



# रूरल इलेक्ट्रीफिकेशन कारपोरेशन लिमिटेड Rural Electrification Corporation Limited

(भारत सरकार का उद्यम) / (A Government of India Enterprise)

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No. REC/DDUGJY/NQM/2015/ 2583

Date: 03.06.2015

To,

The Agencies (TPIA/RQM/NQM)

Sub: DDUGJY(RE) – Limited Tender enquiry for appointment of inspection agency as NQM for quality monitoring under Tier-III in Bihar, Manipur, Odisha and West Bengal for pending inspection works

Sir,

Rural Electrification Corporation Ltd. (REC), the nodal agency for implementation of DDUGJY projects, a national program for electrification of all villages and rural households, invites bids from the prospective domestic bidders for inspection of DDUGJY (RE) works (in villages & substations) under Tier-III of 3-tier Quality Control Mechanism instituted under RE component of DDUGJY XI Plan Phase-I. The agency shall be designated as NQM (National Quality Monitor). The DDUGJY works are being executed by State DISCOMs/identified CPSUs through turnkey mode in various district based projects across India. REC, on behalf of MoP, is conducting tendering process. RE division of Ministry of Power (MoP) shall supervise and monitor inspection process of NQM.

## 1. Scope of Works:

MoP through REC shall outsource independent agencies to verify the quality of Rural Electrification works under DDUGJY in 1% of the villages (village includes all its associated habitations) covered under the Project. Selection of villages in projects to NQM shall be decided in the Ministry of Power, Govt. of India. 50% of villages (under Stage-II) selected for NQM inspection would come from villages inspected by RQMs (REC Quality Monitors) under Tier-II. NQM would also review and provide the comments on RQM inspection reports. Under this mechanism, adherence to system procedures and guidelines shall also be verified by inspection agency through Quality Monitoring Coordinator. The scope includes

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- Zonal Offices** : Hyderabad, Kolkata, Mumbai, Panchkula & Lucknow  
**Project Offices** : Bangalore, Bhopal, Bhubaneswar, Chennai, Guwahati, Jaipur, Jammu, Patna, Ranchi, Shillong, Shimla, Thiruvananthapuram & Vadodara  
**Sub Offices** : Dehradun, Raipur  
**Training Centre** : Central Institute for Rural Electrification (CIRE), Hyderabad

Physical inspection of equipment/materials and works for ensuring proper quality and quantity as per the Detailed Project Reports (DPRs)/ revised cost estimation based on award quantities/cost, specifications and drawings/maps in each of the DDUGJY project. Following checks shall be conducted by NQM:

- i. 1% randomly selected villages as per approved drawings/ Technical Specifications and FQP. Villages means main village along with its associated habitations. Inspection of these 1% of villages shall be carried out in two Stages:

**Stage-I:** When physical progress (villages completed vis-à-vis villages covered) in the project is around 30%

**Stage-II:** When physical progress (villages completed vis-à-vis villages covered) in the project is around 90%

- ii. 33/11 KV sub-stations covering
  - a. At least one new sub-station
  - b. At least one augmentation of sub-station
- iii. In 1% villages of the project, 100% verification of BPL connections, 100% Distribution Transformer Substations, 100% LT Lines and 100% 11KV lines emanating from cut-point/grid substation to the village including lines in the village, verification of energization of village/BPL beneficiaries, installation of service connections in public places, hours of supply in the village, time taken by DISCOM to raise first energy bill in favor of beneficiaries.
- iv. Checking of bill of quantities(BOQ) as per the approved drawings/maps, etc., in the inspected villages
- v. Review of Test Records for major materials like transformers, poles and conductors, etc, of 10%, on random sampling basis
- vi. Random checking of electrification of villages named in the DPRs (existence of the village/habitation, duplication of the villages/habitation, status of village electrification prior to the start of the work)

- vii. NQM shall also oversee the Contract Management Part of PIA like contractual provisions of identifying defects and their communication to working agencies, timely rectification of defects, time line control mechanism of PIA to rectification of defects, resolution of project related issues and action on delayed project. In their visit, they would give thrust on adherence on systems and procedures of DDUGJY schemes by PIA and turnkey contractors. They would also ensure availability and awareness of project specific drawings, documents, quality assurance plans among all stake holders in PIA contractor staff/workers.
  
