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Report of the Comptroller and Auditor General of India on Implementation of Rural Electrification Schemes in Jharkhand For the year ended 31 March 2020

लोकहितार्थ सत्यनिष्ठा
Dedicated to Truth in Public Interest

Government of Jharkhand

Report No. 3 of the year 2022

(Performance Audit)

Report of the

Comptroller and Auditor General of India

on

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Preface

This Report of the Comptroller and Auditor General of India has been prepared for submission to the Governor of Jharkhand under Article 151 of the Constitution of India for being laid before the State Legislative Assembly.

A Performance Audit on Implementation of Rural Electrification Schemes in Jharkhand, covering the period 2014-15 to 2019-20, was carried out during 2019-20 with the objective of assessing the implementation of Rural Electrification Schemes in the State.

The Report has been prepared in accordance with the Performance Auditing Guidelines and Regulations on Audit and Accounts of the Comptroller and Auditor General of India.

Executive Summary

About the Report:

The availability of power supply in most rural areas of India is inadequate and unreliable. The Government of India and the State Governments have been implementing several rural electrification schemes with the objective of closing the gap between urban and rural areas with respect to availability of power.

The Government of India (GoI) launched (December 2014) *Deen Dayal Upadhyaya Gram Jyoti Yojana* (DDUGJY) for completion of targets laid down under *Rajiv Gandhi Grameen Vidyutikaran Yojana* (RGGVY) for XII Five Year Plan (FYP) by subsuming RGGVY in DDUGJY as a separate component.

Further, GoI introduced (October 2017) *Pradhan Mantri Sahaj Har Ghar Bijali Yojana* (SAUBHAGYA) with the objective to provide last mile connectivity by release of electric connections to all unelectrified households in rural areas and all remaining economically poor unelectrified households in urban areas.

The Government of Jharkhand (GoJ) had launched *Atal Gram Jyoti Yojana* (AGJY) in April 2015 for providing free electric connections to above poverty line (APL) rural beneficiaries and *Tilka Manjhi Krishi Pump Yojana* (TMKPY) in April 2015 for providing free electric connection to agricultural pumps of rural beneficiaries. GoJ had also launched (March 2017) *Jharkhand Sampurna Bijli Aachhadan Yojana* (JSBAY) for construction of Power Sub-stations (PSSs) and associated lines and metering at all levels besides connection to uncovered households including agriculture connections.

It is in this backdrop that the Performance Audit on Implementation of Rural Electrification Schemes in Jharkhand, covering the period 2015-20, was carried out during the year 2019-20 with the objective of assessing the implementation of rural electrification schemes in the State.

What has been covered in this audit?

In this performance audit, we have focussed on implementation of rural electrification schemes in the State. Achievement of objectives of different rural electrification schemes have been assessed on pre-determined criteria in the sampled districts and covered under themes like Planning, Village and Household electrification, Separation of Feeders, Strengthening of Sub-

Transmission & Distribution network, Financial Management, Contract Management and Monitoring.

What have we found and what do we recommend?

We found significant areas for improvement in implementation of rural electrification schemes in the State as highlighted below:

Planning

- Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) did not maintain database regarding status of electrification of villages except consumer database. While conducting field survey in the seven test-checked districts before commencing the electrification works, the Turnkey Contractors (TKCs) found that 260 electrified villages and 678 non-existent villages were included in the DPRs.

- JBVNL was deprived of GoI grant amounting to ₹ 182.68 crore due to non-completion of RGGVY (X FYP) in Chatra, Garhwa, Latehar and Palamu districts, non-pursuance by JBVNL regarding electrification of left out BPL households in Dumka and West Singhbhum districts and non-uploading of DPR of Simdega district.

JBVNL should strive for adoption of modern technologies based on GIS system for creating and maintaining asset database beside physical survey in villages and other areas which will enable it to formulate schemes and complete the work within stipulated time.

Village and Household electrification

- Though the targets to complete electrification measures in the seven test-checked districts were fixed between July 2019 and December 2019, electrification of 819 (10 *per cent*) out of 7,925 villages taken up under DDUGJY was not completed as of March 2020. Further, 23,951 (21 *per cent*) out of 1,15,629 connections and 68,417 (32 *per cent*) out of 2,15,605 connections could not be provided as of March 2020 under RGGVY (XII FYP) and DDUGJY respectively on account of various project bottlenecks.

- AGJY was fore-closed after providing free electric connections to 1.86 lakh APL households against the target of 3.64 lakh APL households as JBVNL could not provide list of beneficiaries to the Turnkey Contractors (TKCs).

- JBVNL incurred an avoidable expenditure of ₹ 15.85 crore as 56,954 APL connections were released free of cost under DDUGJY against the norms.

- Under SAUBHAGYA, 2,84,485 connections were released in the seven test-checked districts against work order for providing 4,06,196 connections without ensuring assessment of beneficiaries eligible for free connections.

- Though the Department had set a target of providing 3.04 lakh agriculture connections under TMKPY in April 2015, no application for agriculture connections were received from farmers under the scheme mainly due to scarcity of water in nearby water bodies for carrying out irrigation. The scheme was closed in October 2018 without releasing any connections.

- Out of total 5,23,295 connections released under centrally sponsored schemes in the seven test-checked districts, only 2,93,334 consumers were being billed.

Scrutiny of 431 consumers revealed that billing was started with delays ranging between two to 27 months from the date of release of the connections. Further, scrutiny of energy bills of 200 unmetered/defective meter consumers whose meters had been replaced, revealed that 182 consumers were being billed on average basis even after a lapse of eight to 23 months after replacement of the meters.

- Collection of energy charges from rural consumers was 15.46 and 13.98 *per cent* under DS-I(A) tariff[1] and 46.77 and 38.81 *per cent* under DS-I (B) tariff[2] during 2018-19 and 2019-20 respectively excluding subsidy received from GoJ. This, when compared with the overall collection efficiency (between 85 and 90 *per cent*) of JBVNL, was poor.

- JBVNL could not achieve the targeted Aggregated Technical & Commercial (AT&C) loss of 15 *per cent* by 2018-19 as envisaged under Ujjwal Discom Assurance Yojana (UDAY) and the AT&C loss during 2019-20 was 33.49 *per cent.* As a result of the failure to keep AT&C loss within the limits fixed by Ministry of Power (MoP), JBVNL would not be able to avail the opportunity of conversion of loan component into grant under DDUGJY.

JBVNL should make time bound and concerted efforts to improve efficiency in collection of energy charges from rural consumers to match its overall collection efficiency by installing meters in unmetered rural premises, billing the metered rural consumers on a regular basis, setting up nearby collection centres in villages, strengthening the spot billing mechanism by

1 Domestic rural BPL consumers are classified as DS 1(A) as per JSERC tariff
2 Domestic rural consumers other than BPL are classified as DS 1(B) as per JSERC tariff

Urja Mitra in rural pockets etc., to bring down the AT&C losses to 15 per cent.

Further, Energy Department should investigate the deficiencies in the scheme design and deliverables of TMKPY which was closed without providing any connection and AGJY which was closed midway. The Department should also examine the role and failure of JBVNL management in not apprising the Department about the lukewarm response to these schemes at the implementation level and for possible modifications in the scheme mandate to improve last mile connectivity.

Separation of Feeders

- Although 47 feeders and 1,981.29 Ckms of agricultural electric lines were erected as a part of separation of agriculture feeders, none of these were charged. Out of these, 40 feeders and 1,840.71 Ckm of agricultural lines were not put to use even after installation of 2,966 Dtrs in Deoghar, Dhanbad and Ranchi districts at a cost of ₹ 90.61 crore[3] for agriculture connections though 16,406 agriculture consumers already existed in these districts.

JBVNL should immediately take measures to regulate power supply to the existing agricultural consumers by charging the idle agriculture feeders and dedicated electric lines.

Strengthening of Sub-transmission and Distribution network

- Under DDUGJY, 29 Power Sub Stations (PSSs) of 235 Mega Volt Ampere (MVA) were constructed. Of these, only eight PSSs of 70 MVA could be charged while 21 PSSs were idle (June 2020) even after three to 29 months of their construction mainly due to the associated Grid Sub Stations (GSSs) remaining incomplete (three cases), non-erection of required 33 or 11 KV lines (16 cases) besides absence of trained manpower (two cases) to operate these PSSs.

- JBVNL had not installed energy meters at PSSs and feeders constructed. Though energy meters were installed at Distribution Transformers (DTrs), DTr-wise energy accounting was not being carried out to check the losses. Thus, one of the main objective *i.e.*, reducing AT&C losses was defeated.

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3 2966 x ₹ 81332 (average cost of DTrs) + 1840.71 x ₹ 3,61,189 (average cost of agricultural line) = ₹ 90.61 crore

JBVNL should ensure that idle assets such as PSSs, associated electric lines, etc., are put to optimal use at the earliest so that money spent on their erection becomes productive.

JBVNL should ensure metering and energy accounting at all levels to identify areas of AT&C losses for remedial action.

Financial Management

- JBVNL had not ensured timely completion of works related to RGGVY (XII FYP) resulting in avoidable expenditure of ₹ 3.43 crore incurred towards charges paid to Project Monitoring Agency (PMA) upto September 2020.

- JBVNL failed to complete works within stipulated time, keep AT&C losses within the prescribed limit of 15 *per cent* by 2018-19 and claim admissible revenue subsidy from GoJ in the absence of metered and billed power consumption. Thus, JBVNL would not be able to avail the benefit of conversion of 50 *per cent* of loan valued at ₹ 558.32 crore into additional grant.

The project bottlenecks highlighted by Audit should be addressed before taking up electrification works so that they are completed in a time bound manner. Reasons for non-completion of works within the timelines should be thoroughly analysed by the Department to avoid its recurrence. All works, presently behind schedule, should be closely monitored for completion at the earliest.

Contract Management

- Eighteen packages were awarded to six agencies to carry out rural electrification works. None of the agencies met the required technical criteria to qualify for the bids. Further, in 304 test-checked cases, there were instances of non-deduction of royalty, delays in execution of agreements, empanelment of vendors without calling open tenders and violation of Delegation of Financial Powers (DoFP) in awarding contracts/works.

As contract management is the essence of effective, efficient and economical execution of projects, JBVNL should adhere to the conditions of Notice Inviting Tender/Standard Bidding Document and follow the DoFP and conditions of work order.

Monitoring

- District Electric Committees (DECs) were to meet once in three months to review the quality of power supply, consumer satisfaction and to promote energy efficiency and energy conservation. In the seven test-checked districts, DECs met only once against the requirement of 20 meetings during April 2015 to March 2020 for which no reasons were available on record. Thus, supervisory oversight by DECs, as laid down in the scheme guidelines, was absent.

The Department should ensure that the DECs meet as per norms and engage constructively to review the grey areas highlighted in this Report for taking corrective action and fixing accountability.

What has been the response of the Government?

While providing a general response regarding efforts being made at their level, the Government assured that necessary action will be taken to improve the system where shortcomings had been pointed out by Audit.

Chapter 1 Introduction

With the aim of providing access to electricity to all households in five years, Government of India (GoI) launched (March 2005) *Rajiv Gandhi Grameen Vidyutikaran Yojana* (RGGVY), a Scheme for creation of rural electricity infrastructure and household electrification during the X Five Year Plan (FYP) period (2002-07). Under the Scheme, below poverty line (BPL) households were to be provided free electric connection whereas other rural households (RHHs) were to be provided paid connection. RGGVY was extended twice (February 2008 and September 2013) by GoI and continued in the XI, XII & XIII FYP period with the aim of completing spill over works of projects sanctioned in the X and XI FYP by covering all remaining census villages and habitations with population of above 100.

Later on, GoI launched (December 2014) *Deen Dayal Upadhyaya Gram Jyoti Yojana* (DDUGJY) for completion of targets laid down under RGGVY (XII and XIII FYPs) by subsuming RGGVY in DDUGJY as a separate component. DDUGJY aimed to regulate power supply to agricultural consumers, 24x7 power supply to non-agricultural consumers and to reduce Aggregate Technical and Commercial (AT&C) loss to 15 *per cent* by 2018-19 by (i) separation of agriculture and non-agriculture feeders[4], (ii) augmentation of Sub-Transmission and Distribution (ST&D) infrastructure in rural areas[5] and (iii) rural electrification works.

On introduction of DDUGJY, Ministry of Power (MoP), GoI and the Energy Department, Government of Jharkhand (GoJ) signed (October 2015) a joint statement for 24x7 power supply to all consumers and electricity access to all unconnected households in the State by March 2019. Two tripartite agreements were also signed (April 2016 and November 2016) by the Rural Electrification Corporation Limited[6] (REC), Jharkhand Bijali Vitran Nigam

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4 Erection of High Tension (HT) lines for drawing new feeders; reorientation/ realignment of existing lines; installation of new distribution transformers (DTrs); augmentation of existing DTrs; relocation of DTrs and associated Low Tension (LT) lines for regrouping of consumers (agricultural and non- agricultural) roster.

5 Construction/augmentation of Power Sub-Station (PSS) along with associated 66/33/22/11 KV lines; installation of higher capacity/ additional power transformer; installation/augmentation of distribution transformer (DTr) along with associated LT lines; renovation and modernisation of existing sub-stations and lines; installing High Voltage Distribution System (HVDS), fixing Arial Bunched (AB) cable in theft prone areas and metering of all feeders and DTrs including metering at all input points.

6 A public sector undertaking of GoI and Nodal agency for Central RE schemes.

Limited[7] (JBVNL) and GoJ for simultaneous implementation of projects sanctioned separately under RGGVY (XII FYP) and DDUGJY respectively.

Further, GoI introduced (October 2017) *Pradhan Mantri Sahaj Har Ghar Bijali Yojana* (SAUBHAGYA) with the objective to achieve universal household electrification by providing last mile connectivity and release of electric connections to all unelectrified households in rural areas and all remaining economically poor unelectrified households in urban areas.

In addition to GoI schemes mentioned above, GoJ launched (April 2015) *Atal Gram Jyoti Yojana* (AGJY) for releasing free electric connections to above poverty line (APL) rural beneficiaries[8] and *Tilka Manjhi Krishi Pump Yojana* (TMKPY) for providing free electric connection to agricultural pumps of rural beneficiaries[9]. In both schemes, villages covered under RGGVY were to be considered for selection of beneficiaries.

Despite implementation of various Central and State schemes, some households (APL, BPL and Agricultural consumers) remained uncovered[10] mainly due to focus on BPL households under RGGVY, non-coverage of all households under DDUGJY/AGJY/TMKPY and addition of households with the passage of time. To ensure power to all, GoJ launched *Jharkhand Sampurna Bijli Aachhadan Yojana* (JSBAY) in March 2017. The scope of JSBAY was again redefined (April 2018) after introduction of SAUBHAGYA under which necessary infrastructure was to be created i.e., construction of Power Sub-stations (PSSs) and associated lines and metering at all levels besides connection to uncovered households including agriculture connections.

1.2 Role of Agencies

Rural Electrification Corporation (REC) is the Nodal Agency for implementing GoI schemes. JBVNL is the State Project Implementing Agency (PIA) in Jharkhand. REC was to scrutinise and appraise Detailed Project Reports (DPRs) of States, co-ordinate with PIA, release funds on behalf of GoI and monitor implementation of the schemes.

Further, there was a State Level Standing Committee (SLSC) for recommending DPRs prepared by the PIA, submitting DPRs to REC for approval of Monitoring Committee (MC) of Ministry of Power (GoI), monthly monitoring of the progress of the schemes and resolution of issues

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7 Jharkhand State DISCOM

8 Under AGJY, 30 villages of each legislative assembly were to be selected and 50 APL beneficiaries of each selected villages were to be released domestic connection.

9 Under TMKPY, 50 villages (one from each panchayat) of each legislative assembly were to be selected by the Member of Legislative Assembly (MLA) and in each selected village, 25 *krishi pumps* were to be provided electric connection maintaining the ratio of BPL and APL farmers to 60 and 40 *per cent* respectively.

10 Unelectrified *Tola*-12,762; APL -3,06,614; BPL-2,01,991 and Agricultural connections-1,32,772 (Total: 6,41,377 connections)

related to implementation of the schemes. Further, the State Government was to provide support on policy issues, land for sub-stations, facilitate in obtaining other statutory clearances and furnish guarantee for loan component in case the utility is not able to provide the same.

PIA was to prepare district-wise DPRs for DDUGJY, submit them to the SLSC for recommendation and implement the Scheme within the timeline.

1.3 Scheme implementation

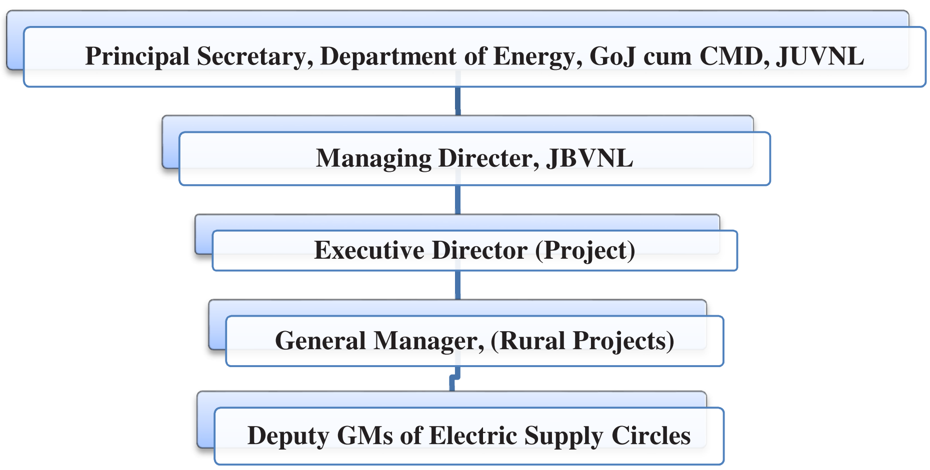
As per scheme guidelines, projects were to be implemented on turnkey basis. However, partial turnkey/ departmental execution of the projects was permitted in exceptional cases with the approval of MC, MoP. JBVNL got the works executed through contractors on turnkey basis dividing the scope of work in two parts: (i) supply of materials and (ii) erection of work.

1.4 Organisational structure of Rural Electrification (RE) wing in JBVNL

The management of JBVNL is vested in a Board of Directors (BoD) comprising the Managing Director (MD) and other Directors appointed by GoJ. The Executive Director (ED), Project assisted by the General Manager (GM), Rural Projects is responsible for the RE schemes at headquarters. A dedicated team comprising one Executive Engineer, two Assistant Engineers and two Junior Engineers under the control of Deputy General Manager (DGM) were responsible to look after the implementation of RE schemes in all the 15 Electric Supply Circles (ESCs). The organisational set up of the Department is shown in **Chart 1.1**.

Chart 1.1: Organogram

Rural Electrification (RE) wing of Jharkhand Bijli Vitran Nigam Limited under Department of Energy, Government of Jharkhand



1.5 Funding pattern

Funding pattern of different GoI and State schemes were as under:

- Under RGGVY (XII FYP), GoI was to contribute 90 *per cent* of the sanctioned project cost as capital subsidy and 10 *per cent* was to be contributed by the State from own resources/ loan from financial institutions (FIs).
- Under DDUGJY, GoI was to contribute 60 *per cent* of the cost as capital subsidy, 10 *per cent* was to be the State contribution and the remaining 30 *per cent* was to be in the form of loans from FIs/ banks. Further, GoI would convert 50 *per cent* of loan amount (30 *per cent*) into additional grant subject to (i) timely completion of the scheme as per laid down milestones, (ii) reduction in AT&C losses to 15 *per cent* by 2018-19 and (iii) upfront release of admissible revenue subsidy by the State based on metered consumption.
- GoI was to release its 10 *per cent* of share on approval of projects by MC and execution of tripartite agreement; 20 *per cent* on issue of letter of award by the Utility/PIA, 60 *per cent* on release of 100 *per cent* of State contribution and on utilisation of 90 *per cent* of 1^{st} and 2^{nd} instalments and the remaining 10 *per cent* on completion of the work.
- Funding pattern for SAUBHAGYA was similar to DDUGJY. However, 50 *per cent* of the loan amount was to be converted into additional grant only after achievement of 100 *per cent* household electrification by December 2018.
- Under State schemes (AGJY, TMKPY and JSBAY), GoJ was to provide 100 *per cent* of the cost as grant to JBVNL.

1.6 Audit objectives

Performance Audit was conducted to assess whether:

- the villages have been electrified fully and free electricity provided to BPL households;
- separation of agriculture and non-agriculture feeders, facilitating judicious roster of supply to agricultural and non-agricultural consumers in the rural areas had been completed;
- the works of ST&D infrastructure in rural areas, including metering at distribution transformers, feeders and consumers end have been completed in a judicious and transparent manner to provide 24x7 electric supply by 2019; and
- planning, implementation and management of the schemes were done in an effective, efficient and economical manner and scheme guidelines were adhered to.

1.7 Audit criteria

The audit criteria adopted for assessing the achievement of the audit objectives were derived from:

- Guidelines of REC, DDUGJY/ SAUBHAGYA/ AGJY/ TMKPY and JSBAY;
- Provisions of RGGVY;
- Provisions of National Electricity Plan and National Tariff Policy; Jharkhand Energy Policy;
- Tripartite agreements between REC, GoJ and JBVNL;
- Perspective plan and project reports of DDUGJY/ SAUBHAGYA/ AGJY/ TMKPY and JSBAY;
- Directions from the GoJ/ Ministry of Power (MoP), GoI;
- Survey Reports/DPRs;
- Standard procedures framed for award of contracts with reference to principles of economy, efficiency, effectiveness, equity and ethics;
- Circulars and manuals for filing Annual Revenue Return (ARR) with Jharkhand State Electricity Regulatory Commission (JSERC);
- Norms/guidelines issued by JSERC/ Central Electricity Authority (CEA);
- Agenda and Minutes of meeting of BoD of JBVNL;
- Operation and maintenance manual and;
- Accounting, Financial and Internal Control Manual.

1.8 Scope of Audit and Methodology

An Entry Conference was held on 16 August 2019 with the Principal Secretary of the Department wherein audit objectives, scope, criteria etc., were discussed and the inputs of the Department were obtained. The scope of the Performance Audit covered rural electrification (RE) schemes of GoI (RGGVY (XII FYP), DDUGJY and SAUBHAGYA) and State (AGJY, TMKPY and JSBAY) for the period 2014-20. Nine[11] out of 24 districts were selected through stratified random sampling by stratifying the 24 districts of the State in three strata as per percentage of work completed. However, only seven[12] out of nine districts were test-checked due to Covid-19 pandemic and lockdown.

Audit examination involved scrutiny of the records of the Energy Department, GoJ, Executive Director (Projects) and General Manager

[11] Dhanbad, Deoghar, Dumka, Giridih, Gumla, Jamshedpur, Palamu, Pakur and Ranchi
[12] Dhanbad, Deoghar, Dumka, Giridih, Palamu, Pakur and Ranchi

(Projects) at JBVNL Headquarters, Electric Supply Circles, Electric Supply Divisions and Electric Supply Sub-divisions of the test-checked districts. Audit also undertook joint physical verification of works executed in 28 villages[13] located in the seven test-checked districts. Exit conference was held on 08 October 2021 with Principal Secretary, Energy Department, GoJ. Reply of the Department has been incorporated in the Report.

1.9 Acknowledgement

Audit acknowledges the co-operation extended by the Department of Energy, Government of Jharkhand, JBVNL and DGMs of Electric Supply Circles of selected Districts in conduct of the Performance Audit.

[13] (i) Dhanbad (Analasia, Kapasara, Kanchanpur, Madhugoda); (ii) Pakur (Jitalpur, Mohanpur, Sundarpur, Dhanpahadia) (iii) Deoghar (Barakola, Rakti, Guniasole, Mohnadih), (iv) Palamu (Khendra Kalan, Purandin, Nawatoli, Khendra Khurd), (v) Giridih (Badwara, Buchha Nawadih, Baria, Jadu Raidih), (vi) Dumka (Bedia, Palasi, Sikarpur, Brindabani) and (vii) Ranchi (Murupiri, Makka, Malar, Palma)

Chapter

2 Planning

2.1 Deficiencies in planning by the Department and JBVNL

Deficient planning for feeder separation

JBVNL prepared DPRs without taking into consideration details such as feeders with mixed load where feeder separation was required, total number of existing and prospective agriculture consumers, total area and location of cultivated land and catchment area from where consumers may draw water for irrigation etc. SLSC also did not verify whether these issues were factored into the DPR and simply forwarded the DPRs proposed by JBVNL to REC for approval as discussed in **paragraph 4.1**.

Deficient planning in construction of PSSs

JBVNL delayed providing land to Turn Key Contractors (TKCs), changed locations due to handing over of unsuitable or rocky land earlier and did not ensure availability of approach roads to PSSs sites for periods ranging between four and 19 months from the date of issue of Letter of Intent (LoI) in the test-checked districts. Department failed to provide suitable land for construction of PSSs which led to delay in construction and de-scoping of three PSSs of Ranchi district as discussed in **paragraphs 5.1 and 5.8**.

Delay in obtaining statutory clearances and other activities in Construction of 33 KV line

There were delays on the part of JBVNL in initiating forest clearances, delays in finalisation of drawings and technical parameters of Power Transformers (PTrs), delays in finalisation of deviation in BoQs and delays in resolving hindrance by locals regarding RoW (Right of Way). Department also failed to obtain timely forest clearances and resolve RoW issues as discussed in **paragraph 5.3**.

District Electric Committees

DPRs for DDUGJY were prepared prior to notification of District Electric Committees (DECs) even though DPRs were to be prepared in consultation with the DECs in order to obtain local inputs. Further, GoJ/SLSC recommended forwarding of DPRs of all the 24 districts to REC without obtaining recommendations of DECs on DPRs of 19 districts which were sanctioned by REC as discussed in **paragraph 8.1**.

