

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 feeders⁴, (ii) augmentation of Sub-Transmission and Distribution (ST&D) infrastructure in rural areas⁵ 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 Limited⁶ (REC), Jharkhand Bijali Vitran Nigam

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.

Limited⁷ (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 beneficiaries⁸ and *Tilka Manjhi Krishi Pump Yojana* (TMKPY) for providing free electric connection to agricultural pumps of rural beneficiaries⁹. 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 uncovered¹⁰ 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

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

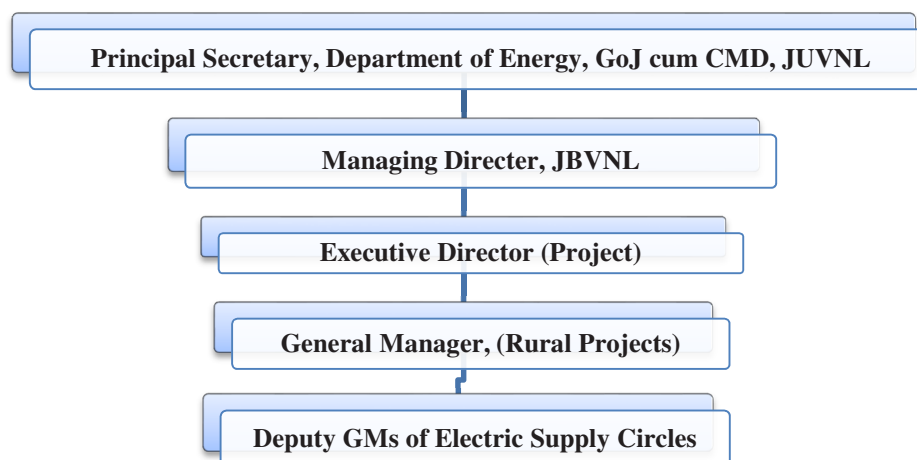
As per scheme guidelines, projects were to be implemented on turnkey basis. However, partial turnkey/ departmental execution of the projects was permitted in exceptional cases with the approval of MC, MoP. JBVNL got the works executed through contractors on turnkey basis dividing the scope of work in 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 1st and 2nd 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. Nine¹¹ 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 seven¹² 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 villages¹³ 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 (Analsia, 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)