- viii. Submission of periodic reports of inspection as per prescribed format (enclosed at Annexure-III A & B).
  
- ix. The inspection report should contain clear photographs (with date & timestamp) of all electrical infrastructures (including Distribution Transformers, BPL h/hs, HT/LT line, public places etc) inspected. The defects/deficiency observed during inspection shall be clearly pointed out and supported with clear photographs along with location of defects. NQM shall submit the inspection reports (Hard copy as well as scanned soft copy in pdf) directly to MoP with a copy of inspection report to REC corporate office, New Delhi and respective project office of PIA in the State. NQM along with reports would also submit brief findings to MoP with a copy to REC. NQM shall also submit one scanned soft copy of inspection reports to REC Project Office in the State. MoP/REC may be ask NQM to make presentation of brief findings of reports/progress.
  
- x. Any other inspection/verification of DDUGJY Project/Work assigned by REC/MoP. The electrified and un-electrified villages (including habitations) would be treated *at par* for the purpose of inspections under this contract. Further, villages and sub stations would be selected on random sampling basis by MoP for physical inspection.

In case of works carried out by the Implementing Agencies are found to be non-satisfactory (as reported by any of the associated and non-associated agencies/individuals/groups/VIPs/your agency) the same may be inspected/re-inspected by you, as per the directions of REC/MoP.

The scope of works to be performed by you under this contract shall not include inspections at manufacturers' works. However, you may be required to check the equipment/materials at site as per the FQP in the inspected villages/sub-stations. You will also test check all the electrical infrastructure quantities including Transformers, HT & LT lines and electricity connections to BPL families as per the approved drawings and maps with the help of hand-held GPS device (using software) indicating the locational co-ordinates in the schematic diagram of the inspected villages. The GPS coordinates are to be superimposed on Google earth and the superimposed map to be submitted with the inspection report. Quality Manual of DDUGJY shall be integral part of these inspections.

All necessary instruments, tools & tackles, other infrastructure, manpower and their transport, boarding and lodging, etc., are all required to be arranged by you in a professional manner.

## **2. Inspection Notices & Reports:**

The NQMs will take up the inspection of the project as and when advised by the REC. The officer-in-charge of REC shall raise inspection calls, among other things, inspection of villages/sub stations through email or fax or letter. Inspections shall be completed within 2 weeks from the date of issue of inspection notice. And inspection report shall be submitted within one week from the date of completion of inspection. In the event of the Agency failing to complete the inspections within the stipulated timelines, Rs 1000/- per day for each delayed visit shall be deducted from the bills and the total damages shall be limited to the contract price of the villages to be inspected in the subject inspection call.

## **3. Progress Report:**

You shall submit report of progress on inspection works on monthly basis in the prescribed format and ensure submission latest by 5<sup>th</sup> of the succeeding month.

## **4. Schedule of this assignment:**

The quality works shall be applicable for a period of 12 months from the date of execution of Contract Agreement.

In the event of site works by the Turnkey Contractor getting delayed, the inspection services shall be extended for 6 months without any extra cost to REC from the date of Contract Agreement. For the services beyond 18 months period, payment terms shall be mutually decided subsequently, if required.

## **5. Quantity Variation**

REC/MoP reserves the right to increase or decrease the quantity of works and services up to 25% (Twenty Five Percent) value of the total contract price. For the purpose of quantity variation, the state wise unit price of the village inspection shall be applicable. Suitable Amendment/ Communications shall be issued by REC in the event of variation in the quantities. For the purpose of modification of contract price, unit prices for evaluation of villages as quoted by the bidder in BPS shall be applicable.

## **6. Performance guarantee:**

For due performance of this assignment, in accordance with the terms and conditions specified, you shall furnish – along with the Contract Agreement, a performance security in the form of an Demand Draft/Irrevocable Bank Guarantee for an amount equal to 10% (ten percent) of the Contract Value.