2.2 Lack of comprehensive database and multitude of schemes

JBVNL does not have a comprehensive database of all eligible beneficiaries under the multiple electrification schemes. JBVNL has never carried out any survey on its own to prepare a database which would cater to the requirements and criteria of the different schemes in operation in the State. JBVNL only has details of consumers who have been given connections as discussed in **paragraph 2.4.3**. Hence, determination of number and location of prospective consumers under the different schemes have been left to the TKCs. This problem is compounded by the multitude of schemes running simultaneously.

Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA)

JBVNL did not carry out assessment of beneficiaries eligible for free connections under Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) through a proper survey. As a result, they did not have a database covering all eligible beneficiaries prior to placing orders to vendors. Instead, vendors were arbitrarily given targets of connections against which they released connections as per their own assessment as discussed in **paragraph 3.2.3**.

Atal Gram Jyoti Yojana (AGJY)

JBVNL was to prepare list of beneficiaries on the recommendations of respective MLAs. JBVNL failed to do so and hence could not provide list of beneficiaries to the Turn-Key Contractors (TKCs). As a result, AGJY was fore-closed after providing free electric connections to 1.86 lakh APL households against the target of 3.64 lakh APL households as discussed in **paragraph 3.2.4.**

2.3 Preparation of DPR without validation of Need Assessment Document (NAD) by REC

As per guidelines of DDUGJY, JBVNL was to prepare a Need Assessment Document (NAD) containing information about consumers, consumption pattern, voltage regulation, AT&C loss level, HT & LT ratio, optimum load of transformers & feeders/lines etc., with load flow study to substantiate the proposed scope of work and cost estimates after identifying the need of feeder separation and critical gaps in the sub-transmission and distribution network. NAD was to be examined and validated by REC to finalise the scope and cost of work in consultation with JBVNL. Based on the broad scope of work validated by REC, JBVNL was to formulate district/circle/zone-wise DPRs based on detailed field survey and latest schedule of rates.

Audit did not find details on record based on which NAD was prepared to ascertain that there was sufficient relevant information to substantiate the proposed scope of work and cost estimates after identifying critical gaps in the sub-transmission and distribution network. JBVNL also accepted (October 2019) that load flow study for preparing NAD of ₹ 11,266.58 crore was not conducted. Though the NAD was sent (February 2015) to REC, approval was awaited (October 2020). Ultimately, the DPRs were prepared without NAD and were approved (August 2015) by the Monitoring Committee of MoP, GoI. Shortcomings in the DPRs have been discussed in the succeeding sub-paragraphs.

The Management/Department stated (May/October 2021) that format for preparation of NAD was to be provided by REC. However, it was not provided and JBVNL prepared NAD in its own format based on available data. The Management/Department also accepted that DPRs have been prepared without approval of NAD.

2.4 Preparation of DPRs for Rural Electrification

Audit observed that prior to extension (September 2013) of RGGVY and launching (December 2014) of DDUGJY, JBVNL invited (March 2012) tender for detailed field survey[14] and preparation of district-wise DPRs for revamping rural electrification in the State. JBVNL issued (February 2013) Electric Supply Area (ESA) wise Letter of Intent (LoI) to three agencies[15] for preparation of DPRs for 24 districts at a contract price[16] ranging between 0.89 *per cent* and 1.56 *per cent* of the sanctioned cost of projects as per approved DPRs. Sixty *per cent* of the awarded cost[17] was to be paid on submission of DPRs duly verified by field offices, 30 *per cent* upon approval of DPRs by GoI/ GoJ and remaining 10 *per cent* on award of works.

After extension of RGGVY, JBVNL directed (July 2013) the agencies to prepare DPRs in two parts *viz.*, one for those works that could be covered under the RGGVY (XII FYP) (called Part-B) and another for all remaining works in accordance with the contract (called Part-A). LoIs were issued in March 2014 and Letters of Award (LoA) were issued between October 2014 and January 2015.

The agencies submitted (December 2013 to January 2014) all DPRs (Part B) for 24 districts with project cost of ₹ 4,879.16 crore which were recommended (January -February 2014) by SLSC for further submission to REC. Of these, JBVNL uploaded DPRs of only 23 districts (except Simdega) with project cost of ₹ 4,714.71 crore on the web portal of REC for

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14 GPS/GIS survey, evaluation of distribution system, existing APL and BPL connection and expected APL and BPL connection to be provided.

15 MECON- ESAs Ranchi and Palamu, RECPDCL- ESA Dhanbad, Jamshedpur and Dumka and AKS- ESA Hazaribagh.

16 1.54 *per cent* for ESA Ranchi, 1.56 *per cent* for ESA Palamu, 0.99 *per cent* for ESA Dhanbad, Jamshedpur and Dumka and 0.89 *per cent* for ESA Hazaribagh (excluding service tax)

17 JBVNL calculated amount of contract value for interim payment which was finally to be linked with the approved cost of DPR.

approval by GoI. Against these, GoI approved the projects of only 17 districts for ₹ 1,260.92 crore (38.32 *per cent*) against the SLSC recommendation of ₹ 3,290.07 crore for these districts. Projects of the remaining six[18] districts with project cost of ₹ 1,424.63 crore were not approved for reasons discussed in **paragraph 2.4.1**.

Upon introduction of DDUGJY, JBVNL requested (December 2014) all the three agencies for collection of data regarding requirement of infrastructure for all existing and prospective agricultural consumers so that the same may be used for preparing separate DPR for ensuring easy financing of projects under DDUGJY. The agencies submitted (July 2014 to September 2016) data and DPRs (Part A) worth ₹ 6,333.77 crore[19] to JBVNL. However, on the request of JBVNL to submit separate DPRs for DDUGJY, two agencies (MECON and RECPDCL) did not respond and ultimately M/s AKS submitted (March 2015) separate DPRs worth ₹ 5,813.87 crore for DDUGJY of all 24 districts on verbal request of JBVNL. Of these, GoI sanctioned projects worth ₹ 3,722.12 crore for financial assistance under DDUGJY for all 24 districts.

Scrutiny of DPRs, contract documents, contractor bills and other related records revealed the following deficiencies:

2.4.1 GoJ deprived of GoI grant under RGGVY (XII FYP)

As discussed above, DPRs of four districts (Garhwa, Palamu, Latehar and Chatra) worth ₹ 1,418.20 crore were submitted (February 2014) to GoI but were not approved on the ground that works of RGGVY(X FYP) were not complete in these districts. DPRs (₹ 233.68 crore) of two districts (West Singhbhum and Dumka) were not sanctioned by GoI as REC had evaluated that all BPL households were electrified and no additional infrastructure was required in these districts though proposal for electric connection to 75,995 and 30,108 BPL consumers respectively was included in the DPRs. DPR of Simdega was not uploaded on the web portal of REC, as required, for reasons not available on record.

Thus, due to non-completion of works of RGGVY (X FYP) in four districts, inability of JBVNL to convince REC regarding electrification of left-out BPL households in two districts and failure to upload DPR of one district, GoJ was deprived of GoI grant equivalent to 90 *per cent* of the sanctioned cost as admissible under RGGVY. Later on, DPRs of these seven districts were approved (August 2015) along with the other 17 districts under DDUGJY where admissible GoI grant was 60 *per cent* only.

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[18] Garhwa, Palamu, Latehar, Chatra, West Singhbhum and Dumka

[19] ₹ 1,724.24 crore for ESA Ranchi, ₹ 1,427.68 crore for ESA Medninagar, ₹ 2,302.00 crore for ESA Hazaribagh, ₹ 137.40 crore for ESA Dhanbad, ₹ 262.15 crore for ESA East Singhbhum and ₹ 480.31 crore for ESA Dumka.

GoJ failed to obtain GoI grant of ₹ 182.68 crore[20] on DPR value of ₹ 1,589.08 crore of seven districts, due to non-sanction of projects under RGGVY (XII FYP) considering 38.32 *per cent* of value of DPRs as was sanctioned in 17 districts. Further, expenditure of ₹ 4.86 crore incurred on preparation of DPRs of these seven districts became unfruitful.

The Management/Department stated (March/October 2021) that JBVNL had prepared and submitted the DPRs to REC and had no control over the sanction of the projects.

The facts remains that DPRs of seven districts were not sanctioned as JBVNL (i) had not completed works under RGGVY (X FYP) (4 districts), (ii) could not convince REC regarding left-out BPL consumers (2 districts) and (iii) failed to upload DPRs (one district).

2.4.2 Expenditure on preparation of DPRs

REC Power Development and Consultancy Ltd (RECPDCL): RECPDCL submitted (July 2014) incomplete DPRs (Part A) for 11 districts as it did not contain complete details and documents. JBVNL paid (September 2016 to November 2016) ₹ 1.37 crore (14.89 *per cent*) against claim of 60 *per cent* (₹ 5.46 crore) of draft DPR cost (₹ 919.72 crore). The payment was made on request of the RECPDCL as encouragement to rectify shortcomings observed by JBVNL which had no relevance since the DPRs of these 11 districts were already submitted (March 2015) by M/s AKS on verbal instruction of JBVNL.

Thus, JBVNL paid ₹ 1.37 crore to RECPDCL even though it was privy to the information that DPRs had already been submitted by M/s AKS six to eight months before the payment and resulted in infructuous expenditure.

MECON and M/s AKS: MECON and M/s AKS submitted DPRs of Part A for ₹ 5,453.92 crore[21]. From these DPRs, M/s AKS prepared DPRs of DDUGJY and JSBAY which were sanctioned (August 2015 and March 2017) for projects worth ₹ 4,794.80 crore[22]. However, against the claim of ₹ 61.37 crore[23] by both agencies, JBVNL accepted (January 2019) admissible claim of only ₹ 16.57 crore[24] curtailing the claim on account of non-conducting of survey and non-sanction of DPRs of four districts under

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[20] ₹ 1,589.09 crore x 38.32 *per cent* x (90-60) *per cent* = ₹ 182.68 crore

[21] ₹ 1,724.24 Crore for ESA Ranchi and ₹ 1,427.68 crore for ESA Medininagar and ₹ 2,302 crore for ESA Hazaribagh.

[22] ₹ 816.78 crore under DDUGJY and ₹ 858.46 crore under JSBAY for ESA Ranchi, ₹ 714.83 crore under DDUGJY and ₹ 512.64 crore under JSBAY for ESA Medininagar and ₹ 772.98 crore under DDUGJY and ₹ 1,119.11 crore under JSBAY for ESA Hazaribagh.

[23] Mecon - ₹ 45.3 crore and M/s AKS - ₹ 16.07 crore

[24] Mecon - ₹ 6.93 crore and M/s AKS ₹ 9.64 crore

RGGVY (XII FYP)[25]. However, M/s AKS was paid (October 2017) only ₹ 4.83 crore while no payment was made to MECON (October 2020).

It was further seen that M/s AKS prepared DPRs for DDUGJY and JSBAY as additional work on the verbal request of JBVNL but the modified work order was not issued as of July 2020. As such liability of JBVNL towards M/s AKS on account of this additional work was not ascertainable though projects of DDUGJY and JSBAY had been sanctioned and were under progress. However, M/s AKS had also submitted (January and March 2017) claim of ₹ 18.45 crore.

Further, AKS being an MSME enterprise, JBVNL was liable to pay interest of ₹ 3.52 crore on dues as per section 16 of the MSME Act, 2006 which stipulates that delay in payment beyond 45 days of submission of bill shall attract compound interest at the rate of three times of the bank rate notified by RBI on monthly outstanding dues for the period during October 2017 to October 2020

While accepting the audit observation, the Management/Department stated (May/October 2021) that part payment was made to comply the short comings in the DPRs as the data of RECPDCL was not in accordance with the requirement of LOA. Further, Management/Department accepted that work order for preparation of DPRs of DDUGJY by M/s AKS was not issued and stated that payment is still under consideration.

The reply of Management/Department regarding part payment to RECPDCL is not acceptable as there was no valid reason for payment to RECPDCL as DPR was already prepared by M/s AKS prior to payment and JBVNL itself has recognised that there were several shortcomings in the DPR prepared by RECPDCL.

2.4.3 Preparation of DPRs without field survey

As per guidelines of DDUGJY, the utility (PIA) was to formulate district/circle/zone wise DPRs based on detailed field survey and latest approved schedule of rates (SoR). DPRs were to be forwarded to SLSC or Monitoring Committee (MC) with an undertaking by the JBVNL that the DPRs were based on field surveys and updated SoR.

Audit observed that JBVNL did not maintain any database regarding status of electrification of villages except consumer database. Data and DPRs submitted by the agencies were scrutinised and approved by JBVNL and forwarded to SLSC/ MC for approval under GoI schemes. However, scrutiny of records in the test-checked districts revealed discrepancies in number of villages proposed in the DPRs for approval by GoI (also approved) and

[25] On the perception that in preparation of DPRs, survey and remaining components would be 50 *per cent* each, thereby deducting 40 *per cent* of survey component.

number of villages proposed by TKCs engaged for executing the rural electrification projects after field survey as shown in **Table 2.1**:

Table 2.1: Discrepancies in number of villages proposed in DPRs and found in field survey

Name of the district	Name of the scheme	Villages to be electrified as per DPRs	Villages to be electrified as per field survey by TKCs	Villages proposed for electrification in DPR but found otherwise by TKCs	
				Villages found already electrified	Villages found non-existent
1	2	3	4	5	6
Dhanbad	DDUGJY	277	339	0	0
	RGGVY (XII FYP)	1,010	619	41	172
Giridih	DDUGJY	1,329	1,665	0	0
	RGGVY (XII FYP)	2,234	954	18	0
Deoghar	RGGVY (XII FYP)	1,793	1,686	49	32
	DDUGJY	470	543	33	03
Palamu	DDUGJY	1,244	1,711	9	159
Dumka	DDUGJY	714	2,633	61	231
Pakur	DDUGJY	243	506	49	81
	RGGVY (XII FYP)	1,158	615	0	0
Ranchi	DDUGJY	832	528	0	0
	RGGVY (XII FYP)	1,269	741	0	0
Total		**12,573**	**12,540**	**260**	**678**

(Source: Compiled from DPRs and from data furnished by ESCs of JBVNL)

From **Table 2.1**, it can be seen that in the seven test-checked districts, 938 villages (seven *per cent*) were found either electrified (260) or non-existent (678) by TKCs though these villages were proposed for electrification by JBVNL and recommended by SLSC to REC.

Thus, DPRs were prepared without conducting actual surveys which led to discrepancies in the actual number of unelectrified villages. SLSC also did not analyse the DPR in detail before forwarding it to REC.

Further, JBVNL did not conduct any field survey to identify the beneficiaries eligible for free connection under SAUBHAGYA.

While accepting the audit observation, Management/Department stated (May/October 2021) that data had been prepared by agency during preparation of DPRs of RGGVY (XII FYP) and DDUGJY. Management/Department, further, stated that villages were not included in DPR due to reduced sanctioned cost and reduced recasted quantity and subsequent decision to cover villages/habitations in saturation mode to meet the goal of MoP to provide connection to each and every households.

The reply is not acceptable as even after reduced sanctioned cost and recasted quantity the number of villages as per survey by TKC under DDUGJY were found excess in six out of seven test-checked districts than those to be electrified as per DPR. Further, reply was silent on villages already electrified and non-existent villages found during survey by TKC.

Proper field surveys and maintenance of comprehensive database is the backbone of project planning. JBVNL failed to conduct proper field surveys or maintain a database which was fraught with the risk of ineligible beneficiaries getting connections and wasteful expenditure. Responsibility needs to be fixed on erring officials for this failure.

To sum up, *JBVNL never conducted field surveys to identify beneficiaries nor did they create a validated database of unelectrified villages/households. While conducting field survey in the seven test-checked districts before commencing electrification works, the Turnkey Contractors (TKCs) found that 260 electrified villages and 678 non-existent villages were included in the DPRs. JBVNL was deprived of GoI grant amounting to ₹ 182.68 crore due to non-completion of RGGVY (X FYP) in Chatra, Garhwa, Latehar and Palamu districts, failure to pursue issue of left out BPL households in Dumka and West Singhbhum districts with REC and non-uploading of DPR of Simdega district. JBVNL paid ₹ 1.37 crore to RECPDCL to rectify shortcomings in DPRs even though DPRs of these 11 districts had already been submitted by another agency six to eight months earlier resulting in infructuous expenditure.*

Chapter 3

Village and Household Electrification

3.1 Physical progress of rural electrification schemes in the State

3.1.1 RGGVY (XII FYP) and DDUGJY

The scope and achievement of works under RGGVY (XII FYP) and DDUGJY as on March 2020 has been given in **Table 3.1**:

Table 3.1: Scope and achievement of work under RGGVY (XII FYP) and DDUGJY

Components/ Scheme	RGGVY (XII FYP)			DDUGJY		
	Scope as per DPR	Scope after survey by TKCs	Achievement as of March 2020	Scope as per DPR	Revised scope as of March 2020	Achievement as of March 2020 (*per cent*)
1	2	3	4	5	6	7
Villages to be electrified	18,092	10,752	10,752	11,788	17,430	15,750 (90.36)
BPL connections	4,71,971	2,71,670	2,71,670	3,38,401	3,53,587	3,50,454 (99.11)
APL connections	7,07,505	95,768	95,631	5,13,632	3,62,137	3,62,034 (99.97)

(Source: Data furnished by JBVNL)

The above table indicates potential variation in the scope as per DPR *vis-à-vis* scope arrived at after actual survey conducted by Turn Key Contractors (TKCs). However, rural electrification works awarded to the TKCs were almost completed. The variations were found to be mainly due to inclusion of already electrified/non-existent villages in the DPRs which were prepared without field survey as detailed in **paragraph 2.4.3**.

3.1.2 SAUBHAGYA/ AGJY/ TMKPY/ JSBAY

Audit noticed that, during the period October 2017 to March 2020, a total of 9,65,109 connections (54.70 *per cent*) were released under SAUBHAGYA against the target of 17,64,248 connections and 1,85,593 connections (50.92 *per cent*) were released under AGJY against the target of 3,64,500 connections. However, the number of connections released under JSBAY against the target of 6,41,377 connections were not furnished to Audit. Under TMKPY, no connections was released against the target of 3,03,750 agriculture pump connections owing to lack of demand from prospective agriculture consumers due to scarcity of water for irrigation in the rivers or canals.

3.2 Village Electrification and release of connections

As per norms fixed by MoP, a village is considered electrified if (i) basic infrastructure such as distribution transformer and electric lines are provided in the inhabited locality including *dalit bastis*/hamlets, where it exists; (ii) electricity is provided to public places like schools, panchayat offices, health centres, dispensaries, community centres etc.; and (iii) number of households electrified are at least 10 *per cent* of the total households of a village which is further enhanced to cover all households in a village/habitation with population of 100 and above.

3.2.1 Non achievement of target of village electrification

The target *vis-à-vis* achievement under RGGVY (XII FYP) and DDUGJY for village electrification as of March 2020 is given in **Table 3.2**:

Table 3.2: Target and achievement of village electrification under RGGVY (XII FYP) and DDUGJY as of March 2020

Name of District	Status of RGGVY (XII FYP)			Status of DDUGJY		
	Scope as per DPR	Scope after BOQ freezing/ field survey	Achievement (*per cent*)	Scope as per DPR	Scope after BOQ freezing/ field survey	Achievement (*per cent*)
Dhanbad	1,010	619	619 (100)	277	339	339 (100)
Deoghar	1,793	1,686	1,686 (100)	470	543	543 (100)
Pakur	1,158	615	615(100)	243	506	350 (69)
Palamu	Not included in RGGVY (XII FYP)			1,244	1,711	1,180 (69)
Giridih	2,234	954	942(99)	1,329	1,665	1,540 (92)
Dumka	Not included in RGGVY (XII FYP)			714	2,633	2,626 (99)
Ranchi	1,269	741	741(100)	832	528	528 (100)
Total	**7,464**	**4,615**	**4,603**	**5,109**	**7,925**	**7,106 (89.67)**

(Source: Compiled from DPRs and data furnished by ESCs of JBVNL)

As shown in **Table 3.2**, village electrification under DDUGJY was slow in three districts and progress ranged between 69 and 100 *per cent* as of March 2020 though these were to be completed between July 2019 and December 2019. The delays were mainly due to late approval of vendors, delays in approval of Guaranteed Technical Parameters (GTPs) and drawings, delays in issue of material inspection clearance certificate, delays in issue of Joint Measurement Certificate (JMC), late payments, delays in freezing of BOQ, late submission of list of villages to vendors by JBVNL, shortage of manpower with Project Monitoring Agency (PMA) and delays in submission of BOQ, rectification of defects, submission of forest clearance applications, finalisation of site offices, appointment of Project Managers, shortage of materials, shortage of manpower, slow pace of work execution, JMC submission without completing the work by TKCs *etc*. Non-completion of the work till date of audit (March 2020) was also attributable to termination (January 2019) of TKCs of Pakur, and East Singhbhum due to slow execution of works followed by re-tendering (January 2019) and re-award (March 2019) of the works.

While accepting (May/October 2021) the observation, Management/Department stated that the delays were due to procedural reasons and assured that JBVNL will minimise such delays in future.

3.2.2 Non-achievement of target of electricity connections

As per guidelines of RGGVY (XII FYP)/DDUGJY, BPL households were to be provided free electricity connections with one LED lamp whereas APL households were to be provided paid connections. Targets and achievements of BPL and APL connections as of March 2020 is given in **Table 3.3**:

Table 3.3: Target and achievement of connections under RGGVY (XII FYP) and DDUGJY as of March 2020

Name of District	Status of RGGVY (XII FYP)				Status of DDUGJY			
	BPL		APL		BPL		APL	
	Scope	Achievement (*per cent*)	Scope	Achievement (*per cent*)	Scope	Achievement (*per cent*)	Scope	Achievement (*per cent*)
Dhanbad	17,858	13,332 (*85*)	0	1,212(-)	16,000	11,077 (*69*)	2,000	3,944 (*197*)
Deoghar	24,603	17,731(*72*)	-	-	5,718	3,152 (*55*)	14,312	12,417 (*97*)
Pakur	21,944	16,183(*74*)	-	-	1,457	25	-	-
Palamu	Not included in RGGVY (XII FYP)				74,613	28,228 (*38*)	-	-
Giridih	17,000	13,620(*80*)	4,000	4,000 (*100*)	38,984	31,630 (*81*)	36,614	19,210 (*52*)
Dumka	Not included in RGGVY (XII FYP)				4,422	10,492 (*237*)	0	5,528 (-)
Ranchi	23,331	23,331(*100*)	2,831	2,269 (*80*)	13,111	13,111 (*100*)	8,374	8,374 (*100*)
Total	**1,04,736**	**84,197**	**6,831**	**7,481**	**1,54,305**	**97,715**	**61,300**	**49,473**

(Source: Compiled from data furnished by ESCs of JBVNL)

From **Table 3.3,** it can be seen that against the scope, 80 *per cent* of BPL and 110 *per cent* of APL connections were released under RGGVY (XII FYP) whereas 63 *per cent* BPL and 81 *per cent* APL connections were released under DDUGJY. Delays in village electrification as discussed in **Paragraph 3.2.1** led to delay in providing connections to beneficiaries. It was also noticed that APL connections were further delayed on account of JBVNL's failure in providing list of prospective beneficiaries to TKCs. In Dhanbad and Dumka achievement for APL and BPL connections under DDUGJY was more than the scope indicating that field survey was not properly conducted.

Audit further noticed that, 5,204 connections[26] were released to public places against the scope of 12,826 connection[27], 95,568 unmetered

[26] Deoghar (246), Dhanbad (238), Dumka (874), Giridih (1065), Palamu (1976), Pakur (432) and Ranchi (373).

[27] Deoghar (526), Dhanbad (625), Dumka (96), Giridih (3602), Palamu (3438), Pakur (2137) and Ranchi (2382)

connections[28] were converted into metered connection and 2,352 defective meters[29] were replaced under DDUGJY.

Though the scheme guideline stipulates free connection to only BPL consumers, JBVNL released 56,954 connections free of cost to APL consumers in violation of guidelines on which avoidable expenditure of ₹ 15.85 crore[30] was incurred.

The Management/Department while accepting (May/October 2021) the audit observation regarding non-achievement of targets of BPL and APL connections, stated that connections to APL consumers were released after receiving payment of ₹ 500 or 10 instalments of ₹ 50 from each APL consumer as per SAUBHAGYA guidelines.

The reply is not acceptable as these connections were released in violation of norms under RGGVY (XII FYP) and DDUGJY without receiving any payment. No documentary evidence regarding receipt of ₹ 500 or 10 instalments of ₹ 50 from each APL consumer could also be furnished.

3.2.3 Pradhan Mantri Sahaj Bijli Har Ghar Yojana-SAUBHAGYA

Under the Scheme, prescribed categories[31] of households were to be provided free connection. Households having at least one deprivation out of seven[32] were to be identified for free connection. Any left out unelectrified BPL household, not covered under DDUGJY, were also eligible for free connection. Unelectrified households not covered in the above mentioned categories were to be provided paid electric connection on payment of ₹ 500 per connection which was to be recovered in 10 monthly instalments of ₹ 50 each along with the energy bills.

Further, JBVNL directed (April 2018) all GM-cum-CEs, ESAs and DGM-cum-Nodal officers to release connections as per SAUBHAGYA guidelines. For this, a survey was to be carried out in villages to prepare the list of rural households eligible for free or paid connection. For providing free connections, JVBNL fixed (April 2018) a maximum rate of ₹ 3,000 including taxes per connection to be paid to vendors. However, reasonability

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28 Giridih (27,348), Deoghar (5,809), Dhanbad (18,179), Pakur (616), Ranchi (36,500) Palamu (4,334) and Dumka (2,782)

29 Giridih (1,061), Dhanbad (1,291)

30 56,954 x ₹ 2,784 (average rate of providing new connection) = ₹ 15.85 crore.

31 Households without shelter, destitute persons living in alms, family of manual scavengers, primitive tribal groups, legally released bounded labours.

32 (i) Households with only one room, kucha wall and kucha roof, (ii) Households with no adult member between the age of 16 and 59, (iii) Female headed households with no adult male member between age of 16 and 59 (iv) Households with disabled member and no able bodied adult member (v) SC/ST households, (vi) Households with no literate adult above 25 years and (vii) Landless households deriving a major part of their income from manual casual labour.

of rates was to be assessed by the concerned DGMs prior to placing work orders.

