irregularities in the procurement of accessories, in the seven test-checked ESCs, as discussed below:

- The Company had instructed (February 2018) all ESCs to procure accessories and install meters under JSBAY, at a maximum cost of ₹ 2,250 per meter. It was observed that all the seven test-checked ESCs had issued work orders, for supply of accessories and installation of meters, on nomination basis, including the cost of accessories, amounting to ₹ 50.52 crore.
- As per the work orders, payments for accessories were to be made on the basis of actual consumption, based on duly verified consumption reports by the concerned Electric Supply Divisions (ESDs). Audit noticed that three<sup>15</sup>, out of the seven test-checked ESCs, had paid (between October 2019 and March 2021) ₹ 14.28 crore, on the basis of work orders, without getting consumption reports from ESDs. Thus, the possibility of excess payment having been made cannot be ruled out.

The Department (July 2022) was silent in regard to procurement on nomination basis, whereas, regarding payments having been made without obtaining consumption reports, it was stated that two of these ESCs (*i.e.* other than Jamshedpur) had made payments for accessories after verification of bills by the concerned JEE, AEE and EEE. The reply is not convincing, as the payments had been made after verification of only the numbers of meters installed, and not on the basis of consumption of different items, such as meter board, connection wire, connection pipe, MCBs *etc.*

## **(iii) Procurement of system meters and related equipment**

The Company awarded (August 2017) work for supply of 112 system meters<sup>16</sup> and associated material for installation in feeders, to draw 600 Megawatts of power, from 56 take off points of the Damodar Valley Corporation (DVC), at a cost of ₹ 10.69 crore. As per the terms of the work order, 70 *per cent* of the cost was to be paid on receipt of the meters, with material, at the store, and the remaining 30 *per cent* was to be paid after commissioning of all the meters.

Audit noticed that the Company had not conducted proper survey of the site, prior to issuing work orders, and meters and material worth ₹ 2.93 crore could not be installed in the substations at DVC, due to space constraints. These meters and material had been lying in store (as of May 2021), since their

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<sup>15</sup> ESCs at Hazaribag, Jamshedpur and Koderma.

<sup>16</sup> With Metering Unit, Metering panels with Data Connector Unit (DCU) and modem *etc.*, with five-year maintenance.



supply in February 2018, and the purpose for which they were procured was defeated.

The Department did not reply to the audit observation. However, the GM (Commercial & Revenue) of the Company had accepted space constraints as the reason for non-installation of meters and stated (June 2022) that all meters had been installed (June 2021) in other places. The fact, however, remains that the Company could not install its own meters till date (July 2022), at the take-off points of DVC, for which they had been procured.

**(iv) Procurement and installation of DT meters**

A Letter of Award was issued (July 2017 and February 2018) to two agencies, for supply of DT meters with accessories, including annual maintenance for five years. The purpose of installation of these meters was to fetch energy readings remotely, through modem, for energy accounting and identification of DTs with high load and high energy losses.

Audit noticed that, out of the 18,979 DT meters procured, 11,485 were installed in the seven test-checked ESCs. However, energy data was not being fetched from all the installed meters. It was seen that energy data, for the period from December 2019 to March 2021, could not be fetched, on an average, from 3,543 DT meters (31 *per cent*), installed at a cost of ₹ 4.69 crore, out of 11,485 DT meters, in the seven test-checked ESCs. This was mainly due to missing meters, burnt meters, meter bypass, disconnected DTs, defects in the meters *etc.* Thus, the purpose of procurement of the DT meters, *i.e.* energy accounting and identification of overloaded DTs and DTs with high energy loss, was defeated.

In reply, the Department (July 2022) stated that the concerned agency had been asked for rectification of the non-communicating meters in ESC, Chaibasa, but was silent on action taken, if any, in the other six test-checked ESCs.

**5.8.4 Avoidable expenditure on procurement**

GoI nominated (August 2014) the Damodar Valley Corporation (DVC) to take up rural electrification work under the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), in Chatra district of ESC, Hazaribag. As DVC expressed its inability to take up the work, due to shortage of manpower and involvement in its core business of generation of power and construction of power plants, the Company took up the work departmentally and prepared (August 2017) a DPR for electrification of 549 villages of Chatra district.

Audit noticed that the DPR had initially been approved (August 2017) by the Technical Evaluation Committee for ₹ 32.87 crore but was later on revised to

₹ 75.62 crore (February 2018), ₹ 132.73 crore (October 2018) and ₹ 93.46 crore<sup>17</sup> (August 2020), due to variations in the quantity of material required, as the scope of work was frequently revised, as shown in **Table 5.3**.

**Table 5.3: Details of increase in the requirement of major materials**

Sl. No.	Name of material	Quantity Assessed			
		August 2017	February 2018	October 2018	August 2020
1	PSC Pole 200 KG (in Nos.)	10,208	36,190	61,000	69,526
2	ACSR Rabbit Conductor (in Km)	915	1,727	2,800	2,497
3	LT AB Cable 3c X 50 sq. mm (in Km)	455	605	1,700	1,480
4	LT AB Cable 1cX16 sq. mm (in Km)	0	0	300	251

The scope of work had increased, as no survey had been conducted before preparation of the first DPR and all areas/ *tolas*/ *panchayat bhawans*/ schools, *etc.* had not been included in the surveys for preparation of the revised DPRs. Audit noticed that material was procured in a piecemeal manner, in terms of the requirements, as revised from time to time. With the passage of time, the cost of material increased, and the Company incurred avoidable expenditure of ₹ 2.02 crore, on procurement of material, as detailed in **Table 5.4**.

**Table 5.4: Details of excess expenditure**

Sl. No	Name of material	Procurement done				Quantity procured at higher rates	Difference in rates (in ₹)	Excess expenditure (₹ in lakh)
		Requirement in February 2018	Rate at which procured (in ₹)	Requirement in October 2018	Rate at which procured (in ₹)			
1	PSC Pole 200 Kg (in Nos.)	36,190	2,427.84	61,000	2,516.94	24,810	89.10	22.10
2	ACSR Rabbit Conductor (in Km)	1,727	34,529.04	2,800	40,426.8	1,217	5,897.76	71.78
3	LT AB Cable 3c X 50 sq. mm (in Km)	605	1,41,214	1,700	1,49,860	1,192	8,646.00	103.06
4	LT AB Cable 1cX16 sq. mm (in Km)	0	28,366	300	29,974	300	1,608.00	4.82
<b>Total</b>								<b>201.76</b>

Source: Data compiled from the records of the Company

Thus, due to piecemeal procurement of material, based on deficient surveys, the Company had to bear avoidable expenditure of ₹ 2.02 crore.