The Demand Draft/Bank Guarantee shall be in favour of 'Rural Electrification Corporation Limited, New Delhi' issued by any Scheduled Commercial Bank approved by the Reserve Bank of India.

It is expressly understood and agreed that the performance security is intended to secure performance of entire contract. It is also expressly understood and agreed that the performance security is not intended to cover all the damages detailed/stipulated in various clauses in the Contract document.

The performance security will be discharged by REC and returned to the Agencies not later than 6 months following the date of completion of the Agency's obligations and payments, under the contract.

Should the assignment period for whatever reason is extended, the Agency, shall at its cost, get the validity period of Bank Guarantee in respect of performance security furnished by it extended and shall furnish the extended/revised Bank Guarantee to REC before the expiry date of the Bank Guarantee originally furnished.

## **7. Earnest Money Deposit (EMD):**

EMD in a separate sealed envelope for an amount equal to **INR 5,000/- (Indian Rupees five thousand only)** in the form of Demand Draft/pay order from any Scheduled Commercial Bank (SCB) approved by RBI in favour of 'Rural Electrification Corporation Limited' payable at New Delhi shall accompany the Bid for the assignment. The Bank Guarantee shall not be accepted for EMD. Bids received without EMD shall be rejected. The EMD will be refunded to the successful Bidder, after signing of the Contract and submission of Contract Performance Guarantee (CPG). The EMD of all unsuccessful Bidders shall be returned within thirty (30) days from the date of signing of contract agreement with the successful bidder, submission of CPG by successful bidder and confirmation from issuing bank.

Any bid not accompanied with the requisite EMD in a separate sealed cover shall not be opened and shall be returned to the bidder without being opened.

The EMD submitted by the bidder shall be returned to the unsuccessful bidders without any interest, upon placement of award on the successful bidder.

## **8. Validity of Bid:**

The offer shall be valid for 180 days from last date of submission of bid.

## **9. Sealing and Marking of Bids:**

The Bid shall be sealed and addressed to REC at the following address:

Shri G S Bhati  
GM (DDUGJY-II)  
Rural Electrification Corporation Ltd.,

IV Floor, Core-4, SCOPE Complex,  
7, Lodi Road, New Delhi-110 003

Bear the name of the package: **"DDUGJY - PROPOSAL FOR NQM APPOINTMENT IN BIHAR, MANIPUR, ODISHA AND WEST BENGAL"** and the words **"DO NOT OPEN BEFORE 18.06.2015 @ 03:30 PM"**

#### **10. Submission of Bids:**

- i. The bidders are to quote for each State separately (sample format enclosed at Annexure-II). Accordingly, bids shall be evaluated State-wise.
- ii. The agencies engaged in inspections of DDUGJY (RE) works in other tiers (TPIA/RQM) or engaged in consultancy like PMC, DPR preparation etc in a State can't quote for Tier-III (NQM) for that State.
- iii. The quoted bid price shall include all taxes, duties & levies, duty excluding service tax and surcharge thereon. REC shall pay the service tax at applicable rates along with each invoice. Also, the bidders shall have valid service tax registration and ensure deposit of service tax to the tax authorities.
- iv. The work, either full or in part, shall not be subcontracted at any point of time during the currency of the contract. Also, the associates or Joint Venture are not allowed to participate.

#### **11. Deadline for Submission Of Bids & Opening:**

- i. The Bid shall be submitted in person. Bids submitted by Fax/e-mail will not be accepted.
- ii. Bids must be received by REC not later than time: 03:00 PM & date: 18.06.2015. The bids shall be opened on the same day at time: 03:30 PM in public and in the presence of the participating bidders.

#### **12. Award Criteria:**

The REC will award the Contract to the successful Bidder, whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid. REC shall be the sole judge in this regard.

### **13. Terms of Payment:**

The payment for the performance of the contract will be made by REC, on clearance from Ministry of Power, in two installments as per the conditions specified hereunder:

1. On receipt of all inspection reports pertaining to an individual project and acceptance of reports by Ministry of Power, 80% of the contract amount in respect of that district based project would be released as 1st instalment.
2. The second (final) instalment of 20% of the contract amount in respect of all the projects would be released in one go on satisfactory completion of all mandated works by you.