Audit observed that 2,84,485 connections were released under SAUBHAGYA as of March 2020 in the seven test-checked districts. Of this, TKCs engaged in RGGVY (XII FYP) and DDUGJY released 28,930 connections[33] including 23,248 APL connections on verbal request of ESCs for which no work orders were issued. The remaining 2,55,555 connections were released by the vendors against work orders issued by JBVNL and ESCs under SAUBHAGYA as given in **Table 3.4**:

Table 3.4: Details of connections released by vendors against work orders

District	Quantity as per work order	No. of BPL connections released	No. of APL connections released	Total achievement	Shortfall
Dhanbad	20,900	3,937	2,335	6,272	14,628
Deoghar	19,000	2,638	3,923	6,561	12,439
Pakur	67,377	142	18,258	18,400	48,977
Palamu	1,25,821	753	72,714	73,467	52,354
Giridih	58,064	16,125	24,591	40,716	17,348
Dumka	58,711	1982	55,363	57,345	1,366
Ranchi	56,323	4,300	48,494	52,794	3,439
Total	**4,06,196**	**29,877**	**2,25,678**	**2,55,555**	**1,50,551**

(Source: Compiled from data furnished by ESCs of JBVNL)

Audit further noticed that:

- JBVNL did not ensure assessment of beneficiaries eligible for free connections under SAUBHAGYA through proper survey prior to placing orders to vendors. Instead, vendors were given target of connections against which they released free connections as per their own assessment. It was seen that 4,06,196 household connections were to be released in the test-checked districts (**Table 3.4**) under SAUBHAGYA, which was more than the combined scope of 3,31,234 connections[34]. This indicated that JBVNL did not cover a large section of unelectrified rural households under the scope of DDUGJY though the Scheme envisaged electric connection to all rural households.

- It was observed that 32,603 connections[35] were released under SAUBHAGYA, one to 26 months prior (between January 2017 and February 2019) to the issue (between November 2018 and February 2019) of work orders to vendors. This included 17,760 connections released by TKCs working under RGGVY (XII FYP) where the agreed rate ranged between ₹ 2,839 and ₹ 3,000 per connection. Similarly 13,928 connections

33 Deoghar (24,930) and Ranchi (4,000).
34 RGGVY (XII FYP): 1,15,629 and DDUGJY: 2,15,605.
35 Dhanbad: 862, Giridih: 21,308, Dumka: 755, Palamu: 6,694, Pakur: 500 and Ranchi: 2,484

were released by TKCs of DDUGJY where agreed rate per connection ranged between ₹ 2,024 to ₹ 2,425. The remaining 915 connections were reported as released by other vendors who were not working under any other scheme relating to release of electric connections. Release of electric connection by vendors before award of work points to connivance between vendors and JBVNL officials in award of work.

While accepting (May/October 2021) the audit observation regarding shortfall in achievement of targets, the Management/Department stated that the shortfall was mainly due to the large number of unwilling consumers, lack of infrastructure as well as revision of scope. However, the reply was silent on non-assessment of beneficiaries eligible for free connections under SAUBHAGYA through proper survey prior to placing orders to vendors and connections released prior to issue of work order.

The reply regarding unwillingness of consumers is not acceptable as JBVNL had awarded the work to TKCs without identifying and preparing the list of prospective beneficiaries.

3.2.4 Atal Gram Jyoti Yojana (AGJY)

GoJ launched (April 2015) *Atal Gram Jyoti Yojana* (AGJY) under which free electric connections were to be released to 50 APL households of 30 villages each in a year for three consecutive years. The villages and households were to be selected from each Legislative Assembly Constituency by the respective Member of Legislative Assembly (MLA).

Audit observed that JBVNL issued (May 2016 and August 2016) LoAs of ₹ 271.90 crore[36] to three TKCs[37] for providing 3,64,500 APL connections and 3,03,750 agricultural pump connections[38] under under AGJY and TMKPY respectively by combining the scope of work of the two schemes. The works were to be completed within 12 months from the date of issue of LoAs. TKCs did not provide agricultural pump connections as applications were not received from prospective agriculture consumers. However, 1,85,593 APL connections were provided till October 2018. The contracts were ultimately closed (October 2018) by JBVNL as TKCs expressed their inability to further execute the contract mainly due to delay in furnishing list of villages by JBVNL.

Further, TKCs converted 75,104 unmetered connections into metered connections beyond the scope of work and claimed payment of ₹ 30.21 crore which is yet to be settled (October 2020). Calculated at the agreed rate of

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36 ESA Giridih (₹ 19.60 crore), Medninagar (₹ 29.40 crore), Ranchi (₹ 63.49 crore), Hazaribagh (₹ 27.39 crore), Jamshedpur (₹ 43.54 crore), Dhanbad (₹ 30.43 crore) and Dumka (₹ 58.05 crore)

37 Vijay Electricals Ltd (ESA Giridih, Medninagar and Ranchi), Bentec India Ltd (ESA Hazaribagh, Jamshedpur and Dhanbad) and Indo Nabin Project Ltd (ESA Dumka)

38 50 x 25 x 81 x3 = 3,03,750

₹ 2,958 per connection for the same work (conversion of unmetered connection into metered connection) under DDUGJY, the claim amount should have been only ₹ 22.22 crore. Thus, not only were the connections beyond the scope of work but could also result in creation of avoidable liability of ₹ 7.99 crore if the inflated claim is admitted.

The details of connections released in the seven test-checked districts *vis-à-vis* recommendation by MLAs are given in **Table 3.5**:

Table 3.5: Details of connections released in test-checked districts

Name of district	No. of legislative constituencies	No. of villages to be taken @ 30 villages per annum	No. of villages in the list provided by MLAs	No. of connections to be released	No. of connections released
Dhanbad	6	540	Nil	27,000	6,896
Deoghar	3	270	28	13,500	8,777
Giridih	6	540	Nil	27,000	27,990
Pakur	3	270	Nil	13,500	Nil
Palamu	5	450	262	22,500	8,812
Dumka	4	360	Nil	18,000	Nil
Ranchi	7	630	Nil	31,500	27,737
Total	**34**	**3060**	**290**	**1,53,000**	**80,212**

(Source: Compiled from the scheme guidelines and from data furnished by ESCs of JBVNL)

It can be seen from **Table 3.5** that no connections were released in two districts against a target of 31,500 connections. Further, in two districts, concerned MLAs provided list of only villages and not of households though 17,589 connections were released by JBVNL as per their own assessment. In the remaining three districts, 62,623 connections were released by JBVNL on their own without the recommendations of the concerned MLAs.

The Management/Department stated (May/October 2021) that as per clause 1 of guidelines, only village list has to be recommended by the concerned MLAs. The Management/Department, while accepting that TKCs were unable to complete the full scope of the contract by 31 October 2018 mainly due to scarcity of APL connections and parallel ongoing schemes like SAUBHAGYA, DDUGJY and XII Plan, stated that conversion of 75,104 unmetered to metered connections was not beyond the scope of work as per clause 4 of guidelines. It was further stated that the rate for the work was higher than the rate for the same work (unmetered to metered connections) under DDUGJY as 4 sq. mm service cable was used under AGJY while 2.5 sq. mm service cable was used in DDUGJY.

The reply is not acceptable as the scheme sanctioned by GoJ stipulates that the beneficiary lists were to be provided by the concerned MLAs. Further, the scheme sanctioned under GoJ was only for providing new APL connections in those villages where infrastructure was completed under RGGVY. It was also seen that the difference due to use of 4 sq. mm instead of 2.5 sq. mm service cable was only ₹ 254 per connection under SAUBHAGYA scheme. Further, even after considering the differential amount, the avoidable liability created would be ₹ 6.08 crore[39].

3.2.5 Metering of connections in districts under JSBAY

JBVNL directed (February 2018) GM-cum-CEs of ESAs and DGM-cum-Nodal officers of ESCs to supply meters and meter boxes to vendors for conversion of unmetered connections into metered connections under JSBAY. Accordingly, work orders were placed where the vendor was to provide connection with service kits. The status of work of installing electric meters in lieu of unmetered connections under JSBAY is given in **Table 3.6**:

Table 3.6: Status of work of installation of electric meters

District	Quantity as per work order	Rate per connection (₹)	Achievement	Shortfall
Dhanbad	45,342	1,905	27,787	19,255
Deoghar	95,640	1,905	0	95,640
Pakur	5,500	1,890	2,091	3,409
Giridih	40,500	1,920	9,875	30,625
Dumka	10,000	1,920	7,999	2,001
Ranchi	41,866	1,815	4,558	37,328
Total	**2,38,848**		**52,310**	**1,88,258**

(Source: Compiled from data furnished by ESCs of JBVNL)

It can be seen from **Table 3.6** that the agencies converted only 52,310 unmetered connections to metered connections against work orders for 2,38,848 unmetered connections. Though the work was to be completed within two months (between July 2019 and December 2019) from the date of award of work (between May 2019 and October 2019), there were delays of one to nine months as on March 2020 as DGMs did not provide the list of consumers to the vendors.

Audit further noticed that:

- In Ranchi, Giridih and Palamu districts, 4,016 unmetered connections[40] were converted into metered connections by vendors between February 2019 and November 2019 before the award of work (between April 2019 and November 2019).

- In Palamu district, DGM issued (October 2019) work order for conversion of 200 defective metered connections into metered connections at a rate of ₹ 442 per connection as labour charge. However, details of achievement was not furnished to audit.

- TKC had converted (December 2019) 200 defective/unmetered connections against the allotment (October 2019) of 200 connections at a

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[39] ₹ 7.99 crore - ₹ 1.91 crore (75,104 x ₹ 254)

[40] Ranchi (3,350), Giridih (589) and Palamu (77)

rate of ₹ 442 per connection as labour charge. Further, TKCs[41] converted (December 2019) 294 defective/unmetered connections against 2,300 connections without any allotment order.

- Test-check of bills (May and June 2020) of 160 consumers[42] of six test-checked districts which were provided metered connection (between March 2019 and December 2019) revealed that 150 consumers were billed on average basis. Further, 10 consumers were shown as invalid on the billing portal of JBVNL. Thus, the aim of providing metered connections i.e., to raise actual bills and subsequently correct energy accounting could not be achieved.

While accepting the audit observation, Management/Department stated (May/October 2021) that work has been delayed due to non-availability of meters with JBVNL. It was further stated that JBVNL was providing list of consumers to vendors and penalty has been imposed against vendors.

Reply of the Management/Department regarding non-availability of meters is not acceptable as 3,44,032 meters[43] were available in the concerned supply stores on the date of issue of work orders for conversion of 2,38,848 defective/unmetered connection into metered connection. Further, reply regarding providing list of consumers and imposing penalty for delayed work is not acceptable as the Management/Department has not produced any documentary evidence. The reply is also silent regarding conversion of unmetered connections into metered connections before award of work and billing on average basis even after installation of meters.

3.2.6 Non-billing of connections as per JSERC Regulations

As per clause 10.1.7 of the Jharkhand State Electricity Regulatory Commission (JSERC) Regulation, 2015, the first bill would be served within two billing cycles of energising a new connection. As per clause 10.1.4, bills shall be issued at periodicity of not more than two months in respect of meter based billing of all categories. Further, as per order of June 2017, Junior Electrical Engineer (JEE) of the concerned Electric Supply Sub-Division was responsible for uploading the service connection report for billing module. Audit noticed the following irregularities in billing:

- As discussed in **Paragraph 3.2.2**, a total of 2,38,866 connections were released under RGGVY (XII FYP) and DDUGJY in the seven test-checked districts. However, on comparison of data of existing consumers of May 2020 with that of connections released under RGGVY (XII FYP) and

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41 M/s Pandey const (500), M/s Manish Ojha Const (500), M/s Asif Power Technologies (1,000), M/s J Ram & Son's Electrical (200) and M/s Shree Ram Electrical (100)

42 Ranchi, Dhanbad, Pakur and Dumka 25 in each districts and Palamu (21) and Giridih (39)

43 Dhanbad (46,800), Deoghar (95,992), Pakur (9,000), Giridih (75,800), Dumka (23,000) and Ranchi (93,440)

DDUGJY, it was noticed that only 1,35,301 consumers[44] (57 *per cent*) were being billed. Further, scrutiny of records of 288 consumers[45] revealed that billing was started with delays ranging between two and 27 months from the date of release of connections. The remaining 1,03,509 consumers were not being billed as of May 2020 even after incurring expenditure of ₹ 28.82 crore[46]. Delay in billing may result either in non-recovery of energy charges or demand of huge arrears especially from BPL consumers who would not be able to pay.

- Further, 97,920 meters were installed in lieu of unmetered/defective[47] meter connections under DDUGJY. Test-check of 200 such consumers[48], revealed that 182 consumers were being billed (July 2020) on average basis instead of actual meter readings even after lapse of eight to 23 months from the date of installation of new meters whereas 12 consumers were shown as invalid on the billing portal. Thus, even after incurring expenditure of ₹ 28.65 crore[49] on installation of new meters in lieu of unmetered/defective meter connections, JBVNL could not ensure meter based billing to realise actual energy charges.

    - Survey (between September 2019 and March 2020) of 138 beneficiaries of 26 villages in the seven test-checked districts revealed that these villages were electrified during August 2017 to September 2019 but none of the beneficiaries had received bills even after a lapse of three to 28 months.

- As per section 56 (2) of the Electricity Act 2003, sum due from any consumer under this section shall not be recoverable after a period of two years from the date when such sum became first due unless such sum has been shown continuously as recoverable as arrear of charges for electricity supplied and the licensee shall not cut off the supply of electricity. Scrutiny of closure report of RGGVY (X FYP), revealed that 3,96,873 metered[50] connections were released to BPL consumers during 2008 to 2012 in six out of the seven test-checked districts. These consumers were categorised under DS-I (A) tariff. JBVNL could not furnish the details of consumers of two[51]

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44 Dhanbad (12,113), Deoghar (13,216), Giridih (50,124), Dumka (15,467), Ranchi (21,854), Palamu (13,643) and Pakur (8,884)

45 Ranchi (43), Deoghar (71), Giridih (82) Dumka (33), Palamu (29) and Pakur (30)

46 1,03,509 x ₹ 2,784 (average rate of providing new connection under RGGVY (XII FYP) and DDUGJY) = ₹ 28.82 crore.

47 Giridih (28,409), Deoghar (5,809), Dhanbad (19,470),), Pakur (616), Ranchi (36,500), Dumka (2,782) and Palamu (4,334)

48 Deoghar (25), Giridih (50), Ranch (25), Dhanbad (25),), Dumka (25), Palamu (25) and Pakur (25)

49 95,568 metres at the rate of ₹ 2,958 per meter and 2,352 meters at the rate of ₹ 1,617 meters = ₹ 28.65 crore.

50 Dhanbad (33,121), Deoghar (29,343), Giridih (1,03,259), Dumka (1,24,054), Ranchi (67,950) and Pakur (39,146)

51 Dumka and Pakur

districts and therefore, billing status of 2,33,673 metered consumers[52] of four districts was examined.

Scrutiny of consumer ledgers[53] revealed that only 1,05,291 consumers[54] out of 2,33,673 consumers were being billed that too on average basis. As such, 1,28,382 consumers[55] were not being billed in contravention of clause 10.1.7 of JSERC Regulation 2015. Non-billing of these consumers led to revenue loss of ₹ 141.61 crore[56] (January 2010 to July 2020) out of which ₹ 67.09 crore[57] upto July 2018 is now not recoverable under Section 56 (2) of the Electricity Act. Further, expenditure of ₹ 23.22 crore incurred on metered connections to these 1,28,382 consumers (calculated at an average rate of ₹ 1,809 per connection), could not serve the purpose of meter based billing and became wasteful. Further, billing of 1,05,291 consumers were being done as per unmetered tariff. Thus, expenditure of ₹ 11.15 crore[58] incurred on installation of meters of these consumers also became wasteful.

- Similarly, out of 2,84,485 connections provided under SHABHAGYA, only 1,58,033 consumers[59] were being billed (May 2020) whereas 1,26,452 consumers were not being billed even after incurring expenditure of ₹ 35.41 crore[60]. Further, detailed scrutiny of 143 consumers[61] revealed that billing was started after two to 26 months from the date of release of the connections.

As discussed above, concerned JEEs failed in uploading the service connection report in the billing module as required which ultimately led to wasteful expenditure on installation of meters or loss of revenue as arrears of charges became non-recoverable.

While accepting (May/October 2021) the audit observation, Management/Department stated that revenue wing has been continually working with field offices for tracing and billing of new connections.

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52 Dhanbad (33,121), Deoghar (29,343), Giridih (1,03,259) and Ranchi (67,950).

53 Dhanbad (August 2019), Ranchi (August 2019), Deoghar (September 2019) and Giridih (February 2019)

54 Dhanbad (1,762), Deoghar (17,493), Giridih (49,783), and Ranchi (36,253)

55 2,33,673 minus 1,05,291= 1,28,382

56 ₹ 10.71 crore Deoghar, ₹ 36.61 crore Dhanbad, ₹ 61.76 crore Giridih and ₹ 32.53 crore Ranchi calculated taking rate of unmetered kutir jyoti connections.

57 ₹ 5.25 crore Deoghar, ₹ 17.79 crore Dhanbad, ₹ 29.68 crore Giridih and ₹ 14.37 crore Ranchi calculated taking rate of unmetered kutir jyoti connections.

58 ₹ 1,809 minus ₹ 750 (rate of unmetered connections),

59 Dhanbad: 1,682, Deoghar: 7,345, Giridih: 27,592, Dumka: 49,927, Palamu: 26,431, Pakur: 10,812 and Ranchi: 34,244.

60 1,26,452 x ₹ 2,800 (average rate of providing new connection under SAUBHAGYA) = ₹ 35.41 crore.

61 Ranchi (49), Giridih (19), Dumka (25), and Palamu (25), Pakur(25)

3.2.7 Non-conversion of unmetered connections into metered connections

JSERC in its tariff order (February 2019) for 2019-20, effective from April 2019, had withdrawn the unmetered tariff and allowed JBVNL to charge for unmetered connections as per the tariff order of 2018-19 till June 2019 which was extended (October 2020) up to December 2020. Further, JSERC in its tariff order of 2019-20 increased the metered tariff of domestic consumers i.e., DS-I (A) and DS-I (B) by 31 *per cent* and 21 *per cent* respectively compared to the tariff order of 2018-19.

Audit scrutiny of Revenue Statement (RS) I of April 2019 revealed that there were 8,48,445 unmetered consumers[62] under DS-I (A) and DS-I (B) categories in the seven test-checked districts as of April 2020. These consumers were being billed as per tariff order of 2018-19. As such, JBVNL was deprived of the opportunity to charge enhanced tariff based on tariff order of 2019-20 due to delay in metering.

While accepting the audit observation, Management/Department stated (May/October 2021) that process of metering of all consumers have already been started.

3.2.8 Collection efficiency

JBVNL collects revenue by sale of electricity as per tariff approved by JSERC. GoJ provides subsidy to JBVNL on various tariff of consumers billed and the difference of tariff and subsidy is collected by JBVNL from respective consumers. Collection Efficiency[63] means the ratio of revenue actually realised from consumers (including government subsidy) and energy amount billed to consumers (including government subsidy) in percentage for a particular period.

Audit observed that rural domestic consumers are categorised under DS-I (A) and DS-I (B) tariff. The overall collection efficiency of JBVNL during 2018-19 and 2019-20 was 92 and 87 *per cent* respectively. However, it was only 54.40 and 63.97 *per cent* under DS-I (A) and 56.40 and 62.26 *per cent* under DS-I (B) respectively (***Appendix I***).

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[62] Giridih (1,71,108), Deoghar (1,32,430), Dumka (1,45,440), Palamu (79,569), Pakur (1,08,465) Dhanbad (69,197) and Ranchi(1,42,236)

[63] Collection Efficiency[63] (*per cent*) = (F+G-I)/E*100 where E= Revenue from Sale of Energy to all categories of consumers (including Subsidy Booked) but excluding Revenue from Energy Traded /Inter-State Sales; F= 'E' minus Subsidy Booked plus Subsidy Received against subsidy booked during the year; G= Opening debtors for sale of Energy as shown in Receivable Schedule (Without deducting provisions for doubtful debtors). Unbilled Revenue shall not be considered as Debtors; I= Closing debtors for Sale of Energy as shown in Receivable Schedule (Without deducting provisions for doubtful debts). Unbilled Revenue shall not be considered as Debtors plus any amount written off during the year directly thereon

It was further observed that collection efficiencies of DS-I (A), excluding subsidy received from GoJ, was only 15.46 and 13.98 *per cent* during 2018-19[64] and 2019-20[65] respectively whereas it was 46.77 and 38.81 *per cent* under DSI (B) tariff during the same period[66] (***Appendix I***). This, when compared with the overall collection efficiency (between 87 and 92 *per cent*) of JBVNL, was poor. Thus JBVNL failed to collect energy charges from rural consumers. This also indicated that JBVNL was mainly dependent on subsidy by GoJ towards energy charges and did not give emphasis on collection of consumer share.

While accepting (May/October 2021) the audit observation, Management/Department stated that efforts are being made to increase revenue collection.

3.2.9 Aggregate Technical and Commercial (AT&C) loss

AT&C loss is the actual measure of efficiency of the distribution business as it measures both technical as well as commercial losses. It is the difference between energy input units into the system and the units distributed for which payment is collected. Under DDUGJY, 50 *per cent* of loan component was to be converted into grant subject to reduction in AT&C losses[67] as per trajectory finalised by MoP in consultation with State Governments.

The target of AT&C loss as per MoU signed (January 2016) by MoP, GoI, GoJ and JBVNL under Ujjwal Discom Assurance Yojana (UDAY), JBVNL and achievement there-against (***Appendix II***) is depicted in **Table 3.7**

Table No. 3.7: Target *vis-à-vis* achievement of AT&C losses in Jharkhand

Year	Target (in *per cent*)	Achievement (in *per cent*)
2016-17	28	31.80
2017-18	22	33.81
2018-19	15	28.69
2019-20	-	33.49

(Source: Compiled from data furnished by JBVNL)

It was observed that JBVNL could not achieve the target of AT&C losses mainly because of less billing (ranging between 75 and 78 *per cent*) besides less realisation of energy charges (ranging between 87 to 92 *per cent*) as

64 Bill raised: ₹ 400.68 crore (subsidy: ₹ 184.55 crore and consumer share: ₹ 216.13 crore). Revenue realised: ₹ 217.97 crore (subsidy: ₹ 184.55 crore and consumer share: ₹ 33.42 crore).

65 Bill raised: ₹ 755.70 crore (subsidy: ₹ 439.21 crore and consumer share: ₹ 316.49 crore). Revenue realised: ₹ 483.46 crore (subsidy: ₹ 439.21 crore and consumer share: ₹ 44.25 crore).

66 Bill raised: ₹ 537.18 crore (subsidy: ₹ 97.22 crore and consumer share: ₹ 439.96 crore) and ₹ 836.57 crore (subsidy: ₹ 320.63 crore and consumer share: ₹ 515.94 crore). Revenue realised: ₹ 302.98 crore (subsidy: ₹ 97.22 crore and consumer share: ₹ 205.76 crore) ₹ 520.89 crore (subsidy: ₹ 320.63 crore and consumer share: ₹ 200.26 crore) during 2018-19 and 2019-20 respectively.

67 (Energy Input – Energy Realised) x 100/Energy Input where Energy Realised = Energy Billed x Collection Efficiency

compared to the energy purchased during 2016-17 to 2019-20. As a result of the failure to keep AT&C loss within the limits fixed by MoP, JBVNL would not be able to avail the opportunity of conversion of loan component of ₹ 558.32 crore into grant under DDUGJY.

Further, scrutiny of Revenue Statement-I for March 2020 revealed that out of 43.72 lakh consumers (including 29.97 lakh rural domestic consumers), only 19.20 lakh consumers (44 *per cent*) were being billed as per meter reading (actual consumption) and the remaining 24.52 lakh consumers[68] (including 20.62 lakh rural domestic consumers[69]) were being billed on average basis. As such, JBVNL was calculating AT&C losses based on average billing of 56 *per cent* of consumers including 69 *per cent* of rural domestic consumers.

Audit analysed the Revenue Statement-I for 2019-20 (March 2020) containing tariff-wise summation of consumers and energy consumed by them. It was observed that DS-I (A) tariff of rural domestic consumers were billed at a monthly average of 32 units in case of metered billing[70]. However, JBVNL was booking 93 units against defective/unmetered[71] on estimation basis. Similar trend was observed in DS-I (B) tariff of consumers where monthly average consumption was only 30 unit in case of metered billing[72] and 187 units in case of defective/unmetered on estimation basis[73]. Thus, projection of lower AT&C loss based on booking of more units on estimation basis could not be ruled out. Subsidy is provided by GoJ to JBVNL for consumers on the basis of energy consumption by consumers. Thus, billing on higher side on estimation basis to get more subsidy from the GoJ cannot be ruled out as GoJ had not developed any mechanism to verify the correctness of the subsidy claimed by JBVNL. It was further seen that collection efficiency in case of similar category of consumers excluding subsidy was much lower compared to overall efficiency as discussed in **Paragraph 3.2.8**.

Despite provisions to augment metering to improve energy accounting under several schemes, JBVNL failed to bring about improvement in recovery of energy charges leading to persistent increase in AT&C losses and failure of reform plans.

While accepting the audit observation, Management/Department stated (May/October 2021) that action has been taken to improve billing and collection performance to reduce AT&C losses.

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68 Defective meter consumers 9,17,211 and un-metered consumers 15,34,019

69 Defective meter consumers 7,65,204 and un-metered consumers 12,96,414

70 In respect of 2,96,356 consumers

71 In respect of 4,87,808 defective metered consumers and 5,02,870 unmetered consumers

72 In respect of 6,39,374 consumers

73 In respect of 2,77,396 defective metered consumers and 7,93,544 unmetered consumers

JBVNL should investigate and fix responsibility for non-billing and laxity in collection of energy charges by the concerned Assistant Electrical Engineers (AEEs) of Electric Supply Sub-divisions.