In reply, the Department stated (July 2022) that initially, the DPR had been prepared on estimation, and later on, due to identification and inclusion of new areas/*tolas*, the geographical condition of villages and right of way, the scope of work changed. The reply confirmed that no proper survey had been done, prior to preparation of the DPR, and, hence, the scope of the work had to be revised frequently, which ultimately led to avoidable expenditure.

<sup>17</sup> The cost of DPR reduced due to reduction in the number of villages identified for electrification, from 549 villages, to 539 villages.

### 5.8.5 Test of Material

#### Tests and inspection in procurement of ACSR conductors

As per the W&P Manual, in case of procurement of ACSR<sup>18</sup> conductors and cables, a test report, from a laboratory accredited by the National Accreditation Board for Testing and Calibration Laboratory (NABL), is required to be furnished by the bidder, along with the bid, failing which the offer is to be rejected. Further, during Pre-dispatch Inspection at the premises of the manufacturer, 13 tests for ACSR conductors and seven tests for cables, are required to be conducted, to ensure length, weight, strength, ductility, strain *etc.* In case of poles, strength test is required to be conducted, during the Pre-dispatch Inspection. Additionally, the manufacturer needs to adopt a Quality Assurance Plan (QAP) for raw material and other items, showing its sources and test reports.

Audit observed that while the Company had followed these norms, as envisaged in the W&P Manual, in centralised procurement by the S&P Wing, the test-checked ESCs had not adhered to the norms of quality assurance, in the procurement of 2,196 km of ACSR conductors, 36.50 km of cables and 2,639 poles, costing ₹ 15.02 crore, from FY 2017-18 to FY 2020-21. The test-checked ESCs had also not asked for test-reports of NABL accredited laboratories from the suppliers, at the time of offer or supply. They had carried out pre-delivery inspections in an ad-hoc manner, with acceptance of material having been given mainly on the basis of visual examination. They also did not conduct the required tests for ensuring the length, weight, strength, ductility, *etc.* of material, nor did they ensure the adoption of a QAP, before conveying their acceptance in Pre-delivery Inspections.

Thus, the quality of locally procured ACSR conductors, cables, and poles, was not ensured prior to their erection, which could, potentially, lead to a lower life span of the distribution network, higher T&D losses and frequent breakdowns, in addition to an increase in the risk of accidents.

In the case of ESC, Ranchi, the Department accepted the facts and assured (July 2022) that recommendations regarding tests and inspection would be followed for future procurements. In the case of two other ESCs (Chaibasa and Koderma), it was stated that material had been procured following the norms given in the previous Purchase Orders. The reply is not convincing, as the two ESCs did not follow the norms for procurement of conductors.

### 5.8.6 Payments to suppliers

#### Short deduction of liquidated damages

As per the W&P Manual, all contracts are required to provide for a clause on Liquidated Damages (LD), equal to half *per cent*, per fortnight of delay,

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<sup>18</sup> ACSR: Aluminium Conductor Steel Reinforced

subject to a maximum of 10 *per cent* of the value of the contract, for delays in completion of the contract by the contractor. In case of supplies with an agreed delivery schedule, the LD is to be calculated on the unexecuted portion of the supply.

Audit scrutiny of files revealed that there was provision of maximum LD of five *per cent*, in three POs<sup>19</sup>, issued from Headquarters, as against the prescribed 10 *per cent*. There had been delays in supply, beyond 20 weeks, in all these three POs and LD was deducted at five *per cent*. This resulted in short deduction of LD, by ₹ 36.68 lakh<sup>20</sup>, from the concerned suppliers.

In reply, the Department stated (May 2022) that S&P is deducting LD in all POs, as per the clause prescribed in the NITs, as the W&P Manual was received late by S&P.

The reply is not factually correct, as the said NITs had been floated (May and August 2017) after approval (March 2017) of the W&P Manual by the BoD.

## **5.9 Deficiencies in Inventory Control**

### **5.9.1 Management Information System for Material Management**

The key objective of an MIS for Material Management (MM) is to ensure synchronisation between the requirements, procurement, availability, and utilisation of stores. It also aims to ensure monitoring, planning, digitisation of data and real-time status of inventory at Headquarters and field offices.

The work order for developing an MIS for capital expenditure of the Company, *viz.* SARAL SAMIKSHA, was issued (May 2017) to M/s Cyber SWIFT Infotech Private Limited, for an amount of ₹ 59.40 lakh, which included an amount of ₹ 18 lakh, for development of an MM module. The Agency was required to customise and implement a web and mobile-based application software, provide SAAS (software as a service) on cloud, train end users and create master data. The master data, so created, was to be integrated into the Enterprise Resource Planning (ERP) software, which was under implementation by another agency. The initial contract period was for 24 months *i.e.*, till May 2019.

Audit noticed that the Agency had developed the application software and entered the relevant data at the Transformer Repair Workshops (TRWs), central stores and projects being executed by the Company by May 2019. Further, MD, JBVNL approved the extension of the contract period till December 2019, as the created master data could not be integrated with the alternate ERP, which was not yet operational. Subsequently, the General Manager (IT) approved (November 2019) closure of the project, as the ERP

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<sup>19</sup> PO No. 169 Dated 28.03.2018, PO No. 22 Dated 25.05.2018 and PO No. 19 Dated 25.05.2018.

<sup>20</sup> PO No. 169 dated 28.03.2018: ₹ 8.86 lakh; PO No. 22 dated 22.05.2018: ₹ 24.57 lakh; and PO No. 19 dated 25.05.2018: ₹ 3.25 lakh

MM module was expected to go-live by December 2019. The Agency withdrew (November 2019) its services after being paid an amount of ₹ 41.05 lakh. As the contract was for software as a service, the MIS for material management again became non-functional, because the source code of the developed software had not been handed over to the Company, by the Agency. Further, the alternate ERP system had not been implemented, as of July 2022, and, hence, the master data created under the project could also not be put to use. During audit, it was seen that the S&P wing was compiling the stock position on the basis of information gathered telephonically from central stores, at the time of procurement and could not provide PO-wise delivery details to Audit, despite repeated requisitions.