The Officer-In-charge for the Inspections shall be Director/Dy. Secretary, RE division, Ministry of Power. All the claims for progressive payments shall be submitted by the contractor to the concerned Officer In charge of REC.

REC shall take all necessary measures to release the payment to the contractors within 15 working days from the receipt of proper claim by the Officer-In Charge. All the payments to the contractors shall be released through electronic transfer. The successful bidder shall have to open and maintain suitable accounts for electronic transfer.

Statutory deductions like Income Tax. Corporate Tax etc. are deducted at source. Necessary certification shall be issued by REC for the amounts deducted at source. The bidders shall have valid Permanent Account Number issued by Income Tax Authorities.

### **14. DAMAGES FOR NON COMPLIANCE REMEDIES FOR NON-PERFORMANCE AND FRADULAENT PRACTICES:**

- 14.1 No payment is eligible for the unattended inspection calls.

- 14.2 Non-compliance to the inspection calls or any or all acts that hamper the quality assurance of supplies & execution of works as per the defined quality plans shall be treated as non-performance. REC reserves the right to terminate the contract in case of repeated non-performance by the contractor and encash performance bank guarantee and get the work done through the agency. The Officer in-charge shall have discretion to judge the non-performance and act accordingly.
- 14.3 For reasons which may include unsatisfactory performance of the Services, false reporting during the currency of the contract, or the contractor resorting to unacceptable or unlawful and fraudulent practices either during bidding or during execution of the contract, or for any other reason whatsoever, REC may at its discretion may terminate the Contract and/or forbid the contractor from participating in any future bidding process for a specified period of time. A fifteen (15) days prior written notice shall be served to the contractor for termination. The balance works shall be executed at the risk and cost of the contractor.
- 14.4 **INTEGRITY OF QUALITY MONITORS:** The personnel engaged by the Contractor for the Quality Monitoring works are required to submit the factual status with an unbiased report of site works and material quality. It shall be the responsibility of the Contractor to ensure that the personnel of highest integrity level are engaged for quality monitoring works.

**15. USE OF CONTRACT DOCUMENT AND OTHER INFORMATION:**

- 15.1 Bidder/contractor shall keep all the knowledge and information (which is not within the public domain), which may be acquired during the carrying out of this assignment, strictly confidential for all time and for all purpose. All final reports and other documents or software submitted by the bidder in the performance of the Services shall become and remain the property of REC.
- 15.2 The Contractor shall not without REC's prior written consent disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of REC in connection therewith, to any person other than a person employed by the Contractor in the performance of the Contract. Disclosure to any such employed person shall be made in

confidence and shall extend only so far as may be necessary for the purpose of such performance.

- 15.3 The Contractor shall not, without REC's prior written consent, make use of any document or information enumerated in various Contract documents except for the purpose of performing the Contract.
- 15.4 The Contractor shall not communicate or use in advertising, publicity, sales releases or in any other medium, photographs or other reproduction of the Works under this Contract, or descriptions of the site, dimensions, quantity, quality or other information, concerning the works unless prior written permission has been obtained from the REC.
- 15.5 Any document, other than the Contract itself, enumerated in various Contract documents shall remain the property of REC and shall be returned (in all copies) to REC on-completion of the Contractor's performance-under the Contract if so required by REC.
- 15.6 Bidder/Contractor shall keep confidential and shall not, without the consent of REC, which shall not be unreasonably withheld, divulge or part off to any third party any documents, data or other information in connection with this assignment except where such information are of public domain or required under the statute or Law.

**16. SETTLEMENT OF DISPUTE AND ARBITRATION:**

Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties are unable to settle mutually, the same shall be referred to Arbitration as provided hereunder.

