



WEST BENGAL STATE ELECTRICITY DISTRIBUTION CO. LTD.

(A Government of West Bengal Enterprise)

Office of the Chief Engineer, Distribution Project Department

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Project Management services to support WBSEDCL in implementation of High Voltage Distribution System (HVDS) in thirteen (13) states of West Bengal.

TERMS OF REFERENCE (TOR)

Ref: EoI No. DPD/EoI/HVDS-PMC/2020-21/WB/11, Dated. 09.02.2021

1.0 BACKGROUND

1.1 WBSEDCL (hereinafter referred to as 'Client') proposes to improve the distribution network by converting the existing Low Voltage Distribution System (LVDS) into High Voltage Distribution System (HVDS) in rural & semi urban area of 13 districts in West Bengal, under funding from the World Bank and Government of West Bengal. The works are planned in the following areas:

SN	Name of work	Name of District		Approx. Estimated Cost (in INR Cr.)
1	High Voltage Distribution System (HVDS) in rural and semi-urban areas	1. Alipurduar 2. Jalpaiguri 3. Uttar Dinajpur 4. Malda 5. Nadia 6. Howrah 7. Murshidabad 8. Cooch Behar	9. Darjeeling & Kalimpong 10. Dakshin Dinajpur 11. Purba Medinipur 12. Bankura 13. Purulia	1080.54

1.2 HVDS would be implemented to the extent possible by placing smaller size distribution transformers (viz. **63 KVA, 25 kVA**) close to load centers and connecting the consumers to these transformers, thus reducing the length of the LT network per DTR, along with conversion of existing LT OH network by ABC. This is expected to improve voltage profile at consumer end as well as reduce technical and commercial losses. The works are planned to be taken up under turnkey single source responsibility basis and contract awards are in progress. Given the large geographical spread and need for close supervision and monitoring to ensure quality, timeliness and management of environment and social impacts, the Client anticipates the need for skilled and experienced manpower to supplement their own project management teams. The Client is therefore looking to contract a qualified and experienced Project Management Consultant (firm) for a period of **twenty four (24) months with a provision of extension of time, if required**. The contract will be time-based and Consultant shall be expected to deploy, in a phased manner, key and other professionals as indicated in these Terms of Reference.

2.0 SCOPE OF SERVICES

2.1 The Consultant shall, at all times, represent the best interests of the Client vis-à-vis the implementation contracts being supervised. The scope of services shall include supervision of physical surveys, material testing/ inspection at site, supervision and monitoring of works, liaison with local authorities, to ensure implementation of works as per contract conditions and good industry standards as well as monitoring ESMF. Based on this implementation experience and their own experience and knowledge, the Consultant shall endeavour to provide to the Client, suggestions/solutions on technical & project implementation aspects, either Suo-moto or as & when requested by the Client. The Consultants shall also organize liaison/technical meetings, and prepare physical, financial and safeguard implementation progress reports as required by the Client and the World Bank, highlighting bottlenecks/issues.

2.2 The services to be provided by the Consultant, shall include, but not be limited to the following tasks:

2.2.1 Project planning and implementation

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- a. Prepare a project monitoring scheme (covering technical, physical, financial and safeguard aspects), and finalize formats and periodicity for reporting progress.
 - b. Facilitate pre-implementation meeting between the Contractor and Client to discuss and finalize contractor's work program, reporting procedures, communication protocol (between Client, Contractor and Consultant), and program for quality control and inspection/ testing of materials.
 - c. Review and recommend for approval PERT charts, Quality Assurance Plans, Safeguard Implementation Plans etc. submitted by contractors.
 - d. Certify the requirement of material at site, based on site progress and lead time for manufacturing & delivery of the equipment and advise the Contractor to ensure that the material is offered for inspection accordingly.
 - e. Carry out inspection of all incoming material at contractors store/ site as per inspection report & DI based on approved drawings, technical specifications, and relevant standards. A detailed inspection report shall be submitted to the Client after such inspections. If any deviation is found, the material may be rejected, and issue brought to the notice of the Client. Monitor that all material rejected at site is immediately removed from Contractor's stores and not used in the project. Consultant shall prepare and maintain inspection and engineering report and records and make them available to Client as and when required.
 - f. Supervise & monitor the execution of works/site activity and ensure quality as per approved technical specification, survey & drawing, adherence to time schedule and contract conditions.
 - g. Ensure maintenance of site records like Material at Site (MAS), Hindrance Register, Contractor Store Ledgers, logs of inspections by Client's officials, visits by World Bank experts etc.
 - h. Assess the adequacy of all resources such as materials and labours mobilized by the contractor, their methods of work in relation to the required progress, and when required, appropriately advise the contractor to take suitable steps to expedite progress. Maintain, regularly update and monitor the progress of commitments made by contractor in various review meetings, discussions etc.
 - i. Certify the achievement of the contractual milestones, and the satisfactory quality of the progress, in line with the progress milestones laid down in the concerned works contract.
 - j. Track the progress of project execution based on the PERT chart submitted by the contractor. Support the Client in initiating action on slow progress and any violation of the contractor's obligations under the contract.
 - k. Assist the Client in reviewing and approving Contractors' bills/contract variations/other claims. For this, the Consultant shall examine and make recommendations on all bills/claims from the contractors for time extension, extra compensations, extra work or expenses or other similar matters including determination of rates of new items, as required.
 - l. Assist the client for Checking of Drawings/ GTP of Electrical Items/ Equipment as per Technical Specifications included in contract agreement. Suggest modifications as per IS/IEC/NFC Standards or CEA Guidelines/Regulations if necessary and as feasible, and recommend for Amendments/Addition of technical parameters and issue of contract amendments.
 - m. Determine the amount to be added to or deducted from payments to the contractor for any additional work or for work omitted or due to price variation as per contract conditions.
 - n. Propose and present for approval of the Client changes in the technical documents that may be deemed necessary for the completion of works including information on any effects the changes may have on the contract amount and time of completion of the project and prepare all specifications and other details arising thereof.
 - o. Proactively advise the Client on problems or potential problems which may arise in connection with the implementation of the contract and make recommendations to the Client for possible solutions.

