

Chapter-III

Implementation of projects under the schemes

Status update

3.1. The extent of achievements in terms of quantities against their sanction under the schemes (DDUGJY/SAUBHAGYA, RGGVY and DDG) is indicated in the table below.

Table No. 3.1: Status-update under the schemes as of February 2022

Sl. No.	Components	Sanctioned	Executed	Excess/shortfall (-)	Achievement (per cent)
DDUGJY					
1	Separation of feeders (Agriculture and Non-agriculture) (CKMs)	12,501.64	11,724.76	(-) 772.38	93.79
2	Strengthening and augmentation of Sub-transmission and Distribution infrastructure				
i	Consumer metering (Nos)	1,750,404	1,466,594	(-) 2,83,810	83.79
ii	DTC metering (Nos)	24,400	23,790	(-) 610	97.50
iii	11kV feeders metering (Nos)	5,582	0.00	(-) 5,582	0.00
iv	Distribution Transformers (Nos)	12,360	12,301	(-) 59	99.52
v	11 KV line (CKMs)	4,394.40	10,432.98	6,039.00	237.42
vi	LT Line (CKMs)	5,075.56	6,278.41	1,203.00	123.70
vii	Intensive Electrification of villages (Nos)	21,172	13,949	(-) 7,223	65.88
3	Electrification of unelectrified villages	39	39	0.00	100.00
4	Connection to BPL households (Nos)				
i	DDUGJY	2,97,788	2,68,340	(-) 29,448	90.11
ii	SAUBHAGYA	1,78,669	1,71,884	(-) 6,785	96.20
iii	RGGVY XII Plan (including DDG)	1,33,576	1,30,698	(-) 2,878	97.85

(Source: Progress report of February 2022 of GoK submitted to REC and project closure reports)

Though there were commendable achievement in 11kV lines (237.42 per cent), LT lines (123.70 per cent), connection to BPL households (90.11 per cent to 97.85 per cent), separation of feeders (93.79 per cent), and DTC metering (97.50 per cent), shortfalls were observed in 11kV feeder metering (nil progress), intensive electrification of villages (34.12 per cent), and consumer metering (16.21 per cent). ESCOMs certified in their project closure proposals submitted to REC that electrification was carried out as per the actuals at the time of execution. Excess achievement was due to execution of additional quantities which were not part of approved DPRs (instances commented in **Paragraph 2.1**).

Further, though overall achievement in respect of connections to BPL households ranged between 90.11 per cent and 97.85 per cent, Audit observed

significant shortfalls under DDUGJY and RGGVY XII Plan in case of CESC (22.72 per cent and 55.12 per cent) and GESCOM (23.07 per cent and 94.92 per cent) (**Appendix-3**). The reason for zero progress in 11kV feeder metering was due to ESCOMs opting out of the scheme as there were delays in tendering process (**Paragraph 3.6.1**).

Audit observations on execution of schemes are discussed in the subsequent paragraphs.

Execution of projects under DDUGJY

Award of contracts in deviation from KTPP Act

3.2. KTPP Act, 1999 stipulated (Circular dated 3 December 2002) that negotiations solely for the purpose of obtaining lower prices would be appropriate only in exceptional circumstances, such as lack of competition (less than three), single bid, suspected collusion, or where the lowest evaluated responsive bid is substantially above the estimated cost (10 per cent above the updated estimate). In such cases also, the first choice is for rejection of all tenders and re-inviting fresh tenders.

Audit observed that the ESCOMs awarded the contracts under DDUGJY/RGGVY in 10 audit sampled districts at substantially high rates above the estimates put to tender ranging from 12.57 per cent to 30.68 per cent. Further, contract for Mandya district was awarded to single bid (M/s. Skill Tech Engineers & Contractors). In respect of projects executed under DDG, awarded rates were significantly higher, ranging from 70.57 per cent to 160.58 per cent above the amount put to tender. **Appendix-4** gives the details of premium at which contracts were awarded in the test checked 10 districts.

The Government stated (November 2021) that all the contracts under DDUGJY/RGGVY were awarded to technically qualified agencies as per the recommendations of the Board of Directors. With regard to award of contract to single bid in Mandya, it was stated that contract was awarded in view of completing the scheme within the time.

The fact, however, remained that the contracts were awarded at substantially higher premium, which was not in line with the provisions of KTPP Act. The reply is silent in respect of works under DDG.

Award and completion of projects

3.3. DDUGJY guidelines (Para 9 chapter II) stipulated that the projects were to be completed within a period of 24 months from the date of issue of letter of award (LoA) by the utilities, in case of turnkey implementation. The overall status of audit sampled districts under the jurisdiction of five ESCOMs is detailed in the table below:

Table No.3.2: Details of award and completion of projects

Sl. No.	Scheme	Award of contracts	Target date of completion	Actual date of completion	Delay in completion (in months upto)
1	DDUGJY	January 2017 to February 2019	January 2018 to September 2019	December 2018 to December 2020	37
2	SAUBHAGYA	November 2018 to January 2019	February/ March 2019	March 2019 to March 2020	12
3	RRGVY	November 2014/ January 2015	November/ December 2016	Short closed/ December 2017	12
4	DDG	August 2015/ September 2016	May/ October 2016	July 2016/ March 2017	13

(Source: Letters of Intent, Detailed Work Awards and Project closure reports)

Audit observed delays in completion of works ranging from 12 to 37 months beyond stipulated dates were mainly attributable to various lapses in field survey and resultant increase/decrease in actual quantities during execution (*Paragraph 2.1*), delays by ESCOMs in issue of work orders and non-adherence to timelines as per PERT chart (*Paragraphs 3.4*), lack of prior clearances from respective statutory authorities (*Paragraphs 3.5, 3.7.1*) and lack of action on defaulting contractors (*Paragraph 3.8*), etc.

Works execution

3.4. Letter of Intent for execution of works in Tumkur District under DDUGJY was issued (January 2017) to M/s Transglobal Power Ltd for a total contract price of ₹ 84.17 crore with a stipulation to complete by January 2019. As per the terms of contract, for the delay beyond stipulated period, contractor was liable to pay a sum equivalent to half percent of the contract price of incomplete portion of works subject to five percent of the total contract price.

Audit observed that the works were completed in December 2019 with delay of 11 months. The reasons for the delay were:

- Non-identification of BPL households at the time of preparation of DPR (list was received by the contractor only in July/August 2017);
- Delay in procurement of materials by the contractor (materials such as, meter box, insulator, conductor, were procured in August 2018 to March 2019 as against stipulated date of July 2018 as per PERT chart); and
- Delay in issue of work orders by the divisions concerned (6 to 27 per cent of work orders were issued after scheduled date of completion) as detailed in the table:

Table No.3.3: Delay in issue of work orders and delay in completion of works

Sl. No.	Block	Total No. of Work Orders		Work orders issued after scheduled date of completion			Work orders completed after scheduled date		
		Number	Value	Number	Value	Percent	Number	Value	Percent
1	Tumkur	411	23.65	111	8.04	27	250	15.54	61
2	Koratagere	98	3.43	6	0.24	6	41	1.87	42
3	Sira	58	4.66	8	0.65	14	48	3.96	83

(Source: Work Orders and information from Divisions)

It could be observed that 42 *per cent* to 83 *per cent* of the work orders were completed after scheduled date of completion. These delays which were avoidable, caused unnecessary delays in completion of works. Though notices were served (between August 2017 and September 2019) on the contractor for delays, liquidated damages as per the contract were not levied.

