অসম শক্তি বিতৰণ কোম্পানী লিমিটেড
ASSAM POWER DISTRIBUTION COMPANY LTD.

REQUEST FOR PROPOSAL

FOR

CONSULTANCY SERVICES FOR PREPARATION OF DETAILED SYSTEM STUDY REPORT OF THE SUB-TRANSMISSION AND DISTRIBUTION NETWORK OF APDCL INCLUDING SIMULATION AND DESIGN USING SUITABLE AND UPDATED DISTRIBUTION PLANNING SOFTWARE ALONG WITH HANDHOLD TRAINING.

NIT NO.: APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03 Dtd: 05.07.2023

OFFICE OF THE CHIEF GENERAL MANAGER (PP&D), APDCL

ASSAM POWER DISTRIBUTION COMPANY LIMITED (APDCL)

O/o Chief General Manager (PP&D), Bijulee Bhawan, Paltanbazar, Guwahati- 781001

REQUEST FOR PROPOSAL

NIT No. APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03 Dtd: 05.07.2023

The Chief General Manager (PP&D), APDCL requests for proposals from experienced and eligible Consultants/ Analytical (Electrical) Engineering Solution Firms through this Request for Proposal (RFP) to participate in the bidding and selection process for appointment of Consultant for Preparation of a Detailed System Study Report of the Sub-transmission and Distribution Network of APDCL including network simulation and design using suitable and updated software along with handhold training to the APDCL officials for continuously conducting the network study.

The RFP document can be downloaded from APDCL official website www.apdcl.org and also from https://assamtenders.gov.in. Download of RFP document is free of cost. However, bidders must deposit online non-refundable tender processing fee of **Rs. 10,000.00 (Rupees Ten Thousand) only** (inclusive of GST) at the time of online submission of tenders in https://assamtenders.gov.in.
The Earnest Money Deposit (EMD) for the work is **Rs. 15,00,000.00 (Rupees Fifteen Lakhs**) **only**. EMD shall be deposited through online mode only at the time of submission of proposal in https://assamtenders.gov.in. Any tender without EMD will be rejected outright.

The firms registered with NSIC for the tendered services are exempted from payment of tender processing fees and EMD subject to submission of valid NSIC Certificate for the tendered service in support of their claim failing which their proposals will not be considered.

All interested parties are requested to understand this RFP in detail in order to comply with APDCL's requirements including but not limited to the fees and deadlines, eligibility criteria, selection methodology, scope of work, deliverables and minimum technical standards.

Key Dates:

Tender publishing and download start date & time:	11.07.2023	**10:00 Hours**
Last date for submitting Pre-bid queries	20.07.2023	**17:00 Hours**
Pre-Bid meeting date & time:	22.07.2023	**12:30 Hours**
Bid submission start date and time:	25.07.2023	**10:00 Hours**
Last date of Bid Submission:	14.08.2023	**17:00 Hours**
Bid opening date & time:	17.08.2023	**14:00 Hours**

The Company reserves the right to accept or reject any tender in part or in full or cancel/withdraw the Notice Inviting Tender without assigning any reason thereof whatsoever and in such case, no bidders/intending bidders shall have any claim arising out of such action.

For details, please visit www.apdcl.org and https://assamtenders.gov.in

Sd/-

Chief General Manager (PP&D), APDCL

Tender Disclaimer

This RFP is not an agreement. This RFP may not be appropriate for all persons, and it is not possible for APDCL to consider the technical capabilities, investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Utility accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

APDCL or any of its employees, consultants or associates make no representation or warranty and shall have no liability to any person including any Bidder under any law, statute, rules or regulations, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Bid stage.