To sum up, *though the electrification targets in the seven test-checked districts were to be achieved between July 2019 and December 2019, electrification of 819 (10 per cent) out of 7,925 villages taken up under DDUGJY was not completed as of March 2020. Further, 23,951 (21 per cent) out of 1,15,629 connections and 68,417 (32 per cent) out of 2,15,605 connections could not be provided as of March 2020 under RGGVY (XII FYP) and DDUGJY respectively on account of various project bottlenecks. JBVNL incurred avoidable expenditure of ₹ 15.85 crore as 56,954 APL connections were released free of cost under DDUGJY against the norms.*

Under SAUBHAGYA, 2,84,485 connections were released in the seven test-checked districts against the target of 4,06,196 connections without first assessing eligible beneficiaries. AGJY was fore-closed after providing free electric connections to 1.86 lakh APL households against the target of 3.64 lakh APL households as JBVNL could not provide list of beneficiaries to the Turnkey Contractors (TKCs).

The Department had set a target of providing 3.04 lakh agriculture connections under TMKPY in April 2015. However, no applications for agriculture connections were received from farmers under the scheme due to scarcity of water for carrying out irrigation. Therefore, the scheme was closed in October 2018 without releasing any connections.

Under JSBAY the agencies converted only 52,310 unmetered connections to metered connections against target of 2,38,848 unmetered connections after delays of one to nine months as DGMs of the concerned Electric Supply Circles did not provide lists of consumers to the vendors.

Out of total 5,23,295 connections released under centrally sponsored schemes in the seven test-checked districts, only 2,93,334 consumers were being billed. Scrutiny of 431 consumers revealed that billing was started with delays ranging between two to 27 months from the date of release of the connections. Further, scrutiny of energy bills of 200 unmetered/defective meter consumers whose meters had been replaced revealed that 182 consumers were being billed on average basis even after lapse of eight to 23 months from the replacement of the meters.

Collection of energy charges from rural consumers was 15.46 and 13.98 per cent under DS-I(A) tariff and 46.77 and 38.81 per cent under DS-I (B) tariff during 2018-19 and 2019-20 respectively excluding subsidy received from GoJ. JBVNL could not achieve the targeted Aggregated Technical & Commercial (AT&C) loss of 15 per cent by 2018-19 as envisaged under Ujjwal Discom Assurance Yojana (UDAY) and the AT&C loss during 2019-20 was 33.49 per cent. As a result of the failure to keep AT&C loss within the limits fixed by Ministry of Power (MoP), JBVNL would not be able to avail the opportunity of conversion of loan component into grant under DDUGJY.

Chapter 4 Separation of feeders

Feeder separation refers to supply of electricity to agricultural consumers and to non-agricultural consumers (domestic and non-domestic) separately through dedicated feeders. This arrangement allows the distribution company to regulate power supply to agricultural consumers as and when needed for effective Demand Side Management (DSM). Separation of feeders helps in flattening of the load curve by shifting the agricultural load to off-peak hours and thus facilitates peak load management. The core objective of separation of feeders is to provide regulated supply to agricultural consumers and continuous power supply to non-agricultural consumers in rural areas. GoI had sanctioned ₹ 2,199.49 crore for separation of feeders.

4.1 Non Assessment of requirement for feeder separation

In the 1st stage of project formulation, utility had to identify the need for separation of agricultural feeders. It was observed that JBVNL prepared DPRs without taking into consideration details like feeders with mixed load where feeder separation was required, total number of existing and prospective agriculture consumers, total area and location of cultivated land, water catchment area from where consumers may draw water for irrigation etc. SLSC also did not verify these requirements and forwarded the DPRs to REC for approval. Further, no existing feeders with mixed load were identified or separated. Agriculture feeders were either constructed in newly constructed PSS or a new feeder was constructed in existing PSSs.

4.2 Status of separation of feeders

Status of target for erection of agricultural feeders/ lines *vis-à-vis* actual achievement as of March 2020 is shown in **Table 4.1**.

Table 4.1: Target and achievement of erection of agricultural feeders/ lines

District	No. of feeders to be erected	No. of feeders erected	Agricultural lines to be erected (Ckm[74])	Agricultural lines erected (Ckm) (*per cent*)
Dhanbad	15	13 (87)	450.00	425.74 (95)
Deoghar	21	14 (67)	669.00	619.00 (93)
Pakur	2	0 (0)	31.55	0 (0)
Palamu	3	0 (0)	37.75	0 (0)
Giridih	5	4 (80)	122.98	91.38 (74)
Dumka	4	3 (75)	18.90	49.20 (260)
Ranchi	13	13 (100)	795.97	795.97 (100)
Total	**63**	**47**	**2126.15**	**1981.29**

(Source: Compiled from data furnished by ESCs of JBVNL)

It can be seen from **Table 4.1**, that no work was executed in two districts. This was due to non-execution of work by TKC in Pakur, ultimately leading to termination of the contract and slow pace of work in Palamu. Besides, only 47 feeders (81 *per cent*) and 1,981 Ckm lines (96 *per cent*) could be erected against the given scope in the other five districts even after a lapse of four to nine months from the scheduled date of completion.

Further, it was noticed that erection of separate feeders for agricultural purpose were taken up without conducting survey regarding existing and prospective agricultural consumers, requirement of load in this sector and availability of water in a particular area for irrigation.

This assumes significance in view of the fact that TMKPY, a State scheme meant for providing free electric connections to agricultural pumps, was closed (October 2018) due to lack of demand from prospective consumers as sufficient water was not available for irrigation in the rivers or canals.

Further, 2,966 DTrs[75] and 1,840.71 Ckm[76] agricultural lines were also erected (November 2018 to June 2020) at a cost of ₹ 90.61 crore[77] for agriculture connections. However, even the 16,406 existing agricultural consumers[78] connected with the existing feeders were not shifted to the separate agriculture feeders erected for the purpose for reasons not available on record. Thus, the separate feeders along with its related infrastructure were not put to use as of July 2020 i.e., one to 20 months since their erection and assets worth ₹ 90.61 crore remained idle.

- Three agriculture feeders were erected (July 2019) comprising 675 DTrs of 25 KVA connected to two PSSs (one new and one upgraded) in Chanho block of Ranchi district where 1,174 agriculture service

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74 Circuit km

75 Ranchi (1,803), Dhanbad (612) and Deoghar (551)

76 Ranchi, Dhanbad and Deoghar.

77 2,966 x ₹ 81,332 (average cost of DTrs) + 1,840.71 x ₹ 3,61,189 (average cost of agricultural line) = ₹ 90.61 crore

78 Dhanbad (239), Deoghar (3,563), and Ranchi (12,604) under Irrigation and Agricultural Service (IAS) tariff as per Revenue Statement-I of April 2019).

consumers were active on the existing feeders. However, existing agricultural consumers were not shifted to the agriculture feeders for more than 11 months as of July 2020.

While accepting (May/October 2021) the audit observation regarding erection of feeders, lines and non-connection of existing agricultural consumers on agricultural feeders, the Management/Department stated that the feeders and lines has now been erected and 2,295 new agricultural connections has been provided under a new scheme[79] in the test-checked districts and field offices has been directed to shift the existing agriculture connections to the newly erected agricultural feeders.

However, the reply was silent on preparation of DPRs without doing survey regarding existing and prospective agricultural consumers, requirement of load in this sector and availability of water in a particular area for irrigation. Hence the focus of JBVNL was on construction activities without assessing the actual requirement.

JBVNL should investigate failure to shift existing agricultural consumers to the separated agricultural feeders despite completion of feeders, transmission lines and erection of DTrs and fix responsibility.

To sum up, *although 47 feeders and 1,981.29 Ckms of agricultural electric lines were erected as a part of separation of agriculture feeders, none of these were charged. Out of these, 40 feeders and 1,840.71 Ckm of agricultural lines were not put to use even after installation of 2,966 DTrs in Deoghar, Dhanbad and Ranchi districts at a cost of ₹ 90.61 crore[80] for agriculture connections though 16,406 agriculture consumers already existed in these districts.*

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79 TMKPY scheme was reintroduced (July 2019) taking ₹ 98.62 crore left from old TMKPY scheme which was closed (October 2018) and LoI were issued (October 2019 to July 2020).

80 2,966 x ₹ 81,332 (average cost of DTrs) + 1,840.71 x ₹ 3,61,189 (average cost of agricultural line) = ₹ 90.61 crore

Chapter 5 Strengthening of Sub-transmission and Distribution network

5.1 Non achievement of target of PSSs construction

The development of sub-transmission and distribution (ST&D) infrastructure[81] in rural areas aimed to provide uninterrupted 24x7 electric supply by 2019. PSSs are constructed to reduce the length of supply lines (33/11 KV) in order to minimise the number of consumers affected in case of a breakdown.

Against the target of construction of 146 new PSSs in the State, only 65 PSSs could be constructed as of March 2020. The details of PSSs constructed under RGGVY (XII FYP) and DDUGJY in the test-checked districts are given in **Table 5.1**:

Table 5.1: Target of construction of PSSs and achievement there-against

Name of district	No. of PSSs to be constructed	Capacity of PSSs to be installed (MVA)	No. of PSSs constructed	Capacity of PSSs installed (MVA)	No. of PSSs loaded
Dhanbad	06	40	6	40	3
Deoghar	04	20	4	20	0
Pakur	02	20	0	0	0
Palamu	12	105	3	20	0
Giridih	05	50	4	40	0
Dumka	03	25	3	25	3
Ranchi[82]	09	90	9	90	2
Total	**41**	**350**	**29**	**235**	**8**

(Source: Compiled from data furnished by ESCs of JBVNL)

Table 5.1 shows that out of 41 PSSs of 350 MVA targeted for construction in the test-checked districts, only 29 PSSs of 235 MVA could be constructed. Both JBVNL and the contractors were responsible for delay/non-construction of all PSSs. JBVNL delayed providing land to Turn Key Contractors (TKCs), changed the location due to handing over of unsuitable or rocky land earlier and did not ensure availability of approach road to PSSs sites for periods ranging between four to 19 months from the date of issue of Letter of Intent (LoI) in case of 31 out of 41 PSSs. Contractors delayed submission of survey reports, drawings for PSSs and BOQs by five to 11 months in case of 14 PSSs of Giridih and Ranchi. Contractors also delayed procurement of materials and did not mobilise

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81 Construction of new PSSs, augmentation of existing PSSs, erection of HT lines, installation of new distribution transformers and augmentation of existing distribution transformers.

82 Three PSSs at Jargo, Ormanjhi and Silli out of 12 PSSs under DDUGJY were de-scoped as land were not finalised.

sufficient manpower required for completion of construction of the PSSs within the time schedule.

Thus, GoJ failed to provide suitable land for construction of PSSs resulting in delayed construction of PSSs and de-scoping of three PSSs in Ranchi district.


PSS at Bajpur under Ranchi district lying idle though completed.
(Picture taken by Audit team on 4 July 2020)

Case Study

Construction of one PSS of 2x5 MVA with three feeders (two agriculture and one domestic) at Bajpur village at a cost of ₹ 4.27 crore under Ranchi district was completed (August 2019) after a delay of three months from the scheduled date of completion (May 2019) as land was allotted (January 2018) after a delay of eight months from the date of LoI (May 2017). Even after construction (August 2019), the PSS was lying idle (July 2020) due to non-connectivity from GSSs and non-deployment of operator for the PSS.

Similarly, land for the PSS at Chanho under Ranchi district was allotted after a delay of 10 months in March 2019. The construction of the PSS of 10 MVA with three feeders (two agriculture and one domestic) was completed with a delay of two months in July 2019. Further, the domestic feeder was charged (November 2019) after a delay of four months due to non-deployment of operators and the agriculture feeders were lying idle (July 2020)

Further, out of 29 completed PSSs of 235 MVA, only eight PSSs of 70 MVA could be charged. The remaining 21 PSSs of 165 MVA were not charged (June 2020) even after a lapse of three to 29 months of their construction mainly due to non-construction of GSSs (three cases), non-erection of associated 33 or 11 KV lines (16 cases) and absence of trained manpower (two cases) for operating the PSSs. As a result, the existing PSSs were running at around 80 *per cent* of its rated capacity during peak demand which was the optimum level of operation considering safety of a transformer.

While accepting (May/October 2021) the audit observation, Management/Department stated that the status has now changed and 33 PSSs have been put on load.

5.2 Augmentation of PSSs

Augmentation of PSSs refers to increase in the existing transformation capacity of PSSs by replacement of old transformers or by installation of additional power transformers.

Against the scope of augmentation of 123 PSSs in the State, 94 PSSs were augmented as of March 2020. In the test-checked districts, 31 PSSs of 189 MVA were augmented against the scope of 34 PSSs of 204 MVA (***Appendix III***). Augmentation work of PSSs was almost complete except in Pakur and Palamu districts due to poor performance of TKCs.

While accepting (May/October 2021) the audit observation, Management/Department stated that work has been delayed due to termination of TKC of Pakur and shortage of material in Palamu district.

5.3 Construction of 33 KV line

The status of erection of 33 KV HT lines under DDUGJY in the test-checked districts is given in **Table 5.2**.

Table 5.2: Status of erection of 33 KV HT lines under DDUGJY in test-checked districts

Name of district	Scope (Ckm)	Achievement in Ckm (*per cent*)
Dhanbad	62.19	53.57 (86)
Deoghar	103.20	67.72 (66)
Pakur	25.00	15.70 (63)
Palamu	159.96	14.20 (09)
Giridih	104.66	56.00 (54)
Dumka	41.82	36.67 (88)
Ranchi	221.78	221.78 (100)
Total	**718.61**	**465.64 (65)**

(Source: Compiled from data furnished by ESCs of JBVNL)

It can be seen from **Table 5.2** that the physical progress of the work ranged between nine and 88 *per cent* in six out of the seven test-checked districts. This was mainly due to delays in obtaining forest clearances, delays in finalisation of drawings and technical parameters of Power Transformers (PTrs), delays in finalisation of deviation in BoQs, hindrance by locals regarding RoW (Right of Way), insufficient mobilisation of manpower by TKCs and termination of TKC of Pakur and RoW in Palamu district. Non-erection of 33 KV lines led to non-charging of eight[83] PSSs of 45 MVA in these districts as of February 2020 even though the PSSs were completed between August 2019 and December 2019. Thus GoJ failed to get timely forest clearance and resolve RoW issues resulting in delay in construction of 33 KV lines.

While accepting (May/October 2021) the audit observation, Management/Department stated that work is expected to be completed soon.

5.4 Excess provision of Distribution Transformer (DTrs)

As per guidelines of RGGVY (XII FYP) and DDUGJY, DTrs were to be installed keeping in view the load growth of five years at the rate of 10 *per cent* per year. For calculation of existing load on a DTr, load of 250 watt for BPL households, 500 watt for APL households and 1000 watt for public places were to be considered. For this, a newly installed DTr should not be given the load of more than 50 *per cent* of its capacity so that optimal utilisation maximum up to 80 *per cent* may be ensured as per prescribed norms to cope up with the projected load growth.

- During field visit (July 2020) of Malar and Palma villages of Ranchi district, it was observed that only four KVA for 11 consumers (three APL and eight BPL) and 27 KVA for 58 consumers (35 APL and 23 BPL) were connected with the installed capacity of 50 KVA (2x25 KVA) and 75 KVA (3x25 KVA) DTrs respectively.

Audit observed that 20,051 DTrs were to be installed for the projected 2,81,550 BPL, 3,11,025 APL and 9,272 public places connections. This was revised to 29,079 DTrs[84] for connections to 1,53,181 BPL, 1,50,187 APL and 3,422 public places. Against this, under RGGVY (XII FYP) and DDUGJY, 23,941 25 KVA and 559 63 KVA DTrs having a total load capacity of 6,33,742 KVA were installed in the test-checked districts (***Appendix IV***).

These DTrs were loaded with 1,80,585 BPL, 1,37,691 APL and 4,965 public places connections under RGGVY (XII FYP), DDUGJY and SAUBHAGYA as of March 2020 which was equivalent to 1,39,893 KVA**.** Considering the load requirement of 50 *per cent* and load growth at the rate of 10 *per cent* per year for five years, the requirement was DTrs with load capacity of 2,79,786 KVA. As such, DTrs with load capacity of 3,53,956 KVA were installed in excess of requirement. Thus, JBVNL incurred avoidable excess expenditure of ₹ 1.51 crore[85] on 14,158 DTrs of 25 KVA due to lack of proper survey and planning.

83 Deoghar-4, Palamu-3 and Ranchi-1
84 25 KVA DTrs-28,520 and 63 KVA DTrs-559
85 Average cost of ₹ 81,332 per DTr.

In reply, Management/Department stated (May/October 2021) that DTrs were installed after considering the site conditions, scattered load and future load so that optimal load should not be more than 80 *per cent* after five years.

The reply is not acceptable as in Malar and Palma villages of Ranchi district, load of only four KVA for 11 consumers (three APL and eight BPL) and 27 KVA for 58 consumers (35 APL and 23 BPL) were connected with the DTrs of 50 KVA (2x25 KVA) and 75 KVA (3x25 KVA) installed at a distance of approx. 80 meter and 100 meter and the projected load after five years would be only 6.44 KVA and 43.48 KVA which could be catered by one and two 25 KVA DTrs respectively.

5.5 Extra expenditure due to excess provision of PCC poles

As per Letter of Award (LoA), 18 HT Portland Cement Concrete (PCC) poles per kilometre (km) for HT (33/11 KV) lines and 25 LT PCC poles per km for LT lines were to be erected.

During field visit in Makka village under Ranchi district, it was observed that the TKC did not utilise the existing poles and erected new ones.

It was observed that against the required 1,24,444 HT poles and 4,48,488 LT poles, JBVNL erected 1,62,067 HT poles and 4,91,229 LT poles in the seven test-checked districts under RGGVY (XII FYP) and DDUGJY. Thus, 39,731 HT and 42,741 LT poles were erected in excess of requirement (***Appendix V***) which led to extra expenditure of ₹ 45.55 crore (calculated at average rate of ₹ 5,333 per pole).

Physical verification of 27 poles in four villages of Ranchi (Makka-7 and Murupiri-11) and Giridih (Jadu Raidih-5 and Baria-4) districts in February 2020 revealed that the distance between two LT poles ranged between 20 and 37 metres against the norms of 40 metres.

In reply, the Management/Department stated (May/October 2021) that excess poles were installed due to it being hilly area, forests, zig-zag streets, RoW etc.

The reply is not acceptable as audit measured the distance between two LT poles in plain and level land and found that it was less than 40 meters.

5.6 Excess installation of Sub Main Distribution Boards (SMDBs)

As per DDUGJY guidelines, connections were to be released through SMDBs installed on LT poles. As per LoI of DDUGJY, eight connections could be released through a single SMDB. Details of SMBDs installed and connections released is shown in **Table 5.3**:

Table 5.3: Details of SMDBs erected and connections released

Name of district	No. of SMDBs installed	No. of connections released	No. of SMDBs required	Excess SMDBs installed
Dhanbad	14,652	20,500	2,563	12,089
Giridih	81,447	80,248	10,031	71,416
Deoghar	20,886	16,538	2,067	18,819
Dumka	82,512	71,105	8,888	73,624
Palamu	15,375	96,690	12,086	3,289
Pakur	6,805	12,424	1,553	5,252
Ranchi	35,657	21,485	2,686	32,971
Total	**2,57,334**	**3,18,990**	**39,874**	**2,17,460**

(Source: Compiled from data furnished by ESCs of JBVNL)

Table 5.3 shows that 2,57,334 SMDBs were installed for providing only 3,18,990 connections. Further, in four districts[86], the number of installed SMDBs (2,20,502) were more than the connections (1,89,376) released which indicated that SMDBs were installed even without requirement. In

[86] Deoghar, Dumka, Giridih and Ranchi

Giridih, 81,447 SMDBs were installed on only 59,272 LT poles (***Appendix V***). Thus, SMDBs were installed in excess of requirement in the test-checked districts. The avoidable expenditure on installation of 1,77,586[87] excess SMDBs, as calculated by Audit, was approximately ₹ 33.01 crore considering 50 *per cent* utilisation of SMDB (*i.e.,* four connection per SMDB) at an average cost of ₹ 1,859 per SMDB.

During field visit, SMDBs were found installed even on poles erected in fields wherefrom no connections were released as shown in the photograph given below.

Photograph of SMDB without any connection on a pole at Giridih (photograph taken on 6 March 2020)

In reply, the Management/Department stated (May/October 2021) that excess SMDBs were installed due to scattered load at site, large number of existing consumers and prospective new service connections in near future.

The reply is not acceptable as, during physical verification, SMDBs were also seen installed in areas where no habitation existed. Further, it was seen that only one connection was being provided from a single SMDB.

5.7 PSS and Feeder metering

Metering is of vital importance in order to facilitate sustainable commercial operations of a distribution company. Apart from metering at the consumers end, metering at distribution transformers (DTrs) and feeders facilitate building up a mechanism for proper energy accounting. This also helps in identifying pockets of losses and thus initiating remedial measures to reduce such losses.

Audit noticed that energy meters were not installed at PSSs and feeders constructed/augmented under RGGVY (XII FYP) and DDUGJY. Though energy meters were installed at DTrs, DTr-wise energy accounting was not being done by the Circle/Division offices to check losses of energy, if any,

[87] (2,57,334-39,874x2) x ₹1,859= ₹ 33.01 crore

for reasons not available on record. Thus, one of the main objective of DDUGJY i.e., to reduce the Aggregate Technical and Commercial Loss (AT&C) was defeated despite expenditure of ₹ 30.88 crore on installation of energy meters at DTrs in the seven test-checked districts (calculated at the average rate of ₹ 12,606 per meter).

While accepting (May/October 2021) the audit observation, the Management/Department stated that energy accounting will be done in future.

5.8 Infrastructure created under JSBAY I and II

The work under *Jharkhand Sampurna Bijli Aachhadan Yojana* (JSBAY) Phase I included mainly construction/ augmentation of 44 PSSs and 2,086.38 Ckm transmission lines[88] besides providing connection to uncovered households and agricultural consumers. The works under JSBAY I were taken up between July 2018 and March 2019 for completion between January 2020 and September 2020. Similarly, construction/ augmentation of 85 PSSs and 2,905.26 Ckm transmission lines[89] under JSBAY II were taken up between February 2019 and June 2020 for completion between July 2020 and December 2021.

- In Ranchi district, two PSSs were to be constructed under JSBAY Phase-II for which the district administration allotted land to JBVNL at Nayasarai (May 2019) in Nagri Block and Sukurhutu (July 2019) in Kanke Block after a delay of two to three months after issue of LoI (March 2019). During site visit (August 2019), JBVNL officials and TKC found that the allotted land at both the places were rocky and not suitable for construction of PSSs. Subsequently, the Deputy General Manager (DGM) approached the districts administration for change in the sites which were yet to be handed over to TKC (June 2020). Further, under JSBAY Phase-I, land for Lalli PSSs in Ranchi district was handed over (May 2019) to TKC after a delay 10 months from the date of issue of LoI (July 2018).

Audit observed that physical progress of works ranged between 20 and 60 *per cent* under JSBAY I whereas it was 10 to 45 *per cent* under JSBAY II as of August 2020 (***Appendix VI***).

Test-check of construction of 39 PSSs[90] in six test-checked districts revealed that there were delays of 20 months (April 2020) from date of LOI in identification of land in case of 15 PSSs[91], delay ranging from two to 12

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88 33 KV line-1,330.19 CKM and 11 KV-756.19 CKm
89 33 KV line-956.17 CKM and 11 KV-1,949.09 CKm
90 Dhanbad-4, Giridih-17, Ranchi-3, Dumka-8,Palamu-6 and Pakur-1 in Ph-I
91 Dhanbad-2, Giridih-2,Ranchi-2, Dumka-4 and Palamu-5

months in handing over the land to TKC in 10 PSSs[92], delay in approaching district administration with respect to non-suitability of land by JBVNL in case of 14 PSSs, RoW issues in two PSSs and delay ranging 11 to 15 months in freezing of BOQ in four cases.

There were delays in providing PERT Chart by TKCs ranging from 12 to 30 days (eight[93] PSSs), delay in start of work of repair and maintenance of 13 PSSs, delay of three months in submitting request to Railways for granting way leave permission in three 33 KV lines besides poor quality of material, shortage of manpower, delay in submission of proposal for forest clearance, deficient work and slow pace of work execution by the TKCs.

- Out of 13 PSSs to be constructed in Giridih district under JSBAY Phase-II, works awarded in March 2019 were not started till March 2020 in respect of four PSSs at Bagodar, Pirtand, Jamua and Rajdhanwar. Commencement of work was delayed as demarcation of land for these PSSs was done only in February and March 2020 after a lapse of 11 to 12 months from the date of issue of LoI.

While accepting the audit observation, the Management/Department stated (May/October 2021) that the delays were on the part of the Administration and Forest Department and was beyond the control of JBVNL.

The reply is not acceptable as JBVNL had delayed approaching the District Administration for allotment of suitable land, settling the RoW issues and delay in freezing of BOQ[94]. Further, JBVNL accepted that projects were delayed due to delay in resolving land issues and forest clearance by GoJ.

5.9 Discrepancies observed during Beneficiary Survey and Joint Inspection

With the objective of accessing the effectiveness and efficiency in implementation of the Rural Electrification schemes, Audit carried out joint field verifications along with the officials of JBVNL during September 2019 to March 2020. During field visits, survey of 138 beneficiaries of 26 villages[95] in seven districts[96] were also carried out. It was observed that awareness programme for DDUGJY was not conducted in the villages.