Thus, the Company failed to ensure real-time material management, despite having incurred expenditure of ₹ 41.05 lakh, for developing an MIS for material management.

In reply, the Department stated (May 2022) that the Company would implement the ERP, after which a real-time MIS would be available.

The fact, however, remains that the ERP had not been implemented (as of July 2022) and the Company had failed to utilise the data base created under *Saral Samiksha* since December 2019.

### **5.9.2 Manpower position in Stores**

Manpower management is crucial for effective management of stores and for facilitating better internal control. As per the W&P Manual, there will be a Store Superintendent for each central store, who will be assisted by a senior and a junior storekeeper.

There were 15 functional central stores in ESCs (as of March 2021). However, there was only one Assistant Store Controller, 13 senior storekeepers and four assistant storekeepers, in these 15 central stores. Senior Managers were posted in only two of the seven test-checked central stores and the remaining central stores were being headed by officials on additional charge.

Audit further noticed that the Company had adopted (August 2018) a new organisational structure. However, the sanctioned strength of the officials to be posted in the central stores had not been defined. Though the Company had constituted (November 2020) a committee to review the posts created under the new organisational structure, the report was awaited (as of October 2021).

Thus, the Company did not ensure adequate manpower for stores, which was one of the main reasons behind non-maintenance of proper accounts of stores.

While accepting the facts, the Department stated (July 2022) that the recruitment process would be started after the finalisation of a new organisational structure.

### 5.9.3 Physical Verification of Stores/TRWs

The Work and Procurement (W&P) Manual provides for physical verification of goods and material to be conducted at the end of the financial year (as on 31<sup>st</sup> March) and discrepancies, if any, to be recorded in the stock register, for appropriate action by the competent authority.

Audit noticed that:

- In all the seven test-checked ESCs, physical verification of central stores and TRWs had been done just once (FY 2018-19), during the period from FY 2017-18 to FY 2020-21.
- Audit noticed that items of material such as GI wires, AB switches, Tri-vector meters, *etc.*, costing ₹ 97.72 lakh, procured under Rural Electrification schemes, had not been covered under physical verification in ESC, Chas, as they were not included in the stock ledger of the central store.
- Items of scrap had been included in the stock ledgers of central stores but had not been included in the physical verification reports in any of the seven test-checked ESCs.

The Department (July 2022) accepted the facts in regard to two ESCs (Ranchi and Koderma) and stated that, in the light of the audit observation, physical verification of scrap was being carried out, and timely physical verification would be ensured in future. However, no reply was furnished regarding the remaining five ESCs.

### 5.9.4 Accounting of Inventory

#### (i) Non-capitalisation of storage charges

As per the Accounts and Finance Code, all incidental expenses connected with the stores, *viz.* store keeping expenses, rents, wages to store coolies, work charged establishment for handling of material and the store godowns *etc.*, are to be debited by levy of actual incidental expenses, or percentage charges on the value of stores, issued to the works. The accounting policy also envisages that capital work in progress should be carried out at cost, comprising of direct costs, incidental expenses, and interest.

Audit noticed that three *per cent* of the material cost was being taken as storage charges, in the estimate of works. However, at the time of accounting, storage charges of ₹ 33.35 crore, had not been included in the value of material worth ₹ 1,111.55 crore<sup>21</sup>, issued and accounted for as capital works in progress, during the period from FYs 2017-18 to 2020-21. Thus, a part of storage expenses was not charged to capital works in progress, and, hence,

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<sup>21</sup> ₹ 273.30 crore in ESC, Hazaribag; ₹ 130.13 crore in ESC, Jamshedpur; ₹ 92.72 crore in ESC, Chas; ₹ 37.94 crore in ESC, Koderma; ₹ 418.37 crore in ESC, Chaibasa; ₹ 51.63 crore in ESC, Sahibganj; and ₹ 107.46 crore in ESC, Ranchi.

capitalisation of Assets was understated, and storage expenses were overstated, in the Financial Statements of the Company.

**The Department stated (July 2022) that accounts would be rectified at ESC, Ranchi, whereas, in two ESCs (Koderma and Hazaribag), storage charges had not been included in the cost of capitalisation, as it was done on the actual cost of utilised material. The reply is not convincing, as all incidental charges, including storage charges, should be included in the cost of capitalisation.**

**(ii) Incorrect accounting of Inventory**

As per the provisions of the Accounts and Finance Code, all requisitions for the issue of material should bear the details of the work order and account head, in addition to a brief description of the nature of the work (capital or operation & maintenance).

Audit scrutiny of Store Issue Vouchers<sup>22</sup> (SIVs) in the seven test-checked ESCs revealed that, though material had been issued for operation and maintenance (O&M) in six ESCs (except Ranchi), the value of the issued material was charged to capital works in progress. During the period during FYs 2017-18 to 2020-21, material worth at least ₹ 44.45 crore<sup>23</sup> was issued to O&M works, but was charged to capital works. The incorrect classification of the value of the material in the accounts, was due to the absence of details of the work orders, account heads or brief nature of works, in requisitions or SIVs, in addition to shortage of personnel in the central stores.

Thus, the revenue expenditure of the Company was understated, due to incorrect classification of the value of material to capital works.

The concerned DGMs accepted the facts and stated (between February 2021 and September 2021) that necessary rectification would be done in the accounts.

**(iii) Non-Accounting of Inventories**

As per the W&P Manual, the accounts of all stores, for the month, are to be closed on the 20th and the last batch of the Stores Received Vouchers<sup>24</sup> (SRVs), the requisition and devolution<sup>25</sup> is to be sent to the Accounts section on the 23rd. On closing the accounts, the abstract of stock receipts, issues and balances, in the Form prescribed by the Financial & Accounts Code of the Company, is to be prepared and forwarded to the Accounts Officer within five days.