APDCL or any of its employees, consultants or associates also accept no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

The Utility may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that APDCL is bound to select a Bidder as the Consultant and the utility reserves the right to reject all or any of the Bidders or Bids or discontinue or cancel the bidding process without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, traveling, food, lodging, expenses associated with any demonstrations or presentations which may be required by APDCL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and APDCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

TABLE OF CONTENTS

SECTION – I

INVITATION FOR BIDS (IFB)

1. Definitions

a) "Employer/Client/Owner "means Assam Power Distribution Company Limited (in short APDCL)

b) "Bidder" and "Consultant" have same meaning for this RFP.

c) "Consultant" means a legally-established professional consulting firm or an entity that may provide or provides the Services to the Client under the Contract.

d) "Request for Proposal" or "RFP" means this NIT No. APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03, Dtd: 05.07.2023 including all clarification/amendment/corrigendum etc. issued from time to time.

e) "Consultant" means the entity to be appointed through this RFP to carry out the System Study and Network Analysis in pursuant to the scope of work mentioned under Section III of the Bid.

f) "Applicable Law" means the laws and any other instruments having the force of law in India, or as they may be issued and in force from time to time.

g) "Government" means the Government of India unless the context implies the Government of the State of the Utility.

h) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultants.

i) "Key Expert(s)" means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose CV is taken into account in the technical evaluation of the Consultant's proposal.

j) "Non-Key Expert(s)" means an individual professional provided by the Consultant or its Sub-consultant and who is assigned to perform the Services or any part thereof under the Contract and whose CVs are not evaluated individually.

k) "Proposal" means Technical Proposal and the Financial Proposal of the Consultant.

l) "Services" means the work to be performed by the Consultant pursuant to the Contract.

m) "Terms of Reference (TOR)" (Section: 5 of this RFP) explain the objectives, scope of work, activities, and tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.

n) "Score" means the Technical and Financial Score awarded to the bidder in pursuant to the method of evaluation adopted for this RFP.

o) "Tender" same as "RFP".

p) "Day" means a calendar day.

q) "Month" means a calendar month

2. Introduction

2.1. Background

Assam Power Distribution Company Limited (APDCL) is the successor power distribution utility of erstwhile ASEB. The utility undertakes the distribution, trading and supply of electricity in thestate of Assam or outside it in accordance with provisions of Applicable Law and all activities ancillary or appurtenant thereto. It has also the mandate to develop, maintain and operate the power distribution system in the state of Assam. At Present, APDCL is serving power to a massive consumer base of 66 Lakhs+ with a peak demand to the tune of 2379MW for the FY 2022-23[1]. The utility has been in the continual process of upgradation and modernization of its proliferating network infrastructure over the years with implementation of several Central Govt, State Govt. funded as well as Externally Aided Projects.

The infrastructure profile as well as the Consumer mix of the utility as on FY 20-21 is shown below: -

Infrastructure:

Basic Infrastructure Details		
Parameters	**Unit**	**Total**
33 kV Lines	C.km	9,824
11 kV Lines	C.km	1,03,608
LT Lines	C.km	3,26,374
33/ 11 kV S/Stn	No.	462
33/ 11 kV S/Stn	MVA	5,158
Distribution Transformers	No.	105,291

Consumer mix:

Category	% consumer mix	Energy Share	Revenue Share
Household	93 %	53 %	43 %
Commercial	5 %	15 %	18 %
Industrial	0.004 %	15 %	17 %
Others	2 %	17 %	22 %

Power system studies are a prerequisite for any electrical system development, renovation, modernization and expansion plan. It is also an imperative step towards meeting the objectives of system planning, design, protection and control, developing a system operation strategy, commercial and evaluation and technical feasibility studies. APDCL, therefore, is intending to conduct a scientific, thorough and standard study of its sub-transmission and distribution network with regards to the following objectives:

1. Create a model for simulation and perform a power system component-wise phase-wise load flow analysis in the following modules:

   a. Load flow Study of the sub-transmission and distribution network.
   b. Short Circuit/Fault Studies.
   c. Transient Stability Studies
   d. Voltage Stability Studies.
   e. Harmonic Study
   f. Contingency Analysis
   g. Long Term Dynamics with Impact of all grid connected solar systems, DER (Distributed Energy Resources), Electric Vehicle Charging Stations (EVCS) integration.

[1] CEA Dashboard (https://cea.nic.in/dashboard/?lang=en)

2. Calculation of active, reactive and apparent power through every section (Lines & Cables) of the feeder and hence determining the technical losses (I2R or Heating Losses) in various components using Power distribution network analysis software from the data collected from site.

3. Calculation of voltage & % voltage regulation at various points including load point of the feeder on different buses, real and reactive power flow between buses.

