



**Report of the
Comptroller and Auditor General of India
on
Performance Audit on
Implementation of Deendayal Upadhyaya Gram Jyoti
Yojana in Rajasthan for the year ended 31 March 2020**



लोकहितार्थ सत्यनिष्ठा
Dedicated to Truth in Public Interest

Government of Rajasthan
Report No. 7 of the year 2022

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Comptroller and Auditor General of India**

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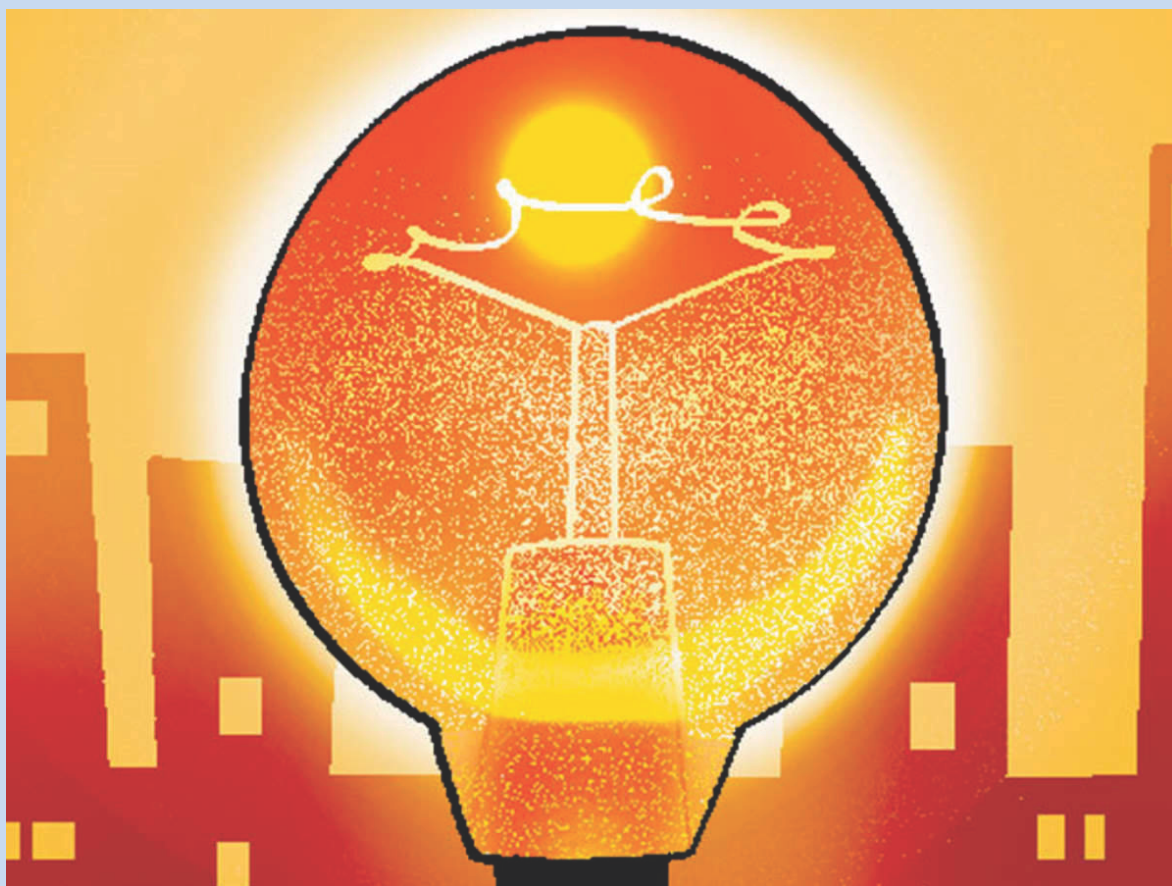
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Preface

This Report of the Comptroller and Auditor General (CAG) of India for the year ended 31 March 2020 has been prepared for submission to the Governor of Rajasthan under Article 151 of the Constitution of India and Section 19A of the CAG's (Duties, Powers and Conditions of Services) Act, 1971, as amended from time to time.

The Report contains the results of the Performance Audit on 'Implementation of Deendayal Upadhyaya Gram Jyoti Yojana in Rajasthan', covering the period 2015-20.

The audit has been conducted in accordance with the Auditing Standards issued by the Comptroller and Auditor General of India.



Executive Summary

Executive Summary

About this Report

Rural Electrification has been identified as a critical programme for the development of rural areas by policy makers at regional and national levels. In order to strengthen the sub-transmission and distribution infrastructure (ST&D) and to ensure reliable and quality power supply in rural areas, the Ministry of Power, Government of India launched (December 2014) Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY). The prime objectives of DDUGJY were:

- segregation of agriculture and non-agriculture feeders facilitating judicious rostering of supply to agricultural and non-agricultural consumers in the rural areas;
- strengthening and augmentation of sub-transmission & distribution infrastructure in rural areas, including metering at distribution transformers, feeders and consumer's end; and
- rural electrification, as per the targets laid down (August 2013) under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY).

This Audit Report presents significant audit findings arising out of the performance audit undertaken by the Comptroller and Auditor General of India on implementation of this scheme by the DISCOMs in the State of Rajasthan.

Purpose for undertaking the audit

As per 2011 Census data, 56.67 *per cent* of rural households in Rajasthan had access to electricity. Further, as on 31 March 2015, there were 110.47 lakh rural households in Rajasthan, of which, 43.64 lakh rural households (39.50 *per cent*) were un-electrified. Keeping in view the prime objectives of DDUGJY and rural electrification being identified as a critical programme for development of rural areas, evaluation of implementation of the scheme has become vital.

The performance audit on Implementation of DDUGJY in Rajasthan has been carried out during 2020-21, covering the period 2015-20. Audit evaluated adequacy of requirement of infrastructural works and formulation of Detailed Project Reports (DPRs), efficiency in execution of the projects economically, adequacy of monitoring mechanism and fulfilment of the scheme objectives in an efficient and effective manner.

Audit coverage

Ministry of Power, Government of India has also issued separate guidelines for implementation, quality control mechanism and project management agency (PMA) under DDUGJY. As provided in DDUGJY guidelines, DISCOMs formulated 33 DPRs *i.e.* one for each district/circle of the State/ DISCOMs. The total sanctioned cost of these 33 projects was ₹ 2,819.41 crore.

Nine districts/circle offices (three circle offices from each DISCOM representing 27.27 *per cent* of total 33 districts), having sanctioned cost of

₹ 1,026.53 crore (36.41 per cent of total sanctioned cost), were selected for detailed evaluation of implementation of the scheme in the State.

What have we found and what do we recommend?

The audit findings are broadly covered in five chapters viz; project formulation and execution; contract management; monitoring & quality assurance mechanism; funding mechanism; and beneficiary survey. Major findings are highlighted below:

Project Formulation and Execution

- Need Assessment Document (NAD) was not prepared and hence DISCOMs failed in identifying the need of feeder separation and critical gaps in sub-transmission and distribution network.

(Para 2.3, Page 7)

- Supplementary DPRs, prepared by the DISCOMs as per sanctioned amount, were not placed before the State Level Standing Committee (SLSC) for its approval before uploading on the web portal.

(Para 2.5, Page 9)

- Despite having provision under DDUGJY, DISCOMs did not take initiative to connect their Grid Sub-Stations (GSSs) and Billing/ other offices with optical fibre network under National Optical Fibre Network.

(Para 2.6, Page 10)

- There was significant delay ranging between 164 to 276 days, 276 to 331 days and 185 to 352 days in award of projects {issue of LOA after six months from approval of the Monitoring Committee (MC)} by Jaipur, Ajmer and Jodhpur DISCOM respectively.

(Para 2.8, Page 11)

- None of the 33 projects awarded under DDUGJY were completed within the originally stipulated time period and there was considerable delay ranging between 367 to 857 days, 697 to 752 days and 19 to 604 days in Jaipur, Ajmer and Jodhpur DISCOM respectively.

(Para 2.9, Page 11)

- There was significant curtailment in the feeder segregation work than what was envisaged and approved in the DPRs. In the selected projects, only 271 feeders against 541 feeders envisaged for segregation in DPRs, were segregated. Further analysis of segregated feeders disclosed that 182 feeders were segregated virtually by diverting the load on new feeder without separation.

- Even after taking up feeder segregation work long back in the year 2008 and incurring an expenditure of ₹ 2,083.95 crore and ₹ 329.29 crore in XIth & XIIth plan and under DDUGJY respectively, DISCOMs could not complete the work of separation of agriculture and non-agriculture feeders.

(Para 2.12, Page 16)

- Load flow studies for new Sub-Stations (SSs)/augmentation of 33/11 Kilo Volt (KV) or 66/11 KV SSs were not conducted to identify critical gaps in sub-transmission and distribution network. Rural Electrification Corporation (REC) sought (September 2016) the load flow studies from DISCOMs, but the same were not provided.

(Para 2.13.1, Page 18)

- Non-adherence with the prescribed norms coupled with non-involvement of Planning wing while formulating DPRs and lack of coordination among various wings of DISCOMs resulted in inclusion of unviable SS in DPRs which led to change in location of 91 SS (43.75 per cent of the total 208 envisaged SS).

(Para 2.13.2, Page 18)

- The DISCOMs did not follow the diversity factor determined by the DISCOMs Coordination Forum (DCF) for installation of DTs and incurred an extra expenditure of ₹ 53.15 crore towards transformer capacity in excess of requirement.

(Para 2.13.4, Page 21)

- DISCOMs, instead of creating separate feeder for agriculture and non-agriculture load, kept mix load on 182 newly constructed feeders under selected projects.

(Para 2.13.6, Page 23)

- None of the three DISCOMs made provision for installation of meters on distribution transformers. Further, 3,626 defective feeder meters were not replaced despite sanction of fund under DDUGJY.
- Jaipur and Ajmer DISCOMs did not replace any defective consumer meter despite sanction of fund worth ₹ 97.10 crore under DDUGJY. Further, Jodhpur DISCOM did not make any provision for replacement of 2.08 lakh defective meters.
- DISCOMs also passed a rebate of ₹ 50.37 crore during 2016-20 on account of non-replacement of defective meters within stipulated time period.

(Para 2.13.7, Page 24)

- All the 104 UEVs envisaged for electrification under DDUGJY were already electrified/ electrified through other means which indicated that electrification of UEVs considered under DDUGJY was not realistic.

(Para 2.14, Page 25)

- DISCOMs envisaged providing electricity connection to 20.58 lakh rural households (13.36 lakh under 12th Plan and 7.22 lakh under DDUGJY), of which 15.20 lakh electricity connections (9.35 lakh under 12th Plan and 5.89 lakh under DDUGJY) were provided upto 31 March 2021.

(Para 2.15, Page 27)

- DISCOMs could not ensure power to all till March 2018 as they could release only 19.74 per cent of the targeted connections. The DISCOMs could provide connections only to 81.65 per cent un-electrified rural

households by March 2021. Further, DISCOMs could provide only 15.90 *per cent* and 85.52 *per cent* of Below Poverty Line (BPL) connections till March 2018 and March 2021 respectively.

(Para 2.15.1, Page 28)

- DISCOMs incorrectly declared the un-electrified villages as electrified as parameters prescribed under new definition were not completely accomplished because 10,320 schools situated in rural areas were un-electrified till November 2020. Thus, even after implementation of DDUGJY, DISCOMs failed to achieve the target of 100 *per cent* village electrification in the State.

(Para 2.15.4, Page 30)

- There was an increase in the number of Permanently Disconnected Consumers (PDCs) in BPL category in rural areas of DISCOMs.

(Para 2.18, Page 32)

- DISCOMs could not achieve the targeted reduction of AT&C losses. The major reasons attributable to non-achievement of targets were declining trend in collection efficiency and theft of power.

(Para 2.20, Page 33)

Contract Management

- The DISCOMs did not comply with the provisions of Rajasthan Transparency in Public Procurement (RTPP) Act/ Rules and directions/ guidelines issued by the Central Vigilance Commission (CVC) while procuring services of consultants/ PMA and awarding turnkey contracts for implementation of DDUGJY projects.

(Para 3.6, Page 40)

- Ajmer DISCOM irregularly allowed ₹ 8.45 crore on Price Variation (PV) despite non-existence of provision for allowing PV on copper wound DTs in the Standard Bidding Document issued by REC and approved by SLSC.

(Para 3.11, Page 45)

Monitoring & Quality Assurance Mechanism

- DISCOMs did not submit progress of executed works to SLSC after October 2018.

(Para 4.3, Page 50)

- Ajmer and Jodhpur DISCOMs failed in ensuring timely compliance of non-conformities observed by PMA of these DISCOMs, as 86.70 *per cent* and 47.00 *per cent* of the non-conformities were pending rectification for a period ranging between five months and 35 months.

(Para 4.10, Page 55)

- The performance of DISCOMs/PMAs was not satisfactory as REC Quality Monitors (RQM) detected large number of critical/major defects in each type of executed works.

(Para 4.11, Page 57)

Funding Mechanism

- DISCOMs have taken significant time ranging between 532 days and 939 days in furnishing the claims for release of first instalment of grant from the date of approval of the projects by the MC.

(Para 5.2, Page 64)

- As the parameters were not found completed, the MoP, while releasing the third instalment of grant, deducted ₹ 181.61 crore on account of non-rectification of quality defects, non-utilising 90 *per cent* of grant released under initial two instalments and towards State Goods & Service Tax (SGST) claimed by the DISCOMs.

(Para 5.3, Page 65)

- System of calculating/claiming of grant was deficient as claims were lodged inclusive of SGST (₹ 214.91 crore) despite its inadmissibility and thus, deprived of grant worth ₹ 128.95 crore.

(Para 5.4, Page 65)

- Jaipur DISCOM executed ineligible work of underground cable worth ₹ 48.22 crore without prior approval of the SLSC and the MC.

(Para 5.5, Page 66)

- Financial closure of completed projects was not undertaken which led to delay in receipt of the final tranche of grant to that extent.

(Para 5.6, Page 67)

- DISCOMs failed to achieve the prescribed milestones to become eligible for an additional grant *i.e.* 50 *per cent* of loan component.

(Para 5.8, Page 68)

- DISCOMs management was not vigilant in avoiding the cost overrun as a result 19 projects could not be completed within the awarded cost.

(Para 5.9, Page 69)

Beneficiary Survey

Results of the beneficiary survey in the surveyed sample revealed (i) absence of detailed survey prior to formulation of DPRs; (ii) Lack of adequate awareness program; (iii) providing broken kit items; and (iv) instances of incorrect billing and non-redressal of beneficiaries' grievances.

(Para 6.3, 6.4, 6.5, 6.7 and 6.8, Page 73 to 81)

Recommendations

In order to implement public centric scheme more effectively/efficiently and to utilise the available resources more optimally, the State Government/DISCOMs may consider the following recommendations:

- *Evolve a mechanism to identify system strengthening requirements in regular manner;*
- *Formulate strategic and operational planning as per the Scheme based on duly updated system strengthening requirements;*

- *Evolve a mechanism to conduct detailed field survey before formulating Scheme specific DPRs to identify the beneficiaries so that benefits of scheme reach intended and targeted beneficiaries;*
- *Develop a system to avoid delay in award and execution of projects;*
- *Ensure completion of the works in future projects within the stipulated time frame to achieve the intended benefits;*
- *Build up a mechanism for proper energy accounting by ensuring metering arrangement at each level;*
- *Take effective steps to reduce the AT&C losses by focussing on energy audit to curb the theft with a targeted approach;*
- *Strengthen its procurement process to ensure compliance of provisions laid down under the RTPP Act/Rules, CVC's directions/guidelines, GoI Scheme and other mandatory norms;*
- *Ensure disciplinary action against the officers responsible for violating tendering norms and releasing extra payment towards price variation;*
- *Critically examine the existing monitoring mechanism and take suitable steps to strengthen it;*
- *Ensure that there is sufficient deterrence, by fixing accountability and responsibility at each level, more specifically for grave lapses like use of CTL failed material;*
- *Evolve a mechanism to ensure rectification of deficiencies in executed works in time;*
- *DISCOMs may institute a mechanism to ensure completion of all formalities in a real time manner to avail the schemes benefits and receipt of funds timely;*
- *Evolve a mechanism to identify the beneficiaries prior to implementation of schemes;*
- *Institutionalise and strengthen the system to avoid incorrect billing and non-redressal of grievances; and*
- *Take immediate steps to rectify the deficiencies of works executed.*



Chapter-I

Introduction

Chapter-I

Introduction

1.1 Access to energy is a basic prerequisite, unavailability or poor supply of which has adverse impact on all aspects of life and livelihood. Thus, Rural Electrification has aptly been identified as a critical programme for rural development by policymakers at regional and national levels.

Rural Electrification is not just about transporting electricity between two points but also about developing the right complementarity and providing electrification which is accessible, available and affordable. The focus on rural electrification and the associated public initiatives have also undergone changes over the years. The initial approach of providing electrification for agriculture in 1990s, gave way to a more holistic approach *i.e.* electricity for each rural household.

The demand of electricity in rural areas is increasing day by day due to increase in the customer base, changes in the lifestyle and consumption patterns which require continuous strengthening and augmentation of the distribution network. Further, inadequate and unreliable availability of power, frequent load shedding and the gap between supply and demand affects power supply to agricultural consumers as well as non-agricultural consumers owing to a common distribution network in rural areas. Supply of electricity through dedicated feeders to agricultural and non-agricultural consumers allows the distribution company to regulate power supply to agricultural consumers as and when needed for effective Demand Side Management (DSM). The 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. Besides, for sustainable commercial operations of electricity distribution, metering at consumer end and at distribution transformers and feeders is essential to build a mechanism for proper energy accounting and to identify high loss pockets.

State Plan for Rural Electrification

1.2 Pursuant to Rural Electricity Policy of Government of India (GoI) and provisions of the Electricity Act 2003, Government of Rajasthan (GoR) notified (September 2008) Rural Electrification (RE) plan for the State to achieve the national goal of providing access to electricity to all rural households by the year 2009. Thereafter, separate RE plan was not prepared in the State.

RE plan of 2008 envisaged the following:

- strengthening of existing infrastructure;
- providing quality power supply in rural areas which required segregation of agriculture and rural feeders;
- conversion of LT network to High Voltage Distribution System (HVDS); and
- augmentation of transformers *etc.*

Subsequently, under 'Power for All' programme, GoR prepared (December 2014) Generation, Transmission and Distribution Plan to be implemented during 2014-19. The Distribution Plan included existing distribution system, schemes under implementation and fund requirement for connecting the un-electrified households/villages. It also proposed schemes including GoI intervention, renewable energy initiatives of GoR at consumer level and action plan of the State for both conventional and renewable energy.

Proposed schemes and fund requirements

1.3 To eliminate the frequent occurrence of shutdowns and in order to reduce the number of load shedding occurrences; feeder and substation improvement programs were proposed to be implemented in the State. In these programmes, the requirement of feeder improvement, three phase supply to villages near to 33/11kV sub-stations, sub-stations improvement programme, additional 33/11kV sub-stations for 24X7 power supply, reduction of Aggregate Technical and Commercial (AT&C) losses *etc.* was assessed. The details of investment plan to meet out these programmes were assessed as under:

Table No. 1.1
Details of Investment Plan of DISCOMs

(₹ in crore)							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total	Remarks
State Plan	1513.00	1437.00	1372.00	1549.74	1595.17	7466.91	
Centrally sponsored schemes	885.00	1516.83	1150.00	1103.19	739.00	5394.02	RGGVY ¹ and RAPDRP ²
Other distribution schemes	2532.00	754.23	417.00	372.00	394.94	4470.17	IPDS ³ and DDUGJY ⁴

Source: Rajasthan 24 X 7 Power for all document

Total investment (₹ 7,466.91 crore) envisaged under State Plan provided for sub-transmission & distribution programme (₹ 3,263 crore) and rural electrification works (₹ 4,203.91 crore).

Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

1.4 Ministry of Power, Government of India (MoP, GoI) launched (December 2014) DDUGJY to strengthen the sub-transmission & distribution infrastructure and to ensure reliable and quality power supply in rural areas.

The objectives of the DDUGJY were:

- Separation of agriculture and non-agriculture feeders facilitating judicious rostering of supply to agricultural & non-agricultural consumers in the rural areas;
- Strengthening and augmentation of sub-transmission & distribution (ST&D) infrastructure in rural areas, including metering at distribution transformers, feeders and consumers end; and
- Rural electrification, as per the targets laid down (August 2013) under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY).

1 Rajiv Gandhi Gramin Vidyutikaran Yojana.

2 Restructured Accelerated Power Development and Reforms Programme.

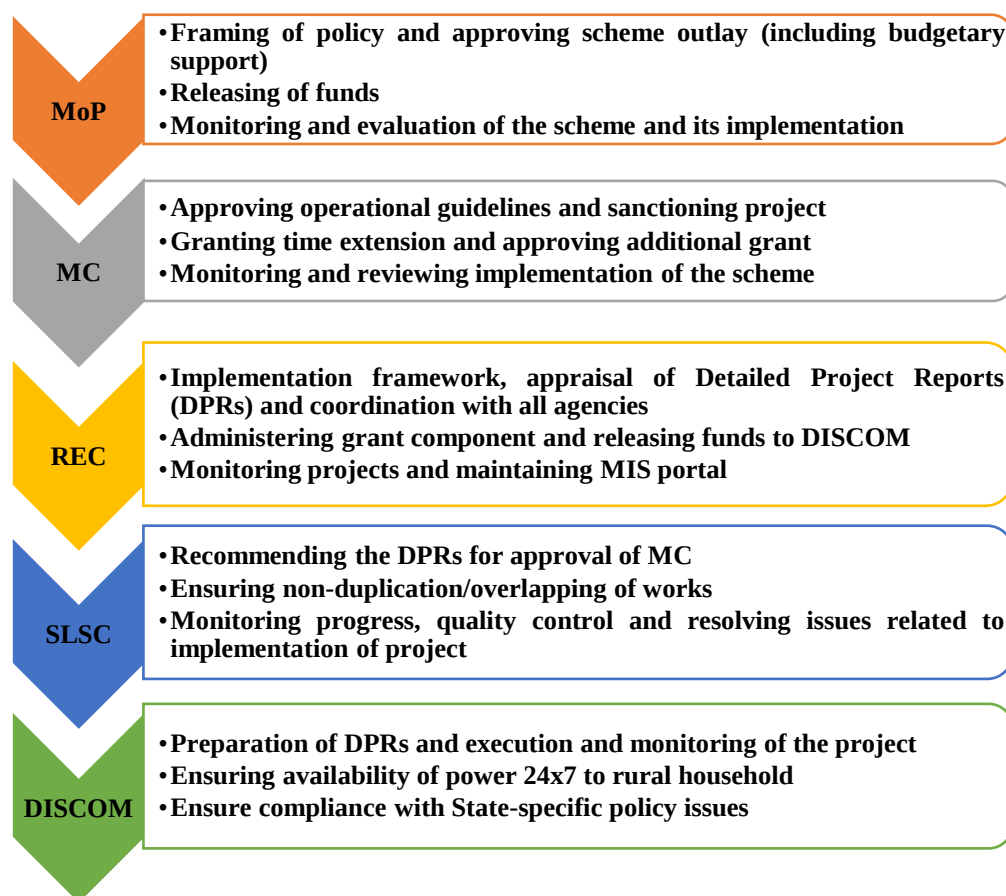
3 Integrated Power Development Scheme.

4 Deendayal Upadhyaya Gram Jyoti Yojana

DDUGJY provided for financial assistance to all Distribution Companies (DISCOMs). Further, DDUGJY was to be implemented through a five-tier system *i.e.* MoP, GoI, Monitoring Committee⁵ (MC), Rural Electrification Corporation Limited (REC) *i.e.* nodal agency for implementing the Scheme, State Level Standing Committee⁶ (SLSC) and concerned DISCOM. The Scheme also provided for a tripartite agreement between REC, the State Government and the utility (DISCOM) and a Project Management Agency (PMA) to be appointed by the DISCOMs. Implementation of the Scheme was to be completed by March 2019. The MoP, GoI, however, extended (August 2019) the Scheme upto March 2020 and further extended (24 July 2020) the Scheme upto March 2021.

Role and Responsibilities of Stakeholders

1.5 Role of the five stakeholders in implementing the Scheme is detailed under:



5 Chaired by Secretary (Power), MoP, GoI and consist of representatives from MoP and other ministries *viz.* Finance, Rural Development, Agriculture, New and Renewable Energy, Central Electricity Authority (CEA) and Planning Commission as members and REC as member secretary and convener.

6 Headed by the Chief Secretary, GoR and consisted of Secretaries of the departments of the GoR *{i.e.* Energy, Urban Development and Housing, Agriculture, Local Self Governance, PHED, Panchayati Raj, Finance (Expenditure) and Forest}, representatives of six electricity companies (RRVPL, RRVUNL, RRECL and three DISCOMs), REC *etc.*

As per provisions of the Scheme, the DISCOMs were required to prioritise strengthening of rural infrastructure works considering specific network requirement of the area and to formulate Detailed Project Reports (DPRs) for coverage under the Scheme. The DPRs so prepared were to be recommended by the SLSC to REC. REC had to appraise and recommend the DPRs to the MC and the same were to be approved by the MC. The MC (constituted in December 2014) was also empowered to approve/amend operational guidelines prepared by REC and to monitor implementation of the Scheme.

Status of rural electrification

1.6 The status of rural electrification in Rajasthan State as on 31 March 2015 is shown in the table below:

Table No. 1.2
DISCOM wise detail of Rural electrification in Rajasthan

Particulars	Jaipur DISCOM		Ajmer DISCOM		Jodhpur DISCOM		Total	
	As per 2011 Census	Total HHs as on 31 March 2015	As per 2011 Census	Total HHs as on 31 March 2015	As per 2011 Census	Total HHs as on 31 March 2015	As per 2011 Census	Total HHs as on 31 March 2015
Total House Holds	4528936	5213675	4244536	4642192	4200329	4829999	12973801	14685866
Rural HH	3232212	3640884	3370121	3689892	3245352	3715817	9847685	11046593
Total Energised HH	2898754	3665789	2729916	3457567	2434662	2859197	8063332	9982553
Rural HH electrified	1948928	2235640	2035998	2649366	1595883	1797310	5580809	6682316
Un-electrified Rural HH	1283284	1405244	1334123	1040526	1649469	1918507	4266876	4364277

Source: Census data of 2011 and DPRs

Note: DISCOMs, while preparing the project wise DPRs, derived the figures of total HHs as on 31 March 2015 by extrapolating the figures of census 2011. The extrapolation was done by reckoning Compound Annual Growth Rate (CAGR) of population from 2001 to 2011.

As per 2011 Census data, there were 98.48 lakh rural households in Rajasthan, of which, 55.81 lakh rural households (56.67 *per cent*) had access to electricity.

Scope of Audit

1.7 The performance audit covered the implementation of DDUGJY by all the three DISCOMs in the State during the period 2015-20. Audit scrutiny covered detailed review of records relating to formulation and approval of DPRs; award and execution of project works; arrangement and utilisation of funds (including GoI grant); quality of works/material and monitoring of the Scheme maintained at head office of each of the three DISCOMs as well as nine selected Circle offices (*i.e.* three Circle offices from each DISCOM). The Circle offices/projects were selected for detailed scrutiny by adopting stratified random sampling without replacement (SRSWOR) method. Details relating to sample selection are given in **Annexure-1**. During the Performance Audit, nine⁷ districts (27.27 *per cent* of the total 33 districts) were test checked. These nine districts were allotted ₹ 1,026.53 crore (36.41 *per cent*) out of total sanctioned cost of ₹ 2,819.41 crore for the scheme.

⁷ Bharatpur, Tonk, Bundi, Ajmer, Banswara, Sikar, Barmer, Jalore and Pali.

Audit Objective

- 1.8** The Performance Audit was conducted to assess whether:
- the system for assessing the requirement of infrastructural works and formulation of DPRs was adequate;
 - execution of the projects was economical, efficient and effective;
 - the mechanism for monitoring the execution and quality of executed works was adequate; and
 - the objectives of the Scheme were met efficiently and effectively.

Audit Criteria

- 1.9** The criteria for the audit objectives were drawn from the following sources:
- policy, guidelines, orders, circulars and directions issued by the MoP, GoI, Monitoring Committee and REC for implementing the Scheme;
 - approved DPRs along with records relating to formulation, submission, and approval of DPRs and subsequent revisions of DPRs;
 - tripartite agreements executed with REC and the GoR;
 - the Electricity Act 2003;
 - agenda and minutes of BoD, Corporate Level Purchase Committee (CLPC), DISCOMs Coordination Forum (DCF) and other committees of DISCOMs;
 - records maintained by the Planning Section of each DISCOM;
 - contracts relating to execution of the projects along with relevant records;
 - records relating to monitoring the execution of projects by the Monitoring Committee, SLSC and DISCOM level committees;
 - reports of the third-party inspections (TPIs) of the projects.

Audit Methodology

- 1.10** The methodology adopted for attaining audit objectives with reference to audit criteria consisted of:
- explaining audit objectives, scope of audit and audit criteria to the Government/DISCOMs during Entry conference held on 9 July 2020;
 - scrutiny of records at Head Office of the three DISCOMs and nine selected Circle offices/projects (three Circle offices/projects from each DISCOM);
 - raising audit queries, seeking their replies and interaction with the management of DISCOMs;

- issue (18 March 2021) of factual statement on draft Performance Audit Report to the Government/DISCOMs;
- discussion (27 May 2021) with the Government/DISCOMs' management on the audit findings during the Exit Conference; and
- issue of draft Performance Audit Report to the Government/DISCOMs (June 2021) after incorporating the views/replies (May 2021) of the Government on the audit findings.

Acknowledgement

1.11 Audit acknowledges the cooperation and assistance extended by the Energy Department, DISCOMs and their officials during the conduct of the Performance Audit.

Audit Findings

1.12 The audit findings are broadly covered in following five chapters:

- Project Formulation and Execution;
- Contract Management;
- Monitoring & Quality Assurance Mechanism;
- Funding Mechanism; and
- Beneficiary Survey.

The audit findings highlight the performance of three DISCOMs in implementation of DDUGJY in the State.

These audit findings are based on Audit analysis of works executed in nine selected projects only and there is a possibility of more such cases occurring in the DISCOMs. Therefore, the Government/Management of DISCOMs is expected to review all other cases having possibility of similar deficiencies/irregularities and take corrective action in cases where similar deficiencies/irregularities are found.

The audit findings were communicated to the State Government/DISCOMs in June 2021. Reply of the Government on the draft Performance Audit Report has been received in August 2021 and the same has been considered in the report.



Chapter-II

Project Formulation and Execution

Chapter-II

Project Formulation and Execution

2.1 As referred in **paragraph 1.4**, the projects have been planned and executed to cover the following components of the DDUGJY scheme:

- **Separation of agriculture and non-agriculture feeders:** Feeder separation refers to supply of electricity to agriculture and non-agriculture consumers separately through dedicated feeders to facilitate judicious rostering of supply to agriculture and non-agriculture consumers in the rural areas;
- **Strengthening and augmentation of sub-transmission & distribution infrastructure** including metering at Distribution Transformers, feeders and consumers end in rural areas to ensure reliable and quality of power supply in rural areas and to facilitate a mechanism for proper energy accounting.
- **Rural electrification for completion of the targets laid down under RGGVY for 12th and 13th plan.**

Project Formulation

2.2 Project formulation under the scheme was to be done in two stages. In Stage-I need for feeder separation and critical gaps in sub-transmission and distribution network, considering all relevant parameters⁸ and on-going works under other schemes, was to be identified for efficient management of distribution system. In Stage-II district/ circle/zone wise Detailed Project Reports (DPRs) were to be formulated on the basis of broad scope of work validated by REC at 1st Stage, detailed field survey and latest approved schedule of rates for various items of work. The utilities were also necessarily required to consult the public representatives including Member of Parliament while formulating DPRs and to furnish a certificate to this effect while submitting DPRs to REC.