A party wishing to commence arbitration shall specify all the points of disputes with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter. The dispute shall be referred to arbitration of an

Sole Arbitrator to be appointed by Chairman REC.. Parties agree that REC can appoint the arbitrator who is an employee of REC. It is agreed that there will be no objection that the Arbitrator appointed holds equity shares of REC or is a retired employee of REC. If any of the Arbitrators so appointed dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings, it shall be lawful for the concerned party/arbitrators to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left if both parties consent for the same; otherwise, he shall proceed de novo. It is a term of the Contract that neither party shall be entitled for any pre-reference or pendente-lite interest on its claims. Parties agree that any claim for such interest made by any party shall be void. There shall be no suspension of work on account of arbitration provided that the obligations of the REC and the contractor shall not be altered by reasons of arbitration being conducted during the progress of Works. Neither party shall be entitled to suspend the work to which the dispute relates on account of arbitration. The cost of arbitration shall be borne by the respective parties. The cost shall inter-alia include the fees of the arbitration(s) as per the rates fixed by the arbitrator from time to time. The Arbitration shall be held at the place from where the contract has been awarded. The Arbitrator(s) shall give reasoned and speaking award and it shall be final and binding on the parties. Subject to aforesaid, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof shall apply to the arbitration proceedings under this clause.

**17. LAWS & JURISDICTION OF CONTRACT:**

The laws applicable to the Contract shall be the laws in force in India. The courts of New Delhi shall have exclusive jurisdiction in all matters arising under the contract.

**18. CONTRACTOR'S DEFAULT:**

In the event the bidder withdraws or alters his bid within the bid validity period or fails to honor the letter of Award in the event of decision of the tender in their favour, then the Bid Guarantee submitted shall be forfeited. Further if the contractor fails to execute the contract in the event of placement of award in their favour, then the contract shall be terminated by REC forfeiting the Performance Bank Guarantee

submitted by the contractor. In the event the Employer (REC) terminates the contract due to contractor's default, the contractor will be liable to pay to REC for any additional costs incurred for procuring such similar services for the work got done from other agencies on its risk and cost.

**19. FORCE MAJEURE:**

19.1 Force majeure is herein defined as any cause which is beyond the control of the Contractor or Employer as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the Contract, such as:

19.1.1 Natural phenomena, including but not limited to floods, droughts, earthquakes and epidemics;

19.1.2 Acts of any Government, domestic or foreign, including but not limited to war, declared or undeclared, priorities, guarantees, embargoes.

Provided either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such causes, alongwith proof of such occurrences.

19.2 The Contractor or REC shall not be liable for delays in performing its obligations resulting from any force majeure cause as referred to and/or defined above. The date of completion will, subject to hereinafter provided, be extended by a reasonable time at the sole discretion of REC.

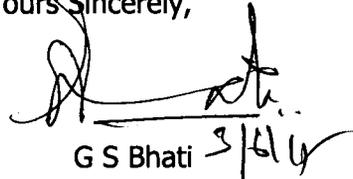
**20. SUSPENSION OR DELETION OF WORK:**

REC reserves the right to suspend or delete the work included in the scope of this contract at any time during the contract period. The decision of the Officer-in-Charge of REC shall be final and binding on this matter. The payment shall be made on pro-rata basis for the work actually done and approved by the Officer-in-Charge of REC, on clearance from MoP.

## 21. MANNER OF EXECUTION OF CONTRACT:

- 21.1 REC, after the issue of the Letter of Award to the Contractor, will send one copy of the final agreement to the Contractor for his scrutiny and approval.
- 21.2 The Agreement, unless otherwise agreed to, shall be signed within 7 days of the acceptance of the Letter of Award, at the office of REC on a date and time to be mutually agreed. The contract must submit Contract Performance Bank Guarantee with prescribed norms before signing the contract agreement. The Contractor shall provide for signing of the Contract, appropriate power of attorney and other requisite materials. In case the Contract is to be signed beyond the stipulated time, the Bid Guarantee submitted with the Proposal will have to be extended accordingly.
- 21.3 The Agreement will be signed for awards of value more than Rs. 10 lakhs in two originals and the Contractor shall be provided with one signed original and the rest will be retained by REC.
- 21.4 For the awards of value less than Rs. 10 Lakhs the LOA signed by the authorized signatories of both REC and Contractor will be treated as an agreement.