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[92] Giridih-7, Dumka-2 and Ranchi-1

[93] In JSBAY-I, 27 days in Pkg-2, 15 days in Pkg-3, 12 days in Pkg-5, 22 days in Pkg-6, In JSBAY-II, 15 days in Pkg-1 & 2 each, 30 days in Pkg-4 & 6 each,

[94] Dumka, Ranchi and Giridih

[95] Dhanbad (Analasia, Kapasara, Kanchanpur,Madhugoda), Pakur (Jitalpur, Mohanpur, Sundarpur, Dhanpahadia) Deoghar (Barakola,Rakti, Guniasole, Mohnadih), Palamu (Khendra Kalan, Purandin, Nawatoli, Khendra Khurd), Giridih(Badwara, Buchha Nawadih, Baria, Jadu Raidih), Dumka (Bedia, Palasi, Sikarpur, Brindabani) and Ranchi (Murupiri, Makka)

[96] Dhanbad (September 2019), Pakur (September 2019) Deoghar (December 2019), Palamu (December 2019), Giridih (March 2020), Dumka (March 2020) and Ranchi (February and June 2020)

Danger boards were not found on any pole and sign boards of DDUGJY were not found in any of the villages. Further, meters were found installed inside the premises in case of 33 beneficiaries (24 *per cent*) which were not accessible without getting the premises unlocked or opened for the purpose.

It was further observed that none of the meters were installed on the pillar boxes as envisaged in the scheme guidelines. In case of 21 metered connections (15 *per cent*) out of 138 beneficiaries, 18 meters were not connected with line circuit and three meters were found defective. LED bulbs were also not provided to 81 beneficiaries (59 *per cent*) though it was to be provided by TKC under centrally sponsored schemes. None of the beneficiaries had received bills even after a lapse of 16 to 33 months of electrification. Though meters were installed at DTrs, their readings were not being taken by JBVNL. SMDBs were found installed on poles erected even in uninhabited areas. The beneficiaries further stated that only 10-12 hours of power per day was available in the villages.

- In Madhugora village under Dhanbad district, a consumer having consumer no. BPBD3803 had an existing metered connection (meter no. 22707) which was in working condition. However, he was again provided a new meter by TKC which was lying uninstalled.

The Management/Department accepted (May/October 2021) the audit observations and stated that danger boards have been installed after completion of work and discrepancies in meter connections have been rectified. The Management/Department also stated that LED bulbs had been provided to all beneficiaries and awareness programme was conducted. However, the fact remains that the beneficiaries had stated that LED bulbs had not been provided and no awareness programme had been carried out.

Installation of excess DTrs, PCC poles and SMDBs at a cost of ₹ 80.07 crore needs to be investigated by an independent investigating agency to fix responsibility on the erring officials of JBVNL. The delay in handing over of suitable land for PSSs also needs to be investigated by the Energy Department.

To sum up, *under DDUGJY, 29 Power Sub Stations (PSSs) of 235 Mega Volt Ampere (MVA) were constructed. Of these, only eight PSSs of 70 MVA could be charged while 21 PSSs were idle (June 2020) even after three to 29 months of their construction mainly due to the associated Grid Sub Stations (GSSs) remaining incomplete (three cases), non-erection of required 33 or 11 KV lines (16 cases) besides absence of trained manpower (two cases) to operate these PSSs.*

As against the target of 718.61 Ckm 33 KV line, only 465.64 Ckm were erected in the seven test-checked districts due to delays in obtaining forest clearances, delays in finalisation of drawings and technical parameters of

Power Transformers (PTrs), RoW (Right of Way) and insufficient mobilisation of manpower by TKCs.

JBVNL had not installed energy meters at PSSs and feeders. Meters installed at Distribution Transformers (DTrs) were lying idle without any energy accounting to check losses. Thus, one of the main objectives i.e., reducing AT&C losses was defeated.

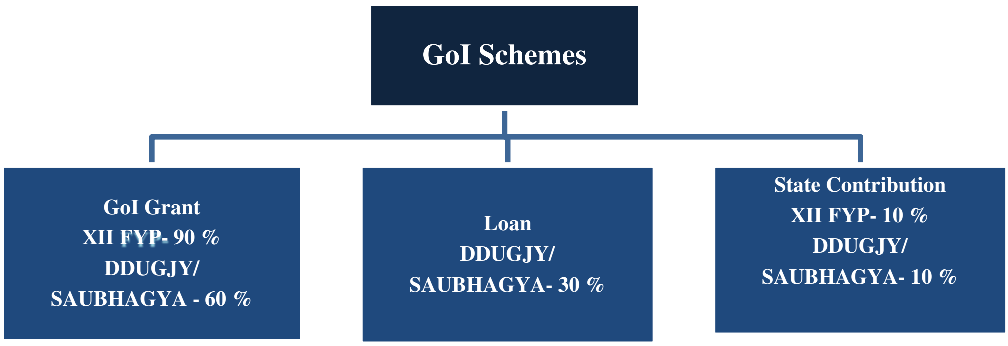
Against the target of 129 PSSs of 1,290 MVA, only nine PSSs of 90 MVA were constructed under JSBAY. Test-check of construction of 39 PSSs revealed that there was delay of 20 months (April 2020) from date of LoI in identification and handing over of land by JBVNL besides delay on the part of TKCs to commence and complete the work.

Chapter 6 Financial Management

6.1 Financial Status of RE Scheme

Financing of rural electrification can be classified in two categories, viz., schemes financed by the Government of India and schemes financed by the Government of Jharkhand. Flow of funds under GoI schemes has been depicted in **Chart 6.1**:

Chart 6.1: Flow of funds in respect of GoI sponsored rural electrification schemes



6.1.1 GoI schemes

Project cost approved by the Ministry of Power (MoP), share of funds to be received (GoI/GoJ/Loan), release of funds there against and fund utilised as of June 2020 is given in **Table 6.1 and 6.2**:

Table 6.1: Scheme-wise project cost and its share components

(₹ in crore)

Name of the Scheme	Project cost	Share of Funds		
		GoI	Loan	GoJ
RGGVY (XII FYP)	1,260.92	1,134.83	126.09*	
DDUGJY	3,722.12	2,233.27	1,116.64	372.21
SAUBHAGYA	887.11	532.26	266.14	88.71
Total	**5,870.15**	**3,900.39**	**1,382.78**	**587.01**

* *To be arranged by the State (own resources / loan).*

Table 6.2: Scheme-wise funds received from GoI/GoJ/Loan and its utilisation

(₹ in crore)

Name of the Scheme	Funds released				Funds utilized
	GoI	Loan	GoJ	Total	
RGGVY (XII FYP)	921.60	102.42	145.51	1,169.53	1,148.44
DDUGJY	2,236.07	1,090.35	837.50	4,163.92	3,856.16
SAUBHAGYA	142.90	Nil	86.84	229.74	33.45[97]
Total	**3,300.57**	**1,192.77**	**1,069.85**	**5,563.19**	**5,038.05**

(Source: Data furnished by JBVNL)

[97] ₹ 107.31 crore had been transferred to ESCs

It was observed that:

- The RGGVY (XII FYP) scheme was sanctioned (August 2014) for 17 districts. Works valued ₹ 1,351.76 crore were awarded (February 2016 to May 2016) to nine contractors for completion within 24 months. The cost was increased (between July 2017 and February 2018) to ₹ 1,610.99 crore due to increase in scope of work after field survey.
- Similarly, DDUGJY was sanctioned (August 2015) for all the 24 districts of the State. Works valued ₹ 4,163.12 crore were awarded (March 2017 to September 2017) to 12 contractors for completion within 24 months. The contract price was revised (November 2018) to ₹ 5,245.63 crore due to introduction of GST and increase in the quantity and scope of work after field survey.

Works under RGGVY (XII FYP) and DDUGJY were not complete (June 2020).

6.1.2 State schemes

Funds received and utilised under State schemes as of June 2020 is detailed in **Table 6.3**.

Table 6.3: Scheme-wise funds received and utilised against the approved project cost

(₹ in crore)

Name of the Scheme	Project cost	Funds Received	Funds utilised
AGJY	150.00	100.00	74.63
TMKPY	117.00	100.00	1.38
JSBAY	2,664.54[98]	900.36*	570.50[99]
Total	2,931.54	1,100.36	646.51

* ***Release was combined for JSBAY rural and urban.***

(Source: Data furnished by JBVNL)

6.2 Extra expenditure on Project Monitoring Agency (PMA)

JBVNL appointed (August 2016) RECPDCL as PMA till November 2018 for projects to be executed in 17 districts under RGGVY (XII FYP) at a consultancy cost of ₹ 11.95 crore which was to be paid in phases[100].

Audit observed that the works of RGGVY (XII FYP) were not completed (June 2020) due to delay mainly on the part of JBVNL in appointing vendors for supply of materials, in approval of Guaranteed Technical Parameters of electric equipment, in approval of drawings of electrical set-up, in material

98 The total project cost of JSBAY was ₹ 5,127.56 crore including ₹ 2,084.93 crore for JSBAY rural and ₹ 579.61 crore for metering and new agricultural connection.

99 Excluding ₹ 146.97 crore for JSBAY urban.

100 Forty five *per cent* of the contract value on pro-rata basis with payments to TKCs, 45 *per cent* in 27 equal monthly installments of the contract period and remaining 10 *per cent* on closure of the works.

inspection, in providing land to TKCs etc. JBVNL extended the contract period of PMA upto September 2019 at a cost of ₹ 19.93 lakh per month. Thus, JBVNL had incurred extra avoidable expenditure of ₹ 1.99 crore for the period from December 2018 to September 2019. The contract of PMA had been extended (June 2021) from October 2019 to September 2020 with additional tentative cost of ₹ 1.44 crore which would increase with further extension.

Management/Department stated (May/October 2021) that extension of contract and consequent increase in cost was due to increase in volume of work.

The contention of JBVNL that there was increase in volume of work is not acceptable as only 10,752 villages were electrified and 2,71,670 BPL connections were released RGGVY (XII Plan) against the scope of work of 18,092 villages and 4,71,971 BPL connections in the DPRs. Further, JBVNL as well as TKCs were responsible for delay of the works which necessitated the extension granted to PMA.

6.3 Undue benefit to contractors due to non-deduction of TDS

As per section 194 C (1) of the Income Tax Act 1961, any person responsible for paying any sum to any resident (contractor) for carrying out any work (including supply of labour) in pursuance of a contract, shall deduct an amount equal to two *per cent* where the payment is being made or credit is being given to a person other than an individual or a Hindu Undivided Family.

Audit noticed that though JBVNL awarded single turnkey contracts to TKCs, the contract value was divided in two parts *viz.,* supply and erection for price. During payment to TKCs, JBVNL did not deduct TDS on the supply part though it was the part of the contract and was linked with erection. As such, supply portion was also to be considered for deducting tax at source (TDS).

Subsequently, the Income Tax Department (ITD) served (October 2017) notice to JBVNL for remitting ₹ 36.64 crore as TDS against 17 RE projects and five projects under Restructured Accelerated Power Development Reform Programme (RAPDRP). JBVNL accepted (November 2017) short-deduction of TDS amounting to ₹ 9.79 crore[101] including owing to non-deduction of TDS on supply portion and deposited ₹ 1.96 crore[102] as 20 *per cent* of ₹ 9.79 crore and applied to the Deputy Commissioner of IT for rectification of demand.

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101 RE- ₹ 7.32 crore and RAPDRP- ₹ 2.47 crore.

102 ₹ 1.46 crore from RE fund and ₹ 49.48 lakh from RAPDRP fund.

Thus, JBVNL extended undue financial benefit to contractors to the extent of at least ₹ 7.32 crore by not/short deducting TDS from the bills.

Management/Department in its reply (May/October 2021) accepted the audit observation and stated that the IT Department in its show cause notice had mentioned that JBVNL was obliged to deduct Income Tax on entire contract value as the contract was composite.

6.4 Interest repayment to REC at higher rate on loan component under DDUGJY.

As per loan agreement, interest on the loan provided by REC was chargeable to JBVNL as per the category[103] at the rate prevailing on the date of each disbursement, subject to interest reset as per RECs latest loan policy. The applicable interest rate was with three year reset and quarterly rest basis subject to the following conditions:

- If REC's lending rate for JBVNL falls below 9.5 *per cent*, the applicable interest rate shall be REC lending rate for JBVNL without any rebate;
- If REC's lending rate for JBVNL falls between 9.5 *per cent* to 11.50 *per cent*, the applicable interest rate shall be 9.5 *per cent*; and
- If REC's lending rate for JBVNL goes above 11.50 *per cent*, a rebate of 1.50 *per cent* for DDUGJY projects shall be applicable on REC lending rate for JBVNL.

Further, as per tripartite agreement (November 2016) between REC, GoJ and JBVNL, REC was to release funds directly to JBVNL on behalf of GoJ and if any loan was availed from REC, GoJ undertook to repay the loan along with interest and other charges to REC as per terms of sanction.

- Audit noticed that REC approved (November 2017) a loan of ₹ 1,103 crore to JBVNL for implementing DDUGJY. Out of this, ₹ 1,090.35 crore was disbursed (between December 2018 and June 2020) to JBVNL. REC charged interest of 9.5 *per cent,* 10 *per cent* and 10.75 *per cent* per annum on loan to JBVNL against admissible interest of 9.5 *per cent* as per the loan agreement as REC lending rate for JBVNL never exceeded 11.50 *per cent* since December 2018.

  However, JBVNL never raised the matter of charging of higher interest at the rate of 10 *per cent* and 10.75 *per cent* with REC and paid (upto March 2020) ₹ 110.32 crore[104] against the claim of ₹ 113.20 crore for the period from December 2018 to June 2020 as interest which included excess interest of ₹ 1.17 crore (***Appendix VII***). Further, as GoJ did not

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[103] REC categorised the State sector utilities in categories viz., A+, A, B and C for defining the applicable interest rates for each category.

[104] Including delay charges of ₹ 9.23 lakh.

provide funds for payment of interest, JBVNL paid ₹ 110.32 crore from DDUGY funds to avoid penal interest. Further, GoJ paid (December 2020) ₹ 54.60 crore including ₹ 94.71 lakh as penalty.

- DDUGJY works stipulated for completion between April 2019 and September 2019 as per LoI were incomplete as of May 2020. AT&C loss was also 28.69 *per cent* against the targeted 15 *per cent* in 2018-19. In the absence of complete metering and energy accounting, JBVNL was unable to claim appropriate subsidy from GoJ. Thus, JBVNL could not achieve any condition of REC required for conversion of loan into additional grant under DDUGJY and as such was not in a position to get the benefit of conversion of 50 *per cent* (₹ 558.32 crore) of loan into additional grant.

While accepting (May/October 2021) the audit observation, Management/Department stated that matter has been raised with REC for clarification.

6.5 Interest on Mobilisation Advance

As per REC advisory (22 August 2016), interest rate on mobilisation advance should not be less than the SBI base rate in case of contracts executed for DDUGJY.

Audit noticed that JBVNL charged interest ranging between 8.65 *per cent* and 9 *per cent* on mobilisation advance granted during February 2018 to February 2020 which was lower than the SBI base rate which ranged between 8.95 *per cent* to 9.1 *per cent.* As a result, JBVNL short realised interest of ₹ 25.95 lakh from TKCs.

While accepting (May/October 2021) the audit observation, Management/Department stated that calculation of interest on mobilisation advance is being reviewed in the light of audit observation and the short realised amount will be recovered from upcoming bills.

6.6 Irregular retention of interest earned on mobilisation advance

As per scheme guidelines of RGGVY (XII FYP) and DDUGJY, interest earned on capital subsidy/grant was to be remitted to MoP at least once in a quarter as capital subsidy/grant provided under DDUGJY was GoI funds and utilities were only the custodian of the funds.

Further, Rule 230 (8) of General Financial Rules (GFR) 2017 envisage that all interest or other earnings against grants-in-aid or advances (other than reimbursement) released to any grantee institution should be mandatorily remitted to the Consolidated Fund of India immediately after finalisation of the accounts. Such advances should not be adjusted against future releases.

Audit observed that JBVNL earned interest of ₹ 41.62 crore[105] on mobilisation advance of ₹ 404.46 crore[106] given to TKCs engaged in RGGVY (XII FYP) and DDUGJY during 2016-17 to 2018-19 including interest of ₹ 33.07 crore[107] on GoI grants used for providing mobilisation advance. However, JBVNL did not remit the interest earned on GoI grants to MoP.

While accepting (May/October 2021) the audit observation, Management/Department stated that final calculation of the interest would be made at the time of closure of the projects and will be settled accordingly.

6.7 Non-deduction of royalty

As per Rule 55 of the Jharkhand Minor Mineral Concession Rules (JMMC) 2004, work contractors are required to purchase minor minerals only from authorised lessees/permit holders. It further provides for submission of affidavits in form 'O' and particulars in form 'P' by the work contractors to the Works Department indicating therein details of sources of purchase of minerals, price paid and quantity procured along with bills.

Audit noticed that JBVNL did not insist on submission of affidavits and particulars in forms 'O' and 'P' respectively from TKCs with bills in support of procurement of royalty paid minor minerals *viz.,* sand, bricks, chips etc., used in civil works carried out under RE schemes like DDUGJY, RGGVY (XII FYP) etc., as the LoI did not contain the material statement for civil construction. JBVNL also did not deduct any royalty from their bills.

Audit further noticed that out of 44 PSSs, 24 PSSs were constructed in the seven test-checked districts. Examination of Material statement for only the boundary wall and control room of a PSS in Giridih district (Package IV) constructed under DDUGJY revealed non-deduction of royalty of ₹ 10.63 lakh against chips, sand and bricks utilised in the work. Based on this calculation, JBVNL did not deduct royalty of at least ₹ 2.55 crore against the 24 completed PSSs.

The Management/Department stated (May/October 2021) that correspondence have been made with contractors for submitting forms 'O' and 'P' and necessary decision would be taken after analysis of their submission.

To sum up, *JBVNL did not ensure timely completion of works related to RGGVY (XII FYP) resulting in avoidable expenditure of ₹ 3.43 crore on the Project Monitoring Agency (PMA) upto September 2020.*

JBVNL failed to complete works within the stipulated time, keep AT&C losses within the prescribed limit of 15 per cent by 2018-19 and claim

[105] ₹ 18.56 crore under XII FYP and ₹ 23.06 crore under DDUGJY.
[106] ₹ 63.38 crore under XII FYP and ₹ 341.08 crore under DDUGJY.
[107] ₹ 17.11 crore under XII FYP and ₹ 15.96 crore under DDUGJY.

admissible revenue subsidy from GoJ in the absence of metered and billed power consumption. Thus, JBVNL would not be able to avail the benefit of conversion of 50 per cent of loan valued at ₹ 558.32 crore into additional grant.

REC charged interest of 9.5 per cent, 10 per cent and 10.75 per cent per annum on disbursed loan (₹ 1,090.35 crore) to JBVNL against admissible interest of 9.5 per cent as per the loan agreement. Thus, JBVNL paid excess interest of ₹ 1.17 crore for the period from December 2018 to June 2020.

TKCs were charged interest on mobilisation advance below the prevailing SBI base rate during February 2018 to February 2020 resulting in short realisation of ₹ 25.95 lakh.

JBVNL earned interest of ₹ 41.62 crore on mobilisation advance of ₹ 404.46 crore given to TKCs including interest of ₹ 33.07 crore on GoI grants used for providing mobilisation advance. However, JBVNL did not remit the interest earned on GoI grants to MoP.

Chapter 7 Contract Management

7.1 Irregular award of contracts

7.1.1 Irregular award of contracts under RGGVY (XII Plan)

As per terms and conditions in the Standard Bid Document (SBD) for RGGVY (XII Plan), criteria for technical qualification of bidders were as follows:

- A bidder should have commissioned (i) at least two new PSSs or one new Grid Sub Station (GSS), (ii) erected line length of 11/22/33/66 KV or higher capacity or in combination that must be at least 10 *per cent* of sum of the length of the line of 11 and 33 KV of the particular tender and (iii) have installed at least 200 or 10 *per cent* of number of Distribution Transformers (DTrs) in a particular tender, whichever is less, during the last seven years as on the date of opening of bid.
- In case of Joint Ventures (JV), partners should have technical experience in proportion to their share in the JV.
- Successful execution of completed contracts and number of years of satisfactory operation of installation as on date of tender must be certified by the concerned customers and must accompany copy of letter of award/work order failing which the bidder would not be considered eligible to meet the qualifying criteria.
- The bidder was to submit two copies of 'Integrity Pact' duly signed on each page by the person signing the bid failing which the bid was liable to be rejected.

Audit noticed the following irregularities in evaluation of bids and award of work.

- A JV of M/s Anvil Cable Pvt. Ltd., Kolkata and M/s Shikha Electric Stores with share in the ratio of 80:20 participated in the NIT for Dhanbad, Bokaro and Giridih districts under RGGVY (XII Plan). However, M/s Anvil Cable, the lead partner of the JV (formed in October 2015) did not submit its own performance documents with the bids and submitted performance certificate of the minor partner (M/s Sikha Electrical Stores) only. As such, though the performance of the lead partner could not be evaluated (***Appendix VIII***) in proportion of its share in the JV, the JV was declared technically qualified by JBVNL (December 2015). The work was awarded (February 2016) to M/s Anvil Cable Pvt. Ltd., Kolkata and accordingly, M/s Anvil Cable Pvt. Ltd., Kolkata entered (July 2016 and October 2016) into three agreements with JBVNL for work valued ₹ 298.32 crore and was paid ₹ 188.64 crore as of June 2020. Thus, work was awarded to M/s Anvil Cable Pvt. Ltd., Kolkata by the Board of Directors of JBVNL which did not meet the bidding criteria.

The Management/Department stated (May/October 2021) that the bidders or the partners combined in case of JV should meet the technical criteria.

The reply is not acceptable as clause 1.1.1 (Note 1) of NIT stipulates that if the bidder (single/partner of JV) submits technical experience of a Joint Venture in which the bidder was one of the partners, proportionate technical experience would be considered as per its share in the joint venture. Although M/s Anvil cable had not submitted any documents of its experience, work was awarded to M/s Anvil cable in individual capacity which was also utilised in obtaining other contracts as discussed in the succeeding paragraphs.

- M/s Techno Power Enterprises was awarded (February 2016) work under RGGVY (XII Plan) in Gumla and Ramgarh district being the L1 bidder. In support of its performance, M/s Techno Power Enterprises had submitted abstract of two work orders, one for two PSS and another for one GSS. However, these work orders were for up-gradation and modernisation (one out of two PSS and one GSS) instead of commissioning of new PSS or GSS as required under SBD. The bidder had also not submitted the required "Integrity Pact" and complete work order in support of the project. Thus, M/s Techno Power Enterprises was not technically qualified for award of contract as per SBD.

  The Management/Department stated (May/October 2021) that M/s Techno Power Enterprises had completed turnkey job relating to supply, erection, commissioning and testing of two number of new PSSs under RGGVY scheme at Ralan Head Quarter and Longsa in Wokha district of Nagaland and thus met the criteria of supply of material, survey, erection, testing and commissioning of two new PSS. Further the bidder had initially submitted integrity pact without signature but had later submitted it on request.

  The reply is not acceptable because as per the said work order, M/s Techno Power Enterprises was awarded work for only one new 33/11 KV sub-station-1.6 MVA at Ralan and augmentation of two existing 33/11 KV sub-stations-1.6 MVA at Sanis and Longsa in Wokha. Thus, sub-station at Longsa in Wokha was for augmentation and not a new one. Further, the signed copy of the integrity pact was not furnished by the Management to Audit.

7.1.2 Irregular award of contracts under DDUGJY

As per terms and conditions of the Standard Bid Document (SBD) for DDUGJY, criteria for techno-commercial qualification of the bidder were as follows:

- For a particular bid, the bidder must have successfully erected, tested and commissioned sub-station of (33/11 KV or 66/22 KV) and its associated lines (33 KV or 66 KV) in the last seven years and the system so created must be in satisfactory operation for at least one year as on the date of opening of bid.
- The bidder must have completed in a single turnkey contract at least 50 *per cent* of the transformation capacity[108] and 50 *per cent* of the length of lines or in two turnkey contracts at least 40 *per cent* of the transformation capacity and 40 *per cent* of the length of lines in each contracts or in three turnkey contracts at least 30 *per cent* of the transformation capacity and 30 *per cent* of length of lines in each.
- To qualify for more than one project, the technical requirement of a bidder shall be the maximum of the qualification required (QR) for a project.
- The bidder had to meet the minimum commercial criteria in past five years *viz.,* experience in a single completed work costing not less than the 50 *per cent* of the estimated cost of the project or experience in two completed work costing not less than the 40 *per cent* or experience in three completed work costing not less than 30 *per cent* of the estimated cost of the project individually in electrical transmission or sub-transmission & distribution sector.
- If the bidder quotes for more than one project, commercial pre-qualification requirement (PQR) shall be examined on the basis of sum of project-wise requirements of experience of all quoted projects.
- Net worth of the bidder must be positive.
- The bidder was to submit details of litigation or arbitration, if any, over the last five years.
- Bidders who have been blacklisted or debarred in the past three years by any State Government/ Central Government / Government undertaking/ power utilities/ DISCOM in India or by JBVNL and its subsidiary companies, would not be eligible for participating in the bid. In the case of submission of false declaration, the earnest money of the bidder would be forfeited and the bid may be rejected or LoA (work order) may be cancelled.

[108] Sum of KVA ratings of Power transformers proposed in the bid.

- Bid from those bidders who had failed to submit performance security on issue of LoI/LoA for any other contract of the Employer in the past three years was not acceptable.

Audit noticed that NITs for DDUGJY works were floated (August 2016) in 12 packages[109] for supply and erection. JBVNL evaluated the bids separately for each package and PQR was not considered against bids submitted for multiple packages by the same bidder.

- M/s IL&FS Engineering and Construction Company Ltd (IL&FS) participated in the bids of different packages of eight[110] districts in the tender invited in August 2016 and three packages in three districts in tender invited in January 2017. It was noticed that the techno-commercial performance of IL&FS was much lower than required and ranged between three and 96 *per cent* (***Appendix IX***). Similarly, IL&FS did not meet Techno-commercial parameters for works in West Singhbhum and East Singhbhum districts (***Appendix X***) with capacity ranging between 31 and 73 *per cent*.