4. Optimization (minimizing power loss) of existing Network of feeder with the minimum change in its configuration and components.

5. Evaluation of Network capabilities and its future expansion in terms of achieving quality and reliable power supply.

6. Calculation of co-ordination amongst protection devices, as well as investigating the system's ability to handle minor and major interruptions or any errors.

7. Identification of system constraints and devise appropriate strategy and planning for mitigating them.

8. Submission of final deliverables in hard & soft copies as per project standard as desired by APDCL.

APDCL therefore desires to avail services of reputed and experienced Consultants/ Analytical (Electrical) Engineering Solution Firms for Preparation of a Detailed System Study Report of the Sub-transmission and Distribution Network of APDCL including network simulation and design using suitable and updated software alongwith handhold training to the APDCL officials for continuously conducting the network study. The Consultant shall be responsible for aiding APDCL to design the distribution network plan for the next 10 years, evaluation of existing sub-transmission and distribution network, necessary technical assistance during execution of the project as and when required.

2.2. About this RFP: -

This RFP is issued by APDCL for selection of a competent, reputed and experienced Consultant/ Analytical (Electrical) Engineering Solution firm to carry out the activities of Design, Development, Deployment, Operations of Network Analysis planning software services for viewing, accessing and preparation of a Detailed System Study Report of the Sub-transmission and Distribution Network of all circles of APDCL in the state of Assam including network simulation and design using suitable and updated software alongwith handhold training to the APDCL officials for continuously conducting the network study. This RFP is structured into the following sections: -

- Section I: Invitation for Bids (IFB)
- Section II: Instruction to Bidders (ITB)
- Section III: Eligibility Criteria and Document Checklist
- Section IV: Terms of Reference (ToR)
- Section V: General Conditions of Contract (GCC)
- Section VI: Standard Forms for Technical and Financial Proposal
- Section VII: Forms of Bid

ASSAM POWER DISTRIBUTION CO. LTD.

PROJECT PLANNING & DESIGN

NIT No. APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03 Dtd: 05.07.2023

IMPORTANT INFORMATION

SL No.	Event	Information to the Bidders	
1	Tender publishing and download start date & time	11.07.2023	**10:00 Hrs.**
2	Last date & time for queries/ seeking clarification	22.07.2023	**17:00 Hrs.**
3	Online Pre-Bid Meeting Date & time	24.07.2023	**12:30 Hrs.**
4	Bid submission start date & time	28.07.2023	**10:00 Hrs.**
5	Last date & time of submission of Tender	14.08.2023	**17:00 Hrs.**
6	Date & time of opening of Technical bid	17.08.2023	**14:00 Hrs.**
7	Date & time of opening of Financial bid	**To be intimated later**	
8	Pre-Bid Meeting Address	The Pre-Bid meeting shall be conducted in online mode. The meeting details shall be shared in due course of time through APDCL website and E-tendering portal.	
9	Tender Document	The complete Tender Documents can be downloaded free of cost from the APDCL's website www.apdcl.org, as well as E-tendering portal of GoA, www.assamtenders.gov.in	
10	Minimum Average Annual Turnover (MAAT)	**Rs. 10.00 Cr. (Ten Crores only) in Power Sector Consultancy business** for any 3(three) financial years in last 5 financialyears (2017-18, 2018-19, 2019-20, 2020-21 and 2021-22)	
11	Tender Processing Fees	**Rs. 10,000/-** (Rupees Ten Thousand only). The Bidder must deposit non-refundable tender processing fees for the aforesaid amount through online mode at the time of submission of the E-tender. For further details regarding online payment of the tender processing fees, the online published tender documents may be referred.	
12	Bid Security/EMD	**Rs. 15,00,000/-** (Rupees Fifteen Lakhs only) The EMD must be submitted through online mode at the time of submission of the E-tender. Any tender without EMD will be rejected outright. For further details regarding online payment of the EMD, the online published tender documents may be referred.	
13	Address & contact details for future correspondences in this regard	O/o the Chief General Manager (PP&D), APDCL 6th floor, Bijulee Bhawan, Paltanbazar, Guwahati-781001. Email ID: **cgmppd.mattc@apdcl.org**	

1. **Source of Fund:** "Consultancy for system study and preparation of master plan for power distribution network of Assam till 2030 with capacity building and necessary training for the personnel" under SOPD 2023-24.
2. **Tender Processing fees & EMD:** As delineated above. The tender processing fees and EMD shall be deposited through online mode as per the provision explained above**.** However, the bidders with valid NSIC Registration under the tendered service category are exempted

from payment of Tender Processing and the EMD subject to submission of adequate documentary evidences in support of their enlistment in the specific category.