Yours Sincerely,

  
G S Bhati 3/6/16  
GM(DDUGJY-II)

Encl.

- Annexure-I : State-wise / Project-wise list of villages for inspection.  
Annexure-II : Price bid format  
Annexure-IIIA : Format for village inspection  
Annexure-IIIB : Format for substation inspection

Copy to:

- i. Shri A K Mitra, Under Secretary (RE), MoP
- ii. All ZM/CPMs for forwarding the bid document to all Quality Monitoring Agencies (including TPIAs) in the State

**State-wise / Project-wise list of villages/substations for inspection**

Sl. No.	Name of Project	Name of PIA	Inspections to be carried out by NQM	
			Villages	S/s
<b>Bihar XI Plan</b>				
1	Katihar	NBPDCL	0	2
	<b>Total (Bihar XI Plan)</b>		<b>0</b>	<b>2</b>
<b>Manipur XI Plan</b>				
1	Senapati	P&E Deptt.	6	1
2	Bishnupur		0	1
3	Churachandpur		2	1
4	East Imphal		2	0
5	West Imphal		1	0
6	Ukhrul		2	2
	<b>Total (Manipur XI Plan)</b>		<b>13</b>	<b>5</b>
<b>Odisha XI Plan</b>				
<b>1</b>	Jharsuguda	<b>NTPC</b>	0	1
	<b>Total (Odisha XI Plan)</b>		<b>0</b>	<b>1</b>
<b>West Bengal XI Plan</b>				
1	Coochbehar	WBSEDCL	0	1
	<b>Total (West Bengal XI Plan)</b>		<b>0</b>	<b>1</b>
<b>Total</b>			<b>13</b>	<b>9</b>

### Price Bid format

Name of State(s) for which bid submitted:

<b>Name of State</b>	<b>Name of Project</b>	<b>Nos. of Villages</b>	<b>Nos. of substations</b>	<b>Unit rate of village / Sub-station</b>	<b>Contract price (Nos. of villages plus substations) × unit rate</b>
<b>Total Contract price of State</b>					

Note – The Price quoted shall be exclusive of Service Tax and Surcharges.

\* Signature of the Authorized Signatory

Place:

Name:

Date:

Designation:

Name of the Bidder

Address of the Bidder

(\* Copy of Power of attorney/ authorization letter for the authorized signatory- shall be submitted along with the bid)

**Format for Village inspection****DDUGJY(RE): Village Inspection Report by NQM viz. \_\_\_\_\_ (Agency Name)**

(Village include all majras/tolas/habitations under the revenue village covered under sanctioned DDUGJY(RE) project)

1	Inspection Call Reference No.			
2	Date of Inspection			
3	(i) District (Census code) / Project (DPR Code)			
	(ii) Block & Census code			
	(iii) Village & Census code			
	(iv) Status of village(UE or PE)			
4	Name of the Project Implementing Agency (PIA)			
5	Name of the Turnkey Contracter			
6	Total No. of Households coverage as per DPR	BPL	APL	Total

**7 BPL households**

BPL Coverage	BPL Connections Released				Actual No. of BPL HHs Inspected	No. of BPL HHs charged out of the inspected BPL HHs	No. of BPL HHs yet to be charged out of the inspected BPL HHs
	S C	S T	Oth ers	Tot al			
<b>Total</b>					<b>Total</b>	<b>Total</b>	<b>Total</b>

**8 APL households**

No. of APL HHs applied for connection	No. of connections released to APL HH	No. of APLs not willing to avail connection	Reason for APL HHs not availing connection

**9 Details of Physical Quantity of executed work in inspected village**

Name of the material/ equipment as per scheme coverage in the inspection area	Unit	As per DPR/RCE / approved BOQ	Quantity at field of executed Work	Variations, if any and remarks
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***I. Major physical quantities***

1	BPL Households	No.		
2	Distribution Transformer	No./ each KVA		
3	11 KV circuit Length	Km.		
4	LT circuit Length	Km.		
5	No. of Poles	Nos.		