Preparation of Need Assessment Document

2.3 Pursuant to DDUGJY guidelines, the DISCOMs were required to prepare a Need Assessment Document (NAD), in the prescribed format (circulated by REC), containing all relevant information along with justifications (preferably by way of load flow studies) to substantiate the proposed scope of work and cost estimates. The NAD was to consist of general details of project area, power supply, on-going schemes, consumers, households, villages, details of existing Infrastructure (substations, feeders, distribution transformers, LT line, meters *etc.*) along with details of proposed infrastructure (new substations, augmentation of feeders, DTs, LT line, capacitor banks, meters *etc.*). The NAD was required to be examined by REC

8 Consumer mix, consumption pattern, voltage regulation, AT&C loss level, HT & LT ratio, optimum loading of transformers & feeders / lines, reactive power management, power factor improvement, standard of performance *etc.*

to arrive at broad scope of work to be covered under the scheme and the total cost in consultation with the concerned DISCOM.

Audit observed that none of the three DISCOMs had prepared NAD for identifying the need for feeder separation and critical gaps in sub-transmission and distribution network based on which the scope of work was to be decided. In the absence of NAD, wide variations in the quantity/work envisaged/executed were noticed as highlighted in **paragraph 2.11**.

The Government accepted the facts and stated that the NAD was not prepared due to time and fund constraints. It further stated that the works envisaged in the scheme are also carried out under the past schemes and were regularly monitored. Further, load flow study was not conducted in view of DISCOMs' dynamic data and availability of practical data used for designing of sub-stations and lines.

The reply is not convincing as NAD was to be prepared as per the scheme guidelines which could have helped in identifying the need for feeder separation and critical gaps in sub-transmission and distribution network. Further, DISCOMs never raised the issue with the REC/MoP to provide separate fund for preparation of NAD.

Formulation of Detailed Projects Reports

2.4 Detailed Project Reports (DPRs) were required to be formulated on the basis of broad scope of work validated by REC at 1st Stage, detailed field survey and latest approved schedule of rates for various items of work.

Audit noticed that Ajmer DISCOM prepared DPRs departmentally whereas Jaipur and Jodhpur DISCOMs appointed (March 2015) WAPCOS Limited for formulation of DPRs. The work orders issued *inter alia* included:

- study, field survey with GPS as per MoP guidelines;
- proposals for physical separation of HT feeders for agricultural and non-agricultural consumers;
- new DTs and augmentation/addition of existing DTs;
- re-location of DTs and associated LT lines;
- erection of HT lines for drawing new feeders;
- proposal and study of the 33 KV and 11 KV system and bifurcation and augmentation of existing overloaded 33 KV and 11 KV feeders;
- creation of new sub stations and augmentation of existing overloaded sub stations; and
- proposal for metering at sub-stations, feeders and consumers for energy accounting and audit.

Scrutiny of DPRs prepared by DISCOMs disclosed the following shortcomings:

- **Jaipur and Jodhpur DISCOM:** To assess quantum of works, as mentioned in work order, a detailed field survey was required to be done by WAPCOS in consultation with the authorised Engineers of both the DISCOMs and the same was to be approved by the concerned Superintending Engineer, Operation & Maintenance (SE, O&M) of

DISCOMs. However, nothing was found on records about carrying out field survey by WAPCOS and its approval by the concerned SE (O&M) circle of DISCOMs.

- Similarly, in **Ajmer DISCOM**, no information of carrying out detailed survey by the concerned O&M circles before formulation of DPRs was found on records.

The Government stated that DPRs were prepared after detailed joint survey with consultant and concerned field officers. DPRs were approved by the circle SE (O&M).

The reply was not acceptable as the DISCOMs failed to provide the project wise detailed survey reports.

Approval of Projects

2.5 The SLSC approved (July 2015) DPRs of 33 projects of the three DISCOMs for electrifying un-electrified rural households; separation of agricultural and non-agricultural consumers feeders; strengthening of distribution network amounting to ₹ 3,557.32 crore⁹ under DDUGJY for onward submission to the MC of MoP, GoI through REC. However, DPRs of 33 projects worth ₹ 3,241.05 crore¹⁰ only were uploaded on the DDUGJY web portal of REC, for which no justification was found on records. As against demand of ₹ 3,241.05 crore, REC conveyed (August 2015) approval of the MC for ₹ 2,819.41 crore¹¹ including Project Management Agency (PMA) charges of ₹ 14.03 crore. Further, REC asked (September 2015) the State Government to submit the Supplementary DPRs (recast based on approved parameters) on online web portal within component wise and project wise sanctioned cost.

Audit observed that the Supplementary DPRs (₹ 2,805.38 crore excluding PMA charges), prepared by the DISCOMs were not placed before the SLSC for its approval before uploading on the web portal. Further, the date on which the Supplementary DPRs were uploaded, was not found on records of the DISCOMs.

The Government stated that SLSC approved the original proposals and hence, subsequent modifications were not submitted before it, to ensure time bound uploading of recast DPRs. It further stated that the DISCOMs have to honour the time limits to avoid the cost escalation and therefore, deviations/modifications in the DPRs shall be got approved from SLSC at the time of the closure of the projects. Moreover, in time bound project implementation, the formal approval of the statutory committee is generally obtained at the final stage.

The reply was not convincing as the SLSC which was constituted for recommending the DPRs for approval to MC and to ensure non-duplication/overlapping in project works, was not apprised/involved in the changes/modifications/curtailments incorporated while preparing supplementary DPRs.

9 Jaipur DISCOM- ₹ 1,043.36 crore, Ajmer DISCOM- ₹ 955.02 crore, Jodhpur DISCOM- ₹ 1,558.94 crore.

10 Jaipur DISCOM- ₹ 1,158.62 crore, Ajmer DISCOM- ₹ 955.01 crore, Jodhpur DISCOM- ₹ 1,127.42 crore.

11 Jaipur DISCOM- ₹ 1,032.22 crore, Ajmer DISCOM- ₹ 833.50 crore, Jodhpur DISCOM- ₹ 953.69 crore.

The justification for bypassing the SLSC was also not acceptable as by not involving SLSC in supplementary DPRs, the very purpose of its constitution was defeated. Further, as the date on which supplementary DPRs were updated was not available, the government's claim on the time bound uploading of recast DPRs could not be verified in Audit.

National Optical Fibre Network

2.6 DDUGJY envisaged to connect all the 33 KV or 66 KV grid sub stations/billing offices/Regional/Circle/Zonal offices of DISCOMs by extending optic fibre network being established under National Optical Fibre Network (NOFN). Further, a provision of 100 *per cent* grant was made under DDUGJY for connecting the missing links of NOFN including terminal equipment, provided such connectivity was not included/ approved under any other scheme of GoI/State Government.

DISCOMs were required to prepare separate and consolidated DPR in consultation with Bharat Broadband Network Limited or any designated agency like BSNL, RailTel, PGCIL *etc.* for the NOFN programme in the State. Further, the proposed implementation methodology and milestones along with the cost was to be included in DPRs and after recommendation of SLSC, DPRs were to be submitted to REC.

Audit noticed that none of the 33 KV or 66 KV grid sub stations/billing offices/Regional/Circle/Zonal offices of DISCOMs were connected with optical fibre network. However, DISCOMs did not prepare DPRs for optic fibre network under NOFN for which no reason was found on records. Thus, due to not taking initiative despite having provision under DDUGJY, DISCOMs were deprived of getting connected their GSS/Billing offices and other premises with optical fibre network.

The Government stated that priority was given to rural system strengthening than development of NOFN. It further stated that inclusion of NOFN might have further reduced the availability of funds for other works.

The reply was not acceptable as DDUGJY guidelines envisaged formulation of DPRs for NOFN and had separate provision for 100 *per cent* grant for implementing NOFN. Thus, the DISCOMs lost the opportunity to implement NOFN by availing cent *per cent* grant from the GoI.

Project Execution

Delay in implementation of scheme

2.7 The district/circle/zone wise DPRs were to be prepared by the DISCOMs and after being recommended by State Level Standing Committee (SLSC), DPRs were to be submitted to REC online through web portal. One hard copy of each DPR (as printed out from web portal), was also to be submitted to REC for record and reference. After approval of the Monitoring Committee (MC), turnkey projects and partial turnkey/ departmental basis projects were to be completed within a period of 24 months and 30 months respectively from the date of issue of Letter of Award (LoA) by the DISCOMs.



Delay in award of projects

2.8 As per the DDUGJY guidelines, the projects were to be awarded within six months of date of communication of the approval by the MC. The details of submission of DPRs to SLSC, its approval, online submission to REC, approval of MC, date of issue of LoA and progress of completion of the projects is given in the **Annexure-2**.

Audit noticed that Jaipur, Ajmer and Jodhpur DISCOM took significant time, beyond six months from approval of MC, in issuing LoA to the contractors which was ranged between 164 to 276 days, 276 to 331 days and 185 to 352 days respectively. Audit observed that the reasons attributable to delay in issue of LoA were non-finalisation of Standard Bidding Document (SBD); initial decision to procure high value items¹² for supply to the contractors which was later reversed; delay in finalisation of specification; poor response from bidders *etc.* due to which the bid opening dates were extended several times. Besides, none of the projects were completed within the stipulated time period. MoP, GoI *suo-moto* extended (August 2019 and July 2020) the timeline for completion of the projects to March 2020 and then upto March 2021 respectively.

The Government accepted the facts and stated that the delay in award of projects was genuine in view of delays in finalisation of bidding documents and mode of tendering, renegotiations with bidders as per directions of BoD of the DISCOMs.

Delay in execution of the projects

2.9 As per the provision of the Scheme and the terms and conditions stipulated in LoA, the contractors were required to complete the works awarded to them within a period of 24 months from the date of issue of LoA. Further, as per the terms and conditions stipulated in the work orders, the contractors were required to conduct a detailed GPS based survey with authorised engineer of the DISCOMs to assess actual quantum of the work. They also had to prepare a

12 Power transformers, Distribution Transformers, AB Cables, Conductors, Meters and Underground cables.

single line diagram on AutoCAD with GPS coordinates on political map with fair correctness within a period of two months from the date of issue of LoA.

Audit observed that none of the 33 projects awarded under the Scheme were completed within the originally stipulated time period and there was considerable delay ranging between 367 days to 857 days, 697 days to 752 days and 19 days to 604 days in Jaipur, Ajmer and Jodhpur DISCOM respectively. Scrutiny of records disclosed that the projects could not be completed within the stipulated time due to following reasons:

- delay in furnishing of survey reports by the contractors,
- delay in conveying approval of surveyed bill of quantity (BOQ) by the competent authorities of the DISCOMs,
- change in place/site of Grid Substation (GSS) and specifications of Plain Cement Concrete (PCC) poles,
- change in priority to release pending rural connections by March 2018 under “Power to All” over DDUGJY works, and
- awarding the work under ‘Saubhagya’ Scheme to the same contractor also slowed down implementation of the DDUGJY projects.

In selected projects of all the three DISCOMs, Audit noticed that the concerned contractor instead of completing the entire survey work in one go with the authorised engineer, carried out the survey in piece-meal *i.e.* block wise and commenced the work in that block after approval of the competent authority. Audit observed that because of adoption of this method, the DISCOMs authorities were not in a position to assess the actual quantum of work/BOQ and there was huge variation (**as depicted in Table 2.1**) in the work assessed in DPRs and work executed in the field. Further, this has also caused significant delay in execution of work because on each occasion, the contractor commenced the work only after approval of the competent authority.

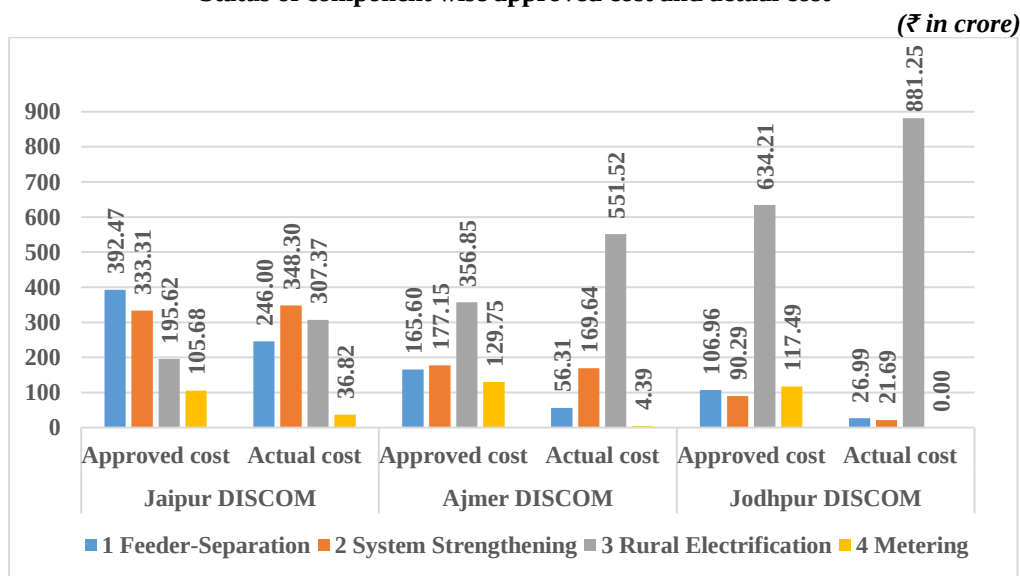
The Government accepted the fact of not carrying out the entire survey in one go and stated that the block-wise survey was need of the contemporary situation to avoid public unrest. It further accepted that block-wise survey attributed to the delay but the same was not significant as compared to ease of execution with minimum public hindrances. On the issue of delay in completion, the Government stated that all the project works were completed within the time frame allocated by REC.

The reply was not convincing as none of the project work could be completed within the originally stipulated timeframe and the extension for the scheme was caused by delay in execution of projects. Further, block-wise surveys also led to improper assessment of the actual quantum of work/ BOQ and caused inordinate delay in execution of projects.

Component wise approved cost of projects vis-à-vis actual cost

2.10 The component wise approved cost of projects and actual expenditure incurred by DISCOMs on each component upto 31 December 2020¹³ is given in the chart below:

Chart No. 2.1
Status of component wise approved cost and actual cost



Note: Actual cost figures are provisional as on 31 December 2020

It could be seen from the chart above that DISCOMs incurred more expenditure on rural electrification works by curtailing the works related to feeder separation, system strengthening, metering *etc.* envisaged and approved under DDUGJY.

The DISCOMs incurred ₹ 329.30 crore, ₹ 539.63 crore, ₹ 1,740.14 crore and ₹ 41.21 crore as against the cost approved for Feeder Separation (₹ 665.04 crore), System Strengthening (₹ 600.76 crore), Rural Electrification (₹ 1,186.69 crore) and Metering (₹ 352.92 crore) respectively. This indicated that the DISCOMs mainly focused on rural electrification by curtailing the funds allocated for other three components.

Physical Targets and Achievements

2.11 Under the Scheme, physical achievements broadly relate to feeder separation (both physically and virtually); strengthening the sub-transmission and distribution system; micro-grid and off-grid distribution network and metering at sub-stations, feeders, distribution transformers and at consumer's premises (for un-metered connections, replacement of faulty meters & electro-mechanical meters). Besides, completion of Rural electrification, as per the targets laid down under RGGVY for 12th and 13th Plans was also to be done by subsuming RGGVY in DDUGJY.

DISCOM-wise details of physical works sanctioned/ awarded *vis-à-vis* actually completed upto 31 March 2021 is given in **Annexure-3**.

13 Component-wise break-up of actual cost is not available with DISCOMs after December 2020.

There was huge variation in the quantum of various works undertaken for feeder segregation and system strengthening as shown in the table below:

Table No. 2.1
Details of quantity sanctioned/ awarded and actually completed upto 31 March 2021

S. No.	Particulars	Unit	Quantity sanctioned and awarded	Actual completed quantity upto March 2021	Percentage
1.	Feeder Segregation (Except S. No. 6)	Nos.	2551	1498	59
2.	New Substations of 33/11 KV	Nos.	208	230	111
3.	Augmentation of 33/11 KV Substations	Nos.	5	80	1600
4.	Distribution Transformers	Nos.	39084	75093	192
5.	LT Line	CKM ¹⁴	22683.00	44279.80	195
6.	11 KV Line	CKM	21414.43	19755.44	92
7.	33 & 66 KV Line	CKM	1930.70	1751.92	91
8.	Energy Meter-Consumer (a+b)	Nos.	961827	589838	61
a	New Connection		523062	589838	113
b	Replacement of defective meter		438765	0	0
9.	Energy Meter - 11 KV Feeder	Nos.	8562	2182	26

Source: DPRs and information provided by DISCOMs.

- There were 7,22,360 un-electrified Rural Households (RHHs) at the inception of DDUGJY. DISCOM-wise detail of un-electrified RHHs is given in **Table 2.3**. For providing connections to these un-electrified RHHs, a provision of only 5,23,062 Energy meters and 39,084 Distribution Transformers (DTs) were envisaged in the DPRs against which 75,093 DTs were installed upto 31 March 2021 for releasing electricity connections to 5,89,838 RHHs.
- Installation of DTs for system strengthening and new connections was envisaged in DPRs but no provision was made for meters to be installed on new DTs and for replacement of defective meters installed on DTs.
- DPRs of all the 33 districts/projects included 41,765 villages/habitations to be electrified under the scheme. However, 16,765 villages/habitations (22 districts/projects) and 2,327 villages/habitations (17 districts/projects) shown as un-electrified were found already electrified and were not in existence respectively while carrying out site survey by the turnkey contractors before start of the execution of the work as depicted in the table below:

Table No. 2.2
DISCOM wise status of villages/habitations proposed for electrification
(Figures in number)

DISCOM	Villages/ habitations proposed for electrification		Villages/ habitations which were found already electrified during site survey		Village/ habitations which were not in existence during site survey	
	Districts projects	Villages/ habitations	Districts projects	Villages/ habitations	Districts projects	Villages/ habitations
Jaipur	12	9026	9	7624*	9	1705
Ajmer	11	13266	4	1153	2	115
Jodhpur	10	19473	9	7988	6	507
Total	33	41765	22	16765	17	2327

Source: DPRs and information provided by DISCOMs.

* Jaipur DISCOM informed that this figure pertains to ground survey conducted by the contractor and included some habitations/villages not included in the DPR.

¹⁴ Circuit Kilometer.

Against requirement of 14,59,173 Energy meters¹⁵ for providing new connections and replacement of defective meters, DISCOMs kept provision of 9,61,827 Energy meters in DPRs as depicted in the table below:

Table No. 2.3
DISCOM wise requirement vis-à-vis provision of Energy meters kept in DPRs

(Figures in number)

DISCOM	Energy meters required at the inception of DDUGJY			Energy meters provided for in the DPRs		
	For release of new connections to RHHs	For replacement of existing defective meters	Total	For release of new connections to RHHs	For replacement of existing defective meters	Total
Jaipur	152888	145513	298401	160476	129589	290065
Ajmer	213884	382290	597074	87879	309176	397055
Jodhpur	355588	208110	563698	274707	0	274707
Total	722360	735913	1459173	523062	438765	961827

Source: DPRs and information provided by DISCOMs.

DISCOMs could not meet even the targeted (which was lower than the requirement) installation of Energy meters as they could install only 5,89,838 Energy meters¹⁶ under DDUGJY. Non-achievement of targeted installation was due to non-replacement of defective meters under DDUGJY.

Thus, in the absence of detailed field survey before formulating Projects DPRs there was huge variation in the envisaged/approved quantities of works executed under DDUGJY. This also reflects that DPRs were not formulated on realistic data and hence the Bills of Quantity (BOQ) of the works executed had to be modified time and again. The shortcomings noticed in execution of works are discussed in **paragraphs 2.12 to 2.15**.

The Government stated that DPRs were prepared after detailed survey and the variations in the quantity in feeder segregation and system improvement activity were caused by change in the site conditions due to lapse of time, prioritising release of household connections under other schemes, execution of works through Central Labour Rate Contract (CLRC) and limitation of funds.

The reply was not satisfactory as detailed field survey reports were not found in records. Further, inclusion of villages/ habitations which had already been electrified or did not exist in DPRs indicated that the survey was not carried out properly. Besides, the time gap did not justify the significant variations (ranged between 26 *per cent* and 195 *per cent*¹⁷) in the quantities and the same could have been avoided by conducting a detailed survey at planning stage and involving the plan wings while preparing the DPRs.

Component-wise analysis of the work executed has been discussed in the subsequent **paragraphs 2.12 to 2.15**.

15 Energy meter (*i.e.* meter installed at the consumer's end) is a device that measures the amount of electrical energy consumed.

16 All the energy meters used for release of new connections to rural households.

17 Except 1600 *per cent* variation in case of augmentation of 33/11 KV Substations.

Separation of agriculture and non-agriculture feeders

2.12 The work of separation of agriculture and non-agriculture feeders was envisaged for facilitating judicious rostering of supply to agricultural & non-agricultural consumers in the rural areas. Accordingly, the DISCOMs were required to identify the need of feeder separation. Further on the proposal of the DISCOMs to include approximately 20-25 *per cent* feeder separation only, REC conveyed (March 2015) its consent with condition to prioritize feeders where 30-40 *per cent* agriculture electrical loads were connected.

Out of 19379 rural feeders, the DISCOMs proposed segregation of 2551 feeders under DDUGJY as given in **Table 2.1**. The DISCOM-wise details of total rural feeders, feeders envisaged for segregation in DPRs and feeders segregated in actual are given in the table below:

Table No. 2.4
Details of total rural feeders, feeder segregation proposed/sanctioned and feeders actually segregated under DDUGJY upto March 2021

DISCOM	Total No. of rural feeders	Feeder segregation proposed and sanctioned in DPR against total rural feeders		Feeder segregated in actual against feeders sanctioned for segregation		Percentage of segregated feeders to total rural feeders
		No.	%	No.	%	%
Jaipur	4503	1351	30.00	992	73.43	22.03
Ajmer	7315	769	10.51	325	42.26	4.44
Jodhpur	7561	431	0.06	181	42.00	2.39
Total	19379	2551	13.16	1498	58.72	7.73

Source: DPRs and information provided by DISCOMs

It could be seen from the table above that feeder segregation proposed by Ajmer and Jodhpur DISCOMs was far below their initial commitment of 20-25 *per cent* of total rural feeders. Further, none of the three DISCOMs had prepared details of load percentage and length of the feeder before preparation of DPRs. Jaipur and Jodhpur DISCOMs have decided physical separation of HT feeders for agricultural and non-agricultural consumers in the villages having population of more than 3,000 upto 4,000 only, whereas no criterion was adopted by Ajmer DISCOM. Further, there was significant curtailment in feeder segregation work actually carried out than what was envisaged and approved in the DPRs.

Audit observed that the work of segregation of agriculture and rural feeder was initially assessed and undertaken in RE plan 2008 and an expenditure of ₹ 2,083.95 crore has been incurred on feeder improvement programme during XIth and XIIth five year plan. Besides, an expenditure of ₹ 329.29 crore has been incurred under DDUGJY. However, the DISCOMs could not complete the feeder segregation work till March 2021 as the DISCOMs could ensure segregation of 7.73 *per cent* (1498 rural feeders) of the total rural feeders under DDUGJY. In addition to funds sanctioned under DDUGJY for feeder segregation, the DISCOMs subsequently assessed (November 2015) additional requirement of ₹ 2,126.92 crore¹⁸ to complete the feeder segregation work and

18 Jaipur DISCOM-₹ 877.87 crore, Ajmer DISCOM-₹ 789.76 crore and Jodhpur DISCOM-₹ 459.87 crore.

accordingly submitted the DPRs to REC for providing additional funds under DDUGJY.

Scrutiny of records of nine selected projects disclosed that the DISCOMs segregated only 271 feeders (upto December 2020) against 541 feeders envisaged in DPRs. Of these segregated feeders, 182 feeders of Jaipur and Jodhpur DISCOM were virtually segregated¹⁹ whereas only ten feeders of Jaipur DISCOM were actually separated as agriculture and non-agriculture feeder. In case of remaining 79 segregated feeders, Ajmer DISCOM did not provide information of virtual and actual segregation of feeders.

Thus, even after taking up the work of feeder segregation long back in the year 2008 and incurring an expenditure of ₹ 2,083.95 crore and ₹ 329.29 crore in XIth & XIIth plan and under DDUGJY respectively, DISCOMs could not complete the work of separation of agriculture and non-agriculture feeders. Further, most of the feeders were segregated virtually instead of actual segregation of the feeders.

The Government accepted the fact of non-achievement of envisaged feeder segregation and stated that it could not be taken up due to insufficient funds under the Scheme. It further stated that DISCOMs focused more on domestic connections. During the Exit conference, the Government accepted that it had decided to opt for virtual separation of feeders since inception which was followed by DISCOMs till date. However, the State Government has now realised that physical separation of feeders is essential and therefore, it will be taken up under newly launched scheme of GoI²⁰ with special focus on feeders/ areas having high distribution losses.

The fact thus remained that even after deciding for physical separation of HT feeders, none of the three DISCOMs physically separated the agriculture feeders envisaged under the Scheme. Moreover, due to non-adherence to the Scheme guidelines for physical separation of feeders coupled with indecisiveness on physical separation of feeders, the DISCOMs incurred huge expenditure under various Schemes including DDUGJY to segregate only 7.73 per cent of total rural feeders.

Strengthening and augmentation of sub-transmission & distribution infrastructure

System strengthening

2.13 The issues relating to system strengthening are discussed in the following sub-paragraphs.

19 Where load of the feeder is diverted to new feeder without separation of agriculture and non-agricultural load.
20 Revamped Distribution Sector Scheme (June 2021).

Identification of critical gaps in sub-transmission and distribution network

2.13.1 DISCOMs were required to identify critical gaps in sub-transmission and distribution network considering all relevant parameters²¹ and on-going works under other schemes for efficient management of distribution system.

Audit scrutiny of records disclosed that DISCOMs had not conducted any study to identify the critical gaps in sub-transmission and distribution network before formulation of DPRs. Further, load flow studies justifying creation of new and augmentation of 33/11 KV or 66/11 KV sub-stations was also not conducted which is evident from the fact that REC asked (September 2016) DISCOMs to provide the load flow studies of the proposed creation/ augmentation of sub-stations in DPRs. Audit observed that the DISCOMs did not provide the load flow studies till date.

The Government stated that the DISCOMs used real practical design data available with them along with examination of other parameters viz; voltage regulation, cost-benefit ratio and load catering efficiencies while proposing creation/augmentation of sub-stations. It further assured that new software based technologies would be adopted in future.

The reply was not satisfactory as load flow studies of the proposed sub-stations were neither found on record nor provided to REC.

Construction of sub-stations

2.13.2 The DISCOMs envisaged construction of 208 33/11KV sub-stations (SSs) under DDUGJY as given in **Table 2.1**. The DISCOM-wise details of creation of new SSs envisaged in DPRs (including associated 66/33/11KV lines) and SSs constructed in actual under system strengthening are given in the table below:

Table No. 2.5

Details of Sub-stations proposed and created upto March 2021 under DDUGJYs

Name of DISCOM	No. of SS proposed in DPR	No. of SS created at proposed site	No. of SS not created at proposed site	SS created at another site than proposed in DPR	No. of SS actually constructed
1	2	3	4	5	6 (3+5)
Jaipur	107	46	61	71	117
Ajmer	85	62	23	34	96
Jodhpur	16	9	7	8	17
Total	208	117	91	113	230

Source: DPRs and information provided by DISCOMs

It could be seen from the table above that only 117 SS (56.25 *per cent*) were constructed on the proposed site. Audit observed that each DISCOM has a dedicated 'Planning Wing' to oversee the planning of construction of 33/11KV SS. However, the Planning Wings of the three DISCOMs were not found involved before finalising the sites, to assess technical/financial viability, to carry out load flow studies of the proposed SS included in DPRs. It was also

21 Consumer mix, consumption pattern, voltage regulation, AT&C loss level, HT & LT ratio, optimum loading of transformers & feeders/lines, reactive power management, power factor improvement, standard of performance *etc.*

observed that the prescribed criteria/norms for construction of new 33/11KV SS in rural areas²² issued (July 2014) as per orders of the Chairman DISCOMs, were not adhered to while formulating DPRs. Subsequently, after assessment by the Planning Wing, 91 SS were not found feasible for construction on the proposed sites which caused change in location of SS.

Besides above, other shortcomings regarding lack of coordination between Planning wing and DDUGJY wing noticed in construction of GSS were as under:

Jaipur DISCOM- In Alwar project, the Contractor (M/s India Commercial Services, Jaipur) commenced (November 2017) the construction of nine²³ SS despite the fact that SE Plan conveyed its approval for three²⁴ SS only by that time. Further in Jaipur project, construction of five²⁵ SS, initially included in project DPR, was subsequently excluded because construction of these SS had already been commenced (between September 2016 and July 2017) under CLRC and the work was near completion.

Ajmer DISCOM- Benefit to cost ratio in case of 21 SS constructed under the Scheme was found below the prescribed limit of 12 *per cent* and ranged between 8 *per cent* and 11.78 *per cent*.

Further, specific approval of District Electricity Committee and SLSC as regards subsequent changes in location of the sub-stations was not found on record which indicated that the matter related to change in location was not placed before these committees. Besides in selected projects of all the three DISCOMs, out of 46 SS²⁶, 17 SS²⁷ were not constructed on the sites proposed in respective DPRs, for which no justification was found on records.

Thus, non-adherence to the prescribed norms coupled with non-involvement of Planning wing while formulating DPRs, lack of co-ordination among various wings of DISCOMs resulted in inclusion of unviable SS in DPRs which led to change in location of 91 SS (43.75 *per cent* of the total envisaged SS).

The Government accepted the facts of not involving the planning wings of DISCOMs at the time of preparation of DPRs. It further stated that the change in locations were due to non-availability of land, acceptability of location as well as time gap in planning and execution of the projects. It was added that technical design parameters were adhered to while constructing the sub-stations. The Government also stated that SLSC approval for change in locations would be obtained and submitted to REC at the time of closure of projects.

The reply was not satisfactory as the constraints mentioned could have been resolved by apprising the issues in the regular meetings of SLSC/DEC which was not done.

22 Availability of suitable land, distance from the existing SS, CMRI load survey, benefit to cost ratio (12 *per cent*) etc.

23 Basai Jogiyan, Ghat, Doli, Baroda Khan, Sitaram Nagla, Romija Than, Shri Chandpura (Not constructed under the Scheme because of land dispute), Tahala, Palpur.

24 Basai Jogiyan, Ghat, Doli

25 Tanda and Sumel (in APP 2017-18) Ghasipura, Surana Todi and RIICO Shahpura (in APP 2018-19)

26 Jaipur DISCOM-19 SS, Ajmer DISCOM-23 SS and Jodhpur DISCOM- 4 SS.

27 Jaipur DISCOM-12 SS, Ajmer DISCOM-3 SS and Jodhpur DISCOM- 2 SS.

Transformer capacity

2.13.3 To assess the failure rate of Distribution Transformers (DTs), DISCOMs Coordination Forum (DCF) decided (July 2009) norms for issuing connections from single phase DTs. DISCOMs subsequently modified (February 2017) the norms and prescribed the ‘Diversity Factor’ 1:1 for releasing connections in rural areas, under various schemes (including DDUGJY). As per the prescribed Diversity Factor, the DISCOMs were required to release one connection against one KVA capacity of transformer. Accordingly, the DISCOMs were to install 5 KVA, 10 KVA and 16 KVA DTs for releasing connections from one to five consumers, from six to 10 consumers and 11 to 16 consumers respectively.

The DISCOMs envisaged installation of 39,084 DTs against which 75,093 DTs were installed up to March 2021 as given in Table 2.1.

To evaluate the laid down norms for transformer capacity, Audit sought (August 2020) DT wise details of connections released from each DT installed under DDUGJY. However, none of the three DISCOMs provided the desired information till January 2021. The DISCOMs, however, provided the village-wise information of infrastructure created under DDUGJY upto August 2020²⁸ prepared for the purpose of inspection to be carried out by REC Quality Monitors (RQM). Thereafter, village-wise information of infrastructure created under DDUGJY was not found updated.