<sup>22</sup> SIVs are requisition forms on which material is issued from Central Stores.

<sup>23</sup> ₹ 11.08 crore in ESC, Hazaribag; ₹ 0.89 crore in ESC, Jamshedpur; ₹ 28.05 crore in ESC, Chas; ₹ 3.34 crore in ESC, Koderma; ₹ 0.81 crore in ESC, Chaibasa and ₹ 0.28 crore in ESC, Sahibganj. Details pertaining to FY 2020-21 could not be furnished by the ESCs.

<sup>24</sup> SRVs are forms which contain details of the material received by the Central Stores.

<sup>25</sup> Dismantled material received in stores.

Audit noticed that Transformer Repair Workshops (TRWs) in two selected ESCs (Chas and Koderma), consumed material worth ₹ 2.46 crore, during FYs 2017-18 to 2019-20, for repair of transformers, against material worth ₹ 2.94 crore, received directly from vendors. However, the TRWs did not submit the detailed position of stock, in the prescribed Forms, to the Accounts Officers, till March 2020. As a result, the closing stock and expenditure of ESCs were understated in the accounts, by ₹ 48 lakh and by ₹ 2.46 crore, respectively.

The concerned DGMs accepted the fact and stated (March 2021 and July 2021) that necessary rectification would be carried out in the accounts.

### 5.9.5 Management of Inventory

#### (i) Receipt and Storage of Inventory

The W&P Manual and the Accounts and Finance (A&F) Code provide norms for the effective and efficient management of inventory.

Audit noticed deficiencies in inventory management, in all the seven test-checked central stores, as discussed below:

- As per the A&F code, all material received in store is to be examined and counted, weighed, or measured. Audit noticed that weighing machines and cranes were not available in six of the central stores (except in the case of Ranchi). In the absence of weighing machines and cranes, these central stores were accepting material, supported by weight receipts of suppliers, without any system of cross-verification.
- As per the A&F code, the Store Officer is to arrange to take necessary precautions to guard against pilferage, theft, fire, deterioration *etc.* of stores. In all the seven test-checked ESCs, material was found lying stacked in the open, due to constraints of space, as shown in **Picture 5.1**. This was fraught with the risk of pilferage and deterioration in quality.

**Picture 5.1: Pictures of material kept haphazardly in CSs**







- Fire extinguishers were not available in any of the seven test-checked central stores. An incident of fire had occurred (November 2018) in the central store, Chas, leading to an estimated loss of ₹ 3.75 lakh, and theft had taken place (July 2019) in the central store, Jamshedpur, leading to an estimated loss of ₹ 2.82 lakh. The absence of a boundary wall, in the central store, Koderma, as shown in **Picture 5.2**, left it vulnerable to the risk of theft of material.

**Picture-5.2: Pictures of the boundary wall and fence in CS, Koderma**



- As per the A&F Code, complete stock of the same material should be stored at a single location within the store, and storage at more than one location should be avoided. Audit noticed that poles had been kept in a haphazard manner, at different locations, outside the central store premises in four ESCs (Hazaribag, Jamshedpur, Chas and Koderma), as shown in **Picture 5.3**.

**Picture 5.3: Poles kept at different locations outside the store**



The Department stated (July 2022) that, due to lack of proper shade in four ESCs (Ranchi, Chaibasa, Koderma and Hazaribag), and non-availability of godown (ESC, Koderma), material had been kept either in open areas or in the old circuit house area of the District Administration. In ESC, Koderma, a tender for the construction of a boundary wall was in process.

**(ii) Acceptance of dismantled material**

Work relating to utility shifting, due to construction or widening of roadways, waterways, buildings *etc.*, is undertaken under the ‘deposit’ head. Such work includes dismantling of erected material, which is the property of the Company. The dismantled material, as per the scope of work in the estimates, is to be returned to the central store.

Audit scrutiny of records of all the seven test-checked ESCs, revealed that:

- Dismantled material, *viz.* conductors, transformers, poles, *etc.*, had been received by the central stores, without a copy of the estimates showing the scope of dismantling. Due to this, Audit could not cross-verify the quantity of receivable and received dismantled material in the stores. Audit further noticed

that NHAI had executed a work<sup>26</sup> of utility shifting on its own, under the supervision of ESC, Koderma. However, NHAI had not returned the dismantled material, viz. rail poles, conductors, etc., valued at ₹ 1.62 crore, to the central store (as of July 2021), even though the work had been completed in March 2020.

- In two<sup>27</sup> works, the contractors did not return a major part of the dismantled material, viz. 428 rail poles, 91.27 km of ACSR Dog/Rabbit conductors, 28 DTs of different capacities and 7.85 km of ACSR Weasel conductors, worth ₹ 2.43 crore, to the central store, Jamshedpur. Further, in the case of construction of a Power Sub-Station (PSS) at Saram, in ESC, Chas, 58 unutilised rail poles, worth ₹ 17.49 lakh, had not been returned to the central store and were stated to have been lying at the site, since October 2017.
- Audit noticed that dismantled conductors, weighing 3,29,587.17 kg, had been recorded in the scrap ledgers, but had been re-issued, from all the seven test-checked central stores, for maintenance and strengthening of electrical lines. There was no mechanism in the central stores to ensure the quality and strength of the dismantled material which had been re-issued. Hence, the possibility of creation of assets, with sub-standard conductors, could not be ruled out.

The Department accepted the facts (July 2022) in the case of ESC, Koderma, and stated that repeated correspondence had been made with the Project Director, NHAI, for the return of the dismantled material. Regarding ESC, Chaibasa, it was stated that, in case of breakdown/snapping, small pieces of removed conductors, of good condition, had been issued to the field, due to the non-availability of new conductors. The reply is not convincing, as removed conductors, along with other old material, had been issued, both in maintenance and original works, without ensuring their quality, even after identifying them as scrap.

### (iii) Issue of material without ascertaining requirement

As per the A&F Code, all requisitions, for the issue of material, should bear the details of the work order<sup>28</sup>. As per the W&P Manual, material is to be carried out of the store area, based on the estimate and the work order.

Audit scrutiny of store issue vouchers (SIVs), in the seven test-checked central stores, revealed that material had been issued to works of capital nature, without obtaining details of estimates and work orders, as detailed in **Table 5.5**.