The Government stated (November 2021) that in view of the extension of time by REC upto December 2020, instructions were given accordingly to the turnkey agencies and the works were completed before March 2020.

The reply is silent on specific reasons for delay on the part of the contractor and BESCOM and action taken on the contractor for default. Extension of timelines by REC had no bearing on the time stipulated for completion of works as per the terms of contract.

Feeder segregation works

3.5. Feeder segregation refers to supply of electricity to agricultural consumers and to non-agricultural consumers (domestic and non-domestic) separately through dedicated feeders²¹. The core objective of segregation was to provide regulated supply to agricultural consumers and continuous power supply to non-agricultural consumers in rural areas.

MESCOM issued (March 2017) Letter of Intent (LoI) to M/s. Bajaj Electricals Limited, Mumbai and M/s. Asian Fab Tech Ltd., Bangalore for execution of feeder separation in Shimoga (68 feeders covering 624 villages) and Chikmagalur (56 feeders covering 674 villages) on total turnkey basis at a total contract price of ₹ 181.29 crore and ₹ 144.34 crore respectively. The contract period was 15 months from the date of award, *i.e.* works were stipulated to be completed by July 2018.

Audit observed that the works were not completed within the scheduled date due to non-obtaining timely clearances from railway authorities for carrying out feeder segregation works. Though the DPR mentioned the fact of existence of railway crossings in the line corridor, MESCOM submitted request for clearance from railways only in February 2018, after lapse of ten months of LoI (March 2017) and the required way leave charges were paid only in February 2019. As a result, 9 out of 68 feeders in Shimoga and 7 out of 56 feeders in Chikmagalur were completed only in March 2022 against scheduled date of July 2018. These feeders cater power supply to 204 villages²² in both the districts. The delay in completion of feeder segregation works deprived 204 villages of 24x7 power supply to non-agricultural consumers for more than three years.

The Government stated (November 2021) that the approximate railway crossings that were required for work were proposed in the DPR. The works were delayed due to delay in getting approvals from the railway authorities.

²¹ Feeders are power lines through which electricity is transmitted in power systems.

²² 9 feeders covering 111 villages in Shimoga and 7 feeders in 93 villages in Chikmagalur.

The Government should have ensured timely submission of application prior to award of works and obtained necessary clearances, given the fact that it involved procedures.

Metering

3.6. In order to facilitate sustainable commercial operations of electricity distribution, metering at consumer end for all categories of consumers is essential. Metering arrangement at distribution transformers and feeders facilitate building up a mechanism for proper energy accounting and help in identifying high loss pockets and initiating remedial measures towards reduction of losses.

ESCOMs had taken up metering under DDUGJY at Feeder and Distribution Transformer Centre (DTC) level and Consumer end. The total sanctioned cost under DDUGJY included ₹ 444.96 crore towards consumer, feeder (5,582 feeders²³) and DTC metering across all five ESCOMs. Audit findings are discussed in ***Paragraphs 3.6.1 to 3.6.2.***

Non-completion of feeder metering led to opting out of the scheme

3.6.1. As per direction (May 2016) of the Energy Department of GoK, Karnataka Power Transmission Corporation Limited (KPTCL) executed the feeder metering works on behalf of ESCOMs. The contract was awarded for metering 15,000 feeders (including 5,582 feeders sanctioned under DDUGJY) for a contract price of ₹ 38.92 crore with a stipulation to complete within 18 months (*i.e.* by September 2020). ESCOMs had deposited (between November 2019 and January 2021) an amount of ₹ 30.79 crore with KPTCL for the purpose. In this regard, audit made the following observations:

- First two tenders were invited (first tender: November 2016; second tender: April 2017) without crystalizing the prequalification requirements of the bidders (experience of the bidders in manufacture of meters, previous supply quantity, *etc*) and technical specifications of meters (test certificates, tamper and fraud protection, performance certificates, *etc*). These conditions were modified thrice during December 2016, July 2017 and in December 2017;
- First and second tenders were cancelled due to non-responsive bids. KPTCL took six months (July 2017 to January 2018) to cancel the second bid after it was found to be non-responsive in the techno commercial bid opened during July 2017. Thereby, invitation of third call, which was invited in January 2018, was delayed;
- Contract was awarded in March 2019, *i.e.* after lapse of 13 months from the date of invitation of tender (January 2018) without justified reasons on record.
- Metering works were completed only in 14,232 out of 15,000 feeders,

²³ BESCOM: 2,182; HESCOM: 2,654; MESCOM: 591 and GESCOM: 155.

leaving 738 meters pending as of October 2021, *i.e.* 13 months after stipulated date of completion (September 2020). Moreover, the meters have not been integrated through installation of sim and modems, without which capturing the real time supply of energy is not made possible. This had defeated the purpose of metering.

Thus, the entire process of award of contract took three years (May 2016 to March 2019). Considering the delay in tendering process and also in view of communication received (April 2018/July 2019/August 2019) from MoP/REC to complete metering works by September 2019, the Energy Department decided (November 2019) to take up feeder metering out of ESCOMs' own funds instead of claiming it under DDUGJY due to delay in tendering and completion of works by KPTCL. Accordingly, ESCOMs decided not to claim subsidy and opted out of the scheme. Thereby, ESCOMs lost the opportunity of availing funding under DDUGJY on the cost of ₹ 14.48 crore²⁴ incurred on metering of 5,582 feeders.

The Government in its reply confirmed (November 2021/April 2022) the audit observation stating that as tendering process was delayed by KPTCL, ESCOMs dropped out from DDUGJY in order to avail additional grant of 15 *per cent* from MoP and opted to use their own fund for carrying out feeder metering. It was also stated that RECPDCL was in the process of implementing National Feeder Monitoring System to monitor all urban and rural 11kV feeders at national level.

Metering of Distribution Transformers

3.6.2. As per Karnataka Electricity Distribution Code 2015, meters were to be provided at Distribution Transformer Centres (DTC) level and month-wise DTC-wise energy audit was to be conducted to identify high loss areas and facilitate reduction of commercial and technical losses. Further, as per standard bid document (Vol-I, Section VII scope of work), meters were required to be DLMS²⁵ (Device Language Message Specification) compliant with GPRS²⁶ compatible modem for facilitating meter data exchange and remote meter reading.

The ESCOMs had carried out metering of 30,069 DTCs under DDUGJY incurring total expenditure of ₹ 62.87²⁷ crore. The works were completed during March 2020/March 2021. The details of number of DTCs metered and cost incurred in test checked eight districts²⁸ under DDUGJY are given in the table below:

²⁴ ₹ 38.92 crore / 15,000 x 5,582.

²⁵ Device Language Message Specification (DLMS) facilitate meter data exchange and supports applications such as remote meter reading.

²⁶ A GPRS (General Pocket Radio Service) modem is GSM modem that supports the GPRS technology for data transmission.

²⁷ BESCOM (8 districts – 2,709 DTCs): ₹ 3.52 crore; CESC (5 districts – 18,831 DTCs): ₹ 41.60 crore; GESCOM (3 districts – 4,841 DTCs): ₹ 11.86 crore; HESCOM (7 districts – 601 DTCs): ₹ 1.42 crore; MESCOM (4 districts – 3,087 DTCs): ₹ 4.47 crore.

²⁸ This issue was not observed in the remaining two districts under RGGVY.