The village-wise information of infrastructure created under DDUGJY upto August 2020 depicted installation of 56,568 DTs²⁹. Audit analysis of these newly installed DTs disclosed that the DISCOMs did not adhere to the norms in implementation of the Scheme and installed over capacity³⁰/ under capacity³¹ transformers as shown in the table below:

Table No. 2.6
DISCOM-wise details of transformer installed upto 31 August 2020

DISCOM	Transformer capacity						
	At capacity		Under capacity		Over capacity		Total
	No.	%	No.	%	No.	%	No.
Jaipur	881	5.33	628	3.80	15007	90.87	16516
Ajmer	5536	64.47	448	5.22	2603	30.31	8587
Jodhpur	21744	69.11	2395	7.61	7326	23.28	31465
Total	28161	49.78	3471	6.14	24936	44.08	56568

Source: Progress reports of DDUGJY

Audit observed that:

Jaipur DISCOM, while formulating the DPRs proposed only 16KVA capacity transformers for releasing connections to rural households (RHHs) irrespective of number of un-electrified RHHs in a village. Accordingly, the DPRs were approved by the MC.

28 Jaipur and Jodhpur DISCOM (June 2020) and Ajmer DISCOM (August 2020).

29 16,700 DTs of 5 KVA, 16,925 DTs of 10 KVA, 22,879 DTs of 16 KVA and 64 DTs of 25 KVA

30 Over capacity transformer: where in place of the installed transformer, a lesser capacity transformer would suffice to release the requisite number of connections.

31 Under capacity transformer: where the number of connections released from the transformer was more than the KVA capacity of the transformer.

Ajmer DISCOM kept provision of only three 10 KVA transformers in project DPR of Banswara whereas in other projects of DISCOM, provision of all capacity (5 KVA, 10 KVA, 16 KVA and 25 KVA) was kept. Further, it did not provide the details of rating wise transformers procured and installed under DDUGJY.

Jodhpur DISCOM kept provision for transformer of each capacity (5 KVA, 10 KVA and 16 KVA). However, it did not ensure installation of transformers as per the required capacity. Lack of vigilance led to installation of overcapacity and under capacity transformers by the contractors than was required as per the diversity factor. In one of the selected project (Pali), Audit observed that the competent authority allowed the contractor to install 10 KVA transformers due to non-availability of 5 KVA transformers. Accordingly, the contractor installed 739 DTs of 10 KVA for release of connections that ranged between one and four connections.

The Government accepted the facts and stated that higher capacity DTs were allowed due to absence of provision in contract agreement/non-availability of lesser capacity DTs.

The fact remained that installation of overcapacity transformers resulted in excess expenditure and deprived resources for other activities as discussed in **paragraph 2.13.4**.

Excess expenditure of ₹ 53.15 crore on abundant transformer capacity

2.13.4 Pursuant to the diversity factor (1:1) prescribed by DCF, DISCOMs were required to install DTs keeping in view the number of connections to be released. Since, the DISCOMs did not maintain DT wise details of connections released, the village-wise information of infrastructure created under DDUGJY was further analysed to assess adequacy of installation of 10 KVA DTs (6,301 DTs) and 16 KVA DTs (18,571) as per norms laid down by DCF.

Audit scrutiny disclosed that DISCOMs installed DTs which had capacity higher than the capacity laid down under the relevant norms as depicted in the table below:

Table No. 2.7
Use of DTs having capacity higher than the prescribed capacity

DISCOM	No. of 10 KVA DTs	No. of 16 KVA DTs			Grand Total
	Used for releasing 1 to 5 consumer connections	Used for releasing 1 to 5 consumer connections	Used for releasing 6 to 10 consumer connections	Total	
Jaipur	0	11722	3285	15007	15007
Ajmer	1027	74	1438	1512	2539
Jodhpur	5274	1064	988	2052	7326
Total	6301	12860	5711	18571	24872

Source: Information provided by DISCOMs.

Thus, the DISCOMs did not install DTs as per the laid down norms as major chunks of 10 KVA DTs (37.23 per cent) and 16 KVA DTs (81.17 per cent) were installed where installation of DTs having lesser capacity would have sufficed for meeting the requirement of releasing connections to the consumers.

This was mainly due to non-inclusion of requirement of 5 KVA and 10 KVA DTs in DPRs³². Besides, there were instances where Ajmer and Jodhpur DISCOM, despite having provisions for 5-10 KVA DTs in DPRs, installed DTs having higher capacity than required as per the laid down norms.

Resultantly, the DISCOMs incurred excess expenditure of ₹ 53.15 crore³³ on installation of DTs in excess of required capacity. Impact of non-compliance was even higher and multi-fold as Jaipur DISCOM, while corresponding with REC, itself realised (July 2017 and December 2017) that installation of DTs having higher capacity would not only increase their financial burden and technical losses but it would also give space to misuse/theft of electricity.

The Government stated that the Common Specification Committee of the DISCOMs decided (October 2015) to utilise DTs in line with RGGVY XII plan and therefore, CLPC of Jaipur DISCOM considered (November 2015) only 16 KVA DTs for awarding the projects. It further stated that Ajmer and Jodhpur DISCOMs were not having DT wise details of connection released with them and assured to provide the detailed data shortly.

The reply was not convincing as the DISCOMs adopted inconsistent approach for procurement of DTs. Further, Jaipur DISCOM belatedly realised the requirement of lesser capacity DTs (5 KVA/10 KVA) and approached REC to allow replacement of 16 KVA DTs with lesser capacity DTs which was not permitted by REC. Besides, detailed information on DT wise connection was awaited (**November 2021**).

Performance of transformers installed

2.13.5 As per the 'Diversity Factor', one connection was to be released against one KVA capacity of transformer in rural areas. DISCOMs, however, did not adhere to the direction and released more connections than the capacity of the transformer. As evident from **Table-2.6** above, DISCOMs installed 3471 under capacity transformers *i.e.* number of connections released were more than the capacity of the transformer and hence the transformer was overburdened from day one of its installation and on higher risk of burning.

To assess the performance of installed transformers in the selected projects, Audit obtained the data of transformers installed and burnt transformers as detailed below:

32 All the 12 DPRs belonged to Jaipur DISCOM and one DPRs (Banswara) belonged to Ajmer DISCOM did not have provision for installing 5-10 KVA DTs and 10 KVA DTs respectively.

33 DISCOM wise excess expenditure worked out to be ₹ 36.51 crore (Jaipur DISCOM), ₹ 3.71 crore (Ajmer DISCOM) and ₹ 12.93 crore (Jodhpur DISCOM) which had been computed on the basis of Store Issue Rates decided (March-April 2017) for the DTs in parallel to placement of turnkey contracts for the projects under DDUGJY.

Table No. 2.8
Detail of installed and burnt transformers in selected projects
(as on January 2021)

DISCOM	Selected Project	No. of transformers installed	No. of transformers burnt	Percentage of burnt transformers
Jaipur	Tonk	1316	440	33.43
	Bundi	743	58	7.81
	Bharatpur	1374	96	6.99
Ajmer	Ajmer	438	12	2.74
	Sikar	2188	176	8.04
	Banswara	4836	182	3.76
Jodhpur	Barmer	16318	937	5.74
	Pali	1174	291	24.79
	Jalore	3257	131	4.02
Total		31664	2323	7.33

Source: Information obtained from selected projects

It could be seen that the failure rate of installed transformers during the four years period from 2017-18 to 2020-21 was abnormally higher in all the selected projects except in Ajmer, Banswara, Barmer and Jalore as compared to acceptable failure rate of transformers (*i.e.* 1.50 *per cent* per annum) specified by the MoP. Audit further noticed that in case of Tonk project, matter regarding installation of under capacity transformers which may lead to burning was reported time and again to the Executive Engineer, however, no action was found taken on record in this regard. Though the burnt transformers were replaced by the concerned contractors as these were under warranty, the villagers suffered power interruption to the extent of time taken in replacement of burnt transformers.

The Government accepted the facts.

Construction of new feeders as a part of system strengthening

2.13.6 Normally a primary distribution line or feeder is designed to carry a load of 1-4 MVA depending on the feeder length, and so the number of Feeders emanating from a secondary substation at 11kV is three or more. Further, REC provided the drawings and designs of the SS to be constructed under the Scheme. Accordingly, on newly created 230 SS, 918 numbers³⁴ new feeders were constructed by all the three DISCOMs. Audit analysis of 182 newly constructed feeders³⁵ in selected projects disclosed that DISCOMs instead of creating separate feeder for agriculture and non-agriculture load, kept mix load on these feeders. Thus imprudent planning of the DISCOMs defeated the very purpose of the Scheme *i.e.* facilitating judicious rostering of supply to agricultural & non-agricultural consumers in the rural areas. Moreover, despite incurring an expenditure of ₹ 12.55 crore³⁶ on construction of these feeders

34 Jaipur DISCOM-452 feeders, Ajmer DISCOM-424 feeders and Jodhpur DISCOM- 42 feeders.

35 Jaipur DISCOM-73 feeders, Ajmer DISCOM-106 feeders and Jodhpur DISCOM- 3 feeders.

36 Jaipur DISCOM-₹ 4.37 crore, Ajmer DISCOM-₹ 7.77 crore and Jodhpur DISCOM-₹ 0.41 crore.

(11kV line) in selected projects, DISCOMs would have to incur further expenditure on segregation of such feeders in future.

The Government stated that due to fund constraints, Jaipur DISCOM decided to create feeders to feed power supply directly to the villages having population of 3000 or more for ensuring 24 hours power supply. It further stated that Ajmer DISCOM tried to go for effective planning regarding separate agriculture feeders. However, in few parts of the State, the habitat pattern was not supportive for feeder separation.

The reply was not acceptable as none of the selected projects (except Barmer) were having scattered habitats. Hence, physical segregation of agriculture feeders and non-agriculture feeders could have been done for judicious rostering of electricity supply in the rural areas.

Installation of new meters/replacement of defective meters

2.13.7 Under DDUGJY, DISCOMs were required to envisage metering at distribution transformers, feeders and at consumer's end. DISCOMs, however, envisaged requirement of 9,61,827 consumer energy meters for releasing connections/ replacement of defective meters and 8,562 feeder meters (including 3,626 defective feeder meters) as given in **Table 2.1**. Further, DISCOMs did not keep any provision for installation of meters at DTs.

Audit analysis of records related to installation of meters at distribution transformers, feeders and at consumer's end disclosed that:

- **Metering at distribution transformers:** Since none of the three DISCOMs kept provision for installation of meters at DTs, the DISCOMs did not install meters on the 75,093 DTs.
- **Metering at consumer's end:** Connections were released under DDUGJY and the three DISCOMs installed 5,89,838 meters at consumer's end.
- **Replacement of defective consumer meters:** Jaipur and Ajmer DISCOMs did not replace even a single defective meter under DDUGJY despite the fact that an amount of ₹ 97.10 crore³⁷ was sanctioned for replacement of defective meters. Further, in spite of having 2,08,110 defective consumer meters, Jodhpur DISCOM did not provide for replacement of such meters in DPRs.
- **Metering at feeders:** 3,626 defective feeder meters³⁸ were not replaced despite sanction of fund under the Scheme.

As per Terms and Conditions of Supply (TCOS), the defective consumer meters were required to be replaced within two months of detection and in case those were not replaced within the stipulated period, a rebate of five *per cent* on the total bill was to be allowed from third monthly bill in case of monthly/ fortnightly billing and second bill in case of bimonthly billing after such detection till the meter is replaced.

37 Jaipur DISCOM-₹ 32.43 crore, Ajmer DISCOM-₹ 64.67 crore

38 Jaipur DISCOM-1525, Ajmer DISCOM-964 and Jodhpur DISCOM-1137.

In selected projects of all the three DISCOMs, Audit observed that 2,81,580 consumer meters were lying defective as on 31 March 2020 for a period of more than two months from the detection of the defect. However, the same were not found replaced and hence the O&M Circle offices had to pass on the rebate of five *per cent* of the billed amount. Audit noticed that the DISCOMs had passed on a rebate of ₹ 50.37 crore during 2016-20 on account of non-replacement of defective consumer meters within stipulated time period.

Thus, the DISCOMs failed to achieve the target of installation of meters on DTs and replacement of defective feeder meters as well as consumer meters. Moreover, in the absence of metering arrangement at distribution transformers and non-replacement of defective feeder meters, DISCOMs failed to ensure a robust mechanism for proper energy accounting. Besides, DISCOMs also failed in identifying high loss pockets and ensuring remedial measures towards reduction of losses due to theft *etc.*

The Government stated that DT metering as well as replacement of defective domestic and feeder meters were not considered in the scope of DDUGJY due to lack of concentrated load in rural areas and DISCOMs carried out replacement of defective meters on regular basis.

The reply was not satisfactory as the Scheme envisaged replacement of defective meters and the MoP had also sanctioned funds on this account. Thus, the DISCOMs failed to ensure seamless accounting and auditing of energy at all levels of distribution system.

Rural electrification

Rural electrification includes electrification of villages as well as electrification of households and thus, involves development of rural electricity infrastructure for attaining the goal of providing electricity access to all un-electrified villages and households. Status of electrification of villages and households is discussed in **Para 2.14 and 2.15** below.

Village electrification

2.14 Prior to October 1997, a village is classified as electrified if electricity is being used within its revenue area for any purpose whatsoever. After October 1997, a village is deemed as electrified if the electricity is used in the inhabited locality, within the revenue boundary of the village for any purpose whatsoever. Subsequently, the MoP's office memorandum (February 2004) and Rural Electrification Policy (August 2006) specified that a village would be declared as electrified, if (1) basic infrastructure such as distribution transformer and distribution lines are provided in the inhabited locality as well as a minimum of one *dalit basti* hamlet where it exists; (2) electricity is provided to public places like schools, *panchayat* offices, health centers, dispensaries, and community centers *etc.* and (3) the number of households electrified should be at least 10 *per cent* of the total number of households in the village.

(i) DISCOM-wise details of total number of villages, villages electrified upto March 2015, villages to be electrified before DDUGJY and number of un-electrified villages (UEVs) sanctioned under different schemes/plan are shown in the table below:

Table No. 2.9

DISCOM-wise details of total number of villages, villages electrified and un-electrified villages

DISCOM	Total villages as per 2011 Census	Villages electrified upto March 2015	Villages to be electrified before DDUGJY	No. of UEVs sanctioned under RGGVY 12 th Plan	No. of UEVs to be electrified by RRECL	No. of UEVs sanctioned under DDUGJY
Jaipur	15145	14710	435	4	77	9
Ajmer	15379	15043	336	41	23	80
Jodhpur	14148	13780	368	194	52	15
Total	44672	43533	1139	239	152	104

Source: Census data, Progress Reports and information provided by DISCOMs

As per the Progress Reports of the DISCOMs (31st March 2015), 1,139 villages remained to be electrified before DDUGJY. However, as per the data made available to REC (October 2015), there were 495 UEVs in Rajasthan, 239 of which were already been sanctioned under 12th Plan (Ist Phase) whereas 152 UEVs were to be electrified by RRECL. Remaining 104 UEVs were sanctioned under DDUGJY.

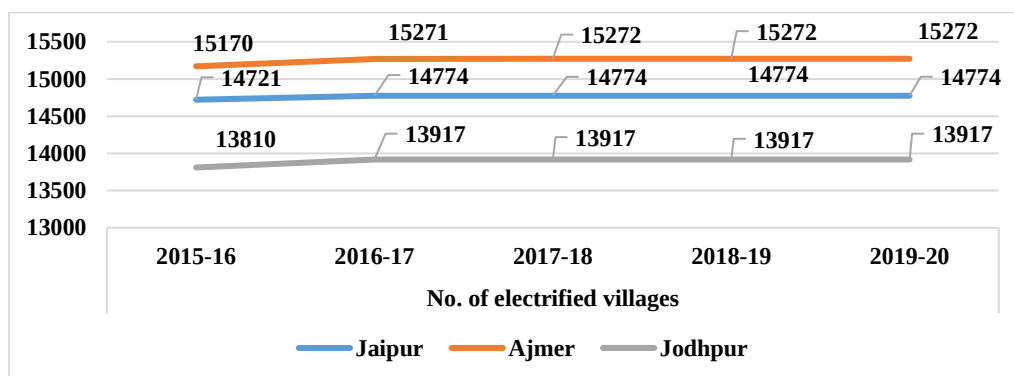
Audit observed that due to mismatch in data of UEVs, against 748 remaining UEVs (1139-239-152), the three DISCOMs proposed electrification of 104 UEVs only under DDUGJY. Further, as per the Progress Report as on 31 March 2020, 709 villages³⁹ of three DISCOMs were pending electrification. The mismatch in data of UEVs and non-coverage of all the pending UEVs depicted that village electrification proposed by DISCOMs under DDUGJY was not backed by proper survey and analysis. Thus, the planning for village electrification was faulty.

(ii) As depicted in **Table 2.9**, DISCOMs envisaged electrification of 104 UEVs in DPRs under DDUGJY. Review of records disclosed that out of total 104 UEVs, 12 UEVs (Ajmer-4 and Jodhpur-8) were already electrified whereas 79 UEVs (Jaipur-9, Ajmer-65 and Jodhpur-5) got electrified under CLRC prior to award of contracts under DDUGJY. Besides, 13 UEVs (Jodhpur-2 and Ajmer-11) got electrified through Rajasthan Renewable Energy Corporation Limited. Thus, all the 104 UEVs envisaged for electrification under DDUGJY were already electrified/ electrified through other means which indicated that electrification of UEVs considered under DDUGJY was not realistic.

The Annual Progress Reports of the DISCOMs for the period 2015-20 also depicted that only one UEV (Ajmer DISCOM) got electrified (2017-18) after inception of DDUGJY as shown in the chart below:

39 Jaipur DISCOM-371 UEVs, Ajmer DISCOM-107 UEVs and Jodhpur DISCOM-231 UEVs.

Chart No. 2.2
Status of village electrification at the end of 2015-16 to 2019-20



Source: Annual Progress Reports of DISCOMs

Audit further observed that DISCOMs incorrectly declared the UEVs as electrified because the parameters prescribed under new definition were not completely accomplished as discussed in **paragraph 2.15.4**. Audit also observed that the electricity connections were not provided to 3,093 Nos. of Government Schools belonging to nine selected districts/ projects. Hence, as per the new definition, these UEVs (including 104 UEVs covered and declared electrified under DDUGJY) should not be considered electrified.

The Government stated that the 709 villages, being unpopulated, were not considered for electrification. It further stated that the DISCOMs had created requisite infrastructure up to public places in all the UEVs but these institutions did not come forward to obtain electricity connections.

The reply was not satisfactory because declaration of village as electrified without electrification of public places was incorrect. Further, Energy Department, being the nodal department implementing the scheme, was required to fulfil the criteria of electrification through co-ordination with other departments before declaring the UEVs as electrified.

Household electrification

2.15 GoI and GoR issued (13 December 2014) a joint statement for implementation of 'Power for All' programme with the objective to supply 24 X 7 quality, reliable and affordable power to all domestic, commercial, industrial consumers and adequate power supply to agriculture consumers within a fixed time frame. Further, all unconnected households (including rural households envisaged under DDUGJY) were to be provided access to electricity in phased manner by March 2019.

To achieve the objective of the programme, DISCOMs issued (February 2018) directions to release the connections to APL households who have deposited the demand note upto 22 February 2018 and from 22 February 2018 by 15 March 2018 and 31 March 2018 respectively. Further, as per the aims of RGGVY (subsumed in DDUGJY) and tripartite agreement executed, the connections to BPL were to be provided free of cost.

Audit noticed that DISCOMs envisaged to provide electricity connection to 20.58 lakh rural households (13.36 lakh under 12th Plan and 7.22 lakh under DDUGJY), of which 15.20 lakh electricity connections (9.35 lakh under 12th Plan and 5.89 lakh under DDUGJY) were provided upto March 2021.

Release of connections under DDUGJY

2.15.1 Year-wise detail of connections released to un-electrified RHHs (both BPL and APL) under DDUGJY upto March 2021 is given in the table below:

Table No. 2.10

DISCOM-wise detail of connections released to un-electrified BPL and APL rural households upto 31 March 2021

DISCOM	Un-electrified RHHs/ electrification targets as per DPRs		Connection released between September 2017 and March 2018		Connections released upto March 2019		Connections released upto March 2020		Connections released upto March 2021	
	BPL	APL	BPL	APL	BPL	APL	BPL	APL	BPL	APL
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Jaipur	24794	128094	11943	49317	18944	98280	22066	116018	22066	116018
Ajmer	111711	102173	19038	16913	103649	86256	123218	86256	131153	86256
Jodhpur	97705	257883	6270	39128	42174	161332	45910	170168	47087	187258
Total	234210	488150	37251	105358	164767	345868	191194	372442	200306	389532
	722360		142609		510635		563636		589838	

Source: DPRs and information provided by DISCOMs

Audit noticed that DISCOMs relaxed the condition of testing of material required for release of connection in Central Testing Laboratory (CTL) in order to expedite the release of connections and to achieve the target of power to all latest by March 2018. However, all the three DISCOMs failed to achieve the target of power to all un-electrified households by March 2018 and only 19.74 *per cent* connections (1,42,609 connections against 7,22,360 targeted connections) were released by March 2018. By March 2021, 81.65 *per cent* (5,89,838) of the targeted households (7,22,360) could be connected under DDUGJY.

Further, under DDUGJY, DISCOMs were liable to provide connections to BPL rural households free of cost. DISCOMs were expected to provide connections to all the unelectrified BPL rural households. However, the DISCOMs, could provide connections to only 15.90 *per cent* BPL rural households till March 2018. Besides, two DISCOMs (Jaipur and Jodhpur) could not achieve the targeted electricity connections to BPL families till March 2021 and there was a shortfall of 2,728 (11 *per cent*) and 50,618 (51.81 *per cent*) connections respectively. Ajmer DISCOM provided 19,442 extra electricity connections to BPL families than the number of connections targeted under the scheme. Thus, only 85.52 *per cent* BPL rural households could be given connection till March 2021.

Audit observed that even after relaxing the condition of testing of material in CTL and thus, risking the quality of material, DISCOMs' achievement was short of the targets of providing electricity connections to all un-electrified consumers.

The Government accepted the facts and stated that Ajmer and Jodhpur DISCOMs did not relax any quality diluting condition including CTL testing. It further stated that although the CTL testing was relaxed in Jaipur DISCOM to expedite the RHH electrification, however, it did not compromise with the quality of material as during pre-dispatch inspection, the material was jointly inspected at the workshops of manufacturer. Besides, Jaipur DISCOM had issued connections to all the undisputed, wilful and eligible households.

The reply was not convincing as Jaipur DISCOM did not furnish any document confirming release of envisaged connection within the stipulated timeframe. Further, Jodhpur DISCOM did not reply to the non-achievement of envisaged release of connections.

The performance of DISCOMs in providing electricity connections to BPL/ Public Institutions is discussed in subsequent sub-paragraphs.

Release of connections to BPL households

2.15.2 One of the prime objective of RGGVY (subsumed in DDUGJY) was to provide electricity connection to Below Poverty Line (BPL) families free of charge. Accordingly, electricity connections to 4.43 lakh⁴⁰ BPL families and 2.34 lakh BPL families were envisaged to be provided under 12th Plan (Ist phase) and DDUGJY respectively. However, the DISCOMs could provide electricity connections to 2.41 lakh⁴¹ BPL families (upto December 2019) and 2.00 lakh⁴² BPL families (upto March 2021) respectively under these schemes.

The Government stated that in Jaipur DISCOM, electricity connections were issued to all the undisputed, wilful and eligible households. It further stated that Jodhpur DISCOM prepared additional DPRs to cover-up post Saubhagya and DDUGJY connections for additional rural households identified after cut-off date *i.e.* 31 March 2019.

The reply was not convincing as DISCOMs were liable to provide electricity access to all the BPL households which was not ensured.

Delay/shortcomings in release of connections

2.15.3 As per the Revenue Manual of DISCOMs, the electricity connection should be released within 15 days from the date of issue of Service Connection Order (SCO). An analysis of data related to release of electricity connections in selected projects as furnished by the three DISCOMs is depicted in table below:

Table No. 2.11
Delay in release of electricity connections

Particulars	(Figures: in Number)		
	Jaipur	Ajmer	Jodhpur
Connections released after 1 April 2017	18258	36830	32710
Connections released within prescribed timeframe	3678	36830	32709
Connections released beyond prescribed timeframe	14580	0	1
• Delay upto one year	14050	0	1
• Delay from one year to three years	489	0	0
• Delay from three years to five years	27	0	0
• Delay for more than five years	14	0	0

Source: Information furnished by the DISCOMs.

Audit observed that Jaipur DISCOM released 14050 connections with delay upto one year whereas release of 530 connections was significantly delayed *i.e.* from one year to more than five years. Further, as per the data furnished to audit, the date of issue of SCO and release of connection in all the cases of Ajmer

40 Jaipur DISCOM-1.35 lakh, Ajmer DISCOM-1.49 lakh and Jodhpur DISCOM-1.59 lakh.

41 Jaipur DISCOM-52,206, Ajmer DISCOM-1,12,012 and Jodhpur DISCOM-76,924.

42 Jaipur DISCOM-22,066, Ajmer DISCOM-1,31,153 and Jodhpur DISCOM-47,087.

DISCOM and Jodhpur DISCOM (except one case) was found same. This indicated that the data furnished by these two DISCOMs was not reliable.

Further analysis of data disclosed that the electricity connections to 4,804 consumers⁴³, wherein SCO was issued before March 2017 *i.e.* prior to award of works, were claimed under DDUGJY.

The Government accepted the facts and stated that the release of connections was delayed due to directions to release feeder-wise connections instead of issue of SCOs, ROW problems, disputes among beneficiaries regarding location of DTs, *etc.*

Extent of electrification of public institutions

2.15.4 Besides other conditions stipulated in the new definition of village electrification, a village would be declared electrified if electricity is provided to public places like schools, *panchayat* offices, health centers, dispensaries, and community centers *etc.* REC also emphasized (12 May 2017) to extend electricity infrastructure to these public institutions as a vital component of village electrification under DDUGJY. Further, GoR requested (15 June 2017) the DISCOMs to provide electric connections to un-electrified schools on priority.

Audit noticed that REC forwarded (May 2017) a copy of a letter of Ministry of Human Resources Development (MHRD) to the State Government, which stipulated that 45,576 schools were running without electricity supply connections in Rajasthan State. REC asked the State Government to reconcile the data of un-electrified schools in rural areas and provide information in prescribed format for providing electricity infrastructure for these schools. In response, the State Government informed (May 2017) that 30,191 schools in rural areas did not have electricity connections. Subsequently, MoP, GoI directed (July 2019) all the State Governments to ensure electrification of all schools in the villages as they have declared 100 *per cent* electrification of all the villages. Further, it was also advised to consider lower tariff category for the Government schools which would reduce their operation cost and also motivate them to avail electricity connection.

Audit observed that the DPRs prepared by DISCOMs did not have provision for electricity infrastructure required for providing connections to Government schools in rural areas under DDUGJY. Besides, the State Government/DISCOMs neither initiated action for lower tariff for Government schools nor ensured electricity connections to all schools in rural areas. Further, GoI declared (April 2018) Rajasthan State as 100 *per cent* electrified on the basis of information provided by the State.

Audit observed that the information provided by the State/DISCOMs was incorrect as all the parameters for declaring 100 *per cent* electrification were not completed as envisaged. This is apparent from the fact that electric connections could not be provided to 10,320 schools situated in rural areas of the State (November 2020). Information relating to electrification of other public places like *panchayat* offices, health centres, dispensaries, and community centres *etc.* was not available.

43 Jaipur DISCOM-3,215, Ajmer DISCOM-137 and Jodhpur DISCOM-1,452.

Thus even after implementation of DDUGJY, DISCOMs failed to achieve the target of 100 *per cent* village electrification in the State.

The Government accepted the fact of non-achievement of electrification of all the government schools. It further stated that although the necessary infrastructure was created up to the public places in all the UEVs, however connections were issued after receipt of application and deposit of demand.

The reply was not satisfactory as declaration of village as electrified without fulfilling the laid down criteria, was incorrect.

Performance of electricity supply

2.16 One of the prime objective of DDUGJY was to provide 24x7 power supply for non-agricultural consumers and adequate power supply for agricultural consumers. For electricity to be reliably delivered, there must be sufficient generation capacity to meet peaks in demand; electricity should be consumed efficiently; and T&D systems should not suffer excessive outages.

The position of energy demand, energy demand met, peak demand and peak demand met during FY 2016-17 to FY 2019-20 is depicted in the table below:

Table No. 2.12
Details of Energy Demand and Peak Demand shortages in Rajasthan during 2016-20
(Figures in Million Units)

Year	2016-17	2017-18	2018-19	2019-20
Energy demand	67638	71194	79815	81281
Energy demand met	67415	70603	79626	81222
Shortage	223	591	189	59
Peak demand	10613	11722	13276	14277
Peak demand met	10348	11564	13276	14277
Shortage	265	158	0	0

Source: CEA data.

The gap between energy requirement and energy availability in the State during last four years, ending on 31 March 2020, was negligible. Similarly, the gap between peak demand and peak demand met during 2016-17 and 2017-18 ranged between 2.50 *per cent* and 1.35 *per cent* only whereas during 2018-19 and 2019-20, the State was able to meet the peak demand 100 *per cent*.

Billing cycle

2.17 Rajasthan Electricity Regulatory Commission in its tariff order 2017 mandated that DISCOMs should take steps for necessary changes in the billing software, so that at least from 1 April 2018, the billing is made on monthly basis for all category of consumers.

Audit noticed that Jaipur DISCOM issued electricity bills to domestic consumers on bimonthly⁴⁴ basis upto April 2019, except in Jaipur Project wherein the bills are being issued on monthly basis from January 2019. Further, Ajmer and Jodhpur DISCOMs belatedly commenced (December 2020) monthly billing in two projects and one project respectively whereas in rest of the

44 Bi-monthly stands for “once in every two months”.

projects they did not introduce monthly billing. Audit observed that Ajmer and Jodhpur DISCOMs were not prompt in implementation of order of RERC.

The Government accepted the facts and stated that monthly billing is being done in Ajmer City Circle only.

The fact thus remained that Ajmer DISCOM (Except Ajmer City Circle) and Jodhpur DISCOM did not comply with the directions of RERC.

Electricity bill paying capability of BPL

2.18 Clause-21 of Revenue Manual of DISCOMs provides that the first bill shall not be delayed beyond three months from the date of release of connection.

Audit noticed that in rural areas of all the three DISCOMs, the electricity bills are not being issued on regular basis. In such instances, the beneficiaries feel that they cannot pay the whole amount in one go and therefore sometimes face huge accumulated arrears and even threat of disconnection. During the course of beneficiary survey, instances of incorrect billing were also noticed as discussed in **paragraph 6.7**.

a) Delay in issue of first bill

Analysis of billing data (FY 2019-20) of 99,342 beneficiaries in nine selected projects of all the three DISCOMs disclosed that there was a considerable delay ranging between one day and 1,289 days in issue of Ist bill to 8,940 beneficiaries⁴⁵. The billing data (FY 2019-20) was also found incomplete as it did not have records of 6,920 beneficiaries of selected projects.

b) Bills to BPL beneficiaries

Analysis of MIS records of DISCOMs (March 2020 to November 2020) disclosed that there was a shortfall in issue of electricity consumption bills to regular BPL consumers in rural areas. In Jaipur DISCOM, electricity bills ranging between 18.35 *per cent* and 20.60 *per cent* were not issued to regular BPL rural consumers. The MIS of Ajmer and Jodhpur DISCOM has shown the reverse position *i.e.* the number of electricity bills issued were more than the number of regular BPL rural consumers, which indicates that the MIS was either incorrect or the supplementary bills issued during the month were also included in the figures of bills issued.

Analysis of MIS further disclosed that there was an increasing trend in Permanently Disconnected Consumer (PDC) in BPL category in rural areas of DISCOMs. In Jaipur DISCOM, BPL PDC in rural areas increased from 1,00,176 in March 2020 to 1,09,270 in November 2020. Similarly in Ajmer and Jodhpur DISCOM, it increased from 1,19,908 to 1,21,536 and 56,448 to 57,069 PDC respectively during the same period. Further analysis of beneficiaries in selected projects disclosed that the electricity connection of 2,047 beneficiaries was disconnected as on 31 March 2020. Of these 2,047 beneficiaries, 919 beneficiaries were converted into PDC. Continuous increase in number of BPL PDC indicates that the BPL consumers were not in a position to pay the electricity bills.