<sup>26</sup> Shifting of existing utilities at NH 31 due to widening of Road in ESC, Koderma.

<sup>27</sup> Dismantling works for Mahulia-Baharagora-Chirchira section of NH-33 and Shifting of 11 KV, DSS & LT line of Bandwan-Katin-Badabhum road under Patamda section, in ESC, Jamshedpur.

<sup>28</sup> Work orders are issued after the technical sanction (formal approval for executing a work) of an estimate has been accorded.

**Table 5.5: Details of material issued without estimates and work orders**

Sl. No.	Name of ESC	Number of SIVs not supported by estimates and work orders	Value of material issued (₹ in crore)	Financial Year(s) for which records were not furnished to Audit
1.	Hazaribag	175	2.39	--
2.	Jamshedpur	249	2.11	2017-18 and 2018-19
3.	Chas	215	2.63	2017-18 and 2018-19
4.	Koderma	86	0.80	--
5.	Sahibganj	748	13.99	2017-18
6.	Chaibasa	23	0.25	--
7.	Ranchi	499	5.11	2017-18 and 2018-19
<b>Total</b>		<b>1,995</b>	<b>27.28</b>	<b>--</b>

Source: Information furnished by the Company

It can be seen from **Table 5.5** that material worth ₹ 27.28 crore had been issued by the central stores, against 1,995 SIVs, without ascertaining the requirements. Issue of material, without ascertaining requirements, was fraught with the risk of excess issue and misuse of material.

**The Department accepted the fact and stated (July 2022) that: (i) in three ESCs (Chas, Chaibasa and Koderma), material had been issued for urgent works (ii) however the concerned officials have been instructed to submit the required documents. The reply was silent in regard to the remaining four ESCs.**

**(iv) Irregular diversion of material**

As per the W&P Manual, the issue of material, interchangeably from different heads, due to shortage or non-availability of material under one head, should be avoided completely.

In three out of the seven test-checked ESCs, Audit noticed that material procured for works, under specific heads, had been issued to works under different heads, during the FYs 2017-18 to 2020-21, as detailed in **Table 5.6**.

**Table 5.6: Transfer of material from one head to another**

Name of ESC	Head for which material were procured	Item	Unit	Issued to Deposit head/ DDUGJY	Purchase rates per unit (in ₹)	Value of material issued (in ₹)
Jamshedpur	ADP	Rail Pole	Nos.	8	33,228.80	2,65,830.40
	RAPDRP	25 KVA DTR	Nos.	1	49,051.00	49,051.00
	JSBAY	Single Phase Meter	Nos.	7,700	905.00	69,68,500.00
Chas	RAPDRP	LT AB cable	km	1	5,31,408.68	5,31,408.68
Ranchi	RE	LT AB cable	km	4.69	1,41,214.46	6,62,295.82
		ACSR Rabbit Conductor	km	152.5	34,529.04	52,65,678.60
<b>Total</b>						<b>1,37,42,764.50</b>

Source: Records of the Company

It can be seen from **Table 5.6** that material worth ₹ 1.37 crore, procured for works under various schemes, had been issued (March 2018 to March 2020), to deposit works (₹ 67.74 lakh) and to a Turnkey contractor (₹ 69.68 lakh), for

works under DDUGJY. Adjustment/recoupment of the transferred material was awaited (as of September 2021).

In the case of ESC, Chas, the Department accepted the facts and stated (July 2022) that the material items would be adjusted on procurement in the concerned heads. No reply was furnished in regard to the remaining two ESCs.

### 5.9.6 Repairs of transformers

There are 15 Transformer Repairing Workshops (TRWs), one in each ESC, for carrying out repairs of defective and burnt transformers.

#### (i) Recovery of oil from transformers

As per the W&P Manual, transformers received for repair at TRWs, are to be opened in the presence of a Committee<sup>29</sup>, which is required to observe the scrap (coil) and oil level of the transformer. If the transformer oil is found below 90 *per cent*, the concerned Junior Manager is to either submit proper reasons to the Committee, or submit a copy of the First Information Report (FIR), in cases of theft of oil or coil. The re-serviceable coil and oil are to be entered in the inventory register, with their details like the serial numbers of the transformers, places of installation, their capacity, dates and causes of defects/ burning, status of core and coil, level of oil, *etc.*

Scrutiny of records of the seven test-checked TRWs revealed that:

- The Committees had not been constituted, for examination of defective or burnt transformers, at any of the TRWs. In five<sup>30</sup> TRWs, 8,818 transformers had been received for repair, from April 2017 to March 2021. Audit found shortage of 13.62 lakh litres of transformer oil, valued at ₹ 3.41 crore (*Appendix 5.3*), which was not supported either by justification reports, or by copies of FIRs. In two<sup>31</sup> TRWs, there were no details of the oil recovered from 2,958 defective transformers, due to which, Audit could not ascertain shortage, if any, in the quantity of oil recovered from these transformers.
- Detailed information, containing the serial numbers of the defective transformers, places where installed, their capacity, dates and causes of burning or defect, status of the core and coil, level of oil, *etc.*, were not found entered in the inventory register, in any of the TRWs.

The Department accepted the facts and stated (July 2022) that: (i) clarifications have been sought from officials of ESC, Ranchi (ii) a Committee will be formed and (iii) an inventory register will be maintained in ESC, Ranchi. Regarding the two other ESCs (Chaibasa and Hazaribag), it was stated that the leakages in DTs had been due to accidental damage, heavy sparking,

<sup>29</sup> The Committee consists of Junior Electrical Engineer (TRW), Assistant Electrical Engineer (TRW), Junior Electrical Engineer (Supply) and repairing agency representative.

<sup>30</sup> TRWs at Hazaribag, Jamshedpur, Koderma, Ranchi and Sahibganj.

<sup>31</sup> TRWs at Chaibasa and Chas.

thunder, internal fault *etc.*, which had caused shortage of oil, and committees had not been formed due to vacancies in the posts of officers. The reply in regard to the said two ESCs, is not convincing, as shortages of oil, for whatsoever reasons, were to be certified by committees, which were not in place.