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- p. Furnish timely assistance and direction to the contractors in all matters related to interpretation of the contract documents, testing and other matters related to contract compliance and progress of the project.
 - q. Assist the Client during commissioning activities including EI approvals.

2.2.2 Quality monitoring

- a. Review the quality assurance plan (QAP) and Field Quality Plan (FQP) submitted by contractors and recommend for approval of Client.
- b. Joint inspection (with or without representative of Client) of material at site and/ or factory premises (if required, witnessing of tests) and preparing detailed inspection reports.
- c. Identification of the defects, if any, in works executed at site, and get them corrected by the contractors with documentation.

2.2.3 MIS and web portal updating

- a. Prepare and submit monthly and quarterly progress reports describing work progress, the contractor's performance, quality of work, delays, deficiencies, constraints, and the project's financial status, forecasts, and giving recommendations for action.
- b. Update top management on project status on periodic basis as & when required.
- c. Compile systematic records of the contractor's site activities, prepare and maintain inspection and engineering report and records to adequately document the progress and performance of the work.

2.2.4 Reporting Arrangements:

- A. The PMC shall prepare an Inception Report at the start of assignment which shall include the schedule of mobilization of PMC staff at HQ & WBSEDCL's site office, updated methodology and work plan, counterpart requirements etc.
- B. The PMC shall prepare regular progress reports as per frequency (generally weekly, fortnightly and monthly reports) and formats finalized at commencement. Progress reports shall also highlight areas of concern, quality of work, delays, deficiencies, constraints, in addition to financial and physical progress status. They shall include financial forecasts, anticipated bottlenecks (specially related to RoW) and recommend mitigation actions required to be taken by Contractor/Client. The reports should also include site photographs highlighting good/deficient practices and physical progress. While the detailed formats will be finalized after contract award, the progress reports shall cover the following:
 - a. Main activities undertaken and events for the period under review and Progress Report on the activities of the contractor and supervision staff.
 - b. Monitoring and Evaluation of project progress.
 - c. Project accounts, claims, certificates and payment and variation orders.
 - d. Photographs showing progress of the works.
 - e. Other issues as deemed necessary to provide additional information to the Client.
 - f. Material reconciliation status applicable on that date viz. Material as per approved BOQ, Material received at stores, Material erected & Balance Material at stores. To be done to avoid unnecessary dumping of material at site.
 - g. Any other report as per requirement of client.
- C. An Exception report shall be prepared every fortnight to highlight every major milestone & critical issue, and the same shall be submitted to the Chief Engineer, Dist. Project of the Client.
- D. The PMC shall prepare a more detailed Monthly and Quarterly Progress Report (QPR). Besides the points above, the QPR shall also include Safeguard Implementation Report (SIR). The QPR shall be shared with the

client within 15 days of the completion of each quarter, which the client will further submit to the World Bank.

- E. The PMC shall submit the completion report of major activities of respective contract within 15 days of commissioning of work clearly indicating balance activities to be executed by the Contractor, deficiencies in work and remedial measures to be taken by the Contractor as well as by the Client, if any.