45 Jaipur DISCOM-1,234 (1 to 632 days), Ajmer DISCOM-5,722 (1 to 1,289 days) and Jodhpur DISCOM-1,984 (1 to 1,016 days).

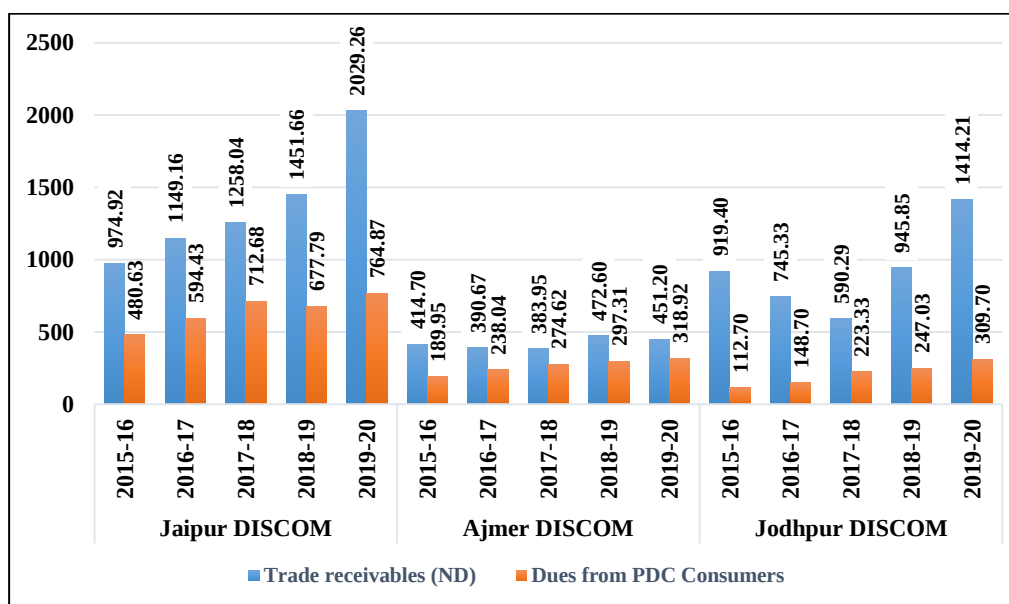
The Government accepted the facts and stated that due to poor economic conditions, the BPL beneficiaries failed to pay electricity bills which led to increase in PDC.

Extent of default of payment

2.19 An analysis of trade receivables on account of sale of power by three DISCOMs disclosed that there was an increasing trend in trade receivables for sale of power as well as dues against PDC. DISCOM-wise position of trade receivables and dues against PDC is depicted in the chart below:

Chart No. 2.3
DISCOM-wise status of trade receivables for sale of power and dues against PDC

(₹ in crore)



It could be seen that there was continuous increase in trade receivables against sale of power to regular consumers as well as against PDC except in 2018-19 in Jaipur DISCOM. Audit noticed that DISCOMs did not maintain details of the outstanding dues against category-wise regular consumers and PDC. Audit could not ascertain the periodicity of outstanding dues against PDC in the absence of such data. Audit observed that DISCOMs were not prompt in recovering their dues from PDC which is evident from continuous increase in dues against PDC.

The Government stated that DISCOMs maintain category-wise details of outstanding dues from regular and PDC consumers and furnished sample documents in support of reply.

The reply was not convincing as even the furnished documents did not contain category-wise details of outstanding dues from PDC. Further, the reply was silent on the issue of continuous increase in outstanding dues from PDC.

Aggregate Technical and Commercial Losses

2.20 Transmission and distribution (T&D) losses represent electricity that is generated but does not reach intended customers. T&D losses are the result of

technical inefficiency (viz. loss of electricity occurring due to resistance of wires and equipment) and theft. Further, the concept of Aggregate Technical & Commercial (AT&C) losses provides a realistic picture of the loss in the context in which it is measured. It is a combination of energy loss (technical loss + theft + inefficiency in billing) and commercial loss (default in payment + inefficiency in collection). The AT&C loss are measured by using formula *i.e.* $\{1 - (\text{Billing Efficiency} \times \text{Collection Efficiency})\} \times 100$.

One of the prime objectives of the Scheme was reduction of AT&C losses as per trajectory (DISCOM-wise) finalized by the Ministry of Power in consultation with States. The targets to reduce the AT&C losses as determined by MoP *vis-à-vis* actual achievement are given in the table below:

Table No. 2.13
Detail of approved trajectory to reduce AT&C losses

(Figures in per cent)

DISCOM	2015-16		2016-17		2017-18		2018-19		2019-20	
	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
Jaipur	22.50	35.74	20.50	29.84	19.00	25.22	17.50	25.66	16.00	27.61
Ajmer	18.50	27.81	17.50	25.18	16.50	22.94	15.50	23.31	14.50	21.99
Jodhpur	19.22	29.64	17.30	26.16	16.00	23.37	15.00	35.04	14.50	37.99
Rajasthan	20.00	31.33	18.50	27.34	17.25	23.99	16.00	28.15	15.00	29.65

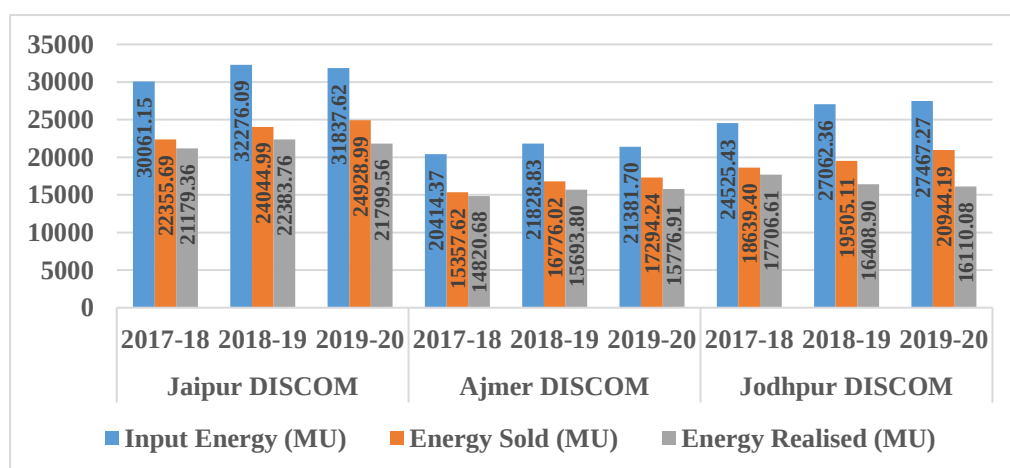
Source: DDUGJY guidelines and Annual Reports of DISCOMs

It could be seen from the table above that the DISCOMs could not restrict the AT&C losses within the limits of trajectory approved under DDUGJY.

Capital investment under DDUGJY on feeder separation, system strengthening and metering was done with the objective to provide adequate and reliable power in rural areas and to reduce the losses correspondingly due to greater efficiency in power distribution. The details of input energy, energy sold and realised by the DISCOMs during last three years ending on 31 March 2020 are shown in chart below:

Chart No. 2.4

DISCOM wise Input energy vis-a-vis Energy sold and realised during 2017-18 to 2019-20

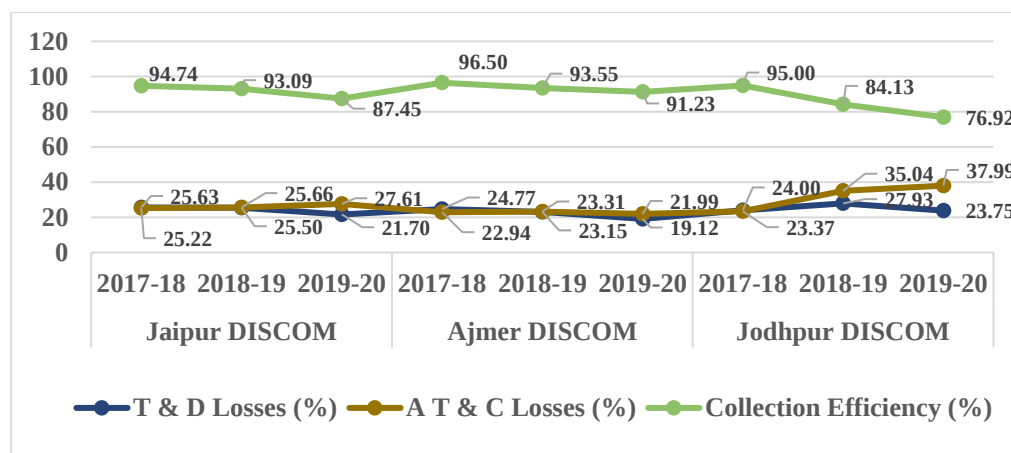


Source: Annual Accounts of DISCOMs

During the period 2017-20, the percentage realisation of input energy in Jodhpur DISCOM reduced significantly from 72.20 per cent to 58.65 per cent and in Jaipur DISCOM, it was reduced from 70.45 per cent to 68.47 per cent. In Ajmer

DISCOM, the percentage realisation of input energy improved slightly from 72.60 per cent to 73.79 per cent.

Chart No. 2.5
DISCOM wise AT&C losses during 2017-18 to 2019-20



Source: Annual Accounts of DISCOMs

It could be seen from the graph above that the collection efficiency of all the three DISCOMs had a declining trend whereas AT&C losses of Jaipur and Jodhpur DISCOMs were on an increasing trend during this period. Audit observed that none of the three DISCOMs could achieve the targets of reduction of AT&C losses which were finalised by the MoP in consultation with the concerned DISCOM. It was also observed that DISCOMs furnished (January 2020) incorrect data of AT&C losses *i.e.* reduction in AT&C losses from 30.40 per cent in FY 2016 to 21.30 per cent in FY 2019 to the Review, Planning and Monitoring (RPM) Committee. Major reasons attributable to non-achievement of targets were declining trend in collection efficiency and theft of power.

The Government stated that in Jaipur DISCOM, AT&C losses have a decreasing trend, however, still there is a gap from DDUGJY loss trajectory. Further, attempts are being made by Jaipur DISCOM to get tariff subsidy from the State Government. It further stated that AT&C losses of Ajmer DISCOM as on 31 March 2021 has been reduced to 13.73 per cent as against 14.25 per cent envisaged under DDUGJY.

The reply was factually incorrect as AT&C loss shown in the financial statements of Ajmer DISCOM for the year 2020-21 was 21.60 per cent.

Conclusion

Project Formulation

- DISCOMs did not prepare NAD. Resultantly, they failed to identify the need of feeder separation and critical gaps in sub-transmission and distribution network.
- DISCOMs did not carry out detailed field survey before formulating DPRs which led to wide variation in the envisaged/approved quantities of works executed.

- DISCOMs were deprived of connecting their GSS/Billing offices and other premises with optical fibre network as DPRs were not prepared though envisaged under DDUGJY.

Project Execution

- There was considerable delay in award and execution of the projects.
- The work of separation of agriculture and non-agriculture feeders was not completed despite having been taken up long back in 2008 and incurring huge expenditure in XIth & XIIth plan and under DDUGJY.
- Strengthening and augmentation of sub-transmission & distribution infrastructure work in rural areas was taken up without adhering to the prescribed parameters.
- The DISCOMs did not follow the diversity factor determined by the DISCOMs Coordination Forum (DCF) for installation of DTs and incurred an extra expenditure of ₹ 53.15 crore towards transformer capacity in excess of requirement.
- DISCOMs failed to build up a mechanism for proper energy accounting as metering at DTs and replacement of defective meters at feeders was not ensured.
- Villages were declared 100 *per cent* electrified without ensuring fulfilment of prescribed norms/parameters.
- There was an increasing trend of PDCs in BPL category consumers.
- DISCOMs failed to achieve the targets of power for all by March 2019 as well as reduction in AT&C losses as per approved trajectory.

Recommendations

DISCOMs may

- **Evolve a mechanism to identify system strengthening requirements.**
- **Formulate strategic and operational planning based on duly updated system strengthening requirements.**
- **Evolve a mechanism to conduct detailed field survey before formulating Scheme specific DPRs to identify the beneficiaries so that benefits reach intended and targeted beneficiaries.**
- **Develop a system to avoid delay in award and execution of projects.**
- **Ensure completion of the works in future projects within the stipulated time frame to achieve the intended benefits.**
- **Build up a mechanism for proper energy accounting by ensuring metering arrangement at each level.**
- **Take effective steps to reduce the AT&C losses by focussing on energy audit to curb the theft with a targeted approach.**



Chapter-III

Contract Management

Chapter-III

Contract Management

3.1 Contract Management is the process of managing agreements, from their creation through to their execution. It involves selection of adequate procurement method, invitation and finalisation of tenders and awarding of contracts as per laid down procurement procedures, rules and regulations, ensuring financial propriety and timeliness in tendering process.

DDUGJY stipulated appointment of utility-wise project monitoring agency (PMA) and appointment of executing agencies/contractors for awarding the project works on turnkey basis for implementation of the scheme at the level of DISCOMs. For implementation of DDUGJY, the three DISCOMs appointed four agencies (six contracts) for executing the works defined for PMA (including project formulations) at a total award cost of ₹ 18.99 crore against the scheme provision of ₹ 14.03 crore (0.50 per cent of total sanctioned cost).

Further, for implementing the 33 projects having combined sanctioned project cost of ₹ 2,805.38 crore (excluding PMA charges), the DISCOMs awarded 47 turnkey contracts for ₹ 2,427.00 crore (excluding the cost of meters provided as free issue items and civil works carried out at substations through CLRC for ₹ 244.11 crore).

The shortcomings noticed in contract management are discussed in this Chapter.

Statutory provisions governing procurement procedures

3.2 The procurement procedures followed by the DISCOMs are governed under certain statutory provisions. Major relevant statutory provisions are discussed as under:

A. Provisions of the RTPP Act, 2012/ RTPP Rules, 2013

3.3 Government of Rajasthan enacted (May 2012) the Rajasthan Transparency in Public Procurement (RTPP) Act, 2012 and notified (January 2013) the RTPP Act, 2012 and RTPP Rules, 2013 to regulate public procurement with the objectives of ensuring transparency, fair and equitable treatment of bidders, promoting competition, enhancing efficiency and economy and safeguarding integrity in the procurement process. The RTPP Act/Rules came into effect from the date of their notification and provisions of the Act/Rules were applicable to all the Public Sector Enterprises owned/controlled by the State Government. Certain relevant provisions of the RTPP Act, 2012/ RTPP Rules, 2013 are given as under:

Methods of Procurement

- Section 28 provided that a procuring entity may procure a subject matter of procurement (i.e. goods, services and works) by means of any of the 10 methods⁴⁶.

Single Source Procurement

- Section 31 provided that a procuring entity may choose to procure the subject matter of procurement by the method of single source procurement in the circumstances stipulated⁴⁷ in this Section. Further, Rule 17 provided that a procuring entity may procure the subject matter by this method, if hiring of the services of consultant or professional is required, for a maximum period of twelve months and up to financial limit of ₹ 12 lakh in each case; or price of subject matter of procurement is administered by the GoR/GoI.

B. Guidelines/directions of the Central Vigilance Commission (CVC)

3.4 CVC issues directions/guidelines on maintaining transparency in activities of government departments/organisations (including PSUs) from time to time. Certain relevant directions/guidelines are as given under:

Award of work on nomination basis

- CVC's circular on '*Transparency in Works/Purchase/ Consultancy contracts awarded on nomination basis*' stipulated (9 May 2006) that open tendering is the most preferred mode of tendering and award of tender on nomination basis should be done only in inevitable circumstances. CVC, through an office order, reiterated (5 July 2007) that tendering process or public auction is a basic requirement for the award of contract by any Government agency as any other method, especially award of contract on nomination basis, would amount to a breach of Article 14 of the Constitution guaranteeing right to equality, which implies right to equality to all interested parties.

Besides, procurement is to be carried out in accordance with the provisions of Purchase Manual, Works Manual and other circulars/orders issued by the DISCOMs from time to time.

Appointment of agencies for formulation and monitoring of projects

3.5 Clause 11 of Chapter-II (Project Formulation and Implementation) under DDUGJY guidelines provided that an appropriate Project Management Agency (PMA) shall be appointed preferably utility-wise/DISCOM-wise to assist them in project management ensuring timely implementation of the

46 (a) Open Competitive Bidding; (b) Limited Bidding; (c) Two stage Bidding; (d) Single Source Procurement; (e) Electronic Reverse Auction; (f) Request for Quotations; (g) Spot Purchase; (h) Competitive negotiations; (i) Rate Contract; (j) any other method of procurement notified by the State Government satisfying the principles of procurement contained in this Act and which the State Government considers necessary in public interest.

47 A particular prospective bidder having exclusive rights in respect of subject matter; owing to sudden unforeseen event, there exists an extremely urgent need; procurement of additional supplies/services for standardization; extension of existing contract; national security interests; artistic subject matter; confidentiality of subject matter; etc.

project. The Government of India will provide 100 *per cent* grant towards expenditure incurred on PMA as per provision in the scheme *i.e.* up to 0.50 *per cent* of cost of works. The DISCOM has to bear any cost beyond 0.50 *per cent* of the sanctioned project cost, if any, from own resources for deployment of PMA. It further provided that the DISCOM can select any PMA from CPSUs or through open bidding as per their policy/ guidelines. In continuation of the guidelines of DDUGJY, the Ministry of Power, Government of India issued (January 2017) other guidelines *i.e.* guidelines for Project Management Agency for DDUGJY (PMA guidelines). The PMA guidelines reiterated the need for appointing an appropriate PMA for assisting DISCOMs in formulating projects, conducting bidding process and monitoring the physical as well as financial progress of DDUGJY. The activities defined in the scope of work to be executed by PMA consisted of optional activity *i.e.* project formulation work (preparation of NAD and formulation of DPRs) and mandatory activities *viz.* monitoring and coordination of bidding process, project planning and implementation, quality monitoring, updating of MIS and Web Portal and coordination with Nodal Agency/MoP *etc.*

After issuance of DDUGJY guidelines, Jaipur DISCOM initiated (December 2014) efforts for appointment of an agency for DPR formulation and project management work on nomination basis. Later, Jaipur DISCOM decided (February 2015) to deploy a separate PMA for its projects and accordingly, it continued to appoint an agency on nomination basis by restricting its work to formulation of DPRs only. Jodhpur DISCOM also decided (March 2015) to follow the methodology of appointments adopted by Jaipur DISCOM. Accordingly, Jaipur DISCOM and Jodhpur DISCOM nominated (March 2015) WAPCOS Limited (WAPCOS) for formulation of DPRs.

The methodology adopted by Ajmer DISCOM slightly differed from the other two DISCOMs as it formulated the DPRs at its own. Thereafter, each of the three DISCOMs appointed (August 2015 and May 2017) two PMAs *i.e.* (i) an HO level PMA for conducting all mandatory activities (except quality assurance and inspection at field level) and (ii) Circle level PMA for quality assurance and inspection at field level.

The agencies appointed by the DISCOMs for formulation and monitoring of DDUGJY projects and the work orders awarded and expenditure incurred thereon in excess of the funds allocated for PMA are depicted below:

Table 3.1
Appointment of agency for PMA and other services (January 2021)

Purpose (Name of agency)	Jaipur DISCOM		Ajmer DISCOM		Jodhpur DISCOM	
	Value of award	Actual expenditure incurred	Value of award	Actual expenditure incurred	Value of award	Actual expenditure incurred
Formulation of DPRs (WAPCOS) (<i>₹ in crore</i>)	3.53	2.94	-	-	3.27	3.26
HO level PMA (Deloitte Touche Tohmatsu India Private Limited) ⁴⁸ (<i>₹ in crore</i>)	1.05	1.36	1.04	1.79	1.09	1.61
Circle level PMA (FIPL for Jaipur DISCOM and MTCPL for Ajmer & Jodhpur DISCOMs) (<i>₹ in crore</i>)	2.70	2.63	3.15	3.04	3.16	4.25
Total (<i>₹ in crore</i>)	7.28	6.93	4.19	4.83	7.52	9.12
Sanctioned cost of projects (<i>₹ in crore</i>)	1027.08		829.35		948.95	
Percentage of PMA/consultant cost to sanctioned project cost	0.71	0.67	0.51	0.58	0.79	0.96
Percentage of PMA/consultant cost in excess of Scheme's provision	0.21	0.17	0.01	0.08	0.29	0.46

Audit observed that though DDUGJY guidelines provided for appointment of one PMA for each entity however each of the three DISCOMs appointed separate PMAs for monitoring of their projects at HO level and Circle level. Further, in case of Jaipur DISCOM and Jodhpur DISCOM, the award cost as well as actual cost incurred on PMAs (including cost incurred for DPR formulations) was significantly higher over the amount receivable from the GoI in the form of grant for PMA. Resultantly, these two DISCOMs incurred ₹ 1.79 crore⁴⁹ and ₹ 4.37 crore⁵⁰ respectively from their own funds till January 2021. As the closure is still in progress, the burden of PMA expenditure will further increase till closure of the Scheme.

The Government accepted the facts regarding PMA charges. The reply was, however, silent on the issue of appointment of separate agencies for HO level and Circle level.

Further, the deficiencies noticed in appointments of project formulation agency/ PMAs are discussed in subsequent paragraphs:

Nomination of WAPCOS in violation of RTPP Act/Rules

3.6 For formulation of DPRs, Jaipur DISCOM identified (December 2014) one CPSU namely REC Power Distribution Company Limited (RECPDCL) and sought its offer for the work of survey and formulation of DPRs as well as Project Management Consultancy services under DDUGJY. After negotiations and revision of scope, RECPDCL offered (17 February 2015) to execute the

48 In the absence of availability of segregated values of award and actual expenditure, the proportionate values have been derived on the basis of sanctioned project costs.

49 ₹ 6.93 crore - ₹ 5.14 crore (*i.e.* 0.5 per cent of ₹ 1027.08 crore).

50 ₹ 9.12 crore - ₹ 4.75 crore (*i.e.* 0.5 per cent of ₹ 948.95 crore).

work at the rate of 0.75 *per cent* (without using GPS for survey work) and 0.95 *per cent* (using GPS for survey work) of the approved project cost. Thereafter, the Superintending Engineer (Rural Electrification) of Jaipur DISCOM also sought (18 February 2015) offers from another CPSU namely WAPCOS. WAPCOS offered (19 February 2015) to execute the work at the rate of 0.39 *per cent* (without using GPS for survey work) and 0.41 *per cent* (using GPS for survey work) of the approved project cost. The matter was placed (23 February 2015) before Corporate Level Purchase Committee (CLPC). The CLPC, considering the rates offered by WAPCOS on higher side, called its representative in the meeting itself and counter offered to award the work at 0.30 *per cent* of the approved project cost (using GPS for survey work) which was accepted by WAPCOS. Accordingly, Company placed (4 March 2015) the work order on WAPCOS at the agreed rate.

Similarly, Jodhpur DISCOM, without adopting a method from the procurement methods prescribed under the RTPP Act/Rules, depended on the methodology adopted and the rates finalised by Jaipur DISCOM for procurement of services of survey and DPR formulation from WAPCOS. Accordingly, CLPC of Jodhpur DISCOM also awarded (March 2015) the survey and DPR formulation work in favour of WAPCOS at the rate and terms and conditions adopted by Jaipur DISCOM.

Audit observed that Superintending Engineer (Rural Electrification) of Jaipur DISCOM chose WAPCOS on random basis without even obtaining the approval of competent authority. Further, the two DISCOMs (Jaipur and Jodhpur) bypassed the procurement methods stipulated in Section 28 of the RTPP Act without recording the reasons of deviation and ignored the CVC guidelines. Thus, these DISCOMs could not ensure transparency and competitiveness in procurement of services for conducting survey and formulating DPRs.

The Government stated that Jaipur and Jodhpur DISCOMs nominated WAPCOS, being a CPSU, through single source selection as per Rule 176 of GFR 2005.

The reply was not acceptable as Rule 176 of the GFR 2005 allows single source procurement in certain special circumstances with recorded justification which was not done. Further, Rule 17 (1) of the applicable RTPP Rules allows hiring of services of consultant through single source procurement upto the limit of ₹ 12 lakh only while the cost of hiring WAPCOS was ₹ 3.53 crore and ₹ 3.27 crore for Jaipur and Jodhpur DISCOMs respectively. The Scheme guidelines also allow appointment of CPSUs by adopting procurement policy/guidelines of the concerned entity. Therefore, methods prescribed under Section 28 of the RTPP Act should have been followed for appointment of CPSU.

Award of turnkey contracts for implementing DDUGJY projects

3.7 Clause 8 (Mode of Implementation) under Chapter-II (Project Formulation and Implementation) of DDUGJY guidelines provided that the projects shall be implemented on turn-key basis. The turnkey contract shall be awarded by the concerned utilities through e-tendering in accordance with the prescribed Procurement Policy, Standard Bidding Document (SBD) and Technical Specifications being circulated separately by the nodal agency. The

projects have to be awarded within six months of the date of communication of the approval by the Monitoring Committee.

Tender invitation without finalisation of SBD/project approval

3.8 After launch of DDUGJY, REC circulated (June 2015) SBD for full turnkey projects. Subsequently, MoP took (August 2015) a new initiative of mobilising high value sub-transmission and distribution materials under DDUGJY. Accordingly, REC issued (April 2016) modified SBD for partial turnkey execution. Meanwhile Jaipur DISCOMs initiated (November 2015) tendering process for awarding their project. After issue of modified SBD, DISCOMs again invited (May 2016) tenders for supply and erection works on partial turnkey basis and collectively decided (April/May 2016) specifications for procuring free issue items⁵¹ at their level. This also could not materialise due to revision in the process of awarding the contracts by the MoP. Later, REC conveyed (26 July 2016) approval for floating full turnkey contracts for implementing the DDUGJY projects and uploaded (August 2016) SBD on the DDUGJY web portal.

Audit observed that tenders initiated by the DISCOMs without finalisation of tendering mechanism (full turnkey/partial turnkey), technical specifications and SBD did not serve any purpose. Further, Jaipur DISCOM invited (November 2015) the tenders even before project wise/component wise approval (December 2015) of DPRs by the MC. Resultantly, the DISCOMs were forced to scrap the tenders and re-initiate a fresh tendering process.

The Government accepted the facts.

Award of contracts at unreasonable rate without ensuring competent approval/ compliance of BoD directions

3.9 Jaipur and Ajmer DISCOM invited (August 2016) bids for implementation of Dausa (TN-361) and Rajsamand (TN-35) projects respectively. The estimated cost on the basis of prevailing BSR rates were kept at ₹ 51.34 crore and ₹ 55.92 crore respectively. The techno-commercial bids of the single bidders (*i.e.* a Joint Venture of Swastika Electricals and Fertilizers and Vaishno Associates Vidyut Projects and M/s Naolin Infrastructure Private Limited respectively) were opened in September 2016 and October 2016 respectively. Considering the bid responsive, financial bid of single bidders were opened in October 2016 and November 2016 respectively. In both cases, the quoted prices (₹ 74.45 crore and ₹ 77.67 crore) were considered to be on higher side and hence the CLPC of respective DISCOM counter offered (November 2016 and December 2016) ₹ 63.73 crore and ₹ 51.00 crore respectively. The counter offered rates stood at 24.13 *per cent* above net BSR value (₹ 51.34 crore) and at 40.69 *per cent* above net BSR value⁵² (₹36.25 crore) respectively. The single bidders accepted (November 2016 and December 2016)

51 In turnkey contracts, the DISCOMs keep a provision as per which certain higher value items viz. distribution transformers, meters, etc. are arranged by the DISCOMs and provided to the turnkey contractors for installation. As such items do not carry any cost for the contractor, these items are termed as free issue items.

52 Net BSR value worked out by the DISCOM by giving impact of galvanization and level-II transformer on supply cost and service tax on erection part.

the offered price and accordingly LoIs were issued (December 2016 and January 2017) in favour of these single bidders.

Similarly, in seven tenders of total 13 subsequent tenders (Phase-II) where single bidder had participated, prices counter offered by the CLPC of Jaipur DISCOM were accepted by the respective bidders.

The DISCOMs after issue of LOIs for Rajsamand and Dausa project placed (February 2017) the matter before respective BoD for its *Ex-post facto* approval along with seven subsequent tenders. The BoD, instead of according the approval, expressed that there existed further scope for reduction in rates and directed the CLPC to re-asertain the reasonability of rates. It further directed to bring down the rate through negotiation/ counteroffer and to re-invite the tenders in case the rates still remained unreasonable.

Audit noticed that Ajmer DISCOM, on receipt of directions of BoD, counter offered the rate to the L1 bidder of Rajsamand project. The counter offered rate was 6.84 *per cent* lower than the rate on which LoI was issued. The counter offered rate was accepted by the bidder. Further, the CLPC of Jaipur DISCOM, despite the fact that the directions of its BoD were equally applicable for all the eight cases (*i.e.* Dausa and seven cases of subsequent tender having single bid), reassessed the reasonability of rates in seven cases only (except Dausa) and accordingly furthered its negotiations with the bidders in these seven cases for the rates so reduced in reassessment. As a result of reassessing the reasonability of rates and offering the reduced rates in these seven cases, the price was reduced by 9.12 *per cent* with total saving of ₹ 26.81 crore as the counter offered rates were accepted by the respective bidders.

Audit observed that:

- (i) In case of Rajsamand and Dausa, the respective DISCOM did not obtain the mandatory approval of the next higher authority (BoD of the respective DISCOM) as required under RTPP Act/ Rules in case of receipt of single bid.
- (ii) Since the BoD did not accord its *post facto* approval for Dausa project and passed common directions for all the cases placed before it, CLPC of Jaipur DISCOM was required to reassess reasonability of rate for Dausa also. However, it ignored/ misinterpreted the directions of BoD as no such exercise was ensured.

The Government accepted the facts and stated that LoIs were issued in favour of single participating bidders subject to ratification of decision by the BoD. It further stated that as per directions of the BoD, Ajmer DISCOM renegotiated for Rajsamand project, however, Jaipur DISCOM did not hold renegotiation for Dausa project as two other contracts were awarded at the same rate after negotiation held by CLPC. Further, *ex post facto* approval had already been granted (9 February 2017) by the BoD for Dausa project.

The fact thus remained that the DISCOMs did not follow the due procedure which ultimately resulted in renegotiation with bidders. Further, the reply was factually incorrect as the BoD did not grant *ex post facto* approval for Dausa project. Instead, it directed for re-asertaining the reasonability of rates for all the eight cases placed before it which was not ensured for Dausa project.

Deficiencies in award and execution of turnkey contracts

Infructuous expenditure of ₹ 1.18 crore on installations of M&P boxes

3.10 DDUGJY Guidelines stipulates that the installation of meters at sub-stations, feeders, distribution transformers and consumers is important to ensure seamless accounting and auditing of energy at all levels in the distribution system. Further, clause 19 of the Standard Bidding Documents (SBD) and Guaranteed Technical Parameters (GTP) adopted by DISCOMs for invitation of tenders for implementation of DDUGJY projects stipulated that 25 KVA and 40 KVA three Phase Distribution Transformers were to be installed, with Meter and Protection (M&P) Box⁵³ having provision for installation of meter.

Scrutiny of records of Jaipur and Ajmer DISCOMs disclosed that all the 30 Turnkey Work (TW) contracts (23 projects) awarded for implementation of DDUGJY *inter alia* provided for installation of 2745 DTs (Jaipur: 1,421 DTs⁵⁴ and Ajmer: 1324 DTs⁵⁵) with M&P Box.

Audit noticed that Jaipur and Ajmer DISCOMs prepared and implemented all their projects without keeping provision for metering on the DTs installed under DDUGJY. Besides, the DISCOMs did not frame any other plan to install meters on the existing DTs/newly installed DTs. Audit observed that Jaipur and Ajmer DISCOMs did not adhere to the approved SBD and GTP which was not only the gross violation of DDUGJY guidelines but also led to non-ensuring energy accounting and audit.