**(ii) Excess issue of coils**

Defective transformers are repaired in TRWs, by agencies appointed by the Company. The winding wires, required for repair, are issued to the appointed Agency, to replace the discarded coils of the defective transformers. As per the W&P Manual, the weight of HV/LV coils, provided in the repaired transformers, is to be the actual weight of the coils taken out from the damaged transformer.

Audit noticed that:

- Six out of the seven test-checked TRWs had issued 2,90,185.38 kg of winding wires, from FY 2017-18 to FY 2020-21, to the Agencies, for replacing 1,49,214.67 kg of discarded coils, recovered from the defective transformers. As such, 1,40,970.71 kg of winding wires, worth ₹ 3.21 crore (calculated at a purchase rate of ₹ 227.50 per kg), were issued in excess of requirements. The recovery of excess wires issued was awaited (as of September 2021). Audit could not ascertain discrepancies, if any, in the issue of winding wires in TRW, Koderma, as the required information was not furnished.
- As per the W&P Manual, the repaired transformers are to be labelled with the date of the last repair, and the Agency is to provide one year's warranty, from the date of issue of the repaired transformer. Audit noticed that fresh job numbers had been given in case of all repairs. Hence, Audit could not ascertain the number of transformers re-repaired at the cost of the Company, within the warranty period.

On this being pointed out in audit, the Department recovered (August 2021) 4,541.59 kg of coils from the Agency in ESC, Chaibasa. However, the Department had not intimated the action initiated, if any, in the remaining five ESCs (as of July 2022).

**5.9.7 Non-availability of facilities in TRWs**

As per the W&P Manual, all the repaired transformers are to be subjected to all the routine tests<sup>32</sup>, as per IS: 2026/1977 (Part-I), IS 2026/1981 (Part-III) and the latest amendment thereof. Further, TRWs need to adopt fire-fighting measures.

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<sup>32</sup> *No-load loss at rated voltage, load loss at 75<sup>0</sup> C (watt), Impedance test at 75<sup>0</sup> C, insulation resistance test, high voltage test, double voltage double frequency test, BDV value of Transformer oil test etc.*

*Audit observed that:*

- The test for energy loss was not being done by any of the seven test-checked TRWs, due to the non-availability of related testing equipment. Other routine tests<sup>33</sup> were also not being done in six TRWs (except for Ranchi). It was seen that 11,906 repaired DTs had been issued by the seven test-checked TRWs, from FY 2017-18 to FY 2020-21, for installation in the distribution network, without ensuring the required quality tests. This carried the risk of leading to excess energy loss and frequent breakdowns, in addition to compromising the safety of the connected electrical equipment, the personnel handling the equipment and the public.
- There was lack of space and proper facilities in TRWs, for storing scrap material and discarded transformer oil (which is highly inflammable). However, except for fire extinguishers at TRW, Ranchi, the TRWs did not have an adequate fire-fighting system. It was noticed that the fire brigade had been called to control a fire incident (September 2020) at TRW, Chas, in which scrap and equipment, worth ₹ 2.95 lakh, were destroyed. The Committee set up for examination found (October 2020) that there was no fire-fighting system in the TRW and recommended setting up proper fire-fighting arrangements.

The Department accepted (July 2022) the non-availability of equipment as a reason for not conducting the required tests in three ESCs (Ranchi, Chaibasa and Koderma). However, it stated that a testing machine had been installed (July 2021) at ESC, Koderma. No reply was furnished in regard to the remaining four ESCs.

### **5.9.8 Disposal of scrap**

The Board of Directors (BoD) of the Company accorded (October 2015) Administrative Approval (AA), for the disposal of unused/ unserviceable/ obsolete ferrous & non-ferrous metal, lying at different central stores and TRWs, through M/s Metal Scrap Trade Corporation Limited (MSTC), a PSU of GoI. An agreement was also executed between the Company and MSTC, in February 2016.

Audit noticed that:

- The Company had not initiated action for auction of the scrap, for almost three years from the date of agreement. The Standing Committee for fixation of scrap rates was constituted twice (March 2018 and January 2019), and BoD again accorded (June 2019) AA, for disposal of scraps, through e-Auction.

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<sup>33</sup> *Insulation resistance test, high voltage test, double voltage double frequency test, BDV value of Transformer oil test etc.*

- The Standing Committee had fixed (June 2019) the reserve price for scrap items of only the TRWs, but the reserve price of scrap of central stores had not been fixed (as of September 2021). Accordingly, BoD approved (June 2019) the reserve price for scrap of TRWs only.
- MSTC invited bids twice (September 2019 and November 2019) for e-auction, but they did not materialise, as the reserve prices were on the higher side, compared to reserve price of similar scrap sold by other PSUs<sup>34</sup>, from January 2019 to December 2019. Though MSTC suggested (December 2019) a review of the reserve prices, in order to make the e-auction successful, action in this regard was awaited (till September 2021).

Thus, due to inaction on the part of the Company, scrap, with an estimated value of ₹ 13.24 crore, as worked out by the ESCs, was lying idle in the central stores and TRWs of four<sup>35</sup> test-checked ESCs. The remaining three test checked ESCs had not worked out the value of scrap (as of September 2021).

In reply, the S&P wing accepted the audit observation and assured (January 2022) that all efforts would be made for the auction of the scrap.

***Audit Recommendation No. 3: MIS for material management should be put in place and annual physical verification of stores should be ensured.***

## **5.10 Inefficient utilisation of material**

### **5.10.1 Idle inventory with PSSs**

The construction of nine Power Sub-stations (PSSs<sup>36</sup>), with associated lines, was approved under the ADP, by DGMs of four ESCs, between FYs 2013-14 and 2016-17. The Departmental execution of these PSSs commenced in the same financial years, but could not be completed (as of September 2021), due to pending statutory clearances from Forest Department and Railways, in conjunction with non-procurement of material, as discussed below:

- Construction of three PSSs<sup>37</sup> each, at ESCs, Chas and Jamshedpur, was sanctioned between FYs 2013-14 and 2016-17. However, the work had not been completed (as of September 2021), due to delay in obtaining railway clearance by the Company, non-charging of completed 33 KV Line and non-availability of material including transformers, cables, rail poles, vacuum circuit breakers *etc.*, in the stores. Further, material worth ₹ 4.80 crore, issued

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<sup>34</sup> Power Grid Corporation of India Limited, Kerala State Electricity Board, UP Power Transmission Corporation Limited, South Bihar Power Distribution Company Limited *etc.*

<sup>35</sup> Central Stores and TRW at Chaibasa, Hazaribag, Koderma and Ranchi.