Table No.3.4: Details of DTC metering in test checked districts under DDUGJY

Sl. No.	ESCOM	Projects	No. of DTCs	Total expenditure incurred (₹ crore)
1	BESCOM	Tumkur	1,211	1.56
2	CESC	Mandya	5,074	11.34
3	GESCOM	Raichur	1,503	3.68
4	HESCOM	Haveri	66	0.16
5	MESCOM	Shimoga, Chikmagalur	2,969	4.16
		Total	10,823	20.90

(Source: Project closure reports and Detailed Work Awards)

Audit observed that:

- though the DTCs in BESCOM, HESCOM and MESCOM were installed with DLMS system for facilitating automatic reading of energy consumption, these meters were not provided with the communicable equipment (Sim and Modem). Thereby, installation of DLMS meters did not serve the purpose and the investment remained underutilised;
- CESC had carried out energy audit only in 2,098 out of 18,831 DTCs (11.14 per cent) as of March 2021, while GESCOM had not carried out energy audit in any of the DTCs that were metered. Not-carrying out energy audit had not only defeated the purpose of metering the DTCs, but also resulted in violation of Karnataka Electricity Distribution Code.

Thus, though the infrastructure was created incurring significant expenditure of ₹ 62.87 crore for energy accounting and audit at DTC level, the ESCOMs failed to establish the mechanism for proper energy accounting and identifying high loss pockets for initiating remedial measures towards reduction of losses.

The Government replied (November 2021) that as the works were executed in the rural areas/remote areas where communication network may not exist, the communicable items (Sim and Modem) were omitted while preparing DPRs and only installation of DLMS meters were considered. It was further stated that in BESCOM, energy consumption was taken manually from the meters for energy audit, while steps would be taken to conduct energy audit in all metered DTCs (CESC) and directions were issued to the field offices to carry out the energy audit by manual reading of DTCs (HESCOM/MESCOM). In GESCOM, energy audit is now being carried out.

The reply is not acceptable. Installation of DLMS compliant meters even in places where there was no communication network was not justified as it involved higher cost. Non-provision of sim and modem was not only in deviation from the standard bid document but had failed to serve the intended purpose. Moreover, audit observed that energy audit was carried out only in 43 per cent of the DTCs metered in GESCOM, which is in violation of Karnataka Electricity Distribution Code.

Foregone energy savings

3.7. With an objective to improve voltage regulation, extend reliable power supply, shift loads from overloaded substations, *etc*, HESCOM executed (2018-19/2019-20) three new substations incurring ₹ 17.13 crore under DDUGJY. Similarly, BESCOM executed (2019-20) works of bifurcation of feeders and establishment of two link lines to improve voltage profile at a cost of ₹ 1.13 crore. These works envisaged annual energy savings of 87.66 Million Units (MUs). Audit observations are discussed in **Paragraphs 3.7.1 and 3.7.2.**

Due to deficient planning

3.7.1. HESCOM awarded (February 2017) contracts for establishing three new 33/11kV substations at three different locations in Haveri District²⁹ at a total cost of ₹ 17.13 crore with a stipulation to complete by January 2018. These works had envisaged total annual energy savings of 26.51 MUs. The details of works, deficiencies noticed in audit and their impact are detailed in the table below:

Table No.3.5: Loss of energy savings due to deficient planning

Sl. No.	Work details	Planning deficiency	Impact
1	<ul style="list-style-type: none"> Work: Establishment of a new 33/11kV substation and 33kV lines at Arabgonda in Byadgi Taluk of Haveri District. Envisaged annual energy savings: 12.21 MUs Contract price: ₹ 5.73 crore Date LoI: February 2017 Stipulated completion date: January 2018. Actual completion: January 2020. 	<ul style="list-style-type: none"> Request to Government for land and approvals obtained in June 2017/August 2017; Land handed over to the contractor (December 2017), <i>i.e.</i> 10 months after issue of LoI; Clearance from Railway and National Highway authorities obtained in July/September 2019, <i>i.e.</i> after one and half – years of stipulated date of completion. Though this bottleneck was identified in the DPR, timely action was not taken; Delay in inspection of materials (January/February 2018) and issuing dispatch instructions. 	<ul style="list-style-type: none"> Delay by 24 months; Loss of energy savings of 24.42 MUs valued at ₹ 9.21 crore³⁰
2	<ul style="list-style-type: none"> Work: Establishment of a new 33/11kV substation and 33kV lines at Nayikerur in Savnur Taluk of Haveri District. Envisaged annual energy savings: 5.22 MUs Contract price: ₹ 5.82 crore Date LoI: February 2017 Stipulated completion date: January 	<ul style="list-style-type: none"> Land identified for substation at Nayikerur was forest land; Alternate land at Hesarur identified in June 2017, <i>i.e.</i> four months after issue of LoI. 	<ul style="list-style-type: none"> Delay by 12 months; Loss of energy savings of 5.22 MUs valued at ₹ 1.97 crore (₹ 3.77 per unit for 12 months).

²⁹ This issue was not observed in the remaining nine test checked districts.

³⁰ ₹ 3.77 per unit for 24.42 MUs as projected in DPR for 24 months.

Sl. No.	Work details	Planning deficiency	Impact
	2018. • Actual completion: January 2019.		
3	<ul style="list-style-type: none"> • Work: Establishment of a new 33/11kV substation at Gandhipur and 33kV lines from 110/11 KV Hangal Substation to 33/11 KV Akkialur Substation. • Envisaged annual energy savings: 9.08 MUs • Contract price: ₹ 5.58 crore • Date LoI: February 2017 • Stipulated completion date: January 2018. • Actual completion: October 2018. 	<ul style="list-style-type: none"> • Land handed over to the contractor in September 2017, i.e. after seven months of LoI. 	<ul style="list-style-type: none"> • Delay by 10 months; • Loss of energy savings of 7.57 MUs valued at ₹ 2.85 crore (₹ 3.77 per unit for 10 months)

(Source: Letters of Intent/Detailed Work Awards, Correspondence by HESCOM)

Audit observed that the works were delayed from 10 to 24 months beyond stipulated dates, due to not-ensuring required land and statutory approvals for execution of substations prior to award of works. This had not only resulted in deferment of realising envisaged benefits, viz. improvement of voltage profile, providing reliable power supply, shifting of overloaded substations, etc, but also resulted in loss of energy savings (37.21 MUs) valued at ₹ 14.03 crore³¹.

The Government stated (November 2021) that best efforts were made for purchase of land and the works were completed within the extended timeline of 31 December 2020 granted by MoP.

The reply is not acceptable as HESCOM initiated the land acquisition process post-award of works and statutory clearances were obtained after scheduled date of completion. This caused delay in commencement of works and loss of envisaged energy savings. Besides, the envisaged benefits of improving voltage regulation, extending reliable power supply, shifting loads from overloaded substations had been deferred by 10 to 24 months.

Due to non-availability of breakers

3.7.2. BESCOM executed (May 2019 to July 2019) bifurcation of three existing feeders and establishment of two link lines in Hosakote Division at a total cost of ₹ 1.13 crore under DDUGJY. The purpose of the works was to improve voltage profile by shifting tail end loads by which annual energy saving of 61.15 MUs was envisaged.

Audit observed that for shifting the power load from the existing feeders to the newly bifurcated feeders, 11kV breakers³² were required to be installed. However, neither the scope of contract included provision for purchase of

³¹ Total foregone energy saving of 37.21 MUs (refer Table) multiplied with cost of energy (₹ 3.77 per unit) as given in the DPR.