Audit observed that IL&FS was awarded (March and May 2017) works valued at ₹ 625.36 crore in three packages (Sahibganj, West Singhbhum and East Singhbhum) without adhering to the terms and conditions in SBD. Besides, the following irregularities were also noticed:

The Statutory Auditors of IL&FS had given qualified opinion in their standalone Auditors Report and in the Consolidated Financial Statements (CFS) for the year ended 31 March 2016 that IL&FS had invested ₹ 33.19 crore in an overseas subsidiary. As per the Financial Statements of the subsidiary as on 31 March 2016, the net worth of the subsidiary was fully eroded and IL&FS might have potential obligation to share further liabilities which was undeterminable. As such, the net worth of IL&FS was negative (₹ 25.61 crore) as on 31 March 2016 and as such was not qualified for the contract.

Ultimately, IL&FS could not complete the works and JBVNL terminated (January 2019) the above contracts. It was further noticed that after the stay order by National Company Law Tribunal, the advance provided to IL&FS could not be recovered and JBVNL had to bear extra financial burden as discussed in **Paragraph 7.2**.

In reply, Management/Department stated (May/October 2021) that in case of Sahibganj package, qualification criteria of other packages was not considered as NITs viz., 102,103,109 and 111/PR/JBVNL/2016-17 was

[109] Jamshedpur (102), Ranchi (103), Hazaribagh (104), Giridih (105), Gumla (106), Palamu (107), Dumka (108), Lohardaga (109), Dhanbad (110), Deoghar (111), Garhwa (112), Sahibganj (113)

[110] Jamshedpur (102), Ranchi (103), Giridih (105), Dumka (108), Lohardaga (109), Dhanbad (110), Deoghar (111), Sahibganj (113).

cancelled and for Dumka and Dhanbad Package, bidder was declared non-responsive on evaluation.

It was further stated that in case of East Singhbhum and West Singhbhum, as per NIT clause no. 1.2.1 (iii), in case a bidder is quoting for more than one project, pre-qualification requirement shall be examined on the basis of sum of project-wise requirement of experience of all quoted projects. Management further stated the term "shall be examined" has a broader meaning and aspect and accordingly examination had been done for benefit for JBVNL with consistency on evaluation of projects. In this regard, view from REC had been taken and REC had agreed on JBVNL's understanding of methodology. Accordingly bid of IL&FS was evaluated and after being found to be L1, the bid capacity and other commercial criteria were evaluated considering cumulative QR. Also if both projects are considered cumulatively, project of ₹ 190.50 crore executed is higher than 50 per cent in case of single turnkey contract. The net worth of the company in each of the last three financial year was also positive.

Management/Department reply is not acceptable as it did not prepare PQR considering sum of project-wise requirements of all quoted projects as per SBD clause 1.02.1, decided L1 on the basis of only the price part and thereafter evaluated the techno commercial aspects of the bid in contravention of SBD. Further, REC in its clarification had stated that appropriate action on methodology of evaluation of commercial criteria of a bidder (quoting for more than one project) may be adopted without deviating from requisite criteria as stipulated in bid documents. Moreover, in Sahibganj, IL&FS was required to have 1,471.23 Ckm line and 76.85 MVA transformation capacity in case of single turnkey contract. Against this, IL&FS submitted (February 2014) status of work executed for Power Grid Corporation of India Limited (PGCIL) and claimed to have erected 1,978.38 km lines and 83.50 MVA transformation capacity. However, later on, IL&FS submitted (October 2014) performance certificate issued by PGCIL regarding commissioning and satisfactory operation of only 55 MV transformation capacity. Thus, from the submitted documents, one year successful operation of the claimed 1,978.38 km lines and 83.50 MVA transformation capacity could not be established as required in SBD.

Further, in case of East Singhbhum and West Singhbhum, reply was silent on techno part and experience of ₹ 190.5 crore of IL&FS cannot be considered as the said work was completed in September 2015 while work completed upto March 2015 was to be considered as required in SBD.

The net worth of IL&FS was positive in its standalone financial statements. However, its net worth was negative in its CFS. JBVNL failed to check the financial capabilities of IL&FS along with subsidiaries to establish its financial soundness. Further, due to financial crunch, IL&FS had also failed to complete the work.

- Audit noticed that after termination (January 2019) of work awarded to M/s IL&FS, NITs were floated (January 2019) for left over work in East Singhbhum, West Singhbhum, Sahibganj and Pakur districts in nine packages. M/s Anvil Cable participated in five NITs[111] valuing ₹ 317.56 crore. The techno-commercial qualifying criteria was ₹ 158.78 crore (50 *per cent* of ₹ 317.56 crore) in a single completed work, ₹ 127.02 crore (40 *per cent* of ₹ 317.56 crore) individually in two completed works and ₹ 95.26 crore (30 *per cent* of ₹ 317.56 crore) individually in three completed works.

Audit observed that M/s Anvil Cable Pvt. Ltd. had submitted experience documents related to two partially completed (January 2018) works valuing ₹ 71.63 crore out of work order of ₹ 120.15 crore and ₹ 58.98 crore out of work order of ₹ 73.30 crore awarded by JBVNL under RGGVY (XII FYP). Further, it was noticed that M/s Anvil Cable had filed (August 2016) a case against JBVNL in Micro, Small and Medium Enterprises (MSME), Ranchi. However, M/s Anvil Cable Pvt Ltd. had provided false affidavit along with the bid claiming non-litigation history. Thus, M/s Anvil Cable Pvt. Ltd. was not techno-commercially qualified. However, JBVNL issued (March 2019) LoI for East Singhbhum (Package-2) valuing ₹ 56.68 crore. It was further seen that M/s Anvil Cable had withdrawn (November 2019) the case against JBVNL after issue (March 2019) of LoI.

Management/Department stated (May/October 2021) that completed work means the executed work against work order and that the Firm had been assessed as having the ability to execute the same quantity of work and, therefore, met the requisite criteria.

Management/Department further stated that the case filed by M/s Anvil Cable Pvt. Ltd in MSEF Council, Ranchi against JBVNL was regarding payments related to the year 2009 and does not fall within the last 5 years as per criteria in SBD. It was also stated that the case has been withdrawn on 18 November 2019 by the Firm.

Reply is not acceptable as the commercial criteria in the SBD clearly stipulated that experience should be in single completed work and the case was withdrawn by the firm only after the bid was decided in its favour.

- M/s Suncity Enterprises was awarded (March 2019) work valuing ₹ 60.71 crore in East Singhbhum district (Package-1) even though the bidder had no experience of completed works as required under SBD. The bidder

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[111] East Singhbhum Pkg-2(NIT-276 of ₹ 63.71 crore), West Singhbhum Pkg-1(NIT-277 of ₹ 63.83 crore), Pkg-2(NIT-278 of ₹ 65.91 crore), Pkg-3(NIT-279 of ₹ 58.33 crore) & Pkg-4(NIT-280 of ₹ 65.78 crore)

had submitted experience documents related to a partially completed (March 2018) work valuing ₹ 37.07 crore, out of work order of ₹ 43.38 crore awarded by JBVNL itself under RAPDRP.

Management/Department stated (May/October 2021) that completed work means the executed work against work order and that the Firm had been assessed as having the ability to execute the same quantity of work and, therefore, met the requisite criteria. It was further stated that, had the Technical Evaluation Committee recommendation not been considered, the work would have been awarded to L2 bidder and JBVNL would have had to bear additional financial burden of ₹ 4.42 crore.

Reply is not acceptable as the commercial criteria in the SBD clearly stipulates that experience should be in single completed work.

- M/s Laser Power & Infra (P) Ltd was awarded (September 2017) work (Package-3) valued at ₹ 77.59 crore in Giridih district. Audit noticed that the Firm had submitted a declaration (17 July 2017) that it had not been debarred by any PSU/ Government undertaking/ power utility/ DISCOM as on the date of tender (June 2017). However, it was seen that Dakshin Haryana Bijli Bitran Nigam (DHBVN) had debarred (11 January 2017) the bidder for one year. Based on the action of DHBVN, Uttar Pradesh Power Corporation Limited (UPPCL) had also restricted its business relations with M/s Laser Power & Infra (P) Ltd with immediate effect from 2 June 2017. Thus, work was awarded without verifying the declaration submitted by the Firm.

Management/Department (May/October 2021) stated that during the process of bid, an interim stay order was issued by City Civil Court, Calcutta. However, the reply was silent regarding submission of false affidavit claiming non-litigation history as the TKC had submitted that no litigation or arbitration was pending in any court of law or arbitration authority arising out of any contract over the last five years.

- Audit observed that JBVNL had terminated (04 April 2017) a contract awarded to M/s East India Udyog Limited (EIUL) in JV with M/s Energo Engineering Projects Limited due to non-submission of performance security for a project pertaining to a different scheme[112]. However, JBVNL opened the techno-commercial bid submitted by the Firm on 20 April 2017 and found it responsive. The Firm was awarded work in four packages[113] of three projects[114]in violation of the terms and conditions of SBD.

Management/Department stated (May/October 2021) that the bid was opened as the clause relating to termination of bids in last three years was not part of QR. Further, at the time of phase I of JSBAY and NIT for villages

[112] RAPDRP
[113] Giridih Package I & IV and Palamu Packages I
[114] Giridih, Godda and Palamu.

left over by IL&FS, termination of contract was part of NIT and accordingly, the bid was not opened.

Reply is not acceptable as clause 23.5 under qualification criteria of SBD clearly stipulated that "the bid from those bidders shall not be accepted who failed to submit Performance Security on issue of Letter of Intent (LoI)/Letter of Award (LoA) for any other contract of the Employer in the past 3 years".

7.2 Time and cost over-run

Time is the essence of a contract and non-adherence to the time schedule may result in cost over-run. M/s IL&FS was awarded (March and May 2017) works in three packages[115] under DDUGJY to be completed within 24 months from date of issue of LoI. Physical progress of the electrification work was poor and ranged between four and 17 *per cent* (December 2018) as the Firm did not mobilise material and manpower as required despite its commitment during repeated meetings (between July 2018 and December 2018) with CMD and MD of JBVNL. The Secretary, Energy Department-cum-CMD, *Jharkhand Urja Vikas Nigam Limited* (JUVNL) [116] and MD, JBVNL directed (April 2018) M/s IL&FS to improve its performance in expediting material supply and erection activities and issued a warning that the Performance Bank Guarantees (PBGs) would be forfeited within seven days in case of failure. However, neither M/s IL&FS expedited the work nor did JBVNL take any action for default.

The Chief Minister of Jharkhand also reprimanded (July 2018 and August 2018) IL&FS for poor performance and repeated non-compliance of PERT[117] schedule. However, JBVNL took six months to initiate process for termination of the contract and forfeiting BGs and served (December 2018) termination notice to M/s IL&FS, cancelled (January 2019) the LoI and started the process to forfeit the BGs. Forfeiture of the BGs was still pending due to imposition (October 2018) of stay order by the National Company Law Tribunal (NCLT), New Delhi as of October 2020.

It was further seen that till January 2019, IL&FS had completed works worth ₹ 101.96 crore against the awarded cost of ₹ 624.36 crore and sanctioned project cost of ₹ 561.88 crore. After termination (January 2019) of the contract, the residual works were split into nine packages, adding additional work valuing ₹ 135.06 crore which were sanctioned (March 2019) later on by REC to achieve electrification in these districts[118]. NITs[119] were invited (January 2019) for the left over villages after reducing the scope of work to

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115 Sahebganj and Pakur, West Singhbhum and East Singhbhum.
116 Holding Company of JBVNL
117 Programme Evaluation Review Technique
118 East Singhbhum, West Singhbhum, Sahibganj and Pakur
119 NIT No.275/PR/JBVNL/18-19 to NIT No.283/PR/JBVNL/18-19 (total 09 no.)

the residual sanctioned amount only i.e., ₹ 459.92 crore[120] based on SOR of 2014-15 with a completion period of nine months. Further, REC sanctioned (March 2019) ₹ 135.06 crore[121] for the additional work only. The works were to be re-appropriated within the sanctioned cost and residual works were to be taken-up under different State schemes. Audit observed that value of sanctioned cost of residual work stood at ₹ 833.98 crore based on SOR of 2018-19.

However, due to fund constraints, JBVNL awarded work worth ₹ 459.92 crore only by limiting the scope of work and decided to complete the residual work of ₹ 374.06 crore[122] (***Appendix XI***) under other scheme (s) in future.

Further, due to delay in completion of the works, the intended beneficiaries of the schemes were facing severe problems due to non-availability of electricity. The delay was despite the issue being regularly highlighted by Deputy Commissioner's offices of the respective districts, Hon'ble Chief Minister of Jharkhand and Deputy General Manager (DGM) of respective ESCs of JBVNL. As a result, Government of Jharkhand (GoJ) also failed to meet its commitment to provide 24x7 power supply to all electricity consumers and electricity access to all unconnected households in the State by 2019.

The Management/Department while accepting (May/October 2021) that work amounting to ₹ 374.06 crore would be taken up under other schemes due to non-availability of funds under DDUGJY, stated that IL&FS shall be liable to pay the excess amount over the contract price incurred in completion of the project and all the claims of the agency, lying either at headquarter level or at the field level, shall be held up to compensate for loss/liability against the additional cost to be incurred for completion of balance work. It was further stated that all aspects would be considered in light of NIT norms and final settlement would be made between JBVNL and IL&FS.

The reply is not acceptable as the net worth of the IL&FS subsidiary was fully eroded and thus, recovery from the Firm on account of excess amount incurred on completion of the contract appears to be remote.

The Energy Department, GoJ needs to examine the issue of delayed termination of the contract and non-encashment of BG in time despite directions of Hon'ble Chief Minister and CMD/JUVNL.

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[120] ₹ 459.92 cr (East Singhbhum-₹ 134.93 cr + West Singhbhum – ₹ 174.79 cr +Sahibganj/ Pakur – ₹ 150.20 cr)

[121] West Singhbhum (₹ 79.06 crore), Sahebganj (₹ 41.13 crore) and Pakur (₹ 14.87 crore)

[122] ₹ 833.98 crore - ₹ 459.92 crore

7.3 Irregularities in award of work in SAUBHAGYA

As per the guidelines of SAUBHAGYA, works can be executed on turnkey basis or departmentally. Vendors/agencies were to be selected through e-tendering. Further, as per delegation of financial power (DoFP) issued by JBVNL on 7 July 2014, the Deputy General Manager (DGM) of an Electrical Supply Circle (ESC) has full powers to award a technically sanctioned work at approved schedule of rates (SOR) without calling for tender. If SOR does not exist, the DGM has power to award a work costing up to ₹ 50,000 without tender limited to a maximum of ₹ 11 lakh per annum. Further, as per DoFP of September 2018, work up to ₹ 50 lakh can be awarded on SOR to an empanelled vendor selected by DGMs through open tender. It is further stipulated that the work should not be split up to bring it within the delegated financial power of the officer.

During scrutiny, the following irregularities were noticed:

- GoI sanctioned district-wise projects under SAUBHAGYA. Under the Scheme, works were to be awarded either afresh on turnkey basis or through amendment in the existing contract to include electric connections to households.

In the seven test-checked districts, Audit noticed that GoI had approved the project costs (ranging between ₹ 17.22 crore and ₹ 54.40 crore) and JBVNL had issued 126 work orders valued at ₹ 45.16 crore for execution of the projects. Of these, 33 work orders valuing ₹ 26.23 crore were awarded to those TKCs who were already awarded the works of RGGVY (XII FYP) and DDUGJY. The remaining 93 work orders valued at ₹ 18.93 crore were issued to empanelled vendors by DGM's of ESCs on written request of the vendors. However, it was noticed that these vendors were not empaneled through open tender as required under DoFP. It was further seen that the DGMs had awarded 54 works by splitting the project cost and 18 works beyond their financial powers of ₹ 50 lakh ***(Appendix XII)***.

- SAUBHAGYA works were awarded at rates ranging between ₹ 2,024 and ₹ 3,000 per connection in the seven test-checked districts. Audit noticed that reasonability of the rate was analysed through a committee, as required, only in two districts where the rate of ₹ 2,540 to ₹ 2,987 per connection was approved. Audit did not find any analysis to assess reasonability of rates in the remaining five districts[123] where higher rates ranging between ₹ 2,900 and ₹ 2,999 per connection were approved.

- Instead of executing agreements within 10 to 30 days of issue of work order, agreements for 64 work orders[124] valuing ₹ 20.31 crore were executed

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[123] Giridih, Ranchi, Pakur, Palamu and Dumka

[124] Dhanbad,(12), Deoghar (4), Giridih (4), Pakur (1), Palamu (1), Dumka (3) and Ranchi (39)

with a delay of more than 10 days and up to nine months which delayed completion of the works.

- Though forty three work orders were issued between October 2018 and December 2019, works were being executed without executing any agreement and thus without ensuring legal or technical surety i.e., performance security, penal clause, satisfactory work etc., as required under a contract.

- As per work order, security deposit of five *per cent* of the awarded cost was to be deposited with the agreement and five *per cent* was to be recovered from running account (RA) bills. It was noticed that 15 vendors in three districts[125] executed agreements for ₹ 4.48 crore by depositing only two *per cent* of the security deposit which led to short deposit of ₹ 134.47 lakh. Agreements for ₹ 2.23 crore with 18 vendors in four districts[126] were executed without any security deposit (₹ 15.65 lakh) on the request of vendors citing their poor financial position subject to adjustment of required security from RA bills. In Giridih district, ₹ 1.32 crore was paid (March 2020) through RA bills against two work orders without deducting security of ₹ 13.20 lakh (10 *per cent)*. Thus, vendors were extended undue financial benefit through non/ short deduction of security deposit of ₹ 147.67 lakh. Besides, security deposit of ₹ 35.52 lakh submitted by a vendor (The East India Udyog Limited) in the form of Bank Guarantee against eight works orders which had lapsed on 29 February 2020 and were not got renewed as of March 2020 by DGM Giridih.

- ESC, Giridih awarded[127] (November and December 2018) work valued at ₹ 7.35 crore to a TKC (The East India Udyog Limited) for providing 36,064 connections of DDUGJY under SAUBHAGYA. Audit noticed that a contract of the same TKC in JV with M/s Energo Engineering Projects Limited under RAPDRP was terminated (04 April 2017) for non-mobilisation of material and delay in completion of the project and ultimately the TKC was blacklisted (November 2018) by JBVNL. Further, on the ground of termination of the work order, the bids submitted for work under JSBAY Phase I and Phase II by the TKC (the East India Udyog Limited) was not opened[128] (December 2018 and March 2019) by JBVNL. Thus, the Firm was awarded work under SAUBHAGYA by the DGM though it was not found fit for work besides being blacklisted by JBVNL.

The Management/Department stated (May/October 2021) that sub-division wise work order had been issued. In some cases, more than one work order has been issued to the same agency within the jurisdiction of the same sub-

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[125] Deoghar (4), Palamu (10) and Dumka (1)
[126] Giridih (2), Deoghar (1), Dhanbad (11), Dumka (3) and Pakur (1)
[127] November 2018 and December 2018
[128] September 2017 and June 2018

division. Further, in cases where agreements were executed without taking security deposits, amount have been recovered from agencies from the first running bill. It was also stated that though extension of time for execution of agreement had been given to some vendors on request, work was started on time and delay in agreement did not affect the execution of work and there is no financial loss as all materials including labour charge was to be borne by the vendor.

Reply is not acceptable as DGM has split the work sub-division wise to bring it under delegation of financial power violating DoFP. Management has not submitted either documentary evidence or furnished specific reply for not deducting security deposit. Further, reply was silent on allotment of work without empanelment of vendor, without ascertaining reasonability of rates, without executing agreement and awarding work to a black listed TKC.

7.4 Jharkhand Sampurna Bijli Achhadan Yojana (JSBAY)

GoJ sanctioned (March 2017) JSBAY at a project cost of ₹ 5,127.56 crore. The Scheme aimed to provide electricity to unelectrified 12,762 *tolas*, electricity connections to 5,08,605 households[129] and 1,32,772 agriculture connections. However, after launching (October 2017) of SAUBHAGYA, where last mile connectivity was to be ensured in saturation mode, the scope of JSBAY was redefined (April 2018) with projects worth ₹ 2,664.54 crore for rural electrification and other projects worth ₹ 2,463.02 crore for urban electrification and other infrastructure. The rural electrification projects included construction/augmentation of PSSs, 33 and 11 KV lines, feeder and DTr metering, meters to unmetered consumers and agriculture connections.

In JSBAY phase I (JSBAY I), rural electrification projects were divided into six packages[130] at an estimated cost of ₹ 978.57 crore for which NITs were floated in September 2017. In JSBAY phase II (JSBAY II), NITs for ₹ 1,106.36 crore were floated (June 2018) in seven packages[131]. Irregularities noticed in award of works under JSBAY projects are discussed in the succeeding paragraphs.

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[129] APL family: 3,06,614 and BPL family: 2,01,991.

[130] Package I (Ranchi, Khunti, Gumla, Simdega & Lohardaga), Package II (East Singhbhum, West Singhbhum & Saraikela-Kharsawan), Package III (Dumka, Jamtara, Sahibganj, Pakur, Deoghar & Godda), Package IV (Koderma & Giridih), Package V (Dhanbad, Bokaro, Hazaribag, Chatra & Ramgarh) and Package VI (Palamu, Latehar & Garhwa)

[131] Package I (Dhanbad, Bokaro, Hazaribagh, Chatra and Ramgarh), Package II (Koderma and Giridih), Package III (Dumka, Jamtara, Sahibganj and Pakur), Package IV (Ranchi, Khunti, Gumla, Simdega and Lohardaga), Package V (East Singhbhum, West Singhbhum and Saraikela-Kharsawan), Package VI (Palamu, Latehar & Garhwa) and Package VII (Deoghar and Godda)

7.4.1 Irregularity in award of work under JSBAY

As per clause 1.1 (technical qualification) of NIT for JSBAY I, the bidder must have successfully erected, tested & commissioned PSSs and transmission lines/feeders of 33 or 66 KV and 11 or 22 KV class in the last seven years as on the date of opening of the bid with cumulative transformation and line length capacity equal to at least 50 *per cent* of bid capacity in case of PSS (sum of MVA of Power Transformers) and HT line (11 KV and more) length respectively and at least 30 *per cent* of the transformation capacity and HT line length as given in the bid in a single Turnkey Contract.

Audit observed the following irregularities in award of contracts under JSBAY-I:

Bid for Package III[132] with estimated cost of ₹ 147.75 crore for construction of 33/11 KV PSSs, 33 KV lines and 11 KV lines was invited with bid opening date on 30 November 2017. A pre bid meeting was convened in view of clause 6.4 of the NIT which stated that the bidder's designated representative(s) may attend a pre-bid meeting with the purpose to clarify any issue regarding the bidding documents in general and technical specifications in particular.

The pre bid meeting was attended by 14 bidders on 10 October 2017 in which five bidders requested (09 October and 10 October 2017) to alter the experience criteria by allowing experience of erection of LT lines and DTrs. JBVNL accepted their proposal and issued (24 October 2017) addendum allowing experience of erection of LT lines and DTrs in commutative capacity. It was noticed that this change was also allowed (02 November 2017) on request (30 October 2017) of M/s Jackson Limited in a single turnkey contract by issuing another addendum in violation of clause 6.4 of the NIT. The same was accorded post facto approval by MD, JBVNL on 17 November 2017 and considered for pre-qualification though the scope of work did not include execution of these items (i.e., erection of LT lines and DTrs).

The original technical experience required for the work was 52.50 MVA of transformation capacity and laying of 853.83 KM of HT lines (being 50 *per cent* of bid capacity) along with transformation capacity of 31.5 MVA and HT line length capacity of 512.30 CKm (being 30 *per cent* of bid capacity) in a single turnkey contract. M/s Jackson, though not qualified originally, was declared L1 by considering experience of erection of LT lines and DTrs also and work valuing ₹ 145.28 crore was awarded (July 2018) to them.

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[132] Dumka, Jamtara, Sahibganj, Pakur, Deoghar and Godda districts

Thus, work was awarded to an unqualified contractor by modifying the bid condition although three out of 11 bidders were eligible as per the original conditions of the NIT.

Management/Department stated (May/October 2021) that evaluation was done as per the NIT and subsequent corrigendum on the basis of pre-bid meeting. Further, NIT clause 7.1 (Volume-I, Section-II) states that " at any time prior to the deadline for submission of bids, the employer may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment"

Reply is not acceptable as experience of erection of LT lines and DTrs, not in the scope of work of the NIT, was allowed.

- Similarly, JBVNL again floated (December 2018) NIT for JSBAY-I package II[133] with the relaxed bid condition of technical experience as was approved in package III.

As per original condition of bid, the technical experience required was transformation capacity of 36.36 MVA of power transformer and 399 KM of HT lines in a single turnkey contract. Against this, M/s Step Industries submitted experience for transformation capacity of 77.14 MVA of DTrs and 752.54 KM of LT lines. As such the bidder had no experience of installation of power transformer and HT lines. M/s Step Industries was declared L1 and work valuing ₹ 132.34 crore was awarded (March 2019). Thus, tender was decided in favour of a contractor having no experience in erection of HT lines and PTrs though one bidder out of nine bidders was qualified as per original terms and conditions.

Management/Department replied (May/October 2021) that this NIT was retendered as per guidelines of JSBAY Phase-I with consideration of DTR and LT lines in qualifying requirement as incorporated earlier. The firms had submitted experience certificate with requisite qualification as required which was as per NIT and there was no violation of NIT clause.

Reply is not acceptable as work was for erection of HT lines but experience of LT lines and DTrs in single turnkey contracts which was not in the scope of work was allowed.

[133] East Singhbhum, West Singhbhum and Saraikela-Kharsawan districts

7.4.2 Irregularity in award of work of metering of unmetered connections under JSBAY

Audit noticed the following irregularities in award of metering works under JSBAY:

- Like in the SAUBHAGYA scheme, the DGMs empanelled vendors and awarded works under JSBAY on the basis of willingness submitted by them instead of selection through open tender in violation of DoFP.

- Multiple work orders were issued by splitting the work in violation of DoFP. A total of 162 work orders[134] valuing ₹ 43.43 crore (***Appendix XIII***) were issued, out of which, 73 work orders valuing ₹ 24.95 crore were split up to bring it within the DoFP of DGM of ESCs (₹ 50 lakh). Further, 10 work orders valuing ₹ 10.54 crore were beyond the DoFP of DGMs.