<sup>36</sup> ESC, Chas: PSSs at Taranari, Phudnidih and Pathuria; ESC, Hazaribag: at Tantijharia; ESC, Chaibasa: at Landupada and ESC, Jamshedpur: at Balibandh, Nischintpur, Uperpawra and Baliguma.

<sup>37</sup> ESC, Chas: PSSs at Taranari, Phudnidih and Pathuria and ESC, Jamshedpur: at Balibandh, Nischintpur and Baliguma



between June 2016 and October 2020, for these six PSSs, had not been put to use (as of September 2021).

- Power Transformers, worth ₹ 23.76 lakh, delivered (April 2019) to the Central Store, Hazaribag, for construction of PSS at Tantijharia, were lying (September 2021) in store, due to the failure of the Company to obtain forest clearance for the erection of necessary 33KV line. Further, material worth ₹ 9.58 lakh, issued (November 2018 and February 2019) to works, by the central store, Hazaribag, was lying idle at the PSS premises.
- Two 5 MVA Power Transformers were purchased at a cost of ₹ 47.53 lakh, for the construction of PSSs at Landupada, in ESC, Chaibasa, and delivered at site during February 2017. However, these transformers were not being used, due to non-completion of 150 meters of underground cabling of 33 KV lines, across the railway lines, as the Company had failed to obtain clearance from the Railways. Further, material worth ₹ 62.63 lakh, issued to the work, had also not been put to use. Further scrutiny revealed that this was partly due to delayed deposit (November 2019) of ₹ 42,319, demanded (November 2017) by the Railways.
- Aluminium Conductor Steel Reinforced (ACSR) Dog and Wolf Conductors, were procured (March 2018 and September 2019), for erection of 11/33 KV lines of PSSs. Audit noticed that 929.09 km of ACSR Dog conductors, and 423.53 km of ACSR Wolf conductors, worth ₹ 11.33 crore, were lying in the central stores of these four ESCs (as of March 2021).
- Details of material issued to the PSS at Upperpawra in ESC, Jamshedpur, were not furnished to Audit, though called for.
- Audit also noticed that the test-checked central stores did not maintain work-wise accounts of issued material. Further, material at site accounts were also not being maintained by the concerned Managers and Junior Managers. Non-maintenance of work-wise accounts by the central stores, or 'material at site' accounts by the Managers and Junior Managers, carried the risk of diversion of material to other works, excess issue of material for the same work, absence of monitoring of unutilised material for long periods *etc.*, as there were inordinate delays in completion of the works.

Thus, the Company failed to procure required material in time and ensure efficient utilisation of issued material, which led to non-completion of works relating to construction of PSSs, that had commenced during FYs 2013-14 to 2016-17, and material worth ₹ 17.56 crore lying idle.

The Department accepted (July 2022) the delays in construction of PSSs, in three ESCs (Chas, Chaibasa and Hazaribag) and stated that four, out of five PSSs, in these ESCs, had been completed (as of May 2022). No reply was furnished regarding the remaining four PSSs of ESC, Jamshedpur.

### 5.10.2 Non-utilisation of material relating to R-APDRP work

Ministry of Power, GoI, approved (September 2008) the Restructured Accelerated Power Development Reforms Programme (R-APDRP), during the 11<sup>th</sup> Plan period. Under the Scheme, 25 per cent of the sanctioned cost was to be given by GoI as Loan. For implementing the Scheme in 30 towns of Jharkhand, GoI approved (September 2013) DPRs of ₹ 1,181.45 crore, for completion within a maximum period of five years.

In 22 out of 30 towns, the work could not be awarded, despite repetitive tendering. The Company ultimately decided (December 2015 and April 2017) to execute the works departmentally, in these 22 towns.

Audit noticed that the assessment of the required quantity of material, based on actual survey, varied from the quantity assessed in the approved DPRs. For departmental execution, the Company procured material, centrally based on the requirements assessed in the DPR or Survey. However, since the target date of completion was August 2018, the Company put a freeze (December 2017) on the scope of work. This led to non-utilisation of the procured material, as detailed in **Table 5.7**.

**Table 5.7: Details of non-utilisation of material in R-APDRP**

Sl. No.	Name of material	Quantity as per DPR	Quantity as per survey	Quantity as per freezing	Quantity actually procured	Excess	Rate of material (₹ in lakh)	Excess expenditure (₹ in lakh)
1	ACSR Rabbit Conductor (in km)	2,020	1,382	1,529	1,864	335	0.28	93.8
2	ACSR Panther Conductor (in km)	445	121	85	126	41	4.26	174.66
3	XLPE HT Cable 33 kV 3x400 sq. m (in km)	0	18	2	18	16	16.65	266.40
4	XLPE HT Cable 11 kV 3x400 sq. m (in km)	0	52	19	52	33	12.71	419.43
5	25 KV DTR (in Nos.)	194	221	151	201	50	0.49	24.50
6	63KV DTR (in Nos.)	398	263	174	263	89	0.81	72.09
7	100 KV DTR (in Nos.)	726	763	645	763	118	1.03	121.54
<b>Total</b>								<b>1,172.42</b>

As a result, material worth ₹ 11.72 crore, procured between June 2016 to August 2017, could not be utilised for more than four years, as of September 2021.

### 5.10.3 Misutilisation of material

#### Rural electrification scheme

- Under DDUGJY, Letters of Award (LoA) were issued (March and May 2017), to M/s IL&FS Engineering and Construction Company Limited, for rural electrification works, in three districts, i.e. East Singhbhum, West Singhbhum and Sahibganj. The awarded cost of the work was ₹ 624.36 crore and the work was to be completed within 24 months. The contractor could not complete the work, due to non-mobilisation of the required material and manpower, as per milestones. After the completion of works, valued at ₹ 101.96 crore, including the supply of material, the contract was terminated

in January 2019. The residual works were split up into eight packages and works were awarded (March 2019) to five contractors, for completion within nine months.