³² A circuit breaker is an electrical safety device to protect an electrical circuit from damage caused by overcurrent or short circuit.

breakers nor requirement for the material was indicated by the division concerned while awarding the contract.

As a result of non-availability of 11kV breakers, load was not shifted to new feeders, rendering idle investment of ₹ 1.13 crore and loss of energy savings of 91.81 MUs (December 2020).

The Government stated (November 2021) that the installation of 11kV breakers falls under the scope of KPTCL and the works were under progress. The reply is silent on non-provision for breakers at the time of award of contract. Moreover, the intimation, if any, by BESCOM to KPTCL regarding requirement of breakers was not forthcoming from the records.

Extension of contract

3.8. GESCOM had taken up metering of DTCs and shifting of meters from inside to outside the premises of domestic consumers and replacement of existing electromechanical meter with static meters under DDUGJY. As per General Conditions of Contract (*Clause 34*), extension of contract could be granted in case of force majeure or change in laws and regulation or scope or work. Further, as per the terms of contract (*Clause 17* of Detailed Work Award (DWA) dated 4 June 2019), liquidated damages for the delay in completion of works were leviable at the rate of 0.5 per cent of the value of balance works per week of delay subject to maximum of 5 per cent of the contract price.

Audit observed that GESCOM had extended the contract duration beyond the scheduled dates without valid reasons in case of the following contracts:

Table No.3.6: Extension of contract without levy of liquidated damages

Sl. No.	Details of works	Name of the contractor	Audit observations
1	<ul style="list-style-type: none"> Name of work: Metering of 3,871 DTCs in three districts (Bellari, Gulbarga and Raichur); Contract price: ₹ 11.93 crore LoI date: February 2019 Scheduled date of completion: August 2019 Actual date of completion: March 2020 	M/s. ESPRO Solutions Pvt Ltd.	<ul style="list-style-type: none"> Tendering process initiated belatedly in December 2018, <i>i.e.</i> 18 months after the approval of DPRs - July 2017; Short-term tenders invited (December 2018) allowing 10 days for submission of bids against requirement of 60 days as per KTPP Act, to complete the works quickly; As per the pert chart, 30 per cent of works to be completed within two months, 35 per cent within next two months, and the balance 35 per cent in the next six months. However, as of August 2019 (scheduled date), progress in two blocks (Jewargi and Chittapur) was only 10 per cent; Contract extended upto 31 March 2020 based on the request of the contractor; Liquidated damages were leviable at the maximum rate of 5 per cent of the contract which worked out to ₹ 59.65 lakh.

Sl. No.	Details of works	Name of the contractor	Audit observations
2	<ul style="list-style-type: none"> • Name of work: Shifting of meters from inside to outside the premises of domestic consumers and replacement of existing electromechanical meter with static meters in six districts (Bellari, Bidar, Gulbarga, Koppal Raichur and Yadgir); • Contract price: ₹ 76.30 crore • LoI date: February 2019 • Scheduled date of completion: August 2019 • Actual date of completion: March/November 2020 	Five firms ³³	<ul style="list-style-type: none"> • Only 46 <i>per cent</i> of the awarded quantities (2,01,665 out of 4,34,851 meters, revised to 3,95,928 meters) were completed as on scheduled date; • Works were completed in March/November 2020 with a delay of seven to 15 months; • Scheduled period of contract was extended upto November 2020 without levy of liquidated damages on requests from the contractors. • Liquidated damages for non-completion within time worked out to ₹ 1.70 crore³⁴.

(Source: Letters of Intent/Detailed Work Awards, PERT charts, Correspondence by GESCOM)

Audit observed that:

- GESCOM noted poor progress of work by M/s. ESPRO Solutions Pvt Ltd (Sl.No.1 of table above) during review meetings (June/July 2019) and had even waived (May 2019) the inspection of materials to facilitate early completion of works, in deviation from bid conditions. Notices were also served (June/July/August 2019) on the contractor for default of timelines. Yet, the contract was extended upto March 2020 based on the request of the contractor without invoking penal clauses of the agreement. Thus, purpose of inviting short-term tender and waiving the inspection of material to expedite the completion of work has been defeated. Besides, the quality of materials used in the work was not ensured, as mandatory inspection as per contract had been waived.
- Similarly, in case of contract for shifting and replacement of meters (Sl.No.2 of the table above), GESCOM observed delays on the part of contractors in procurement of meters, *etc* and issued notices (November 2020) for non-completion of works within scheduled time. However, the contract period was extended without levy of liquidated damages stating that six months' duration for completing the works was not practical. This was not justified, as the contractor was bound by the agreed schedule as per the terms of contract.

Thus, extension of contract duration beyond the scheduled dates without levying liquidated damages on defaulting contractors was in violation of the General Conditions of Contract/terms of DWA. Besides, it had defeated the purpose of inclusion of penal clause in the contract to act as deterrent on non-

³³ M/s. VR Patil Vividh Vidyuth Nirman Pvt Ltd (Raichur), M/s. Vishwanath Projects Limited (Gulbarga and Bidar), M/s LAN Engineering and Technologies (Koppal), M/s Spectrum Consultants (Bellari and Hospet), VEMP Power System (Yadgir).

³⁴ $1,94,263 \times (\text{₹ } 76.30 \text{ crore} / 4,34,851) \times 5 \text{ per cent.}$

performing contractors. Liquidated damages of ₹ 2.30 crore leviable for the above contracts for breach of terms of contract were not levied.

The Government in its reply stated (November 2021) that works were delayed due to scattered houses, line clearance, poor availability of workers, rains and floods (one month) and Elections (Two months).

The reply is not acceptable as the reasons as quoted in the reply were neither discussed in the review meetings where non-performance of contractor was discussed nor were kept on record in the notices to the contractor on poor progress. Also, those reasons were not part of the orders extending the contract.

Quality Assurance Mechanism

3.9. As per General Conditions of Contract (*Clause.19 & 21A*) and Detailed Award (*Clause. 11.1*), bidder was to offer pre-inspection call after manufacturing at the factory premises as detailed in the tender specifications. The conditions also stipulated purchase of material only from the approved vendors of ESCOMs. Upon such inspection and ensuring quality parameters, ESCOMs had to give dispatch instruction of the material.

Audit observed the following deficiencies:

- In respect of rural electrification works taken up under DDUGJY in eight districts³⁵ (DWA dated 15 March 2017/24 May 2017), BESCOM approved (September/December 2017) waiver of inspection of material³⁶ (BPL kit) valued at ₹ 31.80 crore (1,05,990 households at ₹ 3,000 each) procured in the open market from the unapproved vendors (M/s. LVH Energy Pvt Ltd & M/s. South Asia Impex (India)) for electrification of BPL households. During beneficiary survey, audit observed poor quality of material having been used for meter boards (Koratagere, Sira and Tumkur blocks). Standard bid document stipulated that meter board should be of good quality wood or fibre glass reinforced polyester sheet moulding compound (SMC) board. However, meters fixed on a plywood sheet (which was part of BPL kit) were found in damaged condition.
- BESCOM also waived (May/July 2019) the inspection of HT metering cubicles (22 and 68 numbers) twice based on the request (May/July 2019) of the contractor, justifying that duration of contract period given to the contractor was less (two months).
- In respect of electrification of un-electrified habitations in Dubare Site under DDG, CESC waived (March/October 2016) inspection of material at factory premises (15,620 metres of UG cables, 2,130 metres of DC cables, 40 nos. of SPV systems, 100 nos of LED lamps, Batteries, Meters and Meter boxes and panels) quoting the reason as for early completion.