3. **Bid Validity:** The bid shall remain valid for a period of 180 days from the date of submission of proposal. However, in exceptional circumstance, APDCL may solicit the Bidder's consent to an extension of the bid validity period. The request and responses thereto shall be made in writing or by E-mail.
4. The completion period for the Contract shall be the period as specified in Section V: GCC Sub-Clause 3.1.
5. The bidding will be conducted through the open competitive bidding procedures as per the provisions specified in the Bid. A Single Stage Two Envelope E-tendering Procedure to be adopted to carry out the tendering formalities against this tender in pursuant to Clause No. 4.1 under Section: ITB.
6. Bids must be submitted electronically through E-tender portal **www.assamtenders.gov.in** in two parts as Techno Commercial bid and Price bid. The mode of bid submission is online only.
7. The Eligibility Criteria for participation are specified in the **Section III: "Qualifying Requirements & Document Checklist"** of this RFP document.
8. The Consulting firm shall be selected incorporating the **Quality and Cost based Selection (QCBS) method**.
9. The issue of this RFP does not imply that APDCL is bound to select a Bidder for the Project. APDCL reserves the right to cancel/withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.

----- End of Section-I (IFB) ----

SECTION – II

INSTRUCTION TO BIDDERS (ITB)

Table of Contents

1. INTRODUCTION

1.1 General Instructions

1.1.1 All Bidders shall comply with the dates and amounts indicated in "**Section I: Invitation for Bid (IFB)**" of the RFP.

1.1.2 All Bidders must be required to meet the Eligibility Criteria stipulated in Clause 1.5 under this Section of the RFP.

1.1.3 The Bidders shall comply with and agree to all the provisions of this existing Section of the RFP for various bidding considerations including but not limited to eligibility, costs, payments, information regarding APDCL systems, bid formats, bid submission and other considerations.

1.1.4 The Bidders shall be evaluated based on the norms and procedures laid out in Section IV: Terms of Reference of this RFP.

1.1.5 The Bidders shall be required to undertake and bid for the scope of work for the Project indicated in Section IV of this RFP.

1.1.6 The Bidders shall comply with various terms and conditions provided in this RFP including but not limited to those provided in Section V of this RFP.

1.1.7 The Bidders are expected to examine all instructions, forms, terms, and specifications in the RFP. Failure to furnish all information or documentation required by the RFP may result in rejection of the Bid.

1.2 General Terms for Bidding

1.2.1 The Bidders who wish to participate in online tenders will have to procure/shall have legally valid digital certificate as per Information Technology Act'2000 using which they can sign their electronic bids. Bidders who already have a Digital Certificate need not procure a new Digital Certificate.

1.2.2 All bids must be digitally signed.

1.2.3 Proposals submitted by the Bidders and all correspondence and documents relating to the Proposal exchanged by the Bidder and APDCL and its associates shall be written in the English language. Any printed literature furnished by the Bidder may be written in another language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

1.2.4 If for any reason the Bid of any selected bidder is rejected or Letter of Intent issued to such selected bidder is rescinded, APDCL is empowered to take decisions for any of the following:

i) Consider the next Highest Ranked Bidder as evaluated using QCBS method; or
ii) Annul the entire bid process; or
iii) Take any such measure as may be deemed fit in the sole discretion of APDCL, as applicable.

Decision of APDCL will be final and binding on all

1.2.5 The proposals submitted by the Bidders before the Bid Submission Deadline, shall become the property of the APDCL and shall not be returned to the Bidders.

1.2.6 APDCL may, at its sole discretion, ask for additional information/document and/ or seek clarifications from a Bidder after the Bid Submission Deadline, inter alia