**10 Checking of Test Report:**

Sl. No	Name of Equipments/materials of which test report checked	Discrepancies found in test report or equipment/material
1		
2		
3		
4		

1	No. of Hours of power supply in the village (Avg hours of supply per day in a month)			
2	Specific comments about the difficulties/ constraints and various reasons for not providing of minimum 6-8 hrs of power supply			
3	Specific comments on the nature and characteristics of load shedding			
4	whether the newly developed system has been charged/commissioned?			
5	Whether the newly developed infrastructure handed over to state authorised authorities ?			
6	Whether certificate from Gram Panchayat furnished ?			
7	Whether Franchisee appointed? If yes, Type of Franchisees eg. i) Revenue Franchisee - Collection Based, (ii) Revenue Franchisee - Input Based, (iii) Input Based, (iv) O & M Based, (v) Rural Electric Co-operative Society Based and (vi) Other model implemented, if any specify.			
8	Verification of Electrification of public facilities viz., Hospital, School, Panchyat office etc, if any:(Y/N)	Access available	Access available but not charged	electrified

9	Comment on socio-economic improvement in the village on account of RGGVY programme and that due to availability of power:		
10	Feedback from Public:		

21 **Observations:**

Sl.No.	Category	No. of instances(Nos)	Reason for deviation
1	Electrification of all BPL HHs as per RGGVY guidelines		
2	Supplying for minimum 6-8 hours of power to the village		

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Deficiencies/Discrepancies on executed works and non-compliance of construction standards:

Sl.No.	Category	No. of discrepancies (Nos)	Nature of Discrepancies/Deviations	Suggestion for corrective action
1	Quality of materials installed/ commissioned	Critical:	Refer Annexure - I	
		Major:		
		Minor:		
		Total:		
2	Quality of works/workmanship	Critical:	Refer Annexure - II	
		Major:		
		Minor:		
		Total:		
3	Physical quantity with reference to the reported executed quantity	Critical:	Refer Annexure - III	
		Major:		
		Minor:		
		Total:		
<b>Total No. of Discrepancies</b>		Critical:		
		Major:		
		Minor:		
		Total:		

23 **General Observations :**

Seal and Signature :  
Date : Name of the inspecting officer :  
Place : Designation :

\*Annexures: Quality of Materials, Quality of Workmanship, Quantity of materials w.r.t. sanctioned Quantity, List of BPL & APL Beneficiaries, approved & verified SLD & BOQ, SLD of infrastructure using coordinates by GPS device, GPS points superimposed on google earth, Photographs of infrastructure, Group Photograph, Handover certificate, Gram Panchayat Certificate, copy of material test reports etc.

**Substation Inspection Format****CONTENTS**

<b>Sl. No.</b>	<b>Description</b>	<b>Page No.</b>
I	Basic Information	
II	Land Details	
III	Civil Works	
IV	Layout of the Sub- station	
V	BOQ details of major equipments	
VI	Safety & Protection aspects	
VII	Equipment erection	
VIII	Miscellaneous	
IX	General observations	

## **I. BASIC INFORMATION**

- i. Inspection call reference No. :
- ii. Date of inspection :
- iii. Name of the project/District :
- iv. Name of the Block/Village of the Sub-station :
- v. Name of the Sub-station(location) : New/Aug
- vi. Name of the Inspection officer & Agency :
- vii. Name of the Project Implementing Agency :
- viii. Name of the Turn key Contractor :
- ix. Date of commissioning of Sub-station, if already commissioned :
- x. Details of the accompanying officials, if any, in respect of Project Implementing Agency, Third Party Inspection Agency, Turnkey Contractor, etc. :

## **II. LAND DETAILS**

- i. land area sufficiency :
- ii. land development/levelling and chances for water logging :
- iii. Fencing/Compound wall with gate :
- iv. Name board of SS at entrance :

## **III. CIVIL WORKS**

a). General

- i. Drainage System :