³⁵ Bangalore Rural, Bangalore urban, Chikkaballapura, Chitradurga, Davanagere, Kolar, Ramnagar and Tumkur.

³⁶ Service supports, PVC pipe, insulated cable, meter board, internal wiring kit, MS pole, etc.

Thus, ESCOMs had no means to ensure quality of material used in the works due to waiver of inspection of material. Also, approval of BESCO for procuring material from an unapproved vendor was in deviation from the conditions of contract.

The Government stated (November 2021), in respect of procurement of BPL Kits from unapproved vendor, that except single phase energy meter and meter box, other items were to be procured from the open market as there were no specific approved vendors. With regard to waiver of inspection of HT metering cubicles, it was stated that inspection was waived for 90 HT cubicles as the prototype of the materials was carried out at the factory premises and in view of urgency in completing the works.

The reply is not acceptable. As per the Standard Bid Document (*Clause 21A*) and Detailed Work Award (*Clause 11 & 12*), new vendors were to be approved by ESCOMs after assessing the capability of manufacturer by visiting the factory premises. However, BESCO procured material worth ₹ 31.80 crore from unapproved vendors (M/s. LVH Energy Pvt Ltd and M/s. South Asia Impex (India)) without assessing the capability of manufacturers. Further, waiver of inspection of HT metering cubicles was in violation of Standard Bid Conditions.

With regard to waiver by CESC (in Dubare Site under DDG), it was reiterated that inspection was waived for ensuring early completion. However, waiver of inspection was in violation of the conditions of contract and that there was no assurance on quality of material.

Execution of works under SAUBHAGYA

3.10. Audit observed completion of works with delay, execution of works without sanctioned estimates (₹ 4.75 crore), non-completion of works within time, Discrepancies in material inspection at contractor's stores and Excess payment to contractor (₹ 23.35 lakh). Audit observations are discussed in *Paragraphs 3.10.1 to 3.10.4*.

Completion of works

3.10.1. The details of electrification works under SAUBHAGYA in the test checked districts are given in the table below:

Table No.3.7: Details of contracts under SAUBHAGYA

Sl. No.	District	Date of award of contract	Contract value (₹ in crore)	Schedule date of completion as per contract	Actual date of completion	Delay (Months)
1	Bidar	November 2018	30.22	February 2019	March 2020	13
2	Raichur	December 2018 /January 2019	6.23	March 2019	October 2019	7
3	Haveri	December 2018	19.57	March 2019	November 2019	8
4	Chikmagalur	January 2019	2.64	March 2019	August 2019	5
5	Udupi	December 2018	12.42	February 2019	July 2019	5

(Source: Letters of Intent/Detailed Work Awards, Project Closure Reports)

Audit observed that:

- In Raichur and Bidar districts where the works were completed with delay of seven and thirteen months from the scheduled dates, GESCOM extended the contracts beyond scheduled dates without levying liquidated damages, stating that the timeline for completion of the scheme was extended by MoP;
- In the case of contract of Haveri district, HESCOM extended the contracts beyond scheduled dates without levying liquidated damages stating that there was delay in supply of materials required for the works and some of the materials earmarked for the scheme were diverted to other emergency works;
- MESCOM attributed the delay in completion of works (Chikmagalur, Shimoga and Udupi) to difficulty in assessing the number of un-electrified households due to non-availability of ready data on un-electrified households and to collection of such data from Gram panchayats.

Thus, the decision to extend contract by GESCOM on the ground that MoP extended the timeline for the scheme is not justified, as the delay on the part of the contractor attracts penal provisions of the contract. Further, it is evident that ESCOMs did not ensure availability of material and identification of un-electrified households prior to awarding the works.

The Government stated (November 2021) that the works in MESCOM were completed within extended timelines.

The fact remained that the intended benefits of electrification could not reach the beneficiaries in time. The completion was delayed in spite of the fact that execution of works did not involve any land acquisition, statutory clearances, etc. Reply in respect of GESCOM and HESCOM was not furnished.

Execution of works without sanctioned estimates

3.10.2. As per the provisions of Accounts Manual Vol-II of ESCOMs, no work should be taken up for execution unless the detailed plan and the estimate have been sanctioned by the appropriate authority. Items of works not specifically provided for in the sanctioned estimate should not be executed under any circumstances until a revised estimate or supplementary estimate is sanctioned.

Audit observed that in respect of rural electrification works under SAUBHAGYA in Raichur district, works valued at ₹ 4.75 crore³⁷ (awarded in December 2018 /January 2019) were executed without prior sanction of estimates by the appropriate authority (Executive Engineer/Superintending Engineer/Chief Engineer). As per the information furnished by GESCOM, these works were completed between March 2019 and October 2019, while the

³⁷ Manvi (₹ 1.31 crore); RSD, Raichur (₹ 0.98 crore); Devdurga (₹ 1.23 crore); Sindhanur (₹ 1.23 crore).

work orders indicating actual quantities executed were approved between October 2019 and March 2020, which implied that the approval were given *post facto* after completion of works. This amounted to unauthorized execution of works, as the works were executed without prior sanction contrary to the manual provisions.

The Government stated (November 2021) that in order to complete the works within stipulated period of three months, tentative work orders were issued.

The reply is not supported by facts, as the tentative work orders stated to have been issued were not kept on record. Moreover, as per the manual provisions, tentative work orders were to be issued only for emergency works.

Discrepancies in material inspection at contractor's stores

3.10.3. As per the bid conditions, pre-dispatch inspection of material at factory premises was to be carried out by Quality Control wing of GESCOM and thereafter dispatch instructions had to be issued to the contractor. These materials later were to be dispatched and kept in stores of the contractor for use in the works. The materials received at stores were further subjected to physical verification by GESCOM for ensuring the correctness of quality and quantity.

In respect of contract for electrification of 1,084 BPL households in Raichur Rural Sub-division awarded (January 2019) at ₹ 1.12 crore, Audit observed that:

- Pre-dispatch inspection at factory premises and dispatch instructions were given between March 2019 and May 2019, while the date of physical verification at contractors' stores was certified as 26 February 2019, *i.e.* even before pre-dispatch inspection and issue of dispatch instructions;
- Measurement Book indicated that the works were completed on 25 March 2019, much prior to pre-dispatch inspection of material at factory premises.

As such, audit could not ensure the veracity of receipt of materials, their physical verification at the contractor's stores and completion of works.

The Government stated (November 2021) that in order to complete the works within stipulated time, the materials were inspected at factory site by concerned executing authorities.

The reply does not address the audit observation with regard to inconsistencies on dates of dispatch instructions and physical verification of material at contractor's stores, and completion of works.

Excess payment to contractor

3.10.4. GESCOM issued (November 2018) LoI to M/s Mahadev Prestressed Products Pvt Ltd for electrification of 9,432 BPL households (HHs) in Bidar district under SAUBHAGYA at a total contract price of ₹ 17.17 crore. The contract, which included infrastructural works (Distribution Transformers,

11kV lines, LT lines, etc), was to be completed within three months from the date of LoI, i.e. by February 2019. The electrification works for 9,426 households were completed in March 2020 at a total cost of ₹ 9.78 crore. Reduction in cost was mainly on account of reduction in infrastructural works by 43.04 per cent.