- Audit noticed that 162 work orders valuing ₹ 43.43 crore were issued under JSBAY for metering. Of this, in 92 work orders[135], agreements were executed with a delay[136] of two to 137 days instead of within 10 to 30 days of issue of work order as required. Further, agreements were not executed in respect of 80 work orders valuing ₹ 70.04 crore. However, the concerned DGMs did not cancel the work orders as required and vendors were allowed to continue the work without ensuring proper legal or technical surety i.e., performance security, penal clause, satisfactory work etc., as required for a contract. Further, in Palamu district, five vendors were executing metering work without any work order and work done by them were found reflected in the progress report of the ESC.

- Twenty-five agreements were executed without obtaining security deposit of ₹ 23.30 lakh (being five *per cent* of the contract value) whereas 29 agreements[137] were executed only with two *per cent* (₹ 14.38 lakh) of security deposit against the required five *per cent* (₹ 35.95 lakh). As such, 54 agreements were executed with non/short security deposit of ₹ 39.11 lakh and resulted in undue financial aid to the contractors.

- ESC Deoghar issued (between May 2019 and September 2019) 32,900 single phase meters, procured at the rate ₹ 905 per meter to 12 vendors. There was no provision of additional security in lieu of meters supplied to vendors even though 14,550 meters were issued to six vendors who had deposited security deposit of only two *per cent* and 18,350 meters were issued to remaining six vendors who had neither deposited security deposit

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[134] Dhanbad (35), Deoghar (45), Giridih (10), Pakur (4), Palamu (6), Dumka (6) and Ranchi (56) valuing ₹ 8.29 crore , ₹ 18.22 crore, ₹ 7.78 crore, ₹ 1.04 crore, ₹ 0.01crore ₹ 1.92 crore and Ranchi ₹ 5.83 crore respectively.

[135] Dhanbad (25), Deoghar (15), Giridih (3), Dumka (6) and Ranchi (43)

[136] Dhanbad- 2 to 4 days; Deoghar-11 to 110 days; Giridih- 137 days; Ranchi- 74-124 days and Dumka- 2 to 48 days.

[137] Deoghar(15), Dumka (6) and Ranchi (8)

nor had converted unmetered/ defective connections into metered connections by installing the issued meters as of December 2019.

In reply, Management/Department stated (May/October 2021) that sub-division wise work order has been issued. In some case, more than one work order has been issued to same agency within the jurisdiction of same sub-division. Further, where agreement were made without taking security deposits, the amount have been recovered from agencies from their first running bill.

Reply is not acceptable as DGM had split the work sub-division wise to bring it under delegation of financial power violating DoFP. Management/Department have also not submitted any documentary evidence in support of deduction of security deposit. Further, the reply was silent on allotment of work without empanelment of vendor, non-agreement of work and allowing contractors to work without issue of work order in Palamu district.

Failure of Technical Evaluation Committee, Special Purchase Committee and BoD of JBVNL to abide by the terms and conditions of tenders needs to be examined and responsibility fixed on erring officials.

Further, JBVNL should examine the cases of violation of DoFP by DGMs of ESCs and fix responsibility.

To sum up, *eighteen packages were awarded to six agencies to carry out rural electrification works even though none of the agencies met the required technical criteria to qualify for the bids. Further, in 304 test-checked cases, there were instances of non-deduction of royalty, delays in execution of agreements, empanelment of vendors without calling open tenders and violation of Delegation of Financial Powers (DoFP) in awarding contracts/works.*

Chapter 8 Monitoring

8.1 District Electric Committee

Ministry of Power, GoI had instructed (April 2015) all States to notify District Electric Committees[138] (DECs). In Jharkhand, the Chief Engineer/Superintending Engineer of JBVNL was to be included as the Member Secretary. DPRs for DDUGJY were to be prepared in consultation with DECs. DECs were also required to review the quality of power supply, consumer satisfaction and promote energy efficiency and energy conservation. The Committees were to meet at least once in three months.

Audit observed that DPRs for DDUGJY were prepared in March 2015 prior to notification (May 2015) of DECs. Further, GoJ/SLSC recommended (May 2015) to forward DPRs of all the 24 districts amounting to ₹ 5,813.87 crore to REC without obtaining recommendations of DECs on DPRs of 19 districts. REC sanctioned DPRs of all 24 districts under DDUGJY for ₹ 3,722.12 crore in August 2015.

Audit further observed that GoJ constituted (May 2015) DECs to monitor implementation of DDUGJY. However, the Committees did not meet in four[139] out of the seven test-checked districts during 2015-20 whereas it met only once in Dhanbad (May 2015), Deoghar (June 2015) and Giridih (June 2015). Though the meetings were held to discuss DPRs of DDUGJY, no minutes were found on record.

Thus, DEC, a body with representation from all departments including public representatives, did not monitor the implementation of DDUGJY which led to delay in execution of schemes besides the following shortcomings:

- Problem of sites including RoW and leave way for PSSs and other infrastructure;

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138 The committee with the senior most Member of Parliament (MP) as Chairperson, other MPs as Co-chairperson, the District Collector (DC) as Convener and Members of Legislative Assembly (MLA), District Panchayat President, senior most representatives of Central Public Sector Undertakings (CPSU) of Power, Coal and Non-Renewable Energy Ministry, if located in concerned district, as members.

139 Palamu, Ranchi, Dumka and Pakur

- Non-furnishing of list of villages and APL beneficiaries targeted under AGJY;
- Stoppage of work of TMKPY meant for agricultural connections; and
- Slow release of electric connections to unconnected households taken up under SAUBHAGYA.

Thus, the purpose of formation of DECs for consultation and preparation of DPRs for the implementation of DDUGJY schemes in the State was defeated.

Management/Department stated (May/October 2021) that DEC/Disha meetings were held in all the districts under the Chairmanship of Hon'ble Member of Parliament (MP). In addition to DEC/Disha meetings, Hon'ble MP, MLAs & DC also reviewed the rural electrification works from time to time and issued necessary directions/guidelines which were implemented.

Reply is not acceptable as the Management/Department have furnished details of meetings of Disha instead of DEC meetings. DEC includes representation of experts from power and coal sector while Disha does not.

8.2 Dedicated team for rural electrification

As per DDUGJY guidelines, JBVNL had to create a dedicated team for implementation of projects at the district and utility/State level including necessary manpower and requisite infrastructure like office, logistics etc., to ensure smooth implementation, monitoring and to redress grievance of the public and public representatives of the project areas. The details of the dedicated team had to be mentioned in the DPR. An officer of the rank of Chief Engineer/General Manager or above, had to be designated as Nodal Officer for the dedicated team at utility/ State level. The Nodal Officer was responsible for implementation of the Scheme in accordance with the prescribed guidelines, providing all necessary information including physical & financial progress related to the projects, arrange to get relevant orders/clearances from the State Government, enhance level of awareness and redress grievances of the public & public representatives in the project areas.

Electrical Executive Engineer (Projects) of the concerned Electric Supply Circle (ESCs) was to function as Engineer-in-Charge and he would be assisted by Assistant Electric Engineer (Projects/Supply) and Junior Electrical Engineer (Project/Supply).

It was observed during test-check in six districts that JBVNL did not deploy dedicated Electrical Executive Engineer (Project). In all the districts, Electrical Executive Engineers (EEEs) holding the post of EEE (Technical, Commercial & Revenue) had been granted additional charge of the projects of the concerned district. It was further observed that ESC offices being nodal offices had to maintain basic records relating to execution of schemes. However, no such records were maintained at the ESC level and they completely relied upon the data provided by concerned TKCs. Thus, non-deployment of dedicated EEE (Project) led to delay in finalisation of BOQ, delay in providing land to TKC etc., which resulted in delays in acquiring statutory clearances and delays in construction of PSSs.

The Management/Department accepted (May/October 2021) that EEE (Technical, Commercial & Revenue) had been given additional charge of EEE (Project) of concerned districts due to shortage of EEEs in JBVNL and stated that there was no adverse effect on execution of project and PMC/PMA of concerned district maintains the data related to execution of work.

The reply is not acceptable as non-deployment of dedicated EEE (Project) led to delay in finalisation of BOQ, delay in providing land to TKC which resulted in delays in acquiring statutory clearances and delays in construction of PSSs. Further, all data required by Audit was sourced from TKCs by ESC offices.

To sum up, *District Electric Committees (DECs) were to meet once in three months to review the quality of power supply, consumer satisfaction and to promote energy efficiency and energy conservation. In the seven test-checked districts, DECs met only once during April 2015 to March 2020 for which no reasons were available on record. Thus, supervisory oversight by DECs, as laid down in the scheme guidelines, was absent. Further, GoJ/SLSC recommended forwarding DPRs of all the 24 districts to REC without obtaining recommendations of DECs on DPRs of 19 districts.*

Chapter 9

Recommendations

Government of India had launched RGGVY (XII FYP), DDUGJY and SAUBHAGYA schemes for electrification of villages. To support the rural electrification measures, the State Government also launched JSBAY, AGJY and TMKPY as State sponsored schemes. Despite implementation of these schemes, objectives of rural electrification could not be fully achieved due to various project bottlenecks.

In order to meet the objectives of rural electrification schemes, the State Government may consider implementing the following recommendations:

- JBVNL may investigate why proper surveys were not carried out and comprehensive database not prepared while planning the electrification works and fix responsibility on erring officials. For the future, JBVNL should strive to adopt modern technologies based on GIS for creating and maintaining asset database besides physical surveys.

- JBVNL should make time bound efforts to improve collection of energy charges from rural consumers by installing meters in unmetered rural premises, billing the metered rural consumers on a regular basis, setting up nearby collection centres in villages and strengthening the spot billing mechanism by Urja Mitra in rural pockets. High-loss pockets should be identified and responsibility fixed on the concerned officials for failing to collect proportionate charges.

- JBVNL should take immediate steps to charge the idle agriculture feeders and dedicated electric lines. JBVNL should also examine the reasons for not shifting the existing agricultural consumers to the separated agricultural feeders and fix responsibility on erring officials.

- JBVNL should immediately put idle assets such as PSSs, associated electric lines, etc., to optimal use so that money spent on their erection becomes productive. Meters should be installed at all levels to ensure correct energy accounting and identification of energy-loss areas.

- The project bottlenecks highlighted by Audit such as failure to provide suitable land in time and failure to obtain statutory clearances in advance should be addressed before taking up electrification works so that they are completed in a time bound manner. Reasons for non-completion of works within the timelines should be thoroughly analysed by the Department to avoid its recurrence. All works, presently behind schedule, should be closely monitored for completion at the earliest.

- Violation of NIT/SBD/DoFP conditions should be viewed seriously and action taken against erring officials as contract management is the essence of effective, efficient and economical execution of projects.

- The Department should ensure that the DECs meet as per norms and engage constructively to review the grey areas highlighted in this Report for taking corrective action and fixing accountability.

Ranchi
The 02 June 2022

(INDU AGRAWAL)
Principal Accountant General (Audit)
Jharkhand

Countersigned

New Delhi
The 20 June 2022

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India

Appendices

Appendix I

(Referred to in paragraph 3.2.8 at page 32 and 33)

Details of collection efficiency in respect of rural consumers

PARTICULARS		2017-18		2018-19				2019-20			
		DS-I (A)	DS-I (B)	DSI (A)	DSI (A) excluding subsidy	DSI (B)	DSI (B) excluding subsidy	DSI (A)	DSI (A) excluding subsidy	DSI (B)	DSI (B) excluding subsidy
D	Total Units sold (MU)	1092.08	2516.66	1032.24	1032.24	2809.12	2809.12	1214.14	1214.14	2628.09	2628.09
E	Total Revenue from Sale of Energy (₹ in crore)	106.07	260.71	400.68	216.13	537.18	439.96	755.70	316.49	836.57	515.94
F	Adjusted Revenue from Sale of Energy (Adjustment of Revenue Grant)[140] (₹ in crore)	106.07	260.71	400.68	216.13	537.18	439.96	755.70	316.49	836.57	515.94
G	Opening debtors for sale of energy (₹ in crore)	252.66	170.53	337.05	337.05	315.15	315.15	519.76	519.76	549.35	549.35
H	Closing debtors for sale of energy (₹ in crore)	337.05	315.15	519.76	519.76	549.35	549.35	792.00	792.00	865.03	865.03
	(i) Closing debtors for sale of energy (₹ in crore)	337.05	315.15	519.76	519.76	549.35	549.35	792.00	792.00	865.03	865.03
	(ii)Any write off (₹ in crore)	0	0	0	0	0	0	0	0	0	0
I	Adjusted closing debtors (₹ in crore)(i+ii)	337.05	315.15	519.76	519.76	549.35	549.35	792.00	792.00	865.03	865.03
	Collection Efficiency (*per cent*) without Adjusted Revenue ((F+G/I)/E*100)	20.44	44.53	54.40	15.46	56.40	46.77	63.97	13.98	62.26	38.81

(Source: Compiled from information furnished by JBVNL)

[140] GoJ has provided resource gap funding up to 2017-18 and from 2018-19 started providing subsidy. Total Subsidy booked and received of ₹ 184.55 crore and ₹ 439.21 crore under DS-I (A) tariff and ₹ 97.22 crore and ₹ 320.63 crore under DS-I (B) for the year 2018-19 and 2019-20 respectively.

Appendix II

(Referred to in paragraph 3.2.9 at page 33)

Statement showing Aggregate Technical and Commercial losses (AT&C)

COMPUTATION OF AT&C LOSS					
PARTICULARS		**2016-17**	**2017-18**	**2018-19**	**2019-20**
A	Gross energy purchased (lakh unit)	12,48,93.38	1,28,781.39	1,28,603.64	1,26,193.99
B	Transmission losses (lakh unit)	8,927.89	9,378.94	8,562.08	5,179.76
C	Net input energy (lakh unit)	1,15,965.49	1,19,402.45	1,20,041.56	1,21,014.23
D	Total units sold (lakh unit) (% of C)	87,210.72(75)	93,137.26(78)	92,775.51(77)	93,148.93(77)
E	Total revenue from sale of energy including revenue grant[141] (₹ in lakh)	3,93,862.86	6,59,387.60	5,07,410.27	6,40,507.35
F	Adjusted revenue - adjustment of revenue grant (nil)[142]- ₹ in lakh	3,93,862.86	6,59,387.60	5,07,410.27	6,42,604.08
G	Opening debtors for sale of energy-₹ in lakh	4,00,951.30	4,89,275.99	5,89,080.95	6,28,302.69
H	Closing debtors for sale of energy-₹ in lakh	4,37,614.56	5,89,079.74	6,28,302.69	7,17,512.36
	i) Closing debtors for sale of energy-₹ in lakh	4,37,614.56	5,89,079.74	6,28,302.69	7,17,512.36
	ii) Any write off	0	0	0	0
I	Adjusted closing debtors-₹ in lakh (i+ii)	4,37,614.56	5,89,079.74	6,28,302.69	7,17,512.36
J	Collection efficiency (*per cent*) (F+G-I)/E	90.69	84.86	92.27	86.40
K	Units realised (lakh unit) (D*J) (% of D)	79,091.40(91)	79,036.28(85)	85,603.96(92)	80,480.68(86)
L	Units unrealised (lakh unit) (C-K)	36,874.09	40,366.17	34,437.60	40,533.55
M	AT & C Loss (*per cent*) (L/C)	31.80	33.81	28.69	33.49

(Source: compiled from data furnished by JBVNL)

[141] (2016-17- ₹ 1200 crore, 2017-18- ₹ 2999.99 crore; 2018-19-₹ 1250 crore, and 2019-20- ₹ 600 crore)

[142] (2017-18-revenue booked - ₹ 2999.99 crore received- ₹ 2999.99 crore; 2018-19-revenue booked - ₹ 1250 crore, received-₹ 1250 crore and 2019-20-revenue booked - ₹ 600 crore, received-₹ 600 crore)

Appendix III

(Referred to in paragraph 5.2 at page 43)

Details of PSS to be augmented and achievement thereagainst

Name of district	Scheme	No. of PSS to be augmented	Capacity of PSS to be augmented (MVA)	No. of PSS augmented	Capacity of PSS augmented (MVA)
Dhanbad	XII FYP	3	15	3	15
	DDUGJY	3	15	3	15
Deoghar	XII FYP	1	5	1	5
	DDUGJY	2	8.7	2	8.7
Pakur	XII FYP	0	-	0	-
	DDUGJY	1	5	0	0
Palamu	XII FYP	-	-	-	-
	DDUGJY	4	20	2	10
Giridih	XII FYP	7	60	7	60
	DDUGJY	1	10	1	10
Dumka	XII FYP	0	0	0	0
	DDUGJY	5	25	5	25
Ranchi	XII FYP	0	0	0	0
	DDUGJY	7	40	7	40
Total	**XII FYP**	**11**	**80**	**11**	**80**
	DDUGJY	**23**	**123.7**	**20**	**108.7**
Grand Total		**34**	**203.7**	**31**	**188.7**

(Source: Compiled from data furnished by ESCs of JBVNL)

Appendix IV

(Referred to in paragraph 5.4 at page 44)

Statement showing details of excess DTrs installed

District	Scheme	BPL connections loaded on transformer	APL connections loaded on transformer	Public places connection loaded on transformer	Total Load on transformer installed (KVA)	No. of DTr installed		Capacity of DTrs	Percent of maximum load on DTR(80 per cent)	Percent of load on DTR	Total DTrs required keeping load growth of five years	Excess KVA installed	Excess 25 KVA DTrs capacity installed (KVA)
						25 KVA	63 KVA						
(1)	(2)	(3)	(4)	(5)	(6)={(3)x0.25+(4)x0.5+(5)x1} x1.176	(7)	(8)	(9) = (7)x25 + (8) x63	(10) = (9)x0.8	(11)= (6)/(9)x100	(12)	(13) = (09) - (12)	(14) =(13)/25
Palamu	12th Plan	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	DDUGJY	1991	1902	0	1703.73	961	0	24025	19220	7.09	2743.87	21281.13	851.25
Dhanbad	12th Plan	13398	1237	0	4666.37	821	264	37157	29725.6	12.56	7515.23	29641.77	1185.67
	DDUGJY	13975	6525	347	8353.42	743	0	18575	14860	44.97	13453.27	5121.73	204.87
Deoghar	12th Plan	24150	19248	453	18950.65	1798	64	48982	39185.6	38.69	30520.21	18461.79	738.47
	DDUGJY	2405	7666	246	5503.97	972	0	24300	19440	22.65	8864.21	15435.79	617.43
Pakur	12th Plan	16183	5556	377	8468.08	1652	231	55853	44682.4	15.16	13637.93	42215.07	1688.60
	DDUGJY	167	12202	55	7288.55	910	0	22750	18200	32.04	11738.29	11011.71	440.47
Giridih	12th Plan	13620	4000	855	7361.76	1736	0	43400	34720	16.96	11856.19	31543.81	1261.75
	DDUGJY	43004	43479	1010	39396.59	3874	0	96850	77480	40.68	63448.60	33401.40	1336.06
Ranchi	12th Plan	30400	23331	493	23236.00	2314	0	57850	46280	40.17	37421.80	20428.20	817.13
	DDUGJY	13111	8374	373	9217.19	2745	0	68625	54900	13.43	14844.38	53780.62	2151.22
Dumka	12th Plan	0	0	0	0.00	0	0	0	0	0.00	0.00	0.00	0.00
	DDUGJY	18783	30416	0	23406.81	5415	0	135375	108300	17.29	37696.90	97678.10	3907.12
Total		**191187**	**163936**	**4209**	**157553.12**	**23941**	**559**	**633742**	**506993.6**	**301.69**	**253740.88**	**380001.12**	**15200.04**

(Source: Compiled from information furnished by ESCs/JBVNL)

Appendix V

(Referred to in paragraph 5.5 and 5.6 at page 45 and 47)

Details of erection of HT/LT lines *vis-à-vis* HT/LT PCC poles

Particular of works	Length of HT line erected (in Km)	No. of HT poles erected	No. of HT poles required at the rate of 18 poles per Km	No. of HT pole erected in excess of requirement	Length of LT line erected (Km)	No. of LT poles erected	No. of LT poles required at the rate of 25 poles per Km	No. of HT pole erected in excess of requirement
1	2	3	4 (2*18)	5 (3-4)	6	7	8 (6*25)	9 (7-8)
Giridih (XII FYP)	376.33	11361	6774	4587	1234.08	36240	30852	5388
Giridih (DDUGJY)	807.34	18486	14532	4146	1944.64	59272	48616	10656
Deoghar (XII FYP)	543.07	11154	9775	2433	1144.27	33281	28607	4674
Deoghar (DDUGJY)	652	15903	11736	4172	880.76	25210	22019	3191
Dhanbad (XII FYP)	150.17	5784	2703	3081	714.52	25094	17863	7231
Dhanbad (DDUGJY)	125.24	3936	2254	1604	530.96	14682	13274	1408
Pakur (XII FYP)	335	11712	6030	5682	1089.1	27228	27228	0
Pakur (DDUGJY)	63.81	2598	1149	1449	462.22	8702	11556	-2854
Dumka (DDUGJY)	1394.86	25406	25107	299	3635.84	92723	90896	1827
Palamu (DDUGJY)	321.08	5781	5780	1	1984.49	50159	49612	547
Ranchi (XII FYP)	817.72	22022	14719	8238	1837.12	50571	45928	4643
Ranchi (DDUGJY)	1326.92	27924	23885	4039	2481.47	68067	62037	6030
Total	**6913.54**	**162067**	**124444**	**39731**	**17939.47**	**491229**	**448488**	**42741**

(Source: Compiled from data furnished by ESCs of JBVNL)

Appendix VI

(Referred to in paragraph 5.8 at page 48)

Scope *vis-à-vis* achievement of JSBAY

Sl. No.	Activity	Unit	JSBAY –I				JSBAY –II			
			Scope	Survey Quantity	Achievement	Percentage of achievement	Scope	Survey Quantity	Achievement	Percentage of achievement
1	New 33KV Line	Ckm	2108.35	1330.19	797.51	59.95	1731.8	956.17	97.78	10.28
2	Reconductoring/ Strengthening of 33KV line	Ckm	1477.17	2419.06	685.58	28.34	0	0	0	0
3	New 11 KV line	Ckm	1685	756.19	384.20	50.81	1745.43	1949.09	355.07	18.22
4	Reconductoring/Strengthening of 11KV line	Ckm	2148.86	3157.40	1630.14	51.63	2447.46	1298.06	237.61	18.31
5	New 33/11KV PSS (2x5 MVA)	Nos.	50	44	9	20.45	120	85	0	0
6	Additional / R&M PSS	Nos.	148	186	58	31.18	0	0	0	0
7	New 33KV Bay	Nos.	51	61	22	36.07	0	0	0	0
8	LT New Line	Ckm	0	0	0		1477.73	1137.41	467.50	41.10
9	LT Line reconductoring	Ckm	0	0	0		3094.58	1664.77	289.44	17.39
10	Distribution Transformer (DTR)	Nos.	0	0	0		6076	3058.00	1024	33.49
11	Replacement of Distribution Transformer	Nos.	0	0	0		3174	827	357	45.34
12	Agriculture feeders	Nos.	0	0	0		0	79.08	10.37	13.11
13	33KV new feeder line	Nos.	0	0	0	0	119	85	0	0

(Source: Compiled from information furnished by JBVNL)

Appendix VII

(Referred to in paragraph 6.4 at page 56)

Interest repayment to REC at higher rate on loan component under DDUGJY

(Amount in ₹)

Disbursement Tranche	from	to	Days	Date of first disbursement	O/S amount	RoI	Interest charged	Interest to be charged	Excess charged	Penal Interest
3	15/03/2019	19/03/2019	5	15/03/2019	14,29,95,000	10	1,95,884	1,86,089	9,794	0
3	28/03/2019	19/06/2019	84	28/03/2019	16,11,07,500	10	37,07,679	35,22,295	1,85,384	0
3	28/03/2019	19/06/2019	84	28/03/2019	11,46,45,000	10	26,38,405	25,06,485	1,31,920	0
3	28/03/2019	19/06/2019	84	28/03/2019	7,62,22,500	10	17,54,162	16,66,454	87,708	0
4	25/06/2019	19/09/2019	87	25/06/2019	3,48,21,000	10	8,29,980	7,88,481	41,499	0
5	09/09/2019	19/09/2019	11	09/09/2019	2,32,14,000	10	69,960	66,462	3,498	0
4	25/06/2019	19/09/2019	87	25/06/2019	4,33,89,000	10	10,34,204	9,82,493	51,710	0
5	09/09/2019	19/09/2019	11	09/09/2019	2,89,26,000	10	87,174	82,816	4,359	0
4	25/06/2019	19/09/2019	87	25/06/2019	7,98,21,000	10	19,02,583	18,07,454	95,129	0
5	09/09/2019	19/09/2019	11	09/09/2019	5,32,14,000	10	1,60,371	1,52,352	8,019	0
4	25/06/2019	19/09/2019	87	25/06/2019	5,46,07,500	10	13,01,603	12,36,523	65,080	0
5	09/09/2019	19/09/2019	11	09/09/2019	3,64,05,000	10	1,09,714	1,04,228	5,486	0
3	20/06/2019	19/09/2019	92	15/03/2019	14,29,95,000	10.8	38,74,577	34,24,045	4,50,532	0
4	19/06/2019	19/09/2019	63	19/06/2019	8,57,97,000	10	14,80,880	14,06,836	74,044	0
4	25/06/2019	19/09/2019	87	25/06/2019	10,64,74,500	10	25,37,885	24,10,991	1,26,894	0
5	09/09/2019	19/09/2019	11	09/09/2019	7,09,83,000	10	2,13,921	2,03,225	10,696	0
4	26/06/2019	19/09/2019	86	26/06/2019	11,83,90,500	10	27,89,475	26,50,001	1,39,474	0
5	09/09/2019	19/09/2019	11	09/09/2019	7,89,27,000	10	2,37,862	2,25,969	11,893	0
4	19/07/2019	19/09/2019	63	19/07/2019	5,30,59,500	10	9,15,822	8,70,030	45,791	0
5	09/09/2019	19/09/2019	11	09/09/2019	3,53,73,000	10	1,06,604	1,01,273	5,330	0
4	19/07/2019	19/09/2019	63	19/07/2019	8,65,71,000	10	14,94,239	14,19,527	74,712	0
5	09/09/2019	19/09/2019	11	09/09/2019	5,77,14,000	10	1,73,933	1,65,236	8,697	0
4	26/06/2019	19/09/2019	86	26/06/2019	8,74,53,000	10	20,60,536	19,57,510	1,03,027	0