There was no use of installing M&P box on the DTs installed under DDUGJY, since Jaipur and Ajmer DISCOMs did not keep provision for DT metering as stated in **paragraph 2.13.7**. Audit observed that against the awarded quantity, 1,040 DTs (25 KVA/40 KVA) had been installed by Jaipur DISCOM till January 2021 of which 727 DTs were installed with M&P boxes by incurring expenditure of ₹ 0.84 crore⁵⁶ and rest 313 DTs were installed without M&P boxes for which deductions had been done from the running bills. In Ajmer DISCOM, 298 DTs (25 KVA/40 KVA) were installed upto December 2020. None of these 298 DTs had M&P box, however, deduction of ₹ 0.34 crore⁵⁷ was not made by Ajmer DISCOM towards supply of DTs without M&P box. While in Jodhpur DISCOM, no three phase DT was involved so provision for M&P box was not required.

Thus, Jaipur and Ajmer DISCOMs incurred infructuous expenditure of ₹ 1.18 crore on M&P boxes as M&P boxes installed in Jaipur remained unutilized whereas Ajmer DISCOM did not recover cost of M&P boxes from the running bills of the contractors. Besides, Ajmer DISCOM did not initiate action against

53 As per GTP, M&P Box is an outdoor type cabinet and to be supplied as complete unit suitable for fixing an energy meter and modem along with a 'triple pole Moulded Case Circuit Breaker' (MCCB).

54 107 Nos. 25 KVA and 1,314 Nos. 40 KVA three phase capacity.

55 1,111 Nos. 25 KVA and 213 Nos. 40 KVA three phase capacity.

56 Separate rate of M&P box is not stipulated in the work contract; hence expenditure has been worked out on the basis of Standard Issue Rate of M&P Box available with Jaipur DISCOM (*i.e.* ₹ 11,511 per M&P box) for 727 DTs of Jaipur DISCOM.

57 298 M&P boxes X ₹ 11,511

the officials responsible for releasing payment without ensuring supply of M&P boxes.

The Government stated that the expenditure on M&P boxes cannot be considered infructuous as these shall be required for purpose of energy accounting and prevention of energy theft in future. Further, Jaipur DISCOM had recovered ₹ 0.40 crore from concerned contractors for not providing M&P boxes with DTs. It further stated that the matter will be examined in Ajmer DISCOM and necessary deduction will be made for non-providing M&P boxes with DTs.

The reply was not convincing as procurement of M&P boxes with DTs would not serve any purpose as the DISCOM had not prepared any plan for metering on DTs. Hence, the expenditure incurred on this account was infructuous. The matter as regards to recovery from the contractors as well as disciplinary action against official responsible for releasing payment without ensuring supply of M&P boxes along with distribution transformers was, however, pending (June 2022) in Ajmer DISCOM.

Irregular release of Price Variation towards copper wound DTs

3.11 REC issued (August 2016) final SBD with the condition that the DISCOMs may modify the SBD/specifications with the approval of the State Level Standing Committee (SLSC). SLSC approved (14 July 2016) the modifications/ amendments proposed by the DISCOMs in the SBD. Section IV of Volume I (General Conditions of Contract) provided that the contract price shall be as specified in the Contract Agreement and it shall be subject to adjustment in accordance with the provisions of Appendix 2 (Price Adjustment) to the Contract Agreement. As per Appendix 2, price adjustment was to be allowed only for specifically prescribed equipment/ materials/ items⁵⁸. This was to be done as per stipulated formulae and prices of all other equipment/ materials/items were to remain firm as such no price adjustment were to be applicable. The DISCOMs initiated (August 2016) tendering process on the basis of modified SBD and awarded (between November 2016 and May 2017) contracts for all the projects where SBD (including Appendix-2 of SBD) formed part of the work orders/contracts in all cases.

During review of records, it was noticed that the three DISCOMs procured 68,114 single phase copper wound DTs worth ₹ 425.14 crore under DDUGJY till September 2020 as detailed under:

Table: 3.2
Status of single phase copper wound distribution transformers procured under DDUGJY

Capacity of DT	Jaipur DISCOM		Ajmer DISCOM		Jodhpur DISCOM	
	Quantity (in Nos.)	Value (₹ in crore)	Quantity (in Nos.)	Value (₹ in crore)	Quantity (in Nos.)	Value (₹ in crore)
5 KVA	0	0.00	6787	70.14	12797	58.44
10 KVA	0	0.00	2512	16.26	14997	88.25
16 KVA	17101	135.09	9534	34.66	4386	22.30
Total	17101	135.09	18833	121.06	32180	168.99

58 ACSR conductor, Power Transformer (Copper Wound), Distribution Transformer (Aluminium Wound), Cables, Steel Structure and indoor/outdoor Switchgears (including Circuit Breakers, RMU, Sectionalizer and Isolators).

Against supply of these DTs, contractors during a review meeting, requested (April 2018) the management of Jaipur DISCOM to allow price variation (PV) on these DTs. Jaipur DISCOM sought (April-May 2018) clarifications from REC regarding applicability of PV on such DTs. REC clarified (May 2018) that as per provisions of the SBD, PV is approved for aluminium wound DTs only. It further clarified (June 2018) that the SBD was approved from committee appointed by the MoP and modifications in SBD for allowing copper wound DTs may not be permissible now. It further stated that the DISCOM may however modify such specifications as per their requirement approved by SLSC. Further, the Contractors requested (March 2019) the management of Jodhpur DISCOM to allow price variation (PV) which was not responded to.

Jaipur DISCOM, despite previous clarifications, requested (April 2019) REC to allow price adjustment for copper wound DTs installed under DDUGJY. Jaipur DISCOM mentioned that copper wound DT procured (October 2016 to January 2019) by it involved heavy price escalation ranging upto 22.56 *per cent*. However, request of Jaipur DISCOM remained un-responded to till February 2021. Resultantly, Jaipur DISCOM did not release any PV on this account to the contractors till February 2021.

Ajmer DISCOM contrarily decided (June 2018) to allow price adjustment on single phase copper wound DTs on the pretext that REC had allowed price adjustment for transformers and the copper wound DTs are included in the specifications finalised by the DISCOM. Accordingly, Ajmer DISCOM released ₹ 8.45 crore to the contractors on account of PV on copper wound DTs till September 2020.

Audit observed that despite knowing about non-existence of provision for allowing PV on copper wound DTs in the SBD issued by REC and modified with the approval of SLSC, Ajmer DISCOM did not make any effort to obtain clarification/approval of the competent authority on the issue and on its own decided to allow PV on the copper wound DTs against the provisions of the work orders/contracts awarded to the contractors. Ajmer DISCOM did not even consult the sister concerns (Jaipur DISCOM and Jodhpur DISCOM) to reach a unanimous/uniform decision on the issue. Resultantly, Ajmer DISCOM irregularly incurred ₹ 8.45 crore against the provisions laid down in respective work orders/contracts.

The Government stated that Ajmer DISCOM has been directed to review the decision of CLPC at competent level and to intimate the result thereof within 30 days. However, no subsequent reply was furnished till November 2021.

Conclusion

- The DISCOMs did not comply with the provisions of RTPP Act/ Rules and directions/guidelines issued by the CVC while procuring services of consultants/ PMA and awarding turnkey contracts for implementation of DDUGJY projects.
- The DISCOMs, without providing for DT metering, placed turnkey contract having provision for installation of DTs along with M&P boxes. In the absence of metering provision, M&P boxes installed (₹ 1.18 crore) under DDUGJY remained idle.

- Ajmer DISCOM contravened/misinterpreted the provisions of SBD issued by REC and approved by the SLSC and released ₹ 8.45 crore in favour of the turnkey contractors towards price variation on supply of single phase copper wound DTs without competent approval.

Recommendations

DISCOMs may

- **Strengthen its procurement process to ensure compliance of provisions laid down under the RTPP Act/Rules, CVC's directions/guidelines, GoI Scheme and other mandatory norms.**
- **Ensure disciplinary action against the officers responsible for violating tendering norms and releasing extra payment towards price variation.**



Chapter-IV

Monitoring & Quality Assurance Mechanism

Chapter-IV

Monitoring & Quality Assurance Mechanism

Monitoring and Supervision

4.1 Monitoring and supervision of implementation of the Scheme was to be done at different levels. DDUGJY guidelines provided a single tier monitoring mechanism.

DISCOMs Level

- DISCOMs shall create a dedicated team for implementation of projects to ensure smooth implementation, monitoring and to redress grievance of public and public representatives of the project areas.
- An officer of the rank of Chief Engineer will be designated as Nodal Officer from the dedicated team who will be responsible for implementation of the scheme in accordance with the prescribed guidelines, providing all necessary information including physical & financial progress related to the projects, will arrange to get relevant orders/clearances from the State Government, enhance level of awareness and redress grievances of public & public representatives in the project areas.

State Level

- State shall constitute SLSC for Monitoring progress, ensuring quality control and to resolve issues relating to implementation of sanctioned projects viz. allocation of land for sub stations, right of way, forest clearance, railway clearance, safety clearance etc.

National Level

- REC shall monitor physical and financial progress of the projects including quality of works.
- REC shall deploy Third Party services of outside agencies/manpower for concurrent evaluation of project implementation.

The shortcomings noticed in monitoring and supervision of implementation of DDUGJY in the State are discussed below:

Involvement of District Electricity Committee

4.2 Pursuant to the MoP order dated 1 April 2015, to institutionalize the system of consultation with public representatives, GoR notified (15 May 2015) District Electricity Committee⁵⁹ (DEC) for each district in the State to review

59 Senior most Sitting Member of Parliament (MP) in the District- Chairperson, Other Sitting MP- Co-chairperson, District Collector/Magistrate- Convenor, District Panchayat President/ Sabhapati- Member, Sitting MLAs of the district- Member, Senior most representative of CPSUs of Power, Coal and NRE Ministry if located in the concerned district- Member and Chief Engineer/Superintending Engineer DISCOM- Member Secretary.

and monitor the implication of all Central Schemes in the power sector. The main objective of formulation of DEC was to actively engage public

representatives throughout the life cycle of the project from its formulation to execution and monitoring. Further, DEC was required to be consulted in preparation of DPR and to monitor the implementation of scheme *i.e.* review of quality of power supply, consumer satisfaction, promote energy efficiency and energy conservation in the district. It was to be ensured by the Member Secretary that requisite meetings take place and a quarterly report of the holding of the meeting was also required to be sent to REC.

Audit noticed that Jaipur and Jodhpur DISCOMs did not consult DEC before formulation of original DPRs (Jaipur DISCOM- nine projects, Jodhpur DISCOM- one project). Further, DEC was not consulted in the preparation of 13 revised DPRs (Jaipur DISCOM- one project, Ajmer- two projects and Jodhpur DISCOM- 10 projects). Besides, Jaipur and Ajmer DISCOMs did not conduct any subsequent quarterly meeting whereas in Jodhpur DISCOM only five meetings (four in Jaisalmer project and one in Bikaner project) were conducted between March 2017 and July 2018.

Thus, due to these infrequent meetings of DEC, the very purpose of constituting the DEC *i.e.* involvement of public representative throughout the life cycle of the project from formulation to execution and monitoring was defeated. Further, all the three DISCOMs violated the directions of the MoP, GoI by not conducting the quarterly meetings of DEC regularly.

The Government accepted that DEC meetings were not convened as per the prescribed schedule. It further stated that involvement of administrative authorities and public representatives was ensured through periodic/monthly meetings held by the concerned District Collectors at circle level. Further, progress of works was also apprised to the public representatives during their field visits.

The reply was not acceptable as the DISCOMs did not ensure holding of quarterly meetings of DEC separately which was violation of the DDUGJY guidelines. Hence, the very purpose of constituting the DEC was defeated.

Non-submission of physical progress to SLSC

4.3 As per the DDUGJY guidelines, SLSC were required to monitor the progress of the sanctioned works. Audit noticed that initially, the DISCOMs reported (between June 2017 and October 2018) the physical progress of the works executed under DDUGJY to SLSC. Thereafter, the physical progress of the works was not found submitted to the SLSC. As a result, the very purpose of constituting the SLSC *i.e.* to monitor the progress and to ensure quality of the works executed was defeated.

The Government accepted the fact that physical progress of works was not submitted regularly to SLSC.

Audit is of the view that non-submission of regular progress reports defeated the very purpose of constituting the SLSC. Further, deliberations/directions of SLSC could have helped the DISCOMs in taking up prompt and effective measures for addressing the constraints in execution of the scheme.

Shortcomings noticed in execution of works have been discussed in **Chapter-II and III** whereas lapses in monitoring and supervision are discussed below:

Quality Assurance Mechanism

4.4 The guidelines for quality assurance provide the following mechanism:

DISCOMs	• Sole responsibility and accountability for assuring quality of the works executed under DDUGJY. • Formulation of a detailed comprehensive Quality Assurance (QA) plan for the works to be carried out under DDUGJY with an objective to create quality infrastructure works. • QA and Inspection Plan shall be integral part of the contract agreement with turnkey contractor or equipment supplier and erection agency. • Ensuring the quality of materials/equipment's supplied at site and execution of works carried out at field in accordance with Manufacturing Quality Plan (MQP)/Guaranteed Technical Particulars (GTP) and Field Quality Plan (FQP)/Approved Drawings/Data Sheets respectively. • Quality Assurance documentation
REC	• Outsource independent agency(ies) designated as REC Quality Monitors (RQM) to ensure quality of materials procured. • Verify quality of works carried out under the DDUGJY. • RQM shall carry out pre-dispatch inspection of six materials randomly in a single lot containing minimum 10% materials at manufacturer works. • RQM shall also verify quality of works carried out in the Project.

Performance of DISCOMs in quality assurance

4.5 As per the quality assurance guidelines issued by MoP, DISCOMs (Project Implementation Agency) were solely responsible and accountable for assuring quality of the works to be carried out under the Scheme.

The shortcomings noticed in evolving an effective and efficient quality assurance mechanism by DISCOMs are discussed below:

Quality Assurance Plan

4.6 For an effective and efficient quality assurance mechanism, DISCOMs were required to formulate a detailed comprehensive Quality Assurance (QA) Plan with an objective to create quality infrastructure works.

Audit noticed that DISCOMs instead of preparing QA Plan themselves before awarding the works, outsourced (March/May 2017) the work of QA Plan to the PMAs appointed by them. Audit further noticed that PMA of Ajmer and Jodhpur DISCOMs submitted the QA Plan in May 2017 and October 2017 whereas PMA of Jaipur DISCOM submitted the QA Plan in December 2017. QA Plans submitted by these PMAs *inter-alia* included quality control mechanism, quality control methodology by PMA, guidelines for quality control during construction, Check List for Quality Assurance and Formats for inspection *i.e.* for field quality inspection as well as for Monthly Progress Report.

Audit observed that DISCOMs could not ensure effective implementation of quality assurance plan as regards quality assurance checks and testing of

material used in works execution, as several deficiencies in this respect were noticed, as discussed in subsequent paragraphs:

Quality Assurance Checks

4.7 Guidelines of Quality Assurance (QA) stressed upon strict compliance of QA checks i.e. 100 *per cent* pre-dispatch inspections of all materials, verification of villages with all infrastructure and quality of material as well as erection of works in the field relating to all 66/11 or 33/11 kV sub stations (New & Augmented) as per Manufacturing Quality Plan (MQP)/Approved Drawings/ Technical Specifications/ Datasheet/ Guaranteed Technical Particulars (GTP)/ Field Quality Plan (FQP)/ approved survey drawings/layout. Further, 100 *per cent* verification of all released connections to BPL HHs, all the created feeders and material utilised as well as works done in metering, villages under Saansad Adarsh Gram Yojana and system strengthening was to be done under the scheme.

Audit noticed that the DISCOMs and the concerned turnkey contractors of the projects were responsible to ensure strict compliance of the quality checks during day to day course of project execution.

Audit observed that the PMAs, in their monthly progress reports, pointed out huge number of non-conformities in execution of the works. These defects mainly included not using earthing rod, loose stay wire on distribution transformer pole, improper filling of pits of poles, erection of poles at lesser depth, not using galvanised insulated wire, fixing of cable without clamps *etc.* Further, instances of poor quality of material used in releasing electricity connection to BPL beneficiaries were also noticed as few items of the kit were either not provided or the kit items were found in broken condition as discussed in **paragraph 6.5**. This indicated that the DISCOMs and the concerned turnkey contractors did not adhere to the QA guidelines of 100 *per cent* verification of village infrastructure adequately to ensure quality of works executed under DDUGJY as per MQP/ Datasheet/ GTP/ Approved Drawings/Technical Specifications and FQP.

The Government stated that 100 per cent pre-dispatch inspections of material were carried out and infrastructure was created as per GTP/ specifications/ drawings. The new electricity connections to BPL beneficiaries released and material used were also checked and defective material was replaced by the firms. Further, all the non-conformities observed by PMA had already been rectified.

The reply did not address the issue highlighted in audit as PMAs pointed out huge number of non-conformities which reflected that verification of village infrastructure was not done as per the QA guidelines.

Testing of material used in implementation of DDUGJY

4.8 In addition to the condition of 100 *per cent* quality check during pre-dispatch inspections, Clause 21A of General Conditions of Contract (GCC) provide for sample test of the material received in store at Central Testing Laboratory (CTL) of each DISCOM. Further, Clause 21C of GCC provides for random sample test of the material taken from site at CTL. Besides, the technical

specifications of items of material, defined in Volume-III of the Bidding Document, also provides testing of material at CTL. The payment of supply/erection was to be made only after receipt of successful test report from CTL on the samples selected from the material received at the stores.

Audit observed that:

(i) DISCOMs waived (September/October 2017) the requirement of CTL testing for all the materials except three items (DT, AB cable, 2C x 4 cable) required for release of connections under the Scheme on the plea that RHH connections were required to be released expeditiously to achieve the target of power to all latest by March 2018 and quality assurance of material was already being done by the inspecting officers at the vendor's works.

The shortcomings noticed in release of connections to un-electrified RHHs are discussed in **paragraph 2.15**. Audit observed that the orders issued by DISCOMs were ambiguous as the items, wherein the relaxation of CTL testing was waived, were not specified. Due to this ambiguity, the Circle offices of the Jaipur DISCOM had taken different interpretation and hence there was variation in the items picked for not conducting test in CTL. In two selected projects (Bharatpur and Tonk) of Jaipur DISCOM, Audit found that Bharatpur circle did not conduct testing of seven⁶⁰ items and nine⁶¹ items upto March 2018 and after March 2018 respectively whereas Tonk circle did not conduct testing of 35 items. Audit also observed that the relaxation was continued even after March 2018 in Jaipur DISCOM.

Further on the request of Bharatpur circle, Turnkey Works (TW) wing waived (August/September 2018) the requirement of testing of items utilised by M/s Voltas Limited under TN-384 *i.e.* 2C x 4 mm sq. XLPE cable (76.327 kMs), AB cable (72.395 kMs) and 16 kVA single phase DTs (200Nos.) in CTL ignoring the fact that no exemption was to be given to these three items as per the prevailing orders. Audit also observed that one of these three items *i.e.* 2C x 4 mm sq. XLPE cable (38 kMs), utilised by M/s Voltas had failed earlier (14 May 2018) during the course of testing in CTL and hence the same was rejected (November 2018). Jaipur DISCOM failed to assure quality monitor checks of QA Plan as it ignored the vital fact of failure of material in testing and waived the requirement of testing in violation of the conditions stipulated in its own order. Thus, Jaipur DISCOM compromised on the quality of material used in execution of works.

Audit further noticed that Ajmer DISCOM did not relax CTL testing even after issue of waiver order and also specified (February 2018) the items for CTL waiver in subsequent order. However, no waiver order specifying the items for CTL testing was found on record of Jodhpur DISOM.

(ii) Moreover, the random samples of material from site were not obtained for testing at CTL in any of the nine selected projects. This indicated that the

60 Suspension clamp with Bracket, Dead end clamps with Bracket Piercing Connector NFCT type A, Piercing Connectors NFC type B, GI Stay set 16 mm, 11 kV VCB Kiosk and 11 kV CT PT set (200/5 Amp.)

61 Suspension clamp with Bracket, Dead end clamps with Bracket, Piercing Connector NFCT type A, Piercing Connectors NFC type B, 11 kV Drop out cum Isolator, ACSR Weasel Conductor, LT Pin Insulator, Weasel PG Clamp and 11 kV End Termination Kit.

DISCOMs did not observe compliance with the provisions of Clause 21C of GCC. Resultantly, the purpose of inserting this clause as an additional check for ensuring quality of material was defeated.

The Government stated that in order to expedite the RHH electrification work and to ensure power for all by March 2018, Jaipur DISCOM waived the requirement of CTL testing for all the materials required for RHH electrification. However, the material was jointly inspected with REC at manufacturers work before dispatch.

The fact remained that Jaipur DISCOM did not comply with the conditions of contract regarding sample testing of material in store at CTL and thus, compromised with the quality of the material used in executing the projects. Further, the reply was silent on the issue of ambiguity in the order issued by Jaipur DISCOM which led to misinterpretation of the orders by its different circle offices. Besides, the Government did not respond on the issue of not ensuring compliance with the provisions of clause 21C of GCC.

Use of material failed at Central Testing Laboratory

4.9 (i) Scrutiny of the records of one of the selected project (Sikar Circle) of Ajmer DISCOM disclosed that M/s Swastika Infra Private Limited (Contractor *formerly known as Swastika Electricals & Fertilizers*) used the material tabulated below, for which dispatch instructions (DI) have been issued by the circle office but subsequently declared as failed during testing in CTL.

Table No. 4.1
Details of items failed during testing in CTL

Sl. No.	Item Name	Date on which DI issued	Quantity for which DI issued (Nos.)	Date of CTL testing	Quantity failed in CTL testing	Date of intimating contractor of rejection/replacement	Running Bill	Month of claim passed
1	Disc H/W Fittings type 45KN	06.12.18	514	18.02.19	514	03.04.19	RA 11 & 12	March 2019
2	GI Stay set 20*2400 mm	06.12.18	166	18.02.19	166	03.04.19	RA 15 & 17	January & April 2020

Source: CTL Reports and stock register

Audit observed that the Sikar Circle office took 44 days to intimate the Contractor about failure of material in testing at CTL. Meanwhile, the Contractor utilised these items between March 2019 and April 2020 and claimed the same in running bills submitted during this period. This material could not pass the test in CTL as it could not withstand the load. Despite this, the Sikar Circle office instead of initiating action against the contractor, passed (between March 2019 and April 2020) all the running bills and accordingly, released the payment.

The Government stated (June 2021) that the matter will be investigated and corrective measures will be taken by the DISCOMs under intimation to audit. However, further response on the issue has not been furnished till November 2021.

(ii) Similarly, in one of the selected projects (Barmer Lot-II TN-360) of Jodhpur DISCOM, the Circle office issued (21 March 2018) dispatch

instructions for supply of 500 Nos. set of 16mm diameter 2 meter long MS type earthing rods. After receipt of the material (April 2018), M/s Star Rising Energy Private Limited (Contractor) utilised the same for electrification work and claimed (March 2019) it in the running bill. Audit noticed that the Engineer-in-Charge verified the bill and sent (March 2019) it to CPC for payment with remarks that the material has passed the CTL test. Audit observed that the Engineer-in-charge put in incorrect remarks on the running bill as the material had already been declared (September 2018) failed in testing at CTL.

The Government stated that Jodhpur DISCOM had investigated the matter and recovered ₹ 1.46 lakh from the contractor.

The reply did not contain documents in support of investigation carried out against the Engineer-in-Charge as well as recovery effected by Jodhpur DISCOM.

Thus, both the DISCOMs failed to ensure quality of material used in system strengthening works carried out under the Scheme.

Performance of Project Management Agency

4.10 As defined in the guidelines of Project Management Agency (PMA), PMA was responsible for monitoring and coordination of bidding process; project planning and implementation; quality monitoring and MIS & Web Portal updation.

As per the scope of work stipulated in the work order of PMAs, PMAs were required to monitor the DPR wise monthly physical and financial progress of the scheme, prepare a consolidated report and submit it to DISCOMs for onward submission to REC. The performance of PMAs as regards monitoring of projects implementation physically/financially and monthly reporting thereof is discussed below:

(i) Physical implementation of projects

Scrutiny of records related to tasks assigned to PMAs disclosed that PMA of all the three DISCOMs submitted monthly progress reports (MPR) of the works executed under DDUGJY. Audit analysis of MPRs furnished by M/s Medhaj (PMA appointed in Ajmer and Jodhpur DISCOMs) contain various details as regard to physical progress of works executed, status of material supply and erection, achievement of BPL and APL connections *etc.* Besides this, PMA also submitted status of non-conformities observed by it during verification of DDUGJY works. The updated status of project-wise non-conformities noticed by PMA and their rectification by Ajmer and Jodhpur DISCOMs/ respective turnkey contractors is tabulated below:

Table No. 4.2
Project-wise status of non-conformities observed and rectified as on 30 November 2020

DISCOM	Project Name	No. of non-conformities observed by PMA	No. of non-conformities rectified by turnkey contractors	Non-conformities pending rectification	Percentage of non-conformities pending rectification
Ajmer DISCOM	Ajmer	1968	155	1813	92.12
	Bhilwara	914	0	914	100
	Nagaur	683	0	683	100

	Jhunjhunu	1433	663	770	53.73
	Sikar	1144	602	542	47.38
	Dungarpur	716	37	679	94.83
	Banswara	1984	183	1801	90.78
	Chittorgarh	1528	113	1415	92.60
	Rajsamand	1234	0	1234	100
	Pratapgarh	1205	171	1034	85.81
	Udaipur	1658	0	1658	100
	AVVNL	14467	1924	12543	86.70
Jodhpur DISCOM	Jaisalmer	535	436	99	18.50
	Barmer	547	547	0	0
	Jodhpur	816	779	37	4.53
	Bikaner	84	10	74	88.10
	Sriganganagar	73	69	4	5.48
	Hanumangarh	2596	79	2517	96.96
	Churu	594	357	237	39.90
	Sirohi	4672	4130	542	11.60
	Pali	180	93	87	48.33
	Jalore	2188	1	2187	99.95
	JdVVNL	12285	6501	5784	47.08

Source: Monthly Progress Reports of PMAs

Audit noticed that the nature of non-conformities reported by PMA included:

- Not providing danger board and lightening arrester on DTR;
- Missing lightening arrester/D.O. set on DTR/Pole and PG clamp not used in jumpering on DTR;
- Bolt not provided to fix isolator base channel and isolator mounted on guarding angle instead of MS channel;
- Earthing clamp not provided for connection to each rod, earthing spike used for VCB not inserted up to required depth in ground and studs not provided to hold VCB structure;
- Lightening arrester not connected, improper erection of pole/conductor, broken/ tilting pole and loose stay wire; and
- Safety norms not followed by turnkey contractors *etc.*

Audit observed that all such non-conformities were reported by PMA in MPRs during October 2017 to November 2020. However, both Ajmer and Jodhpur DISCOMs did not take adequate measures to get these non-conformities rectified through respective turnkey contractors. The performance of both the DISCOMs was extremely poor in rectifying the non-conformities which is evident from the fact that 86.70 *per cent* and 47 *per cent* non-conformities were pending rectification for a period ranging between five months and 35 months (30 November 2020).

Audit also observed that M/s Feedback (PMA of Jaipur DISCOM) only reported the physical progress of works executed under DDUGJY (in soft copy excel format). Detail MPR containing various detail such as status of material supply and erection, achievement of BPL and APL connections, non-conformities in executed works *etc.* was not found on records. In the absence of such details, audit could not vouchsafe the performance of the PMA in carrying out the field inspection for the purpose of verifying and monitoring the quality of works executed under DDUGJY. Further, the performance of Jaipur DISCOM as well

as concerned turnkey contractors as regards rectifying the non-conformities could also not be ascertained.

The Government stated that all the non-conformities observed by PMA of Ajmer and Jodhpur DISCOMs had been rectified. However, non-conformities like installation of Danger plate, lightening arrester etc., were not included in the scope of contractors and hence, these were referred to REC for waiver. It further stated that PMA of Jaipur DISCOM updated the physical progress of works on weekly/fortnightly/Monthly basis on MIS portal of DDUGJY and also provided all the required details in soft copy as well as in hard copy.

The fact remained that Ajmer and Jodhpur DISCOMs did not rectify the defects which were not in the scope of contractors. Further, in case of Jaipur DISCOM, the reply was not convincing as physical progress furnished by PMA did not contain the requisite details as pointed out by Audit.

(ii) Financial progress of works executed

As per the terms and conditions of the work order, the PMAs were also required to recommend the DISCOMs claim for release of fund duly supported by a report on expenditure, progress and constraints, if any, for timely completion of project. Besides, a report to REC, regarding Project Completion and expenditure incurred along with recommendation in accordance with the guidelines was also required to be submitted.

Scrutiny of records disclosed that the status of project-wise expenditure incurred on monthly basis only was uploaded on DDUGJY portal by the PMAs whereas recommendations of PMAs as regards project-wise and item-wise expenditure, constraints in timely completion of projects etc., to be submitted with DISCOM's claims for release of fund were not found on records. Audit observed that PMA of Jodhpur and Jaipur DISCOM did not submit their report on the completed projects and expenditure thereon despite the fact that all projects of Jodhpur DISCOM and nine projects of Jaipur DISCOM were completed between March 2020 and September 2020.

Compliance of RQM by DISCOMs/PMAs

4.11 Under Quality Assurance Mechanism, the compliance of DDUGJY guidelines and adherence to system procedures etc. were verified by RQM. DISCOMs were required to carry out compliance of observations raised by RQM and the compliance along with site photographs was to be uploaded on DDUGJY web portal (subsequently on Sakshya portal with effect from September 2019).