The scrutiny of records made available to audit revealed that there were variations between Joint Inventory statements signed by the Contractor and Assistant Executive Engineer (Electrical) of the subdivision concerned and the final variation statement approved (January 2021) by the Chief Engineer (Electricals) of Gulbarga zone. The payments were regularised as per the final variation statement. The variations are indicated below:

Table No.3.8: Details of variations in payment made in Bidar district under SAUBHAGYA

Sl. No.	Name of the Sub-division	No. of HHs electrified as per joint inventory	No. of HHs for which payment made/claimed in closure proposals	Excess/short (-) (No of HHs)	Excess/short (-) payment (₹)
1	Aurad	3,230	3,204	-26	(-) 2,72,494
2	Bhalki	2,520	2,803	283	29,53,543
3	Bidar	1,480	1,397	-83	(-) 9,34,229
4	Kamtana	2,196	2,264	68	5,88,173
	Total	9,426	9,668	242	23,34,993

(Source: Joint Inventory Report, Project Closure Reports)

As could be seen from the above details, there was net excess payment of ₹ 23,34,993 to the contractor for 242 households. Audit could not ensure the correctness of payment in the absence any explanation for such variations. Further, GESCOM while preferring claims with REC (March 2021/April 2021) through project closure proposals, indicated 9,668 households as electrified under the scheme, as against 9,426 households certified in the joint inventory statement.

The Government stated (November 2021) that after taking joint inventory, the quantity variation was approved by the Chief Engineer, Gulbarga Zone vide letter dated 6 January 2021, and there was no excess payment.

The reply did not address the audit observation on the reasons for the payment for the quantities (242 Nos) not executed by the contractor.

Execution of works under RGGVY XII Plan

3.11. Audit observed deficiencies in execution, Electrification of BPL households at higher cost (₹ 15.68 crore), Loss of subsidy (₹ 18.97 crore) due to non-completion of works and Shortage of materials (₹ 4.27 crore) and loss of subsidy of ₹ 2.88 crore as detailed in *Paragraphs 3.11.1 to 3.11.4.*

Deficiencies in execution

3.11.1. BESCO issued Letters of Intent (LoI) to the successful bidder for execution of works in five districts³⁸ under RGGVY XII Plan in November 2014 to complete in 24 months (November 2016). Timelines were extended subsequently upto September 2017 based on contractor's request. The works were, however, completed in December 2017.

Audit analysis of reasons for non-completion of works within scheduled time revealed the following:

- The contractor after conducting field survey noticed abnormal variations in quantities (11kV/LT lines, BPL households, DTCs) in Bangalore Rural district with reference to that in sanctioned DPR, ranging from (-) 100 *per cent* to 36 *per cent*. Further variations were noticed even in actual quantities executed with reference to awarded quantities which ranged between 34 *per cent* and (-) 100 *per cent*. This suggested the fact that survey conducted at the time of preparation of DPR was not realistic;
- Third party inspection agency (RECPDCL) which was responsible for inspection of materials was appointed only in August 2015, after nine months of issue of LoI (November 2014);
- Work orders were issued (between March 2017 and June 2017) to contractor after scheduled date of completion in Nelamangala and Hosakote Divisions. This points to the fact that the system of issuing work orders was deficient as timely issue of work orders was not ensured;
- Complaints from the contractor were noticed regarding delay in receipt of list of BPL households (December 2014/February 2015/March 2015), addition of BPL households in Chikkaballapura and Kolar, non-conducting of material (poles) inspection by BESCO even after 45 days of request and consequent difficulty in production of new poles due to space constraint.

The Government stated (November 2021) with regard to delay in issue of work orders, that the work orders were issued post completion of works due to nearing of target date. The time extension of contract was given to the contractor without levy of penalty as REC had extended time upto December 2017.

The reply that the work orders were issued post completion of works due to nearing of target date is not acceptable, as the work orders (five numbers) issued during June 2017 by Hosakote Division were completed only in August/December 2017. The reply did not address the audit observation on variations in actual quantities, not-providing list of BPL beneficiaries, delay in inspection of materials, *etc.*

³⁸ Bangalore Rural, Chikkaballapura, Davanagere, Kolar and Ramnagar.

Electrification of BPL households at higher cost

3.11.2. As per Standard Bid Document issued by MoP under RGGVY XII Plan (Clause ITB 27.2), the total charges for supply, Freight & Insurance, erection, testing and commissioning for BPL service connection including taxes and duties should not be more than ₹ 3,000 per service connection. In case, the charges quoted exceed ₹ 3,000 per service connection, then payment should be restricted to ₹ 3,000.

The ESCOMs had electrified 1,27,500 number of BPL households under the scheme by incurring ₹ 53.93 crore³⁹ during 2014-15 to 2016-17. The following table depicts the details of cost incurred per service connection in the test checked districts under RGGVY:

Table No. 3.9: Details of cost per BPL connection incurred by ESCOMs under RGGVY

Sl. No	ESCOM	Project	No. of BPL households electrified	Awarded cost per BPL connection (₹)	Total cost as per contract (₹ in crore)	Total cost as per scheme (₹ in crore)	Additional cost (₹ in crore)
1	BESCOM	Bangalore rural	8,288	4,121.12	3.42	2.49	0.93
2	CESC	Mysore	6,141	6,660.00	4.09	1.84	2.25

(Source: Detailed Work Awards, Project Closure Reports)

Audit observed that ESCOMs awarded the contracts at higher rates (₹ 4,121.12 and ₹ 6,660) than that approved under the scheme (₹ 3,000), despite specific clause being included in the Instructions To Bidders which was part of Standard Bid Document issued under the scheme. In particular, awarded rates by CESC were 222 per cent of the approved cost per connection. This had resulted in incurring additional expenditure of ₹ 3.18 crore in the test checked two districts⁴⁰ under RGGVY towards electrification of BPL households under BESCOM and CESC.

It is pertinent to mention that in case of electrification of BPL households executed under DDUGJY subsequently during 2016-17, ESCOMs restricted the payment to ₹ 3,000 per service connection as per approved cost by MoP. However, this principle was not applied in case of electrification of BPL households under RGGVY XII plan, though the conditions stipulated under both the schemes remained the same.

The Government/ Management stated (November 2021/February 2022) that the actual cost required for providing electricity connection as per schedule of rates/market rates (BESCOM) worked out to ₹ 4,019, against ₹ 3,000 reimbursable per connection under the scheme. It was further stated that though quoted rates were high, the overall tender premium over the estimated cost was less in CESC (12.7 per cent).

³⁹ BESCOM: 96,251 HHs/₹ 39.73 crore; CESC (Mysore, Mandya): 11,264 HHs/₹ 7.55 crore; GESCOM: 1,347 HHs/₹ 0.54 crore; HESCOM (Haveri): 18,638 HHs/₹ 6.11 crore.

⁴⁰ This issue was not observed in the remaining eight test checked districts under DDUGJY.

The reply is not acceptable, payment in excess of approved cost was in violation of standard bid document. Instructions To Bidders specified that even in case the charges quoted exceed ₹ 3,000 per service connection, payment should be restricted to ₹ 3,000 and hence tender premium had no bearing as far as charges to be paid for BPL service connections.

Loss of subsidy due to non-completion of works

3.11.3. The contracts for rural electrification in Mysore and Mandya districts under RGGVY were awarded (November 2014) to M/s. Shreeshwar Electricals Pvt Ltd at a cost of ₹ 26.49 crore and ₹ 17.73 crore. The contracts included electrification of 14,274 BPL households (revised to 10,602 households during survey) in Mysore and 10,824 BPL households (revised to 8,222) in Mandya and related infrastructural works (11kV lines, Distribution Transformers, LT lines, etc). The stipulated period for completion of contract was November 2016.