Disbursement Tranche	from	to	Days	Date of first disbursement	O/S amount	RoI	Interest charged	Interest to be charged	Excess charged	Penal Interest
5	09/09/2019	19/09/2019	11	09/09/2019	5,83,02,000	10	1,75,705	1,66,919	8,785	0
4	25/06/2019	19/09/2019	87	25/06/2019	5,62,50,000	10	13,40,753	12,73,716	67,038	0
5	09/09/2019	19/09/2019	11	09/09/2019	3,75,00,000	10	1,13,014	1,07,363	5,651	0
4	25/06/2019	19/09/2019	87	25/06/2019	3,10,63,500	10	7,40,418	7,03,397	37,021	0
5	09/09/2019	19/09/2019	11	09/09/2019	2,07,09,000	10	62,411	59,290	3,121	0
4	25/06/2019	19/09/2019	87	25/06/2019	7,48,80,000	10	17,84,811	16,95,570	89,241	0
5	09/09/2019	19/09/2019	11	09/09/2019	4,99,20,000	10	1,50,444	1,42,922	7,522	0
4	25/06/2019	19/09/2019	87	25/06/2019	4,51,48,500	10	10,76,142	10,22,335	53,807	0
5	09/09/2019	19/09/2019	11	09/09/2019	3,00,99,000	10	90,709	86,174	4,535	0
3	19/07/2019	19/09/2019	63	19/07/2019	12,21,84,000	10	21,08,929	20,03,483	1,05,446	0
4	09/09/2019	19/09/2019	11	09/09/2019	3,05,46,000	10	92,056	87,454	4,603	0
4	19/07/2019	19/09/2019	63	19/07/2019	14,03,19,000	10	24,21,944	23,00,847	1,21,097	0
5	09/09/2019	19/09/2019	11	09/09/2019	9,35,46,000	10	2,81,919	2,67,823	14,096	0
3	20/06/2019	19/09/2019	92	28/03/2019	16,11,07,500	10	40,60,792	38,57,752	2,03,040	0
4	19/07/2019	19/09/2019	63	19/07/2019	9,66,64,500	10	16,68,456	15,85,033	83,423	0
5	09/09/2019	19/09/2019	11	09/09/2019	6,44,43,000	10	1,94,212	1,84,501	9,711	0
3	20/06/2019	19/09/2019	92	28/03/2019	11,46,45,000	10	28,89,682	27,45,198	1,44,484	0
4	19/07/2019	19/09/2019	63	19/07/2019	6,87,87,000	10	11,87,282	11,27,918	59,364	0
5	09/09/2019	19/09/2019	11	09/09/2019	4,58,58,000	10	1,38,202	1,31,292	6,910	0
4	25/06/2019	19/09/2019	87	25/06/2019	3,11,13,000	10	7,41,598	7,04,518	37,080	0
5	09/09/2019	19/09/2019	11	09/09/2019	2,07,42,000	10	62,510	59,385	3,126	0
4	25/06/2019	19/09/2019	87	25/06/2019	11,71,35,000	10	27,91,985	26,52,386	1,39,599	0
5	09/09/2019	19/09/2019	11	09/09/2019	7,80,90,000	10	2,35,340	2,23,573	11,767	0
3	20/06/2019	19/09/2019	92	28/03/2019	7,62,22,500	10	19,21,225	18,25,163	96,061	0
4	19/07/2019	19/09/2019	63	19/07/2019	4,57,33,500	10	7,89,373	7,49,904	39,469	0
5	09/09/2019	19/09/2019	11	09/09/2019	3,04,89,000	10	91,885	87,290	4,594	0
4	19/07/2019	19/09/2019	63	19/07/2019	4,56,07,500	10	7,87,198	7,47,838	39,360	0

Disbursement Tranche	from	to	Days	Date of first disbursement	O/S amount	RoI	Interest charged	Interest to be charged	Excess charged	Penal Interest
5	09/09/2019	19/09/2019	11	09/09/2019	3,04,05,000	10	91,632	87,050	4,582	0
4	19/07/2019	19/09/2019	63	19/07/2019	6,24,46,500	10	10,77,844	10,23,952	53,892	0
5	09/09/2019	19/09/2019	11	09/09/2019	4,16,31,000	10	1,25,463	1,19,190	6,273	0
4	20/09/2019	19/12/2019	91	25/06/2019	3,48,21,000	10	8,68,140	8,24,733	43,407	0
5	20/09/2019	19/12/2019	91	09/09/2019	2,32,14,000	10	5,78,760	5,49,822	28,938	0
4	20/09/2019	19/12/2019	91	25/06/2019	4,33,89,000	10	10,81,753	10,27,665	54,088	0
5	20/09/2019	19/12/2019	91	09/09/2019	2,89,26,000	10	7,21,169	6,85,110	36,058	0
4	20/09/2019	19/12/2019	91	25/06/2019	7,98,21,000	10	19,90,058	18,90,555	99,503	0
5	20/09/2019	19/12/2019	91	09/09/2019	5,32,14,000	10	13,26,705	12,60,370	66,335	0
4	20/09/2019	19/12/2019	91	25/06/2019	5,46,07,500	10	13,61,447	12,93,375	68,072	0
5	20/09/2019	19/12/2019	91	09/09/2019	3,64,05,000	10	9,07,632	8,62,250	45,382	0
3	20/09/2019	19/12/2019	91	15/03/2019	14,29,95,000	10.8	38,32,462	33,86,827	4,45,635	0
4	20/09/2019	19/12/2019	91	19/07/2019	8,57,97,000	10	21,39,048	20,32,096	1,06,952	0
4	20/09/2019	19/12/2019	91	25/06/2019	10,64,74,500	10	26,54,570	25,21,841	1,32,728	0
5	20/09/2019	19/12/2019	91	09/09/2019	7,09,83,000	10	17,69,713	16,81,227	88,486	0
4	20/09/2019	19/12/2019	91	26/06/2019	11,83,90,500	10	29,51,654	28,04,071	1,47,583	0
5	20/09/2019	19/12/2019	91	09/09/2019	7,89,27,000	10	19,67,769	18,69,381	98,388	0
4	20/09/2019	19/12/2019	91	19/07/2019	5,30,59,500	10	13,22,853	12,56,711	66,143	0
5	20/09/2019	19/12/2019	91	09/09/2019	3,53,73,000	10	8,81,902	8,37,807	44,095	0
4	20/09/2019	19/12/2019	91	19/07/2019	8,65,71,000	10	21,58,345	20,50,428	1,07,917	0
5	20/09/2019	19/12/2019	91	09/09/2019	5,77,14,000	10	14,38,897	13,66,952	71,945	0
4	20/09/2019	19/12/2019	91	26/06/2019	8,74,53,000	10	21,80,335	20,71,318	1,09,017	0
5	20/09/2019	19/12/2019	91	09/09/2019	5,83,02,000	10	14,53,557	13,80,879	72,678	0
4	20/09/2019	19/12/2019	91	25/06/2019	5,62,50,000	10	14,02,397	13,32,277	70,120	0
5	20/09/2019	19/12/2019	91	09/09/2019	3,75,00,000	10	9,34,932	8,88,185	46,747	0
4	20/09/2019	19/12/2019	91	25/06/2019	3,10,63,500	10	7,74,460	7,35,737	38,723	0
5	20/09/2019	19/12/2019	91	09/09/2019	2,07,09,000	10	5,16,307	4,90,491	25,815	0

Disbursement Tranche	from	to	Days	Date of first disbursement	O/S amount	RoI	Interest charged	Interest to be charged	Excess charged	Penal Interest
4	20/09/2019	19/12/2019	91	25/06/2019	7,48,80,000	10	18,66,871	17,73,528	93,344	0
5	20/09/2019	19/12/2019	91	09/09/2019	4,99,20,000	10	12,44,581	11,82,352	62,229	0
4	20/09/2019	19/12/2019	91	25/06/2019	4,51,48,500	10	11,25,620	10,69,339	56,281	0
5	20/09/2019	19/12/2019	91	09/09/2019	3,00,99,000	10	7,50,413	7,12,893	37,521	0
3	20/09/2019	19/12/2019	91	19/07/2019	12,21,84,000	10	30,46,231	28,93,920	1,52,312	0
4	20/09/2019	19/12/2019	91	09/09/2019	3,05,46,000	10	7,61,558	7,23,480	38,078	0
4	20/09/2019	19/12/2019	91	19/07/2019	14,03,19,000	10	34,98,364	33,23,446	1,74,918	0
5	20/09/2019	19/12/2019	91	09/09/2019	9,35,46,000	10	23,32,243	22,15,631	1,16,612	0
3	20/09/2019	19/12/2019	91	28/03/2019	16,11,07,500	10	40,16,653	38,15,820	2,00,833	0
4	20/09/2019	19/12/2019	91	19/07/2019	9,66,64,500	10	24,09,992	22,89,492	1,20,500	0
5	20/09/2019	19/12/2019	91	09/09/2019	6,44,43,000	10	16,06,661	15,26,328	80,333	0
3	20/09/2019	19/12/2019	91	28/03/2019	11,46,45,000	10	28,58,273	27,15,359	1,42,914	0
4	20/09/2019	19/12/2019	91	19/07/2019	6,87,87,000	10	17,14,964	16,29,215	85,748	0
5	20/09/2019	19/12/2019	91	09/09/2019	4,58,58,000	10	11,43,309	10,86,144	57,165	0
4	20/09/2019	19/12/2019	91	25/06/2019	3,11,13,000	10	7,75,694	7,36,909	38,785	0
5	20/09/2019	19/12/2019	91	09/09/2019	2,07,42,000	10	5,17,129	4,91,273	25,856	0
4	20/09/2019	19/12/2019	91	25/06/2019	11,71,35,000	10	29,20,352	27,74,334	1,46,018	0
5	20/09/2019	19/12/2019	91	09/09/2019	7,80,90,000	10	19,46,901	18,49,556	97,345	0
3	20/09/2019	19/12/2019	91	28/03/2019	7,62,22,500	10	19,00,342	18,05,325	95,017	0
4	20/09/2019	19/12/2019	91	19/07/2019	4,57,33,500	10	11,40,205	10,83,195	57,010	0
5	20/09/2019	19/12/2019	91	09/09/2019	3,04,89,000	10	7,60,137	7,22,130	38,007	0
4	20/09/2019	19/12/2019	91	19/07/2019	4,56,07,500	10	11,37,064	10,80,211	56,853	0
5	20/09/2019	19/12/2019	91	09/09/2019	3,04,05,000	10	7,58,042	7,20,140	37,902	0
4	20/09/2019	19/12/2019	91	19/07/2019	6,24,46,500	10	15,56,885	14,79,041	77,844	0
5	20/09/2019	19/12/2019	91	09/09/2019	4,16,31,000	10	10,37,924	9,86,027	51,896	0
4	20/12/2019	19/03/2020	91	25/06/2019	3,48,21,000	10	8,68,140	8,24,733	43,407	3,140
5	20/12/2019	19/03/2020	91	09/09/2019	2,32,14,000	10	5,78,760	5,49,822	28,938	2,093

Disbursement Tranche	from	to	Days	Date of first disbursement	O/S amount	RoI	Interest charged	Interest to be charged	Excess charged	Penal Interest
4	20/12/2019	19/03/2020	91	25/06/2019	4,33,89,000	10	10,81,753	10,27,665	54,088	3,912
5	20/12/2019	19/03/2020	91	09/09/2019	2,89,26,000	10	7,21,169	6,85,110	36,058	2,608
4	20/12/2019	19/03/2020	91	25/06/2019	7,98,21,000	10	19,90,058	18,90,555	99,503	7,197
5	20/12/2019	19/03/2020	91	09/09/2019	5,32,14,000	10	13,26,705	12,60,370	66,335	4,798
4	20/12/2019	19/03/2020	91	25/06/2019	5,46,07,500	10	13,61,447	12,93,375	68,072	4,924
5	20/12/2019	19/03/2020	91	09/09/2019	3,64,05,000	10	9,07,632	8,62,250	45,382	3,282
3	20/12/2019	19/03/2020	91	15/03/2019	14,29,95,000	10.8	38,32,462	33,86,827	4,45,635	13,860
4	20/12/2019	19/03/2020	91	19/07/2019	8,57,97,000	10	21,39,048	20,32,096	1,06,952	7,736
4	20/12/2019	19/03/2020	91	25/06/2019	10,64,74,500	10	26,54,570	25,21,841	1,32,728	9,600
5	20/12/2019	19/03/2020	91	09/09/2019	7,09,83,000	10	17,69,713	16,81,227	88,486	6,400
4	20/12/2019	19/03/2020	91	26/06/2019	11,83,90,500	10	29,51,654	28,04,071	1,47,583	10,674
5	20/12/2019	19/03/2020	91	09/09/2019	7,89,27,000	10	19,67,769	18,69,381	98,388	7,116
4	20/12/2019	19/03/2020	91	19/07/2019	5,30,59,500	10	13,22,853	12,56,711	66,143	4,784
5	20/12/2019	19/03/2020	91	09/09/2019	3,53,73,000	10	8,81,902	8,37,807	44,095	3,189
4	20/12/2019	19/03/2020	91	19/07/2019	8,65,71,000	10	21,58,345	20,50,428	1,07,917	7,806
5	20/12/2019	19/03/2020	91	09/09/2019	5,77,14,000	10	14,38,897	13,66,952	71,945	5,204
4	20/12/2019	19/03/2020	91	26/06/2019	8,74,53,000	10	21,80,335	20,71,318	1,09,017	7,885
5	20/12/2019	19/03/2020	91	09/09/2019	5,83,02,000	10	14,53,557	13,80,879	72,678	5,257
4	20/12/2019	19/03/2020	91	25/06/2019	5,62,50,000	10	14,02,397	13,32,277	70,120	5,072
5	20/12/2019	19/03/2020	91	09/09/2019	3,75,00,000	10	9,34,932	8,88,185	46,747	3,381
4	20/12/2019	19/03/2020	91	25/06/2019	3,10,63,500	10	7,74,460	7,35,737	38,723	2,801
5	20/12/2019	19/03/2020	91	09/09/2019	2,07,09,000	10	5,16,307	4,90,491	25,815	1,867
4	20/12/2019	19/03/2020	91	25/06/2019	7,48,80,000	10	18,66,871	17,73,528	93,344	6,751
5	20/12/2019	19/03/2020	91	09/09/2019	4,99,20,000	10	12,44,581	11,82,352	62,229	4,501
4	20/12/2019	19/03/2020	91	25/06/2019	4,51,48,500	10	11,25,620	10,69,339	56,281	4,071
5	20/12/2019	19/03/2020	91	09/09/2019	3,00,99,000	10	7,50,413	7,12,893	37,521	2,714
3	20/12/2019	19/03/2020	91	19/07/2019	12,21,84,000	10	30,46,231	28,93,920	1,52,312	11,017

Disbursement Tranche	from	to	Days	Date of first disbursement	O/S amount	RoI	Interest charged	Interest to be charged	Excess charged	Penal Interest
4	20/12/2019	19/03/2020	91	09/09/2019	3,05,46,000	10	7,61,558	7,23,480	38,078	2,754
4	20/12/2019	19/03/2020	91	19/07/2019	14,03,19,000	10	34,98,364	33,23,446	1,74,918	12,652
5	20/12/2019	19/03/2020	91	09/09/2019	9,35,46,000	10	23,32,243	22,15,631	1,16,612	8,434
3	20/12/2019	19/03/2020	91	28/03/2019	16,11,07,500	10	40,16,653	38,15,820	2,00,833	14,526
4	20/12/2019	19/03/2020	91	19/07/2019	9,66,64,500	10	24,09,992	22,89,492	1,20,500	8,716
5	20/12/2019	19/03/2020	91	09/09/2019	6,44,43,000	10	16,06,661	15,26,328	80,333	5,810
3	20/12/2019	19/03/2020	91	28/03/2019	11,46,45,000	10	28,58,273	27,15,359	1,42,914	10,337
4	20/12/2019	19/03/2020	91	19/07/2019	6,87,87,000	10	17,14,964	16,29,215	85,748	6,202
5	20/12/2019	19/03/2020	91	09/09/2019	4,58,58,000	10	11,43,309	10,86,144	57,165	4,135
4	20/12/2019	19/03/2020	91	25/06/2019	3,11,13,000	10	7,75,694	7,36,909	38,785	2,805
5	20/12/2019	19/03/2020	91	09/09/2019	2,07,42,000	10	5,17,129	4,91,273	25,856	1,870
4	20/12/2019	19/03/2020	91	25/06/2019	11,71,35,000	10	29,20,352	27,74,334	1,46,018	10,561
5	20/12/2019	19/03/2020	91	09/09/2019	7,80,90,000	10	19,46,901	18,49,556	97,345	7,041
3	20/12/2019	19/03/2020	91	28/03/2019	7,62,22,500	10	19,00,342	18,05,325	95,017	6,872
4	20/12/2019	19/03/2020	91	19/07/2019	4,57,33,500	10	11,40,205	10,83,195	57,010	4,123
5	20/12/2019	19/03/2020	91	09/09/2019	3,04,89,000	10	7,60,137	7,22,130	38,007	2,749
4	20/12/2019	19/03/2020	91	19/07/2019	4,56,07,500	10	11,37,064	10,80,211	56,853	4,112
5	20/12/2019	19/03/2020	91	09/09/2019	3,04,05,000	10	7,58,042	7,20,140	37,902	2,741
4	20/12/2019	19/03/2020	91	19/07/2019	6,24,46,500	10	15,56,885	14,79,041	77,844	5,630
5	20/12/2019	19/03/2020	91	09/09/2019	4,16,31,000	10	10,37,924	9,86,027	51,896	3,754
								Total	**11717524**	**289464**
								Grand Total with penal Interest	**12006988**	

(Source: Records at JBVNL Headquarters)

Appendix VIII

(Referred to in paragraph 7.1.1 at page 61)

Statement showing minimum technical criteria vis-à-vis technical criteria submitted by JV of Anvil cables and Shikha Electrical in Bokaro, Dhanbad and Giridih districts under RGGVY (XII FYP)

Particulars	Unit	Minimum technical criteria required			Technical criteria submitted and considered by TEC of JV for all three districts		Proportionate qualified criteria in the ratio of its share in JV
		Dhanbad	Giridih	Bokaro	Anvil cables	Shikha Electric Stores	
PSS/GSS	No.	Two PSS or One GSS	Two PSS or One GSS	Two PSS or One GSS	0	Two PSS	0.4 *i.e.,* less than one PSS (0*80 *per cent*+2*20 *per cent*)
Line length	KM	37.3	64.297	66.171	0	222.55	44.51 km *i.e.,* (0*80 *per cent*+222.55*20 *per cent*)
DTR capacity	No.	141	204	228	0	261	52.2 *i.e.,* less than 53 (0*80 *per cent*+261*20 *per cent*)

(Source: Records at JBVNL Headquarters)

Appendix IX

(Referred to in paragraph 7.1.2 at page 64)

Statement showing minimum technical criteria vis-à-vis technical criteria submitted by IL&FS *w.r.t.* District –Sahibganj

Technical					Commercial	
Scope	**Lines (EHT + 33 kV + 11 kV + LT) (Ckm)**	**Submitted Lines experience (Ckm) (per cent)**	**Transformation Capacity (PTR + DTR) (MVA)**	**Submitted Transformation Capacity (MVA) (per cent)**	**Value (in crore)**	**Submitted (per cent)**
100 *per cent* Scope	**7503**		**415**		**2362.63**	
50 *per cent* Scope (In case of Single Turnkey Contact)	3751.5	1978.40 (53)	207.5	83.5 (40)	1181.32	115.732 (10)
40 *per cent* Scope (In case of Two Turnkey Contacts)	3001.2	1748.00 (58)	166	41.55 (25)	945.05	115.732 & 99.225 (23)
30 *per cent* Scope (In case of Three Turnkey Contacts)	2250.9	61.68 (03)	124.5	120 (96)	708.79	115.732, 99.225 & 95.03 (44)

(Source: Records at JBVNL Headquarters)

Appendix X

(Referred to in paragraph 7.1.2 at page 64)

Statement showing minimum technical criteria vis-à-vis technical criteria submitted by IL&FS *w.r.t.* West Singhbhum and East Singhbhum districts

Technical					Commercial	
Scope	**Lines (EHT + 33 kV + 11 kV + LT)**	**Submitted Lines experience (Ckm) (per cent)**	**Transformation Capacity (PTR + DTR)**	**Submitted Transformation Capacity (MVA) (per cent)**	**Value (in crore)**	**Submitted (per cent)**
100 *per cent* Scope	**3211.18**		**203.45**		**358.56**	
50 *per cent* Scope (In case of Single Turnkey Contact)	1605.59	2500.38 (156)	101.725	31.116 (31)	179.28	130.88 (73)
40 *per cent* Scope (In case of Two Turnkey Contacts)	1284.472	1978.38 (154)	81.38	83.503 (103)	143.42	69.08 (48)
30 *per cent* Scope (In case of Three Turnkey Contacts)	963.354		61.035		107.57	
Contractor did not fulfil the minimum criteria. However work were awarded considering work not completed.						

(Source: Records at JBVNL Headquarters)

Appendix XI

(Referred to in paragraph7.2 at page 69)

Statement showing price escalation in East Singhbhum, West Singhbhum, Sahibganj and Pakur Packages

₹ in crore

Sl. No	Name of package	Name of TKC	Awarded cost of the project	Sanctioned cost as per 2014/15 SOR	Cost as per 2018/19 SOR DPR	Work completed	Left over work against sanctioned cost	Present value of left over work as per cost data 2018-19 against sanctioned DPR	Additional DPR approved by REC	Re-Tender	Sanctioned cost for tender	Total value pkg wise	Price escalation as per 2018/19 SOR
1	**2**	**3**	**4**	**5**	**6**	**7**	**8=(5-7)**	**9**	**10**	**11**	**12**	**13=(8+10)**	**15=(9-8)**
1	East Singhbhum	M/s. IL&FS Engineering and construction company Ltd.	169.27	151.88	206.93	16.95	134.93	189.98	0.00	Pkg/ I Suncity Enterprises Pkg 2/ Anvil Cable Pvt. Ltd.	71.22 63.71	134.93	55.05
2	West Singhbhum	M/s. IL&FS Engineering and construction company Ltd.	232.39	206.68	397.22	31.89	174.79	365.33	79.06	Pkg/1 Anvil Cable Pvt. Ltd Pkg/2 Gopi Krishna Infrastructure Pkg/3 Ekckra Electrical Works Pkg/4 Gopi Krishna Infrastructure	63.83 65.91 58.33 65.78	253.85	190.54
3	Sahibganj	M/s. IL&FS Engineering and construction company Ltd.	222.70	101.52	217.74	26.56	74.96	179.79	41.13	Pkg 1/ Jackson Ltd. Pkg/2 Jackson Ltd.	57.12 58.97	116.09	104.83
4	Pakur	M/s. IL&FS Engineering and construction company Ltd.		101.80	138.07	26.56	75.24	98.88	14.87	Pkg 1/ Gopi Krishna Infrastructure	90.11	90.11	23.64
Total			**624.36**	**561.88**	**959.96**	**101.96**	**459.92**	**833.98**	**135.06**		**594.98**	**594.98**	**374.06**

(Source: Records at JBVNL Headquarters)

Appendix XII

(Referred to in paragraph 7.3 at page 70)

Scope vis-à-vis achievement of SAUBHAGYA

Name of the ESC	No. of Work Orders	Value (in crore)	No. of Work Orders within DoFP	Value (in crore)	No. of Work Orders split to bring in within DoFP	Value (in crore)	No. of Work Orders above DoFP	Value (in crore)	Agreement done	Agreement done without taking security deposit	Agreement done taking less security deposit
Ranchi	46	14.18	40	8.25	10	2.25	6	5.93	53	12	0
Giridih	19	13.61	8	2.19	3	0.58	11	11.43	10	4	0
Deoghar	16	5.94	16	5.94	14	5.34	0	0	5	1	4
Dhanbad	28	5.58	28	5.58	22	4.74	0	0	12	11	0
Pakur	2	1.65	1	0.15	0	0	1	1.50	1	0	0
Palamu	10	2.85	10	2.85	5	1.5	0	0	10	0	10
Dumka	5	1.35	5	1.35	0	0	0	0	5	3	1
Total	**126**	**45.16**	**108**	**26.31**	**54**	**14.41**	**18**	**18.86**	**96**	**31**	**15**

(Source: Records at ESCs)

Appendix XIII

(Referred to in paragraph 7.4.2 at page 75)

Scope vis-à-vis achievement of JSBAY

Name of the ESC	No. of Work Orders	Value (in crore)	No. of Work Orders with DoFP	Value (in crore)	No. of Work Orders split to bring within DoFP	Value (in crore)	No. of Work Orders above DoFP	Value (in crore)	Agreement done	Agreement done without taking security deposit	Agreement done taking less security deposit
Ranchi	56	5.83	56	5.83	0	0	0	0	43	0	8
Giridih	10	7.78	2	0.48	0	0	8	7.30	3		0
Deoghar	45	18.22	43	14.98	40	15.97	2	3.24	15	0	15
Dhanbad	35	8.63	35	8.63	25	6.49	0	0	25	25	0
Pakur	4	1.04	4	1.04	2	0.57	0	0	0	0	0
Palamu	6	0.01	0	0	0	0	0	0	0	0	0
Dumka	6	1.92	6	1.92	6	1.92	0	0	6	0	6
Total	**162**	**43.43**	**146**	**32.88**	**73**	**24.95**	**10**	**10.54**	**92**	**25**	**29**

(Source: Records at ESCs)

https://cag.gov.in/ag/jharkhand/en