(i) Compliance of Inspection Reports

The designated agencies⁶² of REC for quality monitors (RQM) carried out inspections time and again with a view to verify the quality of works carried out by DISCOMs under DDUGJY. RQM also submitted the inspection reports for compliance of the shortcomings noticed during field inspections. The status of inspection reports submitted and compliances made by DISCOMs as on 31 December 2020 is depicted in the table below:

62 Jaipur DISCOM-Voyants, Ajmer DISCOM-RECPDCL, Jodhpur DISCOM-RECPDCL.

Table No. 4.3
Status of inspection reports submitted and compliances made by DISCOMs as on 31
December 2020

DISCOM	Category	No. of inspection reports	Date of submission of report ranged between	No. of compliance made	Date of compliance of report ranged between	Time taken for compliance in days ranged between
Jaipur	Village	4	8.1.2020 to 27.1.2020	4	26.6.2020 to 27.8.2020	158 to 213 days
	SS	32	3.9.2019 to 25.2.2020	31	3.12.2019 to 27.8.2020	34 to 355 days
	Feeder	82	30.12.2019 to 8.6.2020	82	30.1.2020 to 8.12.2020	15 to 329 days
Ajmer	Village	424	11.9.2019 to 12.11.2020	303	17.12.2019 to 8.2.2021	25 to 500 days
	SS	70	6.9.2019 to 20.2.2020	70	16.5.2020 to 15.1.2021	115 to 477 days
	Feeder	32	14.10.2019 to 18.2.2020	25	12.2.2020 to 8.2.2021	30 to 484 days
Jodhpur	Village	424	15.7.2019 to 1.4.2020	424	18.11.2019 to 29.6.2020	44 to 334 days
	SS	9	9.1.2020 to 20.2.2020	5	22.2.2020 to 18.11.2020	44 to 297 days
	Feeder	15	13.1.2020 to 20.2.2020	15	3.3.2020 to 20.9.2020	25 to 250 days

Source: Sakshya portal

(ii) Rectification of defects

The nature of defects mentioned in the inspection reports of RQM was categorised as 'Critical', 'Major' and 'Minor'. The faults categorised under 'Critical' and 'Major' in respect of village electrification, Sub-Station (SS) and Feeders as per REC inspection check list were given in **Annexure-4**. Number of defects observed, rectified and pending as per the latest status (January 2021) of Sakshya portal is given in the table below:

Table No. 4.4
Status of No. of defects observed, rectified, pending

DISCOM	Category	No. of defects observed	No. of defects rectified	Defects not in the scope of contractor	Pending defects
Jaipur	Village	1188	40	14	1134
	SS	500	109	377	14
	Feeder	1255	914	341	0
Ajmer	Village	12170	3525	1665	6980
	SS	1720	262	1143	315
	Feeder	687	292	142	253
Jodhpur	Village	6720	4940	1186	594
	SS	221	27	63	131
	Feeder	90	70	20	0

Source: Sakshya portal

Further, the category-wise position of defects observed and rectified was as under:

Table No. 4.5
Category-wise position of defects observed and rectified

(Figure: in numbers)

Category of defect	Jaipur DISCOM			Ajmer DISCOM			Jodhpur DISCOM			Total		
	Village	SS	Feeder	Village	SS	Feeder	Village	SS	Feeder	Village	SS	Feeder
Critical	303	110	570	4048	251	248	2119	35	38	6470	396	856
Major	793	245	579	6898	897	372	3982	119	49	11673	1261	1000
Minor	92	145	106	1224	572	67	619	67	3	1935	784	176
Total Defects	1188	500	1255	12170	1720	687	6720	221	90	20078	2441	2032
Critical	15	45	350	1145	34	92	1486	8	24	2646	87	466
Major	19	45	472	1908	134	165	2962	12	43	4889	191	680
Minor	6	19	92	472	94	35	492	7	3	970	120	130
Total defects rectified	40	109	914	3525	262	292	4940	27	70	8505	398	1276
Critical	288	65	220	2903	217	156	633	27	14	3824	309	390
Major	774	200	107	4990	763	207	1020	107	6	6784	1070	320
Minor	86	126	14	752	478	32	127	60	0	965	664	46
Total Pending Defects	1148	391	341	8645	1458	395	1780	194	20	11573	2043	756
% of defects rectified	3.37	21.80	73.07	28.96	15.23	42.50	73.51	12.22	77.78	42.36	16.30	62.80
Defects not in the scope of work of the Contractor	14	377	341	1665	1143	142	1186	63	20	2865	1583	503
% of defects not in the scope of work of the contractor	1.18	75.40	27.17	13.68	66.45	20.67	17.65	28.51	22.22	14.27	64.85	24.75

Source: Sakshya portal

Audit observed that the shortcomings highlighted in the inspection reports of RQM were rectified with significant delay ranging between 15 days and 500 days. Further, there were large number of defects in each type of work viz; village electrification, strengthening/creation of SS and segregation/construction of feeders during inspections by RQM. This also indicated that the performance of DISCOMs/PMAs, who were responsible and accountable for assuring quality of works executed under DDUGJY, was not satisfactory. Further analysis of defects disclosed that the defects observed in village electrification, strengthening/ creation of SS and segregation/construction of feeder mainly fall under critical⁶³ and major⁶⁴ category. The results of beneficiary survey conducted during the course of Audit also revealed that more than 90 per cent surveyed beneficiaries mentioned at least one or more deficiencies in execution of work.

Further, DISCOMs also failed to define the scope of work of the contractors which is evident from the fact that the contractors refused to rectify 4951 defects⁶⁵ on the plea that these were not in the scope of work awarded. Audit

63 'Earth terminal as per RE Rules', 'Earthing on every 5th pole' and 'Lightening Arrester'; 'Cradle guard at road/river/line crossing', and 'Type of foundation used not as per scope of work'.

64 'Pole numbering', 'Distribution Box', 'Meter Board', 'Depth of poles', 'Battery terminals not firmly tightened and crimped with lugs'; and 'Indoor cable not properly covered' etc.

65 (i) In case of substations, battery, exhaust fan and control panels at control rooms; working platform of 33 KV VCB, substation board, Power supply points, yard gravelling and partition wall feeder breaker panels, transformer breaker panels etc., (ii) in case of feeders, Low Tension Distribution Box (LTDB) and (iii) in case of village level infrastructure, foundation and earthing for all the poles etc.

observed that all these defects were still pending rectification and DISCOMs would have to incur extra expenditure on rectifying these defects. Besides, the nature of few works like ‘depth of pole’, ‘type of foundation used’ etc. cannot be rectified after execution of the works.

Thus, improper monitoring of project implementation activities, insufficient field quality inspections of ongoing projects at the level of PMA and absence of monitoring mechanism at each DISCOM level severely affected the quality of works executed under DDUGJY.

The Government accepted the facts and stated that DISCOMs are in the process of complying with all the observations of RQM which will be uploaded on SAKSHYA portal. It further assured that the RQM observations will be complied with before closure of the contracts.

The fact remained that improper monitoring and inspections affected the quality of project works executed under the Scheme. Further, the reply was silent on the issue of rectifying the defects which were not in the scope of work of the contractors.

Creation of Fixed Assets Register

4.12 The format of Fixed Assets Register prescribed by DISCOMs contains various details such as Circle name, Fixed Assets Group, Assets code, Assets head, Assets name, Division, Sub-division, location, construction year, quantity, gross amount, addition during the year, interest during construction, overhead, Gross book value, quantity deduction, deduction amount, quantity and amount at the end of the Financial Year. Further, as per the PMA guidelines for DDUGJY as well as terms and conditions of the work order, PMAs of all the three DISCOMs were mandatorily required to assist DISCOMs in the addition of the created assets to their asset register.

Audit observed that PMAs of all the three DISCOMs overlooked this mandatory requirement as PMAs did not help the DISCOMs to maintain vital details of the assets created under DDUGJY in the format prescribed for Fixed Assets Register by DISCOMs. In selected projects, Audit observed that the concerned O&M Circle offices maintained the assets creation information in different manner as shown below:

Table No. 4.6
Details of assets created under DDUGJY maintained in selected projects

DISCOM	Project Name	Details of assets maintained	Remarks
Jaipur	Bharatpur	Number of infra items viz; SS and lines for two FY 2018-19 and 2019-20	Details such as assets code, assets head, construction year, overhead, gross block value and quantity and value at the end of FY were missing.
	Bundi	Assets report contains details of infra items i.e. conductor, cable, pole, transformer and other miscellaneous hardware used in creation of village infra for three FY 2017-18, 2018-19 and 2019-20.	
	Tonk	Number of infra items viz; SS and lines for two FY 2017-18, 2018-19 and 2019-20.	

Ajmer	Ajmer	Details of village-wise infrastructure created i.e. village/ block/ gram panchayat/ habitation name, census code, line length, number of poles, number of DTs.	Details such as assets code, assets head, construction year, overhead, gross block value and quantity and value at the end of FY were missing.
	Banswara		
	Sikar		
Jodhpur	Barmer	Details of village-wise infrastructure created i.e. village/ block/ gram	Details such as assets code, assets head,
	Jalore	panchayat/ habitation name, census code, line length, number of poles, number of DTs.	construction year, overhead, gross block value and quantity and value at the end of FY were missing.
	Pali		

Source: Village infra details maintained at selected projects

Thus, in the absence of vital details, the exact detail and location of assets created under DDUGJY coupled with their value could not be identified. Audit also observed that none of the three DISCOMs maintained Fixed Assets Register for assets other than those created under DDUGJY and this aspect was persistently being qualified by the Statutory Auditors in their Audit Reports in several years in the past. In response to the observation, DISCOMs stated that the assets were voluminous, scattered in field and Fixed Assets Register were under preparation.

The Government accepted the facts and stated that the work of preparing the fixed assets register was under progress and relevant information was being collected from field offices of the DISCOMs.

Conclusion

- DISCOMs did not adhere to the prescribed parameters of monitoring and supervision as meetings of DEC were not conducted to monitor the implementation of the scheme. Further, the progress of works executed was not submitted to SLSC, though envisaged under the scheme.
- DISCOMs could not ensure effective implementation of quality assurance plan as regards quality assurance checks, testing of material used in works execution and also failed in ensuring timely compliance of non-conformities observed by PMAs.
- The performance of DISCOMs/PMAs was not satisfactory as RQM detected large number of defects categorised as critical and major in each type of work executed.
- Improper monitoring of project implementation activities, insufficient field quality inspections of ongoing projects at the level of PMA and absence of monitoring mechanism at each DISCOM level affected the quality of works executed under DDUGJY.

Recommendations

DISCOMs may

- **Critically examine the existing monitoring mechanism and take suitable steps to strengthen it.**
- **Ensure that there is sufficient deterrence, by fixing accountability and responsibility at each level, more specifically for grave lapses like use of CTL failed material.**
- **Evolve a mechanism to ensure rectification of deficiencies in executed works in time.**



Chapter-V

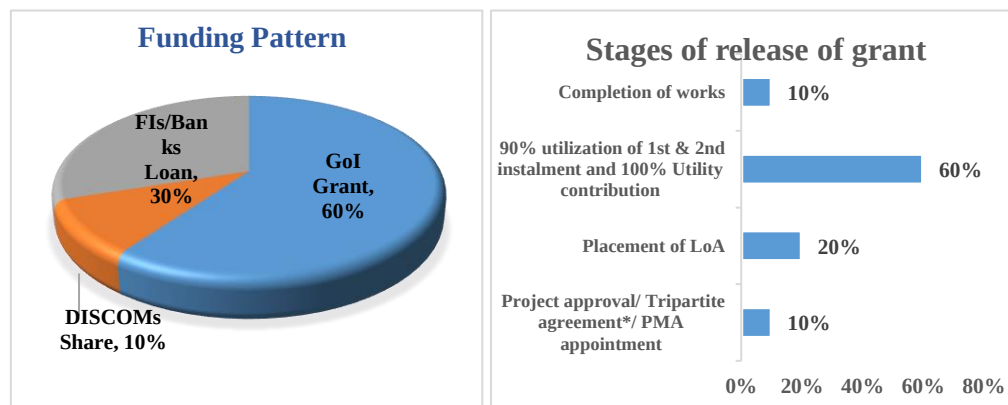
Funding Mechanism

Chapter-V

Funding Mechanism under DDUGJY

5.1 Under DDUGJY, States have been categorized in two groups⁶⁶. For the second category States, the quantum of support of GoI in the form of grant was 60 *per cent* of the sanctioned project cost. The funding mechanism of the scheme and stages of release of grant by GoI are shown in the charts below:

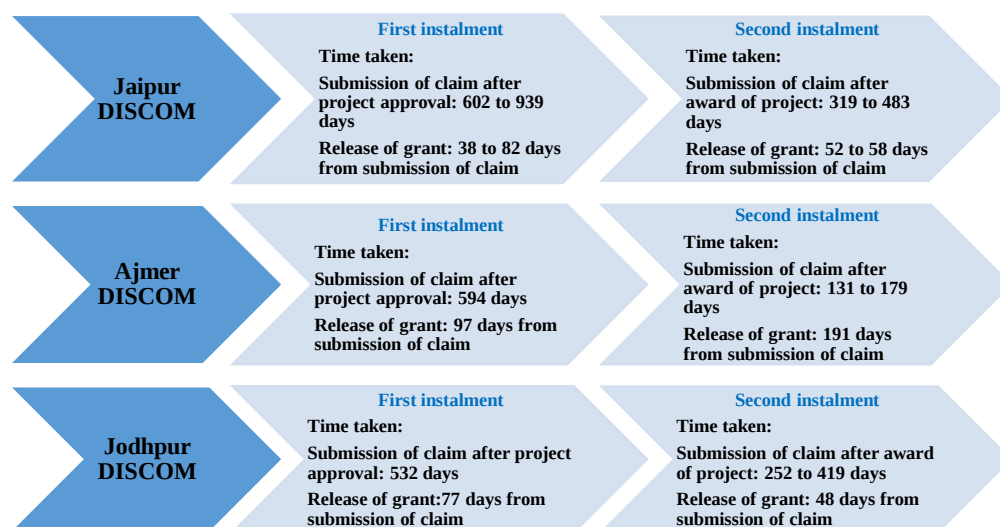
Chart No. 5.1
Funding Mechanism under DDUGJY



*Tripartite agreement among the REC, GoR and DISCOMs.

The projects were to be completed within a period of 24 months from the date of issue of Letter of Award (LoA) by the DISCOMs. The GoI was to provide additional grant (15 *per cent* of the project cost) on achievement of prescribed milestones *viz.* timely completion of the scheme, reduction in AT&C losses as per trajectory finalised by MoP and upfront release of admissible revenue subsidy by the State Government based on metered consumption. Project wise financial progress is detailed in **Annexure-5**.

Status of submission of claims and release of fund



66 (i) Special Category States (All North Eastern States including Sikkim, J&K, Himachal Pradesh, Uttarakhand) and (ii) Other than Special Category States.

Project wise detail of release of grant by the MoP is shown in **Annexure-6**.

Release of the first and second instalment of grant

5.2 (i) Audit analysis of records related to grant component disclosed that DISCOMs have taken significant time ranging between 532 days and 939 days in furnishing the claims for release of the first instalment of grant from the date of approval of the projects by the MC of MoP. Further, the MoP released the grant with a delay ranging between 38 days and 97 days from the date of submitting claims by the DISCOMs.

Audit observed that the main reason for delay in releasing of the first instalment of grant by MoP was significant time taken (165 days) by the DISCOMs in execution of tripartite agreements from approval of the projects. Further, the DISCOMs took considerable time in appointment of field PMAs (ranged between 297 days and 368 days) from the date of execution of the tripartite agreement. Even after appointing field PMAs, the DISCOMs lodged claim for the first Instalment of grant with REC with a delay ranged between 61 days and 70 days except for Karauli project where the claim was lodged after an abnormal delay of 406 days.

In addition to appointment of field PMAs, REC also directed (July 2016) the DISCOMs to furnish recommendations of the District Electricity Committee (DEC) for the revised DPRs of projects. Audit observed that the Jaipur and Ajmer DISCOMs belatedly furnished recommendations in respect of 19 projects in August 2017 and one project (Karauli) in July 2018. Besides, DEC recommendations in respect of remaining 13 projects⁶⁷ were not furnished by the DISCOMs.

(ii) The LoA of all the 33 projects were issued between November 2016 and May 2017, but Jaipur and Jodhpur DISCOM belatedly submitted their claims for release of the second instalment of grant component in January 2018 and February 2018 respectively. Ajmer DISCOM submitted its claim for the second instalment in September 2017 itself but the MoP released (March 2018) the instalment along with other two DISCOMs.

The Government stated that there were three milestones for eligibility of the first instalment. Further, REC intimated the general terms and conditions in April 2016 and thereafter, tripartite agreement was executed. Similarly, claims for the second instalment were lodged after utilisation of the first instalment and achievement of prescribed milestones.

The reply was not convincing as even after execution of tripartite agreement, the DISCOMs took time ranged between 297 and 368 days in appointment of PMA Besides, DISCOMs delayed in furnishing recommendations of DEC on revised DPRs and lodging claims for both the instalments. Further, in case of lodging claim for the second instalment, there was no condition to utilise the first instalment.

67 One project (Swaimadhopur) of Jaipur DISCOM, two projects (Bhilwara and Udaipur) of Ajmer DISCOM and 10 projects of Jodhpur DISCOM.

Release of the third instalment of grant

5.3 REC informed (January 2018) that the third instalment would be released in two equal parts in order to reduce unspent balance with DISCOMs and to ensure efficient fund management. Few new parameters were added for release of each part of the third instalment, besides other parameters, already defined in DDUGJY guidelines for release of the third instalment. These included certificate as regards rectification of quality defects observed by REC, submission of Utilisation Certificate (UC), Audit Report, interest remittance, utilisation of 50 *per cent* of loan component (Part-II) *etc.*

Audit analysis of release of both parts of the third instalment of grant component disclosed that DISCOMs submitted their claims timely and accordingly the MoP released both parts of the third instalment in time after scrutiny/verification of the claims. Audit, however, observed that the prevailing parameters as well as new parameters inserted by the MoP were not found completed on the part of the DISCOMs and accordingly, the MoP, while releasing the grant, deducted an amount of ₹ 181.61 crore⁶⁸ on account of non-rectification of quality defects, non-utilising 90 *per cent* of grant released in the first and second instalments as well as State Goods and Service Tax (SGST) claimed by the DISCOMs.

The Government accepted the facts and stated that compliances on the observations of RQM were under progress. Further, DISCOMs had submitted claims as per their eligibility and balance claims will be lodged as per achievement of milestones and approval of SLSC.

Inclusion of ineligible State taxes in award cost

5.4 As per the tripartite agreements executed amongst REC, GoR and DISCOMs, the subsidy shall be restricted to 60 *per cent* of sanction cost or award cost (excluding State and local taxes), whichever is lower. The State and local taxes are not admissible under DDUGJY and are to be borne by the GoR/DISCOMs. The expenditure as per the Project Completion Certificate or the award cost or the cost approved by the MC, whichever is lower, is to be considered as the final cost of the project for the release of the last instalment of 10 *per cent*, after adjusting any excess release made earlier (to limit the subsidy amount to 60 *per cent* of the completed project cost).

The details of project sanctioned cost, award cost, actual expenditure incurred, SGST and maximum eligible grant are given in the table below:

Table No. 5.1
Detail of sanctioned project cost, award cost, actual expenditure as on 31 December 2020
(₹ in crore)

DISCOM	Sanctioned cost*	Award cost	Expenditure incurred	SGST component in expenditure incurred	Expenditure excluding SGST	Grant on SGST portion (60%)
Jaipur	1027.08	965.68	969.52	73.95	895.57	44.37
Ajmer	829.35	829.68	895.35	68.29	827.06	40.97
Jodhpur	948.95	875.75	952.85	72.67	880.18	43.61
Total	2805.38	2671.11	2817.72	214.91	2602.81	128.95

*Excluding PMA charges

Source: Monthly Progress Reports and information provided by DISCOMs

68 Jaipur DISCOM-₹ 61.55 crore, Ajmer DISCOM-₹ 54.08 crore and Jodhpur ₹ 65.98 crore.

Audit noticed that DISCOMs invited tenders for each project wherein the bidders were required to quote the prices inclusive of taxes and accordingly, the contracts were awarded inclusive of taxes. Further, the DISCOMs lodged claims for total expenditure incurred for release of grant. The total expenditure claimed was also inclusive of State Goods & Service Tax (SGST) at the rate of nine *per cent*. The MoP, while releasing the Part-I and Part-II of third tranche of grant component, deducted the SGST portion from the claims submitted by DISCOMs.

Audit observed that the DISCOMs ignored the mandatory condition of non-admissibility of State and local taxes at the time of award of contracts as well as raising claims on REC. Further, the DISCOMs matched the award value (including SGST) with sanctioned cost of projects instead of matching the award cost (excluding SGST) with the sanctioned cost of projects. Besides, the award value of projects (except in Ajmer DISCOM) reduced further due to reduction in works related to feeder segregation, system strengthening and metering *etc.* Resultantly, against the total sanctioned project cost of ₹ 2,805.38 crore, the award value inclusive of SGST remained ₹ 2,671.11 crore which further reduced to ₹ 2,450.56 crore after excluding SGST component (₹ 220.55 crore). As the expenditure claimed till December 2020 included SGST worth ₹ 214.91 crore, the DISCOMs not only lost the opportunity to execute works under DDUGJY to the extent of value of SGST but were also deprived of grant worth ₹ 128.95 crore.

Thus, deficient approach of DISCOMs in inviting tender despite being aware about inadmissibility of SGST significantly affected the implementation of Scheme in the State.

The Government assured that while planning for future schemes, the audit observation will be kept in consideration.

Inclusion of ineligible underground cable works

5.5 As per DDUGJY guidelines, underground cable works were not to be included in the scope of work. Audit noticed that Jaipur DISCOM requested REC to include underground cable as additional items within the limit of overall project cost which was not accepted (September 2017). However, Jaipur DISCOM carried out underground cable works worth ₹ 48.22 crore without prior approval of the SLSC as well as the MC. On subsequent request (January 2020) of Jaipur DISCOM, REC asked (September 2020) the DISCOMs to furnish approval of SLSC which was not found furnished despite completion of the project works between December 2019 and March 2020.

Audit observed that Jaipur DISCOM carried out the works categorically restricted under the Scheme without prior approval of the MoP. Further, Jaipur DISCOM did not place the issue before SLSC for its approval and hence, could not furnish the mandatory approval of SLSC to REC. This may lead to disallowance of the claim and loss of the grant worth ₹ 28.93 crore.

The Government while accepting the facts stated that Jaipur DISCOM used the underground cable where erection of overhead line was not possible due to right of way constraints, NHAI crossing *etc.* It further stated that matter will be submitted to MC with the recommendation of SLSC for admitting the claims.

Lack of proper and timely action for closure of the projects

5.6 After completion of the project, DISCOMs were required to furnish Project Completion Certificate in prescribed format, duly signed by Head of DISCOMs, containing the information regarding date of completion, details of major items of works approved and completed, justification for non-completion or shelving of any project component, expenditure against the project with item wise breakup etc. The project completion certificate needs to be submitted to REC for release of final tranche of grant *i.e.* 10 *per cent* of eligible grant component.

Audit noticed that all the 10 projects of Jodhpur DISCOM and nine out of total 12 projects of Jaipur DISCOM were completed between January 2019 and July 2020 and March 2020 and October 2020 respectively. However, the project completion certificates of these completed projects were not furnished (upto December 2020) to REC despite a lapse of a considerable period⁶⁹. Further, all the 11 projects of Ajmer DISCOM were ongoing till December 2020. Audit observed that the main reason for delay in furnishing the project completion certificate was wide variation in approved and executed BOQ for which process of approval of the competent authority was not found completed in nine projects in Jaipur DISCOM and action was not initiated even for a single project in Jodhpur DISCOM. Resultantly, the final tranche of grant was also delayed to this extent.

Thus, lack of proper and timely action for closure of the projects led to delay in release of grant by the MoP.

The Government accepted the facts and stated that the approval of SLSC for variation in scope of works and final BOQs was required before closure of projects. It further stated that RQM compliances are also pending in Ajmer and Jodhpur DISCOMs. Hence, closure of projects in these two DISCOMs would take some time whereas Jaipur DISCOM was expected to complete the closure formalities by September 2021. The status of furnishing closure proposals to REC and approval thereon was awaited (January 2022).

Short receipt of grant

5.7 DDUGJY guidelines provides that 90 *per cent* of the grant component was to be released in three phases viz; approval of the project, award of LoA and utilisation of 90 *per cent* of grant released in previous two phases as well as 100 *per cent* release of DISCOM's contribution. The details of grant due and released by the MoP are given in **Annexure 5**.

It could be seen from the annexure that all the three DISCOMs did not receive the grant in proportion to expenditure incurred on the projects and thus had to deploy their own funds over and above the grant due and after availing the loan of ₹ 774.39 crore as per the scheme guidelines. Audit noticed that as against their own share of 10 *per cent* of projects award cost *i.e.* ₹ 267.11 crore, DISCOMs had so far deployed ₹ 769.42 crore (28.80 *per cent*) *i.e.* ₹ 502.31

69 Delay ranged between 102 days to 721 days and between 77 days to 296 days in case of Jodhpur DISCOM and Jaipur DISCOM respectively.

crore⁷⁰ in excess of required share, of which, ₹ 86.87 crore pertains to non/short receipt of grant.

Audit observed that the main reason for non-release of grant by MoP was DISCOMs failure to complete the required formalities at the time of submitting the claims to REC. Audit also observed that REC asked (January 2019) DISCOMs to furnish mandatory conditionality⁷¹ so that the claims for release of grant may be processed. Further, the financial closure process was not taken up for the completed projects despite lapse of a considerable time⁷².

Thus, non-completion of mandatory formalities/non-submission of requisite documents and certificates while submitting the claims for release of grant coupled with significant delay in financial closure of projects led to non/short receipt of grant.

The Government stated that DDUGJY had been extended upto March 2021 and project works were completed in time. It further stated that closures were expected to be completed as per timeline provided by GOI.

The fact remained that despite completion of the project works, DISCOMs could not ensure timely completion of financial closure of projects.

Additional grant

5.8 Under DDUGJY, an additional grant *i.e.* 50 *per cent* of loan component was to be provided subject to achievement of prescribed milestones *viz*; (i) timely completion of the scheme, (ii) Reduction in AT&C losses as per trajectory finalized by MoP in consultation with State Governments (DISCOM-wise) and (iii) Upfront release of admissible revenue subsidy by the State Government based on metered consumption.

Audit observed that all the three DISCOMs failed to achieve the prescribed milestones which is evident from the fact that all the 33 projects were completed with significant delay (**discussed in para 2.9**). Further, AT&C losses were also not reduced as per finalised trajectory (**discussed in para 2.20**). Audit also observed that the State Government had also not released tariff subsidy related to agriculture consumers, BPL and small domestic consumers upfront.

Had the DISCOMs achieved the prescribed milestones, they would have become eligible for availing additional grant of ₹ 387.19 crore⁷³.

70 Jaipur DISCOM-₹ 147.65 crore, Ajmer DISCOM-₹ 180.53 crore and Jodhpur DISCOM-₹ 174.13 crore

71 Recommendation of PMA supported by a report on expenditure, progress and constraints for timely completion of projects, list of completed/ energised/handed over villages, list of substations along with erected infrastructure *i.e.* DTR Nos., capacity, HT/LT line, certificate regarding compliance of discrepancies observed by Quality Monitors, details of interest earned on subsidy and its remittance, checklist of individual project, proposal for revision in BOQ/recasted DPRs, details of feeder segregation *etc.*

72 Ranged between 77 days to 296 days and 102 days to 721 days in case of Jaipur DISCOM and Jodhpur DISCOM respectively.

73 Jaipur DISCOM-₹ 132.57 crore, Ajmer DISCOM-₹ 119.04 crore and Jodhpur DISCOM-₹ 135.58 crore

The Government stated that all efforts will be made to get additional grant by achieving the prescribed milestones. It further accepted that gap remained in loss reduction as implementation of project works got delayed.

The reply is not satisfactory as DISCOMs failed to achieve the milestones prescribed for eligibility of additional grant within the stipulated time.

Cost overrun

5.9 As per DDUGJY guidelines, the project cost approved by the MC or award cost of the project including price variation, if any, whichever is less, was the eligible cost for determining the grant (including additional grant) under the scheme. Further, any cost overrun after approval of the project by the MC, due to any reason whatsoever, was not eligible for any grant and the cost overrun was to be borne by the DISCOMs or respective State Government.

Audit noticed that the DISCOMs' management was not vigilant to avoid the cost overrun and as a result the projects could not be completed within the awarded cost. Further, the DISCOMs also had not completed the financial closure of the projects and hence audit could not ascertain the exact cost overrun in completed projects. However, considering the expenditure incurred till 31 December 2020, there was cost overrun of ₹ 187.51 crore in 19 projects after allowing the price variation claim on awarded cost as shown in the table below:

Table No. 5.2
Details of projects completed with cost overrun

(₹ in crore)				
S. No.	Project	Award Cost	Actual Expenditure	Cost overrun
A	Jaipur DISCOM			
1	Alwar	141.77	146.72	4.95
2	Baran	38.54	45.19	6.65
3	Dausa	71.72	82.74	11.02
4	Jhalawar	54.02	65.64	11.62
5	Kota	31.05	39.57	8.52
6	Tonk	61.64	63.42	1.78
	Total A	398.74	443.28	44.54
B	Ajmer DISCOM			
1	Banswara	140.05	163.71	23.66
2	Bhilwara	50.02	57.15	7.13
3	Chittorgarh	36.27	39.20	2.93
4	Dungarpur	74.05	91.42	17.37
5	Nagaur	65.21	67.52	2.31
6	Sikar	69.76	72.40	2.64
7	Udaipur	190.36	210.35	19.99
	Total B	625.72	701.75	76.03
C	Jodhpur DISCOM			
1	Barmer	457.51	489.37	31.86
2	Bikaner	65.32	72.55	7.23
3	Ganganagar	17.31	26.98	9.67
4	Hanumangarh	57.37	61.32	3.95
5	Jalore	56.29	67.96	11.67
6	Pali	26.93	29.49	2.56
	Total C	680.73	747.67	66.94
	Grand total (A+B+C)	1705.19	1892.70	187.51

Audit observed that the main reasons attributed to cost overrun were absence of field survey before preparation of DPRs as well as conducting survey in piece

meal by the contractors to whom the projects were awarded due to which instances of frequent revision in BOQ were noticed. Further, despite wide reduction in envisaged and approved works under DDUGJY, DISCOMs were not able to complete the projects within the awarded cost.

The Government stated that there would not be cost overrun as a whole in Jaipur DISCOM. It further stated that in Jodhpur and Ajmer DISCOM, for the projects wherein expenditure exceeded the award cost, the revised BOQ would be submitted to SLSC for approval with valid reasons of cost overrun.

The reply did not address the issue of cost overrun in comparison to award cost and the fact remained that the DISCOMs could not contain the actual expenditure within the limits of award cost of respective projects. Moreover, the cost was sanctioned project wise and not DISCOM wise, therefore, as stipulated in the scheme guidelines, any cost overrun after approval of the project by the MC shall not be eligible for any grant. Hence, the expenditure incurred over and above the award cost may have to be borne by the DISCOMs/State Government.

Non-remittance of interest earned on unspent grant

5.10 DDUGJY guidelines provides for DISCOMs to adopt Corporate Internet Banking and all project related payments to the contractors and others were to be done directly from the dedicated bank account. The nature of the account was to be current account with CLTD (Corporate Liquid Term deposit) facility⁷⁴. Further, any interest earned on DDUGJY capital subsidy/grant was required to be remitted to MoP's bank account on regular basis and at least once in a quarter. Besides, DISCOMs were required to take necessary steps to seek exemption from Income Tax Department regarding deduction of Tax at Source by the bank on interest accrued on un-utilized fund under DDUGJY. However, in case of deduction of TDS by bank, DISCOMs were required to claim refund of the deducted amount from Income Tax Department directly while filing annual tax return and remit it to MoP's account.

The details of interest earned on grant, TDS by bank, refund claimed, assessment status and remittance in MoP's bank account are shown in the table below:

Table No. 5.3
Statement of interest earned on grant portion, TDS, position of refund and remittance

<i>(Amount in ₹)</i>						
DISCOM	Financial Year	Interest earned on subsidy	Total TDS by bank	Amount Remitted to MoP	Amount of refund claimed	Assessment/ Refund status (Yes/No)
Jaipur	2017-18	70,70,931	7,07,470	-	7,07,470	No
	2018-19	1,15,05,817	11,50,759	63,63,461 (December 2018)	11,50,759	No
				63,53,253 (February 2019)		
	2019-20	18,31,559	1,83,607	17,56,819 (June 2019)	1,83,607	No
				4,00,343		

74 CLTD is combination of Current account and Fixed deposit. As and when the balance in current account exceeds a certain amount, excess amount is transferred to Fixed Deposit account (Sweep) in order to fetch interest on the idle funds.

				(January 2020)		
				4,21,531 (June 2020)		
	Total	2,04,08,307	20,41,836	1,52,95,407	20,41,836	
Ajmer	2017-18	0	0	38,46,258	0	-
	2018-19	94,56,015	11,64,372	(October 2018/ including TDS)	11,64,372	Yes
	2019-20	53,41,718	5,34,172		5,34,172	No
	Total	1,47,97,733	16,98,544	38,46,258	16,98,544	
Jodhpur	2017-18	29,28,815	2,92,881	-	2,92,881	Yes
	2018-19	55,36,832	0	-	0	-
	2019-20	20,61,850	4,34,904	84,65,647 (September 2019/ including TDS)		
				20,61,850 (June 2020/ including TDS)	4,34,904	No
	Total	1,05,27,497	7,27,785	1,05,27,497	7,27,785	

Source: Bank statements, IT Returns and Tax assessment records of DISCOMs

Scrutiny of records related to operations carried out through dedicated bank accounts of each DISCOM disclosed the following shortcomings:

- None of the DISCOM remitted the interest earned to MoP on quarterly basis.
- While Jaipur DISCOM remitted only ₹ 1.53 crore (excluding TDS) against the interest earned amounting to ₹ 2.04 crore, Jodhpur DISCOM remitted the entire interest amounting to ₹ 1.05 crore irrespective of TDS deducted by the concerned bank. Ajmer DISCOM remitted only ₹ 0.38 crore (including TDS) against ₹ 1.48 crore earned during 2018-20.
- Ajmer DISCOM did not avail CLTD facility upto March 2018 and accordingly, interest was not credited by the bank despite availability of surplus fund (upto ₹ 96.95 crore) during October 2017 to March 2018.
- DISCOMs did not take steps to obtain exemption from the Income Tax Department for non-deducting tax at source and hence the concerned banks deducted TDS on interest earned on unspent balances.