Audit observed that:

- i. M/s. Shreeshwar Electricals Pvt Ltd which was awarded with both the above contracts was found to be ‘non-responsive’ during technical evaluation due to non-submission of certain documents along with the bid⁴¹. However, the Chief Engineer (Electricals), Mysore Zone being the Chairman of the Tender Scrutiny Committee instructed (November 2014) to make the firm ‘responsive’ on the ground that the firm had satisfied qualifying requirements of both technical and commercial conditions and to obtain required documents if the firm stands lowest. The decision to make the firm responsive was not in conformity with Rule 24 of KTPP Rules, 2000 which deals with the determination of substantial responsiveness of bidders;
- ii. Poor work progress was noted by CESC and served (October 2015 to May 2016) notices to the contractor. Even as of March 2019, *i.e.* after three years of scheduled date, electrification was done only for 6,141 out of 10,602 BPL households in Mysore and 5,123 out of 8,222 BPL households in Mandya and progress in infrastructure works was 2.53 *per cent* in Mysore and 21.08 *per cent* in Mandya. Despite noticing breach of timelines, contract was terminated only in January 2020, after delay of four years of scheduled date of completion (November 2016). The delay in termination of contract lacked justification, as the progress of works as on the scheduled date of completion was very insignificant;
- iii. As a result of default by the contractor and delay in termination of contract by CESC, infrastructural works (11kV and LT works) costing ₹ 26.36 crore⁴² were not executed. As RGGVY provided subsidy at the

⁴¹ Price adjustment data, option for initial advance, information for e-payment, PF details, declaration regarding MSME, declaration of tax exemption, reductions, allowance or benefits, bank guarantee verification checklist, form of certificate of origin and eligibility, guarantee declaration, manufacturer’s authorisation form, etc.

⁴² Mysore: 11kV works ₹ 11.60 crore, LT Works ₹ 5.29 crore; Mandya: 11kV works ₹ 6.29 crore, LT Works ₹ 3.18 crore (source: approved closure proposals).

rate of 90 *per cent* of the cost incurred, CESC lost the opportunity of availing subsidy to the tune of ₹ 18.97 crore after adjusting ₹ 4.75 crore⁴³ proposed to be recovered as liquidated damages from the contractor.

The Government stated (November 2021) that considering substantial responsiveness of the bid, the agency had satisfied the qualifying requirements of both technical and commercial conditions. The agency did not submit few documents. With regard to delay in termination and loss of subsidy, it was stated that based on the request of contractor, time extension was given and the loss of subsidy was made good in the LD and performance bank guarantee.

The reply is not acceptable. As per Rule 24 of KTPP Rules, tenders were to be rejected if any of the clauses under sub-rule (2) found to be not substantially responsive. One of the clauses under the said sub-rule mandated to satisfy whether the crucial documents have been signed. In the present tender, bidder was not substantially responsive, since the bidder did not submit many documents (Price adjustment data, PF details, declaration regarding MSME, declaration of tax exemption, bank guarantee verification checklist, form of certificate of origin and eligibility, guarantee declaration, manufacturer's authorisation form, *etc*). Moreover, the bidder was found to be 'non-responsive' during technical evaluation. Secondly, extension of time beyond scheduled date was not justified when the progress was very poor. Further, the loss of subsidy of ₹ 18.97 crore was arrived at by audit after adjusting ₹ 4.75 crore recoverable through LD and bank guarantee.

Shortage of materials and loss of subsidy

3.11.4. GESCOM, after inviting tenders (August 2014), awarded (March 2015) the contract to M/s. Sreeshwar Electricals Pvt. Ltd. for electrification of 26,518 BPL households along with connected infrastructure⁴⁴ in seven blocks of Gulbarga district on turnkey basis. The works were to be completed within 24 months from date of LoI, *i.e.* by March 2017 at a contract price of ₹ 14.08 crore. As per the terms of contract, GESCOM paid (April 2016) to the contractor an amount of ₹ 4.36 crore, being 50 *per cent* of the cost of materials supplied.

Audit observed that:

- The contractor did not show much progress during the contract period, only 1,347 out of 26,518 households (5.08 *per cent*) were electrified with no progress on infrastructural works. As the contractor failed to respond to the notices (May/June/December 2016), contract was short-closed in September 2017 and the performance guarantee of ₹ 1.41 crore was encashed (March 2018). The firm was blacklisted (October 2018) for a period of two years from the date of termination of contract. Recovery of liquidated damages of ₹ 70.40 lakh, which was to be recovered, was pending;

⁴³ To be adjusted against available funds with CESC (Encashment of BG - ₹ 2.21 crore; Retention amount: ₹ 2 crore and Liquidated damages: ₹ 71.98 lakh).

⁴⁴ 11kV lines (38.64 kms); DTCs (113 nos); LT lines (57.31 kms).

- Post-termination of the contract, GESCOM had taken inventory of materials (consumer meters, conductors, poles, etc) supplied by the contractor which were kept in contractors' custody and noticed shortage of material. As the contractor did not respond to the notice served (May 2019) on him regarding shortage of materials, GESCOM had gone on arbitration for claim against shortage of material to the extent of ₹ 4.27 crore, the award was passed (May 2020) in favour of GESCOM. However, recovery of this amount was doubtful in the absence of any security. Audit observed that the contract did not include any clause to safeguard the material kept in contractor's custody, against which the advance payment was made.

Thus, GESCOM failed to ensure the safe custody of materials on which advance of ₹ 4.36 crore was made to the contractor. Moreover, GESCOM lost the opportunity of realising the capital subsidy of ₹ 2.88 crore eligible under the scheme due to non-execution of infrastructural works.

Besides, electrification of the remaining BPL households (25,171 nos) which was to be carried out by March 2017, was completed only in March 2020 under DDUGJY/SAUBHAGYA, thereby deferring the benefit of the scheme to the eligible households. As a result, GESCOM lost the subsidy of ₹ 3.32 crore on electrification of 25,171 households under DDUGJY as subsidy was eligible at 60 per cent of the cost against 90 per cent under RGGVY (₹ 10.99 crore towards eligible subsidy for 26,518 households) less ₹ 7.33 crore (subsidy eligible under DDUGJY) less ₹ 0.34 crore (subsidy received for 1,347 households). Also, GESCOM could not retain the proceeds of performance guarantee and liquidated damages to the extent of ₹ 1.90 crore, as the REC deducted from the eligible subsidy treating it as receipts under the scheme account.

The Government had not furnished any reply to the above audit observation.

Execution of works under DDG

3.12. Audit observed award of three contracts to ineligible firms in violation of norms, delay in electrification of 416 BPL households by five years from the scheduled date (August 2016), and non-levy of liquidated damages of ₹ 69.90 lakh on the defaulting contractors as detailed in *Paragraphs 3.12.1 to 3.12.3*.

Award of contract to ineligible firm

3.12.1. As per sanction, 1,443 BPL households in 30 Habitations were to be electrified under DDG in three districts, viz. Madikeri, Mysore and Chamarajanagara at a total cost of ₹ 19.62 crore through 25 Mini Grid projects.

For the purpose of award of contracts, CESC divided 25 Mini Grid projects into four Packages⁴⁵. The details of contracts awarded are given below:

⁴⁵ Package-1: Madikeri; Package-2: Mysore; Package-3 & 4: Chamarajanagar.