- ii. Roads, Culverts :
- iii. Water Supply :
- iv. Cable Trench & Cable Ducts :
- v. Foundation & Plinth for power Transformers/  
outdoor 33 & 11 KV Circuit Breakers:
- vii. Fire wall between Power Transformers,  
wherever applicable :
- viii. Graveling Boundary wall/Fencing  
in the S/s :
- b). Control Room :
- i. Ventilation in battery room :
- ii. Cable arrangement in the trench :
- iii. Rubber mat for the operation of control  
panels and in the battery room :
- iv. First aid box provision :
- v. Drawing of schematic layout of the SS :
- vi. Key board :
- vii. Box for gloves, raincoat, tools, silicagel,etc.:

#### **IV. LAYOUT OF THE SUB-STATION**

- i. Approved Layout/SLD of 33/11 KV  
Substation(copy to be enclosed) :
- ii. Whether the construction and erection  
of the SS equipments as per approved layout?  
(copy to be enclosed, in case of variation) :
- iii. Provisions for the future augmentation  
of the SS and Power Transformers, if any :
- iv. No. of 33KV incoming bays & provision for  
future expansion :
- v. No. of 11 KV outgoing bays & provision for  
future expansion :

**V. BOQ DETAILS OF MAJOR EQUIPMENTS:**

Item	Quantity as per Sanction/	Quantity erected at Sub-station (with details of rating/type, make, Sr.No., capacity, etc.)	Remarks on quantity variation
a). Power Transformer			
b). 33 KV			
• Circuit Breaker			
• Lightning Arrestors			
• Station Transformer			
c). 11 KV			
• Circuit Breaker			
• Lightning Arrestors			

e). Battery Bank			
• Capacity/Type/Make			
• Battery Charger/Make			

**VI. SAFETY & PROTECTION ASPECTS**

Items and works	Whether the item and the work as per the REC Specification & Construction Standards and the safety aspects as per IE Rules?  If not, suggestions thereof.
<i>a) Safety Clearance</i>	
i. Bus-bar arrangement	
ii. Height of bushing, terminals, low level jumpers and other live parts	
iii. Conductor size used for bus-bars	
vi. Laying of Power and Control Cables (as far as possible, to be laid separately?)	
<i>b) Stay arrangements</i>	
i. Any provision of stays for supports (not to be provided in the switch yard rather supports to be concreted)	
<i>c) Earthing System</i>	
i. Earthing of equipments	
ii. Earthing of neutral points of different voltage systems	

iii. Earthing of metal frameworks not associated with power system	
iv. Earth resistance value	
<i>d) Bimetallic Terminal Connectors</i>	
Bimetallic terminal connectors for the copper bushings of Transformers, Circuit Breakers, and others	
e) Lightning arrestors	
f) Danger boards	
i. Danger boards in all the equipments	
g). Fire protection	
i. Fire fighting equipments (fire Extinguisher) at appropriate places	
ii. Sand buckets	

## VII. EQUIPMENT ERECTION

Item	Whether the item as per the REC Specification & Construction Standards and the safety aspects, wherever applicable, as per IE Rules?  If not, suggestions thereof.
a) Power Transformer (Outdoor type)  i. Visual examination, damages/defects, Oil leakage, silicagel and its condition, oil level in transformer, bushing bimetallic clamp and jumpers arrangements, etc	

<p>b) Circuit Breakers</p> <p>Visual examination, damage/defects, Support Structure (level &amp; verticality)</p>	
<p>c) CT &amp; PT Unit</p> <p>Visual examination, damage/defects/oil leakage</p>	
<p>d) Control and Relay Panel</p> <p>Visual examination, damage &amp; Defects, tightness of inter panel nuts &amp; bolts, Glanding of external cables, Proper sealing and locking arrangement of panel door</p>	
<p>e) DO Fuse</p> <p>Protection system/ Type of relays</p>	
<p>e) DC System</p> <p>Visual examination, damage &amp; defects, Charging of battery</p>	

**VIII. MISCELLANEOUS**

- i. Yard lighting :
- ii. Back feeding arrangements to the SS,  
if available :

**IX. GENERAL OBSERVATIONS**

:

(Signature of the inspection officer)

Name :

Organization :

Place:

Date :