The Government stated that Jaipur DISCOM had obtained exemption from deduction of TDS from the Income Tax Department and Ajmer DISCOM remitted the balance amount of interest earned during 2018-20 in December 2020.

The reply was not convincing as in case of Jaipur and Jodhpur DISCOMs, relevant documents in support of obtaining exemption from Income Tax Department and deposit of interest to the MoP respectively were not furnished along with the reply.

Further, the fact remained that Ajmer DISCOM did not avail CLTD facility on the current account since inception. Since Jodhpur and Ajmer DISCOMs remitted gross interest without obtaining the tax exemption, both the DISCOMs had to bear the amount deducted as TDS till they obtain tax exemption and get a refund.

Conclusion

- DISCOMs lodged claims for release of grant instalments with significant delay. Further, the claims were not supported with required documents/formalities such as execution of tripartite agreements, appointment of PMA, DEC recommendations, compliance of other parameters *i.e.* certificate of rectification of quality defects observed by REC, Utilisation Certificate (UC), Audit Report, interest remittance, *etc.*
- System of calculating/claiming of grant was deficient as claims were lodged inclusive of SGST despite its inadmissibility.
- Despite completion of projects work, closure formalities were not initiated by Jaipur and Jodhpur DISCOMs.
- DISCOMs have to bear the cost overrun due to incurring expenditure in excess of the award cost of projects.

Recommendations

DISCOMs may institute a mechanism to ensure completion of all formalities in a real time manner to avail the scheme benefits and receipt of funds timely.

Chapter-VI

Beneficiary Survey

6.1 To assess the achievement of envisaged objectives of DDUGJY, besides detailed review of records related to projects execution, a beneficiary survey was also carried out in nine selected projects of three DISCOMs.

Methodology adopted for survey

6.2 The methodology adopted for sampling of habitations and households/beneficiaries for conducting the beneficiary survey is detailed in **Annexure-1**. Audit also prepared a questionnaire for the beneficiary survey and carried out the survey along with the representatives of DISCOMs.

Survey Results

6.3 Accordingly, the beneficiary survey envisaged to cover 566 households/beneficiaries. However, 418 households/beneficiaries could only be surveyed because of vast variations in number of households envisaged for electrification in the DPRs and number of households actually electrified under the Scheme as tabulated below:

Table No. 6.1
Details of habitations/households to be electrified envisaged in DPRs and actually electrified in selected projects

DISCOM	Selected Project/ Circle	HA/Village/ HH included in DPRs and selected for the beneficiary survey		Beneficiary survey conducted in HA/ village/ HH actually electrified under DDUGJY		HA already electrified/ electrified under other Schemes	HH covered from other HA of same village electrified under DDUGJY for beneficiary Survey	
		HA	HH	HA	HH		HA	HH
Jaipur	Bundi	10	51	3	8	7	5	49
	Tonk	10	42	2	14	8	7	49
	Bharatpur	10	59	5	37	5	2	13
	Total (A)	30	152	10	59	20	14	111
Ajmer	Ajmer	10	38	0	0	10	3	11
	Sikar	10	70	0	0	10	5	50
	Banswara	10	100	6	55	4	1	10
	Total (B)	30	208	6	55	24	9	71
Jodhpur	Pali	3	20	0	0	3	3	17
	Jalore	10	90	2	14	8	5	32
	Barmer	10	96	5	49	5	1	10
	Total (C)	23	206	7	63	16	9	59
Grand Total (A+B+C)		83	566	23	177	60	32	241

It is evident from the table above that DISCOMs did not carry out the detailed survey before preparation of the Projects DPR and thus included the villages/habitations/households already electrified. Resultantly, during beneficiary survey Audit surveyed 241 households from 32 habitations wherein

electrification works were carried out under DDUGJY whereas in remaining 28 habitations no electrification work was carried out under DDUGJY.

The outcome of the beneficiary survey on various parameters is given in the **Annexure-7** and discussed below:

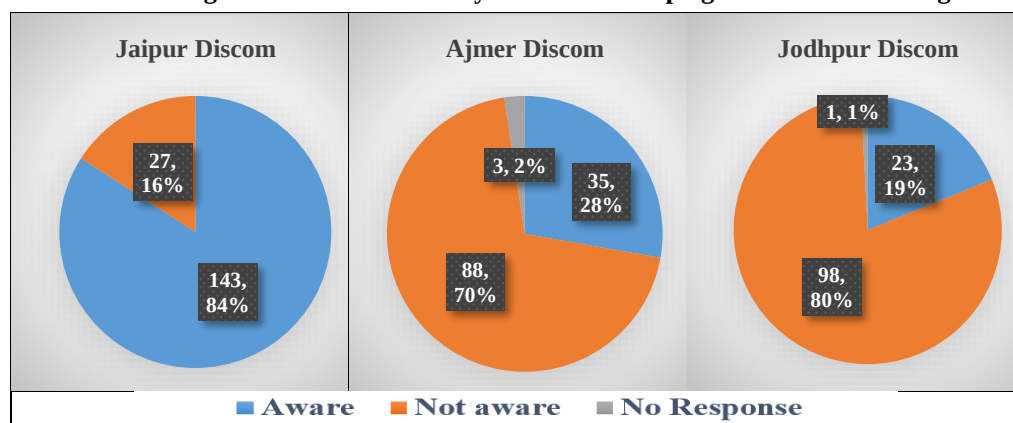
Awareness

6.4 Awareness about a scheme and intended benefits helps potential beneficiaries to take interest in its implementation and is likely to motivate them for better governance in maintenance and management. The DDUGJY guidelines also envisaged creation of a dedicated team and a nodal officer at Discom level for implementation of the Scheme. The dedicated team and the nodal officer were, *inter alia*, responsible for enhancing level of awareness and redressal of grievances of public and public representatives in the project areas. Subsequently, the Energy Department of the Government of Rajasthan also directed (January 2019) the DISCOMs to organise special campaigns to create awareness and to ensure 100 percent household electrification.

Audit, however, observed that DISCOMs did not conduct adequate campaign to raise awareness among the rural population about DDUGJY as depicted below:

Chart: 6.1

Awareness among beneficiaries about any awareness campaign conducted at village level

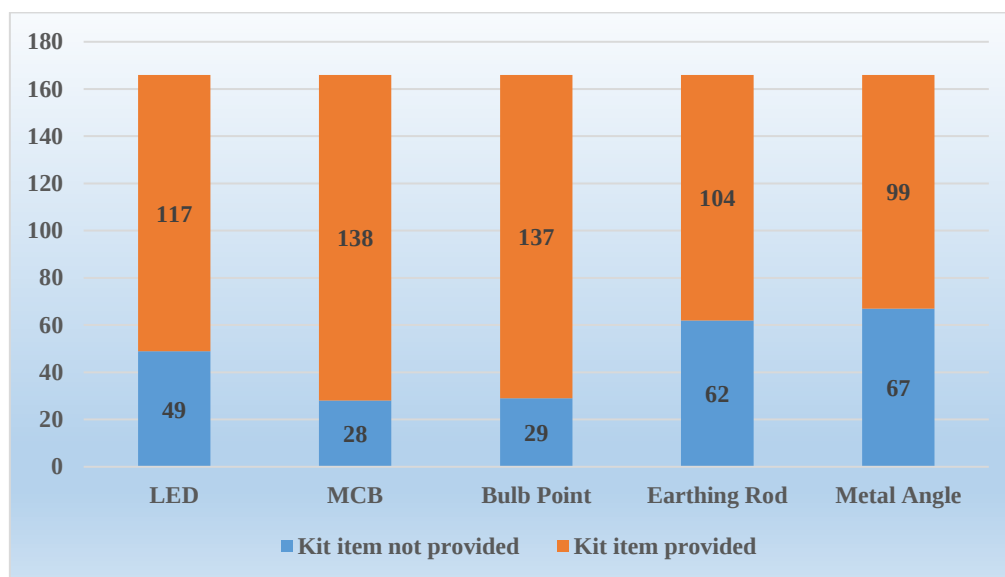


During the survey, 50.96 *per cent* beneficiaries responded that they were not aware about any campaign organised by DISCOMs at village level for creating awareness about DDUGJY.

Providing electrification kit to BPL and quality of material

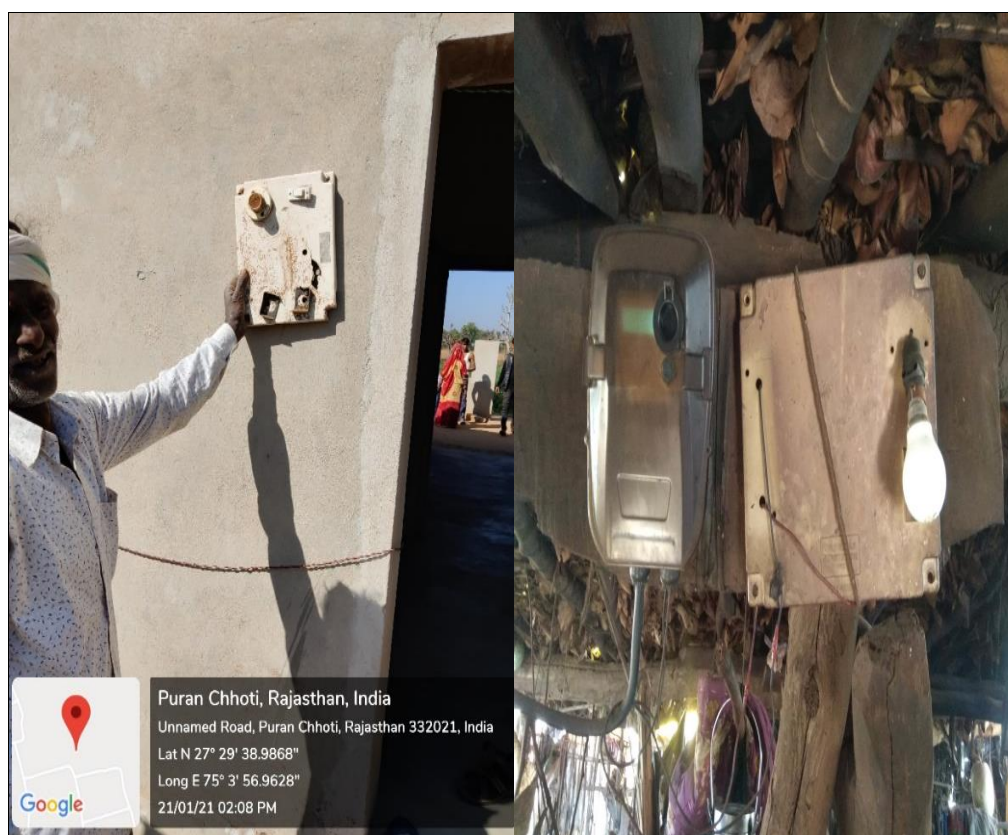
6.5 As per the terms of 'Tripartite Agreement' among REC, State Government and DISCOMs, the BPL beneficiaries were to be provided a kit having distribution panel, LED, MCB, Metal rod for service line and earthing rod *etc.* free of cost. The performance of DISCOMs was not found satisfactory as number of BPL beneficiaries responded about having not been provided one or more items of the kit as depicted below:

Chart: 6.2
Providing of kit items to BPL beneficiaries



Audit also obtained BPL beneficiary's response on quality of material/kit provided as depicted in **Annexure-7 (B)**. Survey results depicted that the performance of DISCOMs was not satisfactory as in 99 out of 166 cases of BPL beneficiaries, the kit items provided were found in broken condition.

Few instances of poor quality of material/broken kit found during beneficiary survey are shown below:

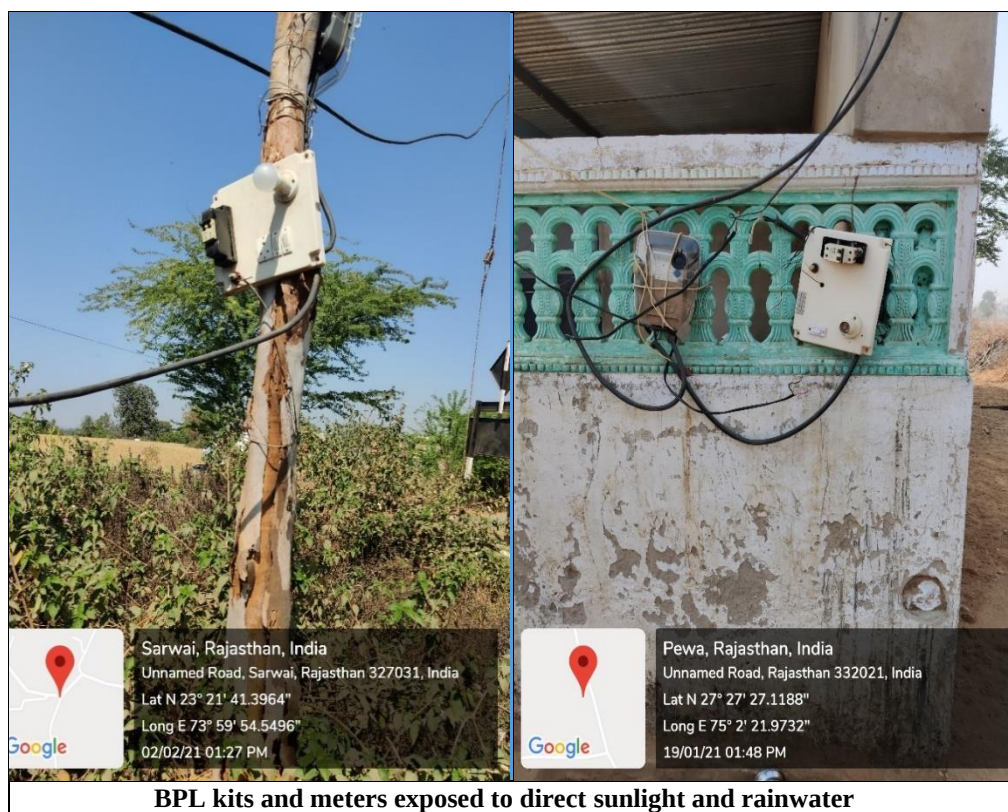




Broken items of the kit

Besides, DISCOMs installed BPL kits outside the dwelling of the beneficiary which exposed the kits to direct sunlight and rainwater. This has also resulted in damage and wearing of items of the kits.





Quality of works executed

6.6 During the course of the survey, various deficiencies in the work executed under DDUGJY such as short/low service line, joint in service line, service line disconnected, unsealed meter, broken meter cover, meter display not working, meter on pole, damaged meter, disconnected output wire from meter, improper earthing, no stay/loose stay on pole, improper earthing on transformer pole, etc. were also noticed. The deficiencies noticed in selected projects are summarised as under:

Table 6.2
Deficiencies in executed works

Project	No. of beneficiaries	Deficiencies noticed						
		Any one deficiency	Service Line	Meter	Earthing	Poles	Other	Marking on infra-structure
Bharatpur	50	50	0	2	50	0	0	0
Bundi	57	57	0	5	57	4	2	3
Tonk	63	63	1	40	63	3	0	0
Ajmer	11	9	0	2	8	0	2	2
Banswara	65	37	1	19	21	1	6	3
Sikar	50	46	2	42	45	1	1	9
Barmer	59	59	0	0	59	0	0	0
Jalore	46	46	0	0	46	0	0	2
Pali	17	16	0	0	16	0	0	0
	418	383	4	110	365	9	11	19

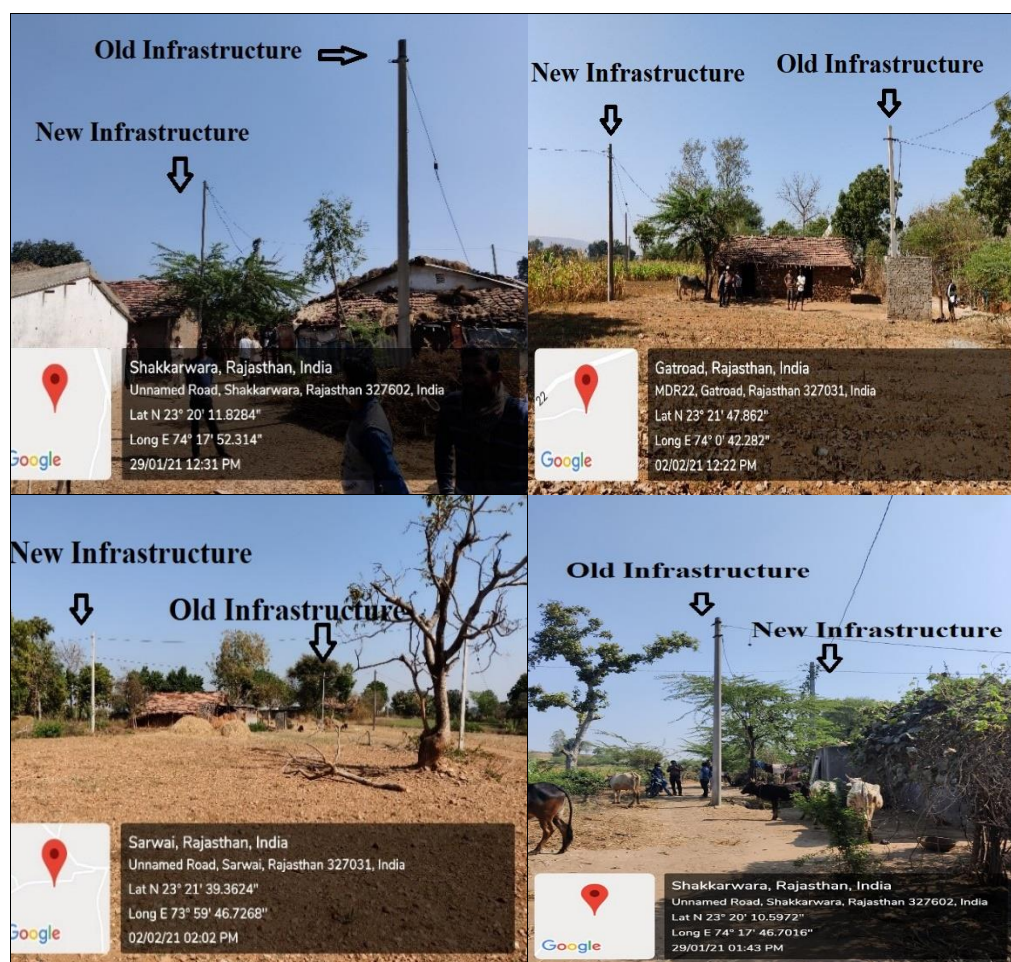
It could be seen that more than 90 *per cent* surveyed beneficiaries made complaint of at least one or more deficiencies. Such high rates of deficiencies reflect that not only the work executed by the Contractors was found sub-standard but also the PMAs failed to perform their duties properly.

A few instances of deficiencies found during the survey are shown below:

 Suwala, Rajasthan, India Banswara Rd, Suwala, Rajasthan 327602, India Lat N 23° 20' 19.2012" Long E 74° 17' 52.3536" 29/01/21 11:53 AM	 Shakkarwara, Rajasthan, India Unnamed Road, Shakkarwara, Rajasthan 327602, India Lat N 23° 20' 10.2012" Long E 74° 17' 54.1932" 29/01/21 12:56 PM
Broken meter cover and no output of supply	Loose stay wire
 Jachas, Rajasthan, India Unnamed Road, Jachas, Rajasthan 332023, India Lat N 27° 26' 37.1436" Long E 75° 2' 43.0116" 19/01/21 11:46 AM	 Chatarbhui Pura, Rajasthan, India Unnamed Road, Chatarbhui Pura, Rajasthan 304022, India Lat N 26° 25' 49.062" Long E 75° 47' 38.208" 05/01/21 03:04 PM
Service cable was very low and not upto main dwelling of the beneficiary in Sikar District	Meters on poles in Tonk District



In one of the selected project (Banswara), Ajmer DISCOM created new infrastructure (lines and poles) for issuing connections under DDUGJY despite the fact that the required infrastructure was already available in the area as shown below:

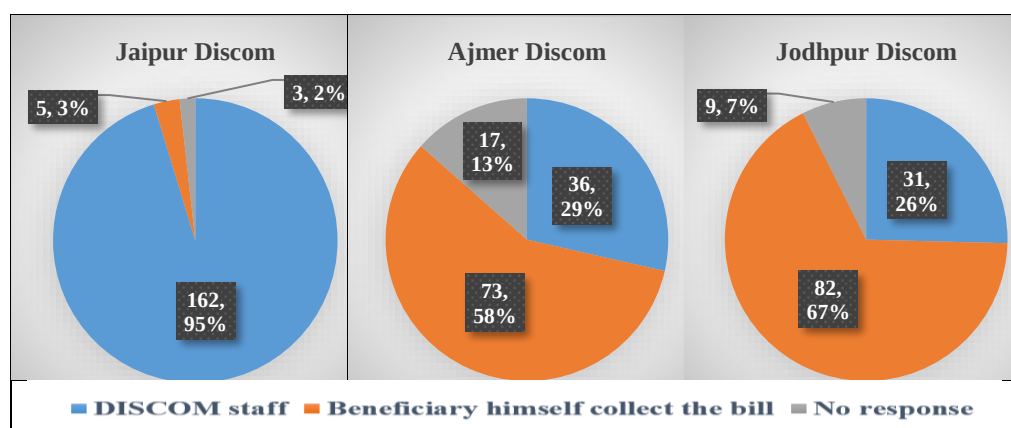


Billing efficiency

6.7 To evaluate the efficiency of DISCOMs in taking meter reading, distribution and correctness of the bills issued, response of the beneficiaries was also obtained.

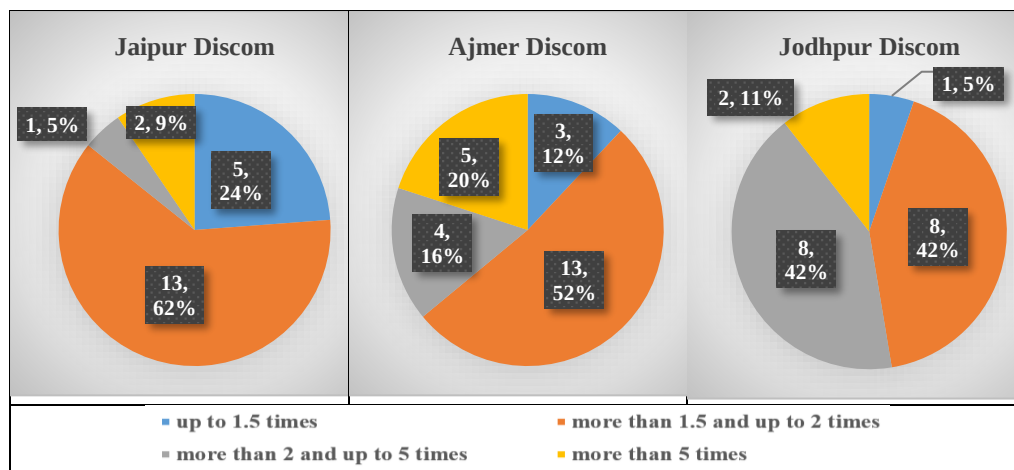
Results revealed that the DISCOMs have not made sufficient arrangements for distribution of bills to the beneficiaries as 160 out of 418 beneficiaries responded that bills were not being delivered up to the premises of the beneficiaries and they themselves were collecting bills from DISCOM's offices and other places. The DISCOM wise position is depicted below:

Chart: 6.3
Distribution of electricity bills to the beneficiaries



Further, the performance of DISCOMs as regards accuracy of meter reading and issue of correct bill was not found good as instances of issuance of bills of more than the meter reading were noticed during survey as depicted below:

Chart: 6.4
Billed units more than actual reading



It was noticed that out of 418 surveyed beneficiaries, electricity consumption billed by the DISCOM was more than consumption readings appearing in the meters at the time of the Survey in case of 65 beneficiaries.

Inaccurate high billing may result in non-payment of bills and may lead to disconnection in cases of economically backward consumers.

Redressal of grievances

6.8 Survey responses also revealed that despite the above mentioned deficiencies, the redressal of consumer grievances was also not satisfactory as out of 76 beneficiaries who registered complaints, only 55 beneficiaries responded that their complaints were attended satisfactorily as depicted below:

Table 6.3
Status of grievance redressal

Project	No. of beneficiaries	Redressal of consumer complaints		
		Complaints made	Complaints redressed	
		Nos.	Yes	No
Bharatpur	50	3	1	2
Bundi	57	1	1	0
Tonk	63	12	11	1
Ajmer	11	2	1	1
Banswara	65	1	1	0
Sikar	50	1	0	1
Barmer	59	28	12	16
Jalore	46	19	19	0
Pali	17	9	9	0
Total	418	76	55	21

Quality of power supply

6.9 DDUGJY guidelines envisaged that DISCOMs should ensure availability of power to achieve the target of 24 x 7 power supply for non-agricultural consumers progressively in rural areas. The status of power supply to non-agricultural consumers in the sample population surveyed was as under:

Table 6.4
Status of electricity supply to non-agricultural consumers

Project	No. of beneficiaries	Electricity supply to non-agricultural consumers in rural areas			
		7-12 Hours	13-18 Hours	19-24 Hours	No response
Bharatpur	50	46	4	0	0
Bundi	57	0	41	16	0
Tonk	63	0	10	53	0
Ajmer	11	0	2	8	1
Banswara	65	15	22	28	0
Sikar	50	0	17	32	1
Barmer	59	0	1	58	0
Jalore	46	14	0	32	0
Pali	17	0	0	16	1
Total	418	75	97	243	3

It could be seen that the DISCOMs could not achieve the target of 24 x 7 power supply envisaged in the scheme.

The Government assured to rectify the shortcomings and to make efforts for providing quality supply of power, ensuring billing efficiency, resolving consumer grievances in time etc.

Conclusion

Results of the beneficiary survey in the surveyed sample revealed following shortcomings in the implementation of DDUGJY in the State:

- Absence of detailed survey prior to formulation of project reports caused identification/estimation of village/beneficiaries on unrealistic/unreliable data.
- Adequate awareness program was not conducted to create awareness about the scheme in the beneficiaries.
- All the materials of the tool kit were either not provided or were found in damaged condition.
- Instances of incorrect billing and non-redressal of beneficiaries' grievances were noticed.

Recommendations

DISCOMs may

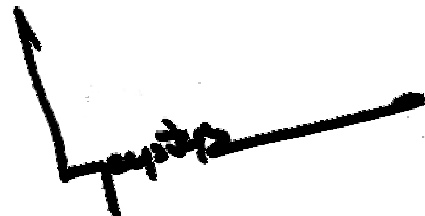
- Evolve a mechanism to identify the beneficiaries prior to implementation of schemes.
- Institutionalise and strengthen the system to avoid incorrect billing and non-redressal of grievances.
- Take immediate steps to rectify the deficiencies of works executed.

JAIPUR
The 28 September 2022


(ATOORVA SINHA)
Accountant General
(Audit-II), Rajasthan

Countersigned

NEW DELHI
The 29 September 2022


(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India



Annexures

Annexure-1

(Referred to in Para 1.7 at Page 4 and Para 6.2 at Page 73)

Selection of sample for the performance audit

A. Sampling of projects for detailed audit

There are three DISCOMs (Jaipur, Ajmer and Jodhpur DISCOMs) in the State to distribute electricity in the 33 districts of the State. All the three DISCOMs are owned and controlled by the Government of Rajasthan. The DISCOMs had prepared and approved 33 projects (*i.e.* one project for each district) under DDUGJY. The project cost approved by the Monitoring Committee, MoP, GoI for 33 projects submitted by the three DISCOMs of the State ranged between ₹ 23.46 crore and ₹ 469.84 crore.

In view of above, two types of strata *i.e.* geographical strata and financial strata were prepared. The geographical strata were prepared to ensure coverage of implementation of DDUGJY throughout the State. Therefore, during selection of sample, three projects were selected from each DISCOM.

Similarly, the financial strata were prepared for coverage of projects on the basis of value of projects approved in DPRs and accordingly, three sub strata (*i.e.* projects having approved project cost upto ₹ 50 crore, from ₹ 50 crore to ₹ 100 crore and ₹ 100 crore and above) were prepared and one project from each sub strata of each DISCOM were selected. Thus, total nine projects were selected and records relating to implementation of these projects are to be reviewed at concerned Circle offices.

DISCOM wise details relating to sampling of nine projects is given below:

(₹ in crore)

DISCOM	Total number of projects	Number of selected projects	Sanctioned project cost of all the projects	Name and type of relevant strata	Sanctioned project cost of selected projects
Geographical strata			Financial strata		
Jaipur DISCOM	12	3	1027.08	1. Bundi (upto ₹ 50 crore); 2. Tonk (from ₹ 50 crore to ₹ 100 crore); and 3. Bharatpur (₹ 100 crore and above)	208.16
Ajmer DISCOM	11	3	829.35	1. Ajmer (upto ₹ 50 crore); 2. Sikar (from ₹ 50 crore to ₹ 100 crore); and 3. Banswara (₹ 100 crore and above)	244.73

Jodhpur DISCOM	10	3	948.95	1. Pali (upto ₹ 50 crore); 2. Jalore (from ₹ 50 crore to ₹ 100 crore); and 3. Barmer (₹ 100 crore and above)	568.53
Total*	33	9	2805.38		1021.42
PMA charges**	NA	NA	14.03		5.11
Grand Total	33	9	2819.41		1026.53
Percentage of selection		27.27			36.41
*Except PMA Charges					
**PMA charges at the rate of 0.50 per cent of project cost					

B. Sampling of habitations and households/ beneficiaries for conducting beneficiary survey

Besides detailed review of records relating to approval and execution of selected projects, a beneficiary survey was conducted to assess the achievement of the objectives envisaged in DDUGJY. The beneficiary survey included the households/beneficiaries covered under DDUGJY for electrification. As the Detailed Project Reports (DPRs) of the projects specified habitation wise coverage of rural households to be electrified under a Revenue Village⁷⁵, habitation wise beneficiaries/ rural households were selected.

The DPRs of nine selected circles/projects envisaged electrification of 374127 rural households under 16811 habitations. In view of involvement of large number of habitations and rural households and manpower and time constraint, a sample was drawn from the habitations as well as households covered under DDUGJY in selected nine projects as given under:

- 10 habitations were selected from each of the selected project (except one project *i.e.* Pali where all the three habitations covered under DDUGJY were selected as number of total habitations covered was less than 10) by adopting stratified random sampling without replacement (SRSWOR) method. Thus, total 83 habitations having 1093 households/beneficiaries were selected.
- As number of households covered under these selected habitations ranged between one and 150, 10 households were selected from those habitations wherein number of households covered under DDUGJY was 10 or more. Further, in those habitations where number of households covered under DDUGJY was less than 10, all the available households were selected. Out of 1093 beneficiaries pertaining to the selected habitations, 566 households/beneficiaries were covered in the beneficiary survey.

⁷⁵ A Revenue Village is a small administrative region, a village with defined borders. One revenue village may contain one or more habitations (*i.e.* cluster of households).