Table No. 3.10: Details of contracts awarded by CESC under DDG

Sl. No.	Package/ District	Agency	Date of award	No. of BPL households	Contract value (₹ in crore)
1	Package-1/ Madikeri	M/s. Naviya Technologies	August 2015	357	5.21
2	Package-2/ Mysore	M/s Sun Edison Solar Power India Pvt Ltd	January 2016	480	6.20
3	Package- 3&4/ Chamarajanagar	M/s. Naviya Technologies	August 2015	702	9.33

(Source: Letters of Intent/Detailed Work Awards)

The first three tenders invited during October 2013/December 2013/May 2014 were cancelled due to lack of response/high quoted rates. The contracts were awarded in fourth call (LoI dated August 2015–Package 1,3,4/January 2016 – Package-2) at a total contract price of ₹ 20.74 crore⁴⁶ for electrification of 1,539 BPL households through Mini Grid. The stipulated completion period was eight months. The contracts for Package-1,3 & 4 were awarded to M/s. Naviya Technologies, while package-2 was awarded to M/s Sun Edison Solar Power India Pvt Ltd.

Audit observed that:

- The awarded rates were 71.03 per cent, 70.57 per cent, 160.58 per cent and 71.54 per cent above the amount put to tender for four packages respectively. The rates were exorbitantly higher;
- In respect of contracts awarded for Package-1, 2, 3 & 4, two bidders (M/s. Naviya Technologies and M/s. Sun Edison Solar Power India Pvt Ltd) who had participated in the tender were found to be non-responsive as certain documents were not submitted as per the Special Conditions of Contracts (Vol-IA), viz. Minimum technical experience of similar works to lead partner, Annual reports with audited statements of accounts for five years of lead partner and partner, work on hand of lead partner, Format for evidence of access to or availability of credit facilities, and proforma of joint undertaking by manufacturer along with the bidder. However, Technical Scrutiny Committee (TSC) headed by the Chief Engineer approved (January 2015) opening the price bid of the firm on the grounds that they had enough experience and were financially capable of executing the works and also in view of the fact that tender has been prolonged for one year. Accordingly, the contracts were awarded to M/s. Naviya Technologies and M/s. Sun Edison Solar Power India Pvt Ltd.

The grounds on which bidder was made responsive was not justified as the essential requirements of the bid conditions were not met and the action had negated the purpose of tendering. Moreover, awarding the work to non-responsive bidders was in violation of KTPP Rules. This

⁴⁶ Package-1: ₹ 5.21 crore; Package-2: ₹ 6.20 crore; Package-3: ₹ 2.69 crore; Package-4: ₹ 6.64 crore.

decision was ratified by the Board of Directors *post facto* in September 2015;

- The contract of M/s. Sun Edison Solar Power India Pvt Ltd was terminated in October 2017, as the contractor failed to show any progress, which indicated that the basis for qualifying the firm (enough experience and financial capability) was not supported by facts. CESC also noted (July 2016) that the firm was not responding to the repeated requests for finalizing the vendors, approval of drawings and getting forest clearance in association with CESC.

Thus, the action of TSC in awarding the contract to the technically non-responsive was in violation of KTPP Rules.

The Government in its reply (November 2021) stated that the firm was made responsive by the tender scrutiny committee considering the financial capability and work experience.

The reply is not acceptable as the bidder was found to be non-responsive during technical evaluation.

Abnormal delay in electrification of households due to lack of forest clearance

3.12.2. 416 BPL households in eight⁴⁷ Habitations in Mysore district were electrified only in July 2021, *i.e.* after lapse of five years from the scheduled date (August 2016).

Audit observed that the execution of electrification of the above BPL households required forest department's approvals for which CESC had submitted the application with forest authorities only in February 2016 and paid the required charges of ₹ 61.66 lakh during June/July 2018, *i.e.* two years after the award of works (January 2016). The required forest clearance was not obtained in time, consequently, works were completed in July 2021 against the scheduled date of August 2016. This resulted in deferring the benefits to eligible BPL households by five years.

Audit also observed that specific directions were given in DISHA meetings held during January 2018 and June 2020 to expedite the electrification works in habitations and to apprise the bottlenecks, if any, in completion of works. However, the bottleneck of forest clearance was not brought before DISHA.

The Government stated (November 2021) that the delay was due to non-receipt of forest clearance for electrification through mini grid mode. The works were completed under standalone mode.

The reply is silent on the specific reasons for delay in obtaining forest clearance, not bringing the fact before DISHA and the reasons for not exploring the option

⁴⁷ Golur hadi, Udburkere hadi, Anemala hadi, Balle hadi, Mulluyar hadi, Manimole hadi, Thimmanahosahalli and Bavalligade Hadi.

for electrification of households on standalone mode initially, when the mini grid mode was not permitted.

Non-levy of liquidated damages for ₹ 69.90 lakh

3.12.3. The terms of contract provided for recovering liquidated damages for the delay at the rate of 0.5 *per cent* per week of delay subject to maximum of 10 *per cent* of the contract price.

In March 2014, MoP sanctioned another 828 households in 11 Habitations in two districts (Mysore and Chamarajanagar) for electrification through Wind-Solar hybrid projects/Standalone Solar System at a cost of ₹ 6.12 crore, revised subsequently to ₹ 4.14 crore. The contract was awarded (January 2017) to M/s. Deepa Solar System Pvt. Ltd for electrification of 1,233 BPL households (revised to 1,093 after survey) in 37 villages/habitations through Standalone Solar System at total contract price of ₹ 6.99 crore. The stipulated completion period was four months.

Audit observed that the works were completed after a delay of four years in January 2021 against the scheduled date of May 2017. However, liquidated damages of ₹ 69.90 lakh leviable as per the terms of contract were not levied on the contractor for the delay.

The Government stated (November 2021) that Central Purchase Committee after detailed deliberations approved (June 2021) for extension of time upto February 2021 without penalty.

The reply is silent about the grounds on which liquidated damages were not levied.

Conclusion

ESCOMs failed to establish the mechanism for proper energy accounting despite incurring significant expenditure of ₹ 62.87 crore on metering of Distribution Transformer Centres. Failure to ensure timely availability of land required for constructing substations, HESCOM lost the energy savings valued ₹ 14.03 crore. GESCOM failed to ensure the safe custody of materials kept with contractor's custody which resulted in shortage of material valued at ₹ 4.27 crore. The contracts with total value of ₹ 64.96 crore were awarded to ineligible firms in violation of KTPP Act. Liquidated damages of ₹ 3 crore were not levied on the defaulting contractors in violation of terms of contract. CESC and GESCOM lost capital subsidy/grant of ₹ 25.17 crore due to non-completion of sanctioned works under RGGVY. Quality of materials used in the works was compromised by waiving the mandatory inspections and procuring materials valued at ₹ 31.80 crore from unapproved vendors. 204 villages in two districts (Shimoga and Chikmagalur) were deprived of 24x7 power supply for more than three years due to not ensuring required statutory clearances for feeder segregation under the jurisdiction of MESCOM.

Recommendations

The ESCOMs should ensure:

- **awarding of contracts after invitation of tenders to the eligible firms duly complying with the provisions of K TPP Act and K TPP Rules;**
- **conducting of energy audit in all the metered Distribution Transformer Centres in compliance to the Karnataka Electricity Distribution Code so as to establish proper energy accounting and initiate remedial measures for reduction of aggregate technical and commercial losses; and**
- **quality of materials used in the works by procuring them from the approved vendors and conducting mandatory quality inspection to ensure compliance to the standard bid document.**