Audit noticed that the Company had commenced (September 2019) the process of reconciliation and taking over of the material, with the terminated contractor, after eight months of termination of the contract (January 2019). As per the reconciliation report (September and October 2019), material worth ₹ 58.45 crore<sup>38</sup> was to be taken over, by the new contractors, from the terminated contractor. However, material worth ₹ 28.46 crore<sup>39</sup> (49 per cent) only, had been lifted by the new contractors (as of March 2021). The remaining material, worth ₹ 29.99 crore, were still with the terminated contractor, even after a lapse of more than two years from the date of termination.

Further, in three ESCs, where material was transferred to the new contractors, Audit examined the utilisation of the transferred material. It was seen that in ESC, Sahibganj, material worth ₹ 2.72 crore, out of the lifted material of ₹ 7.10 crore, was found (March 2021) to be in excess. The contractor is yet to transfer the excess material to the store of the Company.

Thus, due to poor material management, material worth ₹ 32.71 crore, remained in the custody of private contractors, without any purpose, for periods ranging from 5 to 25 months.

The Department stated (July 2022) that, initially the terminated contractor (M/s IL&FS) was not willing to hand over the material to the new contractors in ESC Chaibasa, as the matter was *sub judice*. Further, due to the completion period being only nine months, the new contractors could only utilise material worth ₹ 14.60 crore, which was handed over to them by the terminated contractor. The reply is not acceptable, as the Company itself delayed the reconciliation of unused material with the terminated contractor, which led to short transfer of material to the new contractors, within their contract period. The reply was silent regarding the status of the remaining material, worth ₹ 15.91 crore, relating to ESC, Chaibasa, that was in the possession of the defaulting contractor. The Department also did not furnish the status of material worth ₹ 14.08 crore, pertaining to the other two ESCs.

#### Urban electrification scheme

- Six LoAs were issued (between July 2017 and September 2017) under the Integrated Power Development Scheme (IPDS) including three LOAs for supply of materials, to the same contractor, *i.e.* M/s IL&FS Engineering and Construction Company Limited, for completion of work within 24 months.

<sup>38</sup> Jamshedpur: ₹ 16.32 crore, Chaibasa: ₹ 30.51 crore and Sahibganj ₹ 11.62 crore.

<sup>39</sup> Jamshedpur: ₹ 6.76 crore, Chaibasa: ₹ 14.60 crore and Sahibganj: ₹ 7.10 crore.

Due to poor progress of the work, these contracts were also terminated (January 2019), after financial progress of 21 *per cent*. The residual works were awarded to five contractors (between March 2019 and July 2019), for completion between December 2019 and March 2020.

Audit noticed that unutilised material, worth ₹ 60.24 crore<sup>40</sup>, was lying with the contractor, after termination of the contract, and was transferred only by February 2020, *i.e.* after more than 12 months from the date of termination.

Further scrutiny of the records of three<sup>41</sup> test-checked ESCs, where transfer of material worth ₹ 36.38 crore had taken place, revealed that transferred material, worth ₹ 7.37 crore<sup>42</sup>, had not been utilised as of September 2021. This included non-utilisation due to delay in transfer of the material (₹ 1.37 crore) to the new contractors, change in the scope of work (₹ 2.16 crore), supply of material without the required accessories (₹ 1.14 crore). ESC, Sahibganj, did not furnish information regarding unused material worth ₹ 2.80 crore.

Thus, there was delay of 12 months in the transfer of material worth ₹ 60.24 crore. In addition, material worth ₹ 7.37 crore was still in the custody of private contractors (as of September 2021), in three test-checked ESCs.

The concerned DGMs accepted the facts and stated (between March 2021 and September 2021) that necessary instructions would be obtained from Headquarters, for early utilisation of the material.

- Electrification works were executed departmentally, in six<sup>43</sup> out of seven test-checked ESCs, under the RAPDRP-B scheme. For the works, material was procured centrally, by S&P wing, based on the requirements assessed by the concerned ESCs. The central stores received the material and issued it to the Managers of Electric Supply Sub-divisions (ESSD)s, for execution of works.

Audit noticed differences in the quantities of major items of material issued to the works, and the items of material utilised in the works, which were declared closed in June 2020. It was seen that conductors, poles, cables, meters and transformers, worth ₹ 30.81 crore, had been issued to works, from the central stores, but, as per the closure reports, material worth ₹ 18.74 crore only had been utilised in the works. The accounts of the remaining material worth ₹ 12.07 crore (**Appendix 5.4**) were neither found to have been maintained by the concerned Managers, nor was the material returned to the central stores.

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<sup>40</sup> ESC Chaibasa: ₹ 11.66 crore, Dhanbad: ₹ 15.74 crore, Dumka: ₹ 8.12 crore, Jamshedpur: ₹ 13.07 crore and Sahibganj: ₹ 11.65 crore.

<sup>41</sup> ESCs at Chaibasa, Jamshedpur and Sahibganj.

<sup>42</sup> ESC Chaibasa: ₹ 1.12 crore, Jamshedpur: ₹ 3.45 crore and Sahibganj: ₹ 2.80 crore.

<sup>43</sup> ESCs at Chaibasa, Chas, Hazaribag, Jamshedpur, Koderma and Sahibganj.

ESCs also failed to recover the un-utilised material, prior to preparing closure reports of the works, or till date (December 2021).

Thus, due to non-recovery of excess materials issued by ESCs, as compared to the closure reports, misutilisation or misappropriation of materials, worth ₹ 12.07 crore, could not be ruled out.

While accepting the audit observations, the Department stated (July 2022) that material statements were yet to be received from concerned officials in ESC, Sahibganj. In ESC, Chas, material had been received partially, and the balance material was under the custody of the concerned officials. With respect to ESC, Koderma, it was stated that reconciliation of material had been done before making the final payment. The reply regarding ESC, Koderma, is not acceptable, as the audit observation was based on cross-examination of the scheme closure reports, material statements and stock ledgers, that were prepared/closed after processing of the final bills. No reply was furnished in regard to the remaining three ESCs.

***Audit Recommendation No. 4: The Company may ensure early recovery of unutilised material lying with private contractors or field officials.***