DISCOM wise Project wise detail of total number of habitations and households covered under DDUGJY, number of habitations selected for the beneficiary survey and number of households involved and household selected from the selected habitations is given below:

(Figures in Numbers)

DISCOM	Selected Project/ Circle	Total coverage of the project		Habitations selected for the beneficiary survey	Households covered under DDUGJY for the selected habitations	
		Habitations	Households		Total	Selected for the beneficiary survey
JVVNL	Bundi	18	98	10	51	51
	Tonk	140	1033	10	42	42
	Bharatpur	256	2317	10	61	59
	Sub-Total (1)	414	3448	30	154	152
AVVNL	Ajmer	350	1618	10	38	38
	Sikar	484	3184	10	70	70
	Banswara	2397	78624	10	381	100
	Sub-Total (2)	3231	83426	30	489	208
JdVVNL	Pali	3	20	3	20	20
	Jalore	2372	42756	10	153	90
	Barmer	10791	244477	10	277	96
	Sub-Total (3)	13166	287253	23	450	206
Grand Total (1+2+3)		16811	374127	83	1093	566

Annexure-2

(Referred to in Para 2.8 at Page 11)

Statement showing delay in award of contracts and completion of the projects by DISCOMs (as on December 2020)

DISCOM	Sl. No.	Name of Project	Date of submission of DPR to SLSC	Date of approval by SLSC	Date of online submission to REC	Date of approval of MC	Date of issue of LoA	Delay in awarding the project	Progress of completion of the project		
									Date of completion	Date of closure	Delay in completion
Jaipur	1	Alwar (Lot I)	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	11-03-2020	Pending	367
		Alwar (Lot II)	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	16-03-2020	Pending	372
	2	Baran	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	30-09-2020	Pending	570
	3	Bharatpur	N/A	20-07-15	31-07-15	10-12-15	27-01-2017	234	31.03.2021	Pending	794
	4	Bundi	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	20-03-2020	23.09.2021	376
	5	Dausa	N/A	20-07-15	31-07-15	10-12-15	02-12-2016	178	11-07-2020	Pending	587
	6	Dholpur	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	14.07.2021	Pending	857
	7	Jaipur (Lot I)	N/A	20-07-15	31-07-15	10-12-15	02-12-2016	178	25-12-2019	Pending	388
		Jaipur (Lot II)	N/A	20-07-15	31-07-15	10-12-15	06-02-2017	244	20-03-2020	Pending	408
		Jaipur (Lot III)	N/A	20-07-15	31-07-15	10-12-15	18-11-2016	164	10-03-2020	Pending	478
		Jaipur (Lot IV)	N/A	20-07-15	31-07-15	10-12-15	06-02-2017	244	10-03-2020	Pending	398
	8	Jhalawar	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	30-06-2020	23.09.2021	478
Ajmer	9	Karauli	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	31.12.2020	23.09.2021	662
	10	Kota	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	21-03-2020	25.08.2021	377
	11	Sawaimadhopur	N/A	20-07-15	31-07-15	10-12-15	27-01-2017	234	15.10.2020	25.08.2021	627
	12	Tonk	N/A	20-07-15	31-07-15	10-12-15	27-01-2017	234	22-06-2020	25.08.2021	512
	13	Ajmer	N/A	20-07-15	31-07-15	10-12-15	24-03-2017	290	31.03.2021	Pending	738
	14	Banswara (Lot-I)	N/A	20-07-15	31-07-15	10-12-15	28-03-2017	294	31.03.2021	Pending	734
		Banswara (Lot-II)	N/A	20-07-15	31-07-15	10-12-15	28-03-2017	294	31.03.2021	Pending	734
	15	Bhilwara	N/A	20-07-15	31-07-15	10-12-15	28-03-2017	294	31.03.2021	Pending	734
	16	Chittorgarh	N/A	20-07-15	31-07-15	10-12-15	21-04-2017	318	31.03.2021	Pending	710
	17	Dungarpur	N/A	20-07-15	31-07-15	10-12-15	30-03-2017	296	31.03.2021	Pending	732
	18	Jhunjhunu	N/A	20-07-15	31-07-15	10-12-15	21-03-2017	287	31.03.2021	Pending	741
	19	Nagaur	N/A	20-07-15	31-07-15	10-12-15	28-03-2017	294	31.03.2021	Pending	734
	20	Pratapgarh	N/A	20-07-15	31-07-15	10-12-15	17-03-2017	283	31.03.2021	Pending	745
	21	Rajasmand	N/A	20-07-15	31-07-15	10-12-15	17-03-2017	283	31.03.2021	Pending	745
	22	Sikar	N/A	20-07-15	31-07-15	10-12-15	28-03-2017	294	31.03.2021	Pending	734
	23	Udaipur (Lot-I)	N/A	20-07-15	31-07-15	10-12-15	04-05-2017	331	31.03.2021	Pending	697

DISCOM	Sl. No.	Name of Project	Date of submission of DPR to SLSC	Date of approval by SLSC	Date of online submission to REC	Date of approval of MC	Date of issue of LoA	Delay in awarding the project	Progress of completion of the project		
									Date of completion	Date of closure	Delay in completion
		Udaipur (Lot-II)	N/A	20-07-15	31-07-15	10-12-15	10-03-2017	276	31.03.2021	Pending	752
		Udaipur (Lot-III)	N/A	20-07-15	31-07-15	10-12-15	04-05-2017	331	31.03.2021	Pending	697
Jodhpur	24	Barmer (Lot-I)	N/A	20-07-15	31-07-15	10-12-15	14-03-2017	280	14-07-2020	01.10.2021	488
		Barmer (Lot-II)	N/A	20-07-15	31-07-15	10-12-15	03-03-2017	269	31-07-2020		516
		Barmer (Lot-III)	N/A	20-07-15	31-07-15	10-12-15	14-03-2017	280	11-09-2019		181
		Barmer (Lot-IV)	N/A	20-07-15	31-07-15	10-12-15	14-03-2017	280	11-09-2019		181
		Barmer (Lot-V)	N/A	20-07-15	31-07-15	10-12-15	07-02-2017	245	01-04-2019		53
		Barmer (Lot-VI)	N/A	20-07-15	31-07-15	10-12-15	03-02-2017	241	01-06-2019		118
		Barmer (Lot-VII)	N/A	20-07-15	31-07-15	10-12-15	14-03-2017	280	16-04-2019		33
	25	Bikaner	N/A	20-07-15	31-07-15	10-12-15	07-02-2017	245	22-03-2020	23.09.2021	409
	26	Churu	N/A	20-07-15	31-07-15	10-12-15	25-01-2017	232	19-07-2019	23.09.2021	175
	27	Sriganganagar	N/A	20-07-15	31-07-15	10-12-15	25-05-2017	352	25-11-2019	01.10.2021	184
	28	Hanumangarh	N/A	20-07-15	31-07-15	10-12-15	25-01-2017	232	20-09-2020	01.10.2021	604
	29	Jaisalmer	N/A	20-07-15	31-07-15	10-12-15	09-12-2016	185	31-03-2019	23.09.2021	112
	30	Jalore	N/A	20-07-15	31-07-15	10-12-15	22-02-2017	260	31-03-2020	23.09.2021	403
	31	Jodhpur (Lot-I)	N/A	20-07-15	31-07-15	10-12-15	22-12-2016	198	20-05-2019	01.10.2021	149
		Jodhpur (Lot-II)	N/A	20-07-15	31-07-15	10-12-15	22-12-2016	198	23-03-2020	01.10.2021	457
	32	Pali	N/A	20-07-15	31-07-15	10-12-15	22-12-2016	198	10-01-2019	23.09.2021	19
	33	Sirohi	N/A	20-07-15	31-07-15	10-12-15	17-02-2017	255	03-03-2020	01.10.2021	380

Annexure-3

(Referred to in Para 2.11 at Page 13)

DISCOM-wise details of physical works sanctioned/awarded vis-à-vis actually completed upto 31 March 2021

Sl. No.	Particulars	Unit	Jaipur DISCOM		Ajmer DISCOM		Jodhpur DISCOM		Rajasthan	
			Sanctioned and awarded	Actual completion	Sanctioned and awarded	Actual completion	Sanctioned and awarded	Actual completion	Sanctioned and awarded	Actual completion
1	33/11KV New Sub-station	No.	107	117	85	96	16	17	208	230
2	Augmentation of existing sub-stations	No.	0	0	0	75	5	5	5	80
3	Distribution Transformers	No.	8831	18840	12036	23167	18217	33086	39084	75093
4	Feeder Separation	No.	1351	992	769	325	431	181	2551	1498
5	LT Line	CKM	3805.58	4613.81	7087.97	14334.58	11789.45	25331.36	22683.00	44279.75
6	11 KV Line	CKM	5623.98	3146.83	5338.52	5218.61	10451.93	11390	21414.43	19755.44
7	33 & 66 KV Line	CKM	966.00	960.82	818.70	701.64	146.00	89.46	1930.70	1751.92
8	Energy Meter - Consumers	No.	290065	138084	397055	217409	274707	234345	961827	589838
9	Energy Meter- 11 KV Feeders	No.	3235	1380	2740	679	2587	123	8562	2182

Annexure-4

(Referred to in Para 4.11 at Page 58)

Statement showing faults categorised under 'Critical' and 'Major' in respect of village electrification, Sub-Station (SS) and Feeder

Village/Feeder Inspection
• Critical: (HT/LT)- Proper tensioning of overhead conductor; Cradle guard at road/river/line crossing; Water logging area but no cement grouting; Proper binding of insulator; Earthing on each pole; Separate earthing on both sides of road/line for cradle guarding. • Critical: (Service Connections)- Tension including ground clearance of service cable; Joints on service cables; One ISI marked 16 A capacity double pole miniature circuit breaker; Earth terminal as per RE Rules; Switch board and lamp inside house. • Major: (HT/LT)- Tilting of cross arms; Alignment of 11kV line; Depth of poles; Cross-bracing on double poles; Finishing of PCC poles and steel wire visible on the surface of pole; Verticality of poles; Turning buckles, Thimbles, Grouting and surface finish; Distribution box; Alignment of LT line; Depth of poles; Pole identification with scheme name; Verticality of poles; Finishing of PCC pole, Physical damages surface and steel wire visible on the surface of the pole; Tension on insulators/broken insulator in the line; Tensioning on stay set, installation of items like guy insulators, turn buckles, Thimbles, grouting and surface finish; Proper painting/galvanizing on steel structure. • Major: (Service Connections)- Size of service cable is less than 2.5/4mm 2 twin core PVC insulated cables with aluminium conductors; Bearer wire of size is 3.15mm (10 SWG) GI wire (55-95 Kg quality) between pole and house; Static Energy Meter single phase; Meter cover box made of sheet metal or fibre glass type; Meter Board (200X250X40mm); One 9 watts LED lamp pin type; Service support-GI pipe J-shaped made of 25 mm dia Medium class or MS Angle with PVC pipe; Household has been provided with internal house wiring and accessories between switch board and angle holder as per specifications;; One ISI marked 3-pin socket 5A, 240 Volts; One ISI marked angle bakelite/plastic holder 5A 240 volts. • Major: Installation of Meter- Earthing wire connection to earth terminal; Hight of meter board from ground level, necked GI earth wire between earth terminal and earth pit; Energy meter- exposure to direct sunlight and rainwater.
Sub Station (SS)
• Critical: SS foundations in cement concrete; broken insulator found in SS; Steel overhead structure is properly earthed using 8 SWG wire/G.I. flat; Condition of earth wires and their connection at terminal points; Two separate earthing for tranformer neutral; Separate earthing on Lightning Arrester; Separate earthing for equipment body earthing; Oil leakage visible on the body of transformer and condition; Oil level; Lighting Arrestor. • Major: Safe and adequate access to distribution transformer SS; Verticality of SS supports; Tensioning on stay set, installation of items like guy insulator, turning buckles, thimbles grouting and surface finish; Surface finish of PCC poles; Three earth pits separated 3m apart from each other; Interconnection of three earth pits; Painting/galvanizing on steel structures; SS sign-board; Barrel on DO Fuse; Breather on the transformer; Colour of silica gel; Availability of LTDB; Incomer LTDB protection equipment as per approved drawing and specifications; Adequate size of power cable between LT bushing and LTDB and Isolators.

Annexure-5

(Referred to in Para 5.1 at Page 63 and Para 5.7 at Page 67)

Statement showing project-wise financial progress upto 31 December 2020

Sl. No.	Project	Sanctioned cost	Awarded cost	DISCOM Share	Loan	Grant	Actual expenditure	SGST	Net Actual expenditure	Loan availed	Total Eligible grant*	90% of eligible grant**	Grant received	Short receipt of grant
	Jaipur													
1	Alwar	148.16	136.33	13.63	40.90	81.80	146.72	11.19	135.53	39.98	81.32	73.19	64.76	8.43
2	Baran	39.76	36.90	3.69	11.07	22.14	45.19	3.45	41.74	10.52	22.14	19.93	17.53	2.40
3	Bundi	43.90	39.96	4.00	11.98	23.98	33.31	2.54	30.77	11.50	18.46	16.62	18.98	-2.36
4	Dausa	74.62	68.11	6.81	20.43	40.87	82.74	6.31	76.43	22.25	40.87	36.78	32.35	4.43
5	Jaipur	342.14	320.26	32.03	96.07	192.16	319.71	24.38	295.33	86.58	177.20	159.47	152.13	7.34
6	Jhalawar	56.66	52.22	5.22	15.67	31.33	65.64	5.01	60.63	13.63	31.33	28.20	24.81	3.39
7	Kota	32.51	29.95	2.99	8.99	17.97	39.57	3.02	36.55	9.15	17.97	16.17	14.23	1.94
8	Sawai Madhopur	45.07	43.64	4.36	13.10	26.18	35.90	2.74	33.16	10.40	19.90	17.91	19.42	-1.51
9	Tonk	59.71	58.35	5.84	17.50	35.01	63.42	4.84	58.58	16.24	35.00	31.50	27.72	3.78
10	Bharatpur	104.55	101.72	10.17	30.52	61.03	91.53	6.98	84.55	25.81	50.73	45.66	49.87	-4.21
11	Dholpur	43.11	42.96	4.30	12.89	25.77	21.23	1.62	19.61	9.71	11.77	10.59	21.06	-10.47
12	Karuali	36.89	35.28	3.53	10.58	21.17	24.56	1.87	22.69	9.38	13.61	12.25	17.29	-5.04
	Total	1027.08	965.68	96.57	289.70	579.41	969.52	73.95	895.57	265.15	520.30	468.27	460.15	8.12
	Ajmer													
1	Ajmer	35.26	35.26	3.53	10.57	21.16	34.11	2.60	31.51	9.78	18.90	17.01	16.91	0.10
2	Banswara	139.71	140.05	14.00	42.02	84.03	163.71	12.49	151.22	41.59	84.03	75.63	68.65	6.98
3	Bhilwara	50.02	50.02	5.00	15.01	30.01	57.15	4.36	52.79	14.83	30.01	27.01	24.44	2.57
4	Chittaurgarh	36.27	36.27	3.63	10.88	21.76	39.20	2.99	36.21	10.81	21.73	19.55	16.52	3.03
5	Dungarpur	74.05	74.05	7.40	22.22	44.43	91.42	6.97	84.45	22.15	44.43	39.99	34.64	5.35
6	Jhunjhunun	57.47	57.47	5.75	17.24	34.48	55.32	4.22	51.10	16.41	30.66	27.60	28.21	-0.61
7	Nagaur	65.21	65.21	6.52	19.56	39.13	67.52	5.15	62.37	16.64	37.42	33.68	31.63	2.05
8	Pratapgarh	55.31	55.31	5.53	16.59	33.19	51.40	3.92	47.48	16.58	28.49	25.64	26.11	-0.47
9	Rajsamand	55.92	55.92	5.59	16.78	33.55	52.77	4.03	48.74	11.60	29.24	26.32	26.78	-0.46
10	Sikar	69.76	69.76	6.98	20.92	41.86	72.40	5.52	66.88	20.57	40.13	36.11	31.84	4.27
11	Udaipur	190.37	190.36	19.04	57.11	114.21	210.35	16.04	194.31	57.11	114.22	102.80	88.05	14.75
	Total	829.35	829.68	82.97	248.90	497.81	895.35	68.29	827.06	238.07	479.26	431.34	393.78	37.56

Sl. No.	Project	Sanctioned cost	Awarded cost	DISCOM Share	Loan	Grant	Actual expenditure	SGST	Net Actual expenditure	Loan availed	Total Eligible grant*	90% of eligible grant**	Grant received	Short receipt of grant
	Jodhpur													
1	Barmer	469.84	447.56	44.76	134.26	268.54	489.37	37.32	452.05	138.01	268.54	241.68	221.60	20.08
2	Bikaner	75.32	64.00	6.40	19.20	38.40	72.55	5.53	67.02	20.99	38.39	34.56	27.25	7.31
3	Churu	34.17	34.84	3.48	10.46	20.90	32.36	2.47	29.89	9.53	17.94	16.14	14.65	1.49
4	Ganganagar	28.64	16.90	1.69	5.07	10.14	26.98	2.07	24.91	7.71	10.14	9.13	8.41	0.72
5	Hanumangarh	58.45	55.41	5.54	16.62	33.25	61.32	4.68	56.64	13.39	33.25	29.92	26.55	3.37
6	Jaisalmer	32.54	31.09	3.11	9.33	18.65	29.02	2.21	26.81	8.31	16.08	14.47	14.92	-0.45
7	Jalor	68.72	54.83	5.48	16.45	32.90	67.96	5.18	62.78	19.51	32.90	29.61	26.04	3.57
8	Jodhpur	127.84	124.35	12.43	37.31	74.61	123.81	9.44	114.37	39.39	68.62	61.76	57.94	3.82
9	Pali	29.97	25.79	2.58	7.74	15.47	29.49	2.25	27.24	8.51	15.47	13.93	12.38	1.55
10	Sirohi	23.46	20.98	2.10	6.29	12.59	19.99	1.52	18.47	5.82	11.08	9.97	10.24	-0.27
	Total	948.95	875.75	87.57	262.73	525.45	952.85	72.67	880.18	271.17	512.41	461.17	419.98	41.19
	Grand Total	2805.38	2671.11	267.11	801.33	1602.67	2817.72	214.91	2602.81	774.39	1511.97	1360.78	1273.91	86.87

* Total eligible grant is 60% of sanctioned cost or award cost or net actual expenditure, whichever is less.

**Calculated project wise.

Annexure-6

(Referred to in Para 5.1 at Page 64)

Statement showing project wise detail of release of grant by MoP

Sl. No.	Name of Project	Date of				Date of claim				Time taken in lodging claim from approval by MC		Date of receipt		Time taken in release of grant		Date of receipt	
		Approval of MC	Date of tripartite agreement	Appointment of field PMA	Issue of LoA	Ist	II nd	III rd (Part-I)	III rd (Part-II)	Ist	II nd	I st	II nd	Ist	II nd	III rd (Part-I)	III rd (Part-II)
Jaipur DISCOM																	
1	Alwar	10-12-15	23-05-16	26-05-17	10-03-17	03-08-17	23-01-18	05-01-19	25-03-19	602	319	24-10-17	22-03-18	82	58	23-01-19 & 29-03-19	30-03-19
2	Baran	10-12-15	23-05-16	26-05-17	10-03-17	03-08-17	23-01-18	05-01-19	25-03-19	602	319	24-10-17	22-03-18	82	58		30-03-19
3	Bharatpur	10-12-15	23-05-16	26-05-17	27-01-17	03-08-17	23-01-18	05-01-19	13-03-20	602	361	24-10-17	22-03-18	82	58		26-03-20
4	Bundi	10-12-15	23-05-16	26-05-17	10-03-17	03-08-17	23-01-18	05-01-19	25-03-19	602	319	24-10-17	22-03-18	82	58		30-03-19
5	Dausa	10-12-15	23-05-16	26-05-17	02-12-16	03-08-17	23-01-18	05-01-19	25-03-19	602	417	24-10-17	22-03-18	82	58		30-03-19
6	Dholpur	10-12-15	23-05-16	26-05-17	10-03-17	03-08-17	23-01-18	05-01-19	16-04-20	602	319	24-10-17	22-03-18	82	58		30-04-20
7	Jaipur	10-12-15	23-05-16	26-05-17	02-12-16	03-08-17	23-01-18	05-01-19	25-03-19	602	417	24-10-17	22-03-18	82	58		30-03-19
8	Jhalawar	10-12-15	23-05-16	26-05-17	10-03-17	03-08-17	23-01-18	05-01-19	25-03-19	602	319	24-10-17	22-03-18	82	58	30-03-19	
9	Karauli	10-12-15	23-05-16	26-05-17	10-03-17	06-07-18	06-07-18	13-03-20	16-04-20	939	483	13-08-18	27-08-18	38	52	26-03-20	30-04-20
10	Kota	10-12-15	23-05-16	26-05-17	10-03-17	03-08-17	23-01-18	05-01-19	25-03-19	602	319	24-10-17	22-03-18	82	58	23-01-19 & 29-03-19	30-03-19
11	Sawai madhopur	10-12-15	23-05-16	26-05-17	27-01-17	03-08-17	23-01-18	25-03-19	21-11-19	602	361	24-10-17	22-03-18	82	58	30-03-19	10-01-20
12	Tonk	10-12-15	23-05-16	26-05-17	27-01-17	03-08-17	23-01-18	05-01-19	25-03-19	602	361	24-10-17	22-03-18	82	58	23-01-19 & 29-03-19	30-03-19
Ajmer DISCOM																	
13	Ajmer	10-12-15	23-05-16	26-05-17	24-03-17	26-07-17	12-09-17	19-09-18	19-09-18	594	172	31-10-17	22-03-18	97	191	16-11-18	26-03-19
14	Banswara	10-12-15	23-05-16	26-05-17	28-03-17	26-07-17	12-09-17	19-09-18	19-09-18	594	168	31-10-17	22-03-18	97	191		26-03-19
15	Bhilwara	10-12-15	23-05-16	26-05-17	28-03-17	26-07-17	12-09-17	19-09-18	19-09-18	594	168	31-10-17	22-03-18	97	191		26-03-19
16	Chittorgarh	10-12-15	23-05-16	26-05-17	21-04-17	26-07-17	12-09-17	15-03-19	15-03-19	594	144	31-10-17	22-03-18	97	191	30-03-19	19-07-19
17	Dungarpur	10-12-15	23-05-16	26-05-17	30-03-17	26-07-17	12-09-17	15-03-19	15-03-19	594	166	31-10-17	22-03-18	97	191	16-11-18	19-07-19
18	Jhunjhunu	10-12-15	23-05-16	26-05-17	21-03-17	26-07-17	12-09-17	19-09-18	19-09-18	594	175	31-10-17	22-03-18	97	191		26-03-19
19	Nagaur	10-12-15	23-05-16	26-05-17	28-03-17	26-07-17	12-09-17	19-09-18	19-09-18	594	168	31-10-17	22-03-18	97	191		26-03-19
20	Pratapgarh	10-12-15	23-05-16	26-05-17	17-03-17	26-07-17	12-09-17	15-03-19	15-03-19	594	179	31-10-17	22-03-18	97	191	30-03-19	16-08-19
21	Rajasmand	10-12-15	23-05-16	26-05-17	17-03-17	26-07-17	12-09-17	15-03-19	15-03-19	594	179	31-10-17	22-03-18	97	191		22-04-19

Sl. No.	Name of Project	Date of				Date of claim				Time taken in lodging claim from approval by MC		Date of receipt		Time taken in release of grant		Date of receipt	
		Approval of MC	Date of tripartite agreement	Appointment of field PMA	Issue of LoA	Ist	II nd	III rd (Part-I)	III rd (Part-II)	Ist	II nd	I st	II nd	Ist	II nd	III rd (Part-I)	III rd (Part-II)
22	Sikar	10-12-15	23-05-16	26-05-17	28-03-17	26-07-17	12-09-17	19-09-18	19-09-18	594	168	31-10-17	22-03-18	97	191	16-11-18	26-03-19
23	Udaipur	10-12-15	23-05-16	26-05-17	04-05-17	26-07-17	12-09-17	19-09-18	19-09-18	594	131	31-10-17	22-03-18	97	191		26-03-19
Jodhpur DISCOM																	
24	Barmer	10-12-15	23-05-16	16-03-17	14-03-17	25-05-17	01-02-18	27-09-18	21-12-18	532	324	10-08-17	21-03-18	77	48	29-10-18	04-01-19 & 31-03-20
25	Bikaner	10-12-15	23-05-16	16-03-17	07-02-17	25-05-17	01-02-18	27-09-18	15-02-19	532	359	10-08-17	21-03-18	77	48		27-03-19 & 31-03-20
26	Churu	10-12-15	23-05-16	16-03-17	25-01-17	25-05-17	01-02-18	27-09-18	21-12-18	532	372	10-08-17	21-03-18	77	48		04-01-19 & 31-03-20
27	Sriganganagar	10-12-15	23-05-16	16-03-17	25-05-17	25-05-17	01-02-18	27-09-18	21-12-18	532	252	10-08-17	21-03-18	77	48		11-01-19 & 31-03-20
28	Hanumangarh	10-12-15	23-05-16	16-03-17	25-01-17	25-05-17	01-02-18	27-09-18	15-02-19	532	372	10-08-17	21-03-18	77	48	25-02-19	31-03-20
29	Jaisalmer	10-12-15	23-05-16	16-03-17	09-12-16	25-05-17	01-02-18	27-09-18	21-12-18	532	419	10-08-17	21-03-18	77	48	29-10-18	08-01-19 & 31-03-20
30	Jalore	10-12-15	23-05-16	16-03-17	22-02-17	25-05-17	01-02-18	27-09-18	21-12-18	532	344	10-08-17	21-03-18	77	48		04-01-19 & 31-03-20
31	Jodhpur	10-12-15	23-05-16	16-03-17	22-12-16	25-05-17	01-02-18	27-09-18	21-12-18	532	406	10-08-17	21-03-18	77	48		
32	Pali	10-12-15	23-05-16	16-03-17	22-12-16	25-05-17	01-02-18	27-09-18	21-12-18	532	406	10-08-17	21-03-18	77	48		
33	Sirohi	10-12-15	23-05-16	16-03-17	17-02-17	25-05-17	01-02-18	27-09-18	21-12-18	532	349	10-08-17	21-03-18	77	48		

Annexure-7

(Referred to in Para 6.3 at Page 74 and Para 6.5 at Page 75)

Beneficiary survey results

A. Statement showing status of awareness among beneficiaries covered under the Survey (Refer Para 6.4)

Project	No. of beneficiaries	Awareness campaign conducted by DISCOMs		
		Yes	No	No Response
Bharatpur	50	36	14	0
Bundi	57	48	9	0
Tonk	63	59	4	0
Ajmer	11	1	10	0
Banswara	65	20	43	2
Sikar	50	14	35	1
Barmer	59	10	49	0
Jalore	46	0	46	0
Pali	17	13	3	1
Total	418	201	213	4

B. Statement showing status of items of kit provided to BPL beneficiaries covered under the Survey (Refer Para 6.5)

Project	No. of beneficiaries	Kit items not provided to BPL beneficiaries					Broken kit found during survey
		LED	MCB	Bulb Point	Earthing Rod	Metal Angle	
Bharatpur	50	5	0	0	6	6	10
Bundi	57	7	6	6	15	20	23
Tonk	63	5	1	1	10	10	20
Ajmer	11	0	0	0	3	3	4
Banswara	65	8	0	1	0	1	28
Sikar	50	3	0	0	5	4	12
Barmer	59	14	14	14	16	16	2
Jalore	46	7	7	7	7	7	0
Pali	17	0	0	0	0	0	0
Total	418	49	28	29	62	67	99

C. Statement showing status of distribution of electricity bills to beneficiaries covered under the Survey (Refer Para 6.7)

Project	No. of beneficiaries	Bill distribution		
		DISCOM staff/ contracted staff	Beneficiary himself collect the bill	No response
Bharatpur	50	49	0	1
Bundi	57	53	2	2
Tonk	63	60	3	0
Ajmer	11	2	8	1
Banswara	65	24	26	15
Sikar	50	10	39	1
Barmer	59	10	41	8
Jalore	46	21	25	0
Pali	17	0	16	1
Total	418	229	160	29

D. Statement showing status of accuracy of billing of beneficiaries covered under the Survey (Refer Para 6.7)

Project	No. of beneficiaries	Billed units more than actual reading			
		Up to 1.5 times	More than 1.5 times and up to 2 times	More than 2 times and up to 5 times	More than 5 times
Bharatpur	50	0	1	0	0
Bundi	57	5	10	1	2
Tonk	63	0	2	0	0
Ajmer	11	1	1	0	0
Banswara	65	1	11	4	5
Sikar	50	1	1	0	0
Barmer	59	1	5	2	0
Jalore	46	0	2	6	2
Pali	17	0	1	0	0
Total	418	9	34	13	9

Glossary of terms

Abbreviation	Full form
APL	Above Poverty Line
AT&C	Aggregate Technical and Commercial Loss
BBNL	Bharat Broadband Network Limited
BoD	Board of Directors
BOQ	Bills of Quantity
BPL	Below Poverty Line
BSNL	Bharat Sanchar Nigam Limited
BSR	Basic Schedule Rates
CEA	Central Electricity Authority
CKM	Circuit Kilo Meter
CLPC	Corporate Level Purchase Committee
CQCBS	Combined Quality cum Cost Based Selection
CTL	Central Testing Laboratory
CVC	Central Vigilance Commission
DCF	DISCOMs Coordination Forum
DDUGJY	Deendayal Upadhyaya Gram Jyoti Yojna
DEC	District Electricity Committee
Deloitte	Deloitte Touche Tohmatsu India Private Limited
DI	Dispatch Instruction
DISCOM	Distribution Company
DPR	Detailed Project Report
DSM	Demand Side Management
DT/ DTR	Distribution Transformer
FIPL	Feedback Infra Private Limited
FIs	Financial Institutions
FQP	Field Quality Plan
FY	Financial Year
GCC	General Conditions of Contract
GFR	General Financial Rules
GoI	Government of India
GoR	Government of Rajasthan
GPS	Global Positioning System
GSS	Grid Sub Station
GTP	Guaranteed Technical Parameters
GTP	Guaranteed Technical Particulars
HA	Habitation
HH	House Hold
HO	Head Office
HP	Horse Power
HT	High Tension
HVDS	High Voltage Distribution System
IPDS	Integrated Power Development Scheme
kV	Kilo Volt
KVA	Kilo Volt Ampere
LoA	Letter of Award
LT	Low Tension
M&P	Meter and Protection
MC	Monitoring Committee
MCB	Miniature Circuit Breaker
MHRD	Ministry of Human Resources Development
MIS	Management Information System

Abbreviation	Full form
MoP	Ministry of Power
MP	Member of Parliament
MPR	Monthly Progress Report
MQP	Manufacturing Quality Plan
MTCPL	Medhaj Techno Concept Private Limited
MUs	Million Units
MVA	Mega Volt Ampere
MVA	Mega Volt Ampere
NAD	Need Assessment Document
NEF	National Electricity Fund
NOFN	National Optical Fibre Network
O&M	Operation & Maintenance
PCC	Plain Cement Concrete
PDC	Permanently Disconnected Consumer
PGCIL	Power Grid Corporation of India Limited
PMA	Project Management Agency
PMA	Project Monitoring Agency
PSUs	Public Sector Undertakings
PV	Price Variation
QA	Quality Assurance
RAPDRP	Restructured Accelerated Power Development & Reforms Programme
RE	Rural Electrification
REC	Rural Electrification Corporation Limited
RECPDCL	REC Power Distribution Company Limited
RGGVY	Rajiv Gandhi Gramin Vidyutikaran Yojna
RHH	Rural Household
RPM	Review, Planning and Monitoring
RQM	REC Quality Monitors
RRECL	Rajasthan Renewable Energy Corporation Limited
RRVPNL	Rajasthan Rajya Vidyut Prasaran Nigam Limited
RRVUNL	Rajasthan Rajya Vidyut Utpadan Nigam Limited
RTPP	Rajasthan Transparency in Public Procurement
Saubhagya	Pradhan Mantri Sahaj Bijli Har Ghar Yojana
SBD	Standard Bidding Document
SCADA	Supervisory Control and Data Acquisition
SCO	Service Connection Order
SE	Superintending Engineer
SGST	State Goods and Service Tax
SLSC	State Level Standing Committee
SRSWOR	Stratified Random Sampling Without Replacement
SS	Sub-Stations
ST&D	Sub-transmission & distribution
SIRs	Standard/Store Issue Rates
T&D	Transmission and Distribution
TCOS	Terms and Conditions of Supply
TPIs	Third Party Inspections
TW	Turnkey Work
UC	Utilisation Certificate
UEV	Un-electrified Villages
VCB	Vacuum Circuit Breaker

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