2.2.5 Contract closure and other activities

- a. Upon receipt of completion notice from the Contractor, inspect the works and inform contractor in writing, items needing rectification for completion.
- b. Before the issuance of the certificate of substantial completion, specify and supervise any remedial works to be carried out and recommend upon completion. The inspection should be carried out jointly with representatives of the Client.
- c. Carry out joint final inspection at the conclusion of the supply and installation contract,
- d. Review the Certificate of Completion prepared by the contractor. The certificate shall include stating date, or dates from which the defect liability period of supply and installation work shall commence.
- e. Monitor that all post-construction (as-built) drawings, manuals etc. are submitted and training requirements of Client, if such are included in the contracts, completed.
- f. Facilitate decisions on all claims and accounts, all questions, disputes and differences which may arise between the Client and Contractor and which under the terms of the contracts are left for the Arbitrator's settlement and decisions.
- g. Assist and advise the Client about any matter that may be subject to adjudication, arbitration, inquiry or litigation up to delivery certificate of completion
- h. Maintain detail records of relevant events & activities, drawings & documents, minutes of meetings

2.2.6 Environment Management activities

- a. Support Client in ensuring compliance related to environmental safeguards adhering to the provision of ESMF.
- b. Advice related to good practices on pollution risk and control for the design, operation and maintenance of substations, storage yards and maintenance workshops. Develop good practice manual to facilitate adherence.
- c. Develop environment management checklist for use by Client officials and Contractors in undertaking their supervision, monitoring and implementation activities.
- d. Review and confirm that all relevant clearances and permits have been obtained prior to commencement of works and all required signages /flags etc are in place at site. Particularly ensure that all open pits, excavations that are left overnight are secured from access by humans and animals.
- e. Review documentation and undertake site visits (environmental audit) to document (including photographs) and confirm that all corrective actions for existing facilities, set out in the EMP have been adequately implemented.

2.2.7 Social Impact Management activities

- a. Monitor social impacts and mitigation activities as included in the ESIA report, improve monitoring indicators and mitigation plans, if needed.
- b. Prepare semi-annual and annual social impact monitoring reports
- c. Assist Client in establishing a grievance redressal mechanism and support in managing grievance redressal

processes throughout project implementation

- d. Prepare completion report as per the recommended practices
- e. Provide guidance and advice to Client on any social safeguards compliance issues and provide training as needed.

2.2.8 Safety Management activities

- a. Support Client in discharging their safety responsibilities and ensuring compliances to safety regulations.
- b. Provide safety counselling/advice at different stages in project implementation, to contractor's staff and Client officials.
- c. Advice related to good safety practices for the design, and construction of HVDS network.
- d. Develop safety management checklist for HVDS works for use by contractors and client officials in undertaking their implementation, supervision and monitoring activities.
- e. Review documentation and undertake site visits (safety audit) to document (including photographs) and confirm that all corrective actions for existing facilities (as laid out in ESMF) have been adequately implemented.

2.2.9 Other activities

- a. Support Client in establishing a communication protocol between Client, Contractors and Consultant to ensure efficient co-working of the three agencies.
- b. Facilitate issuance of all information, notices, and instructions to the contractor by the Client as provided for in the contract documents.
- c. The Consultant shall setup an office at Kolkata/ Bidhanagar Municipal area with sufficient seating capacity, and equipped with meeting rooms, furniture, equipment, appliances and communication facilities in line with good industry practices. The offices should have good internet connectivity with bandwidth of at least 10 Mbps and usage capacity of 250GB, multi-purpose printer-scanner-copier and telephone facilities. The responsibility for maintenance, upkeep, ward and watch of the offices shall lie with the Consultant. The Consultant shall arrange all logistical, transport and communication facilities for its team to enable them to perform efficiently.

2.2.10 Client Support

- a. The Client shall identify a dedicated multi-tier, multi-disciplinary team for monitoring and supervision of the project & this team shall be designated as Project Management Team (PMT). PMT shall represent the Client to the PMC and Contractors on all matters relating to the project and shall accordingly advise the Client.
- b. Overall monitoring of progress shall be done by Client's Project Implementation Unit (PIU) and located in Client head-quarter.
- c. Client shall ensure that timelines for approvals of drawings, inspection reports and payments finalized at commencement are followed.

3. Key Professionals:

SN	Designation of Professional	Number of persons	Staff Months in WBSEDCL or site offices	Staff Months in Consultant Home Office
1	Project Director	1	4#	4
2	Project Manager	1	24	
3	Sub-Project Manager	13	312	
4	Site Supervisors	13	312	
5	Inspection Engineer	4		3
6	Environmental Expert	1	21	
7	Social Expert	1	21	
8	Safety Expert	1	21	
	Total Staff-months		711	7

Expected to visit WBSEDCL office (Corporate or site) atleast once a month Support Staff:

Sl. No	Designation of Professional	Number of persons	Staff-months in field	Staff months in Consultant Office
1.	Technical Assistant	2	48	
2	Environment Associate	1	21	
3	Social Associate	1	21	
4	Accounts Associate	2	42	
5	Associate to Sub-project Manager	13	312	
	Total Staff-months		444	
Grand total of staff-months required			1162	