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	Achieve-ment 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

---

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

---

[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

[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

---

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]

---

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.

---

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***).

---

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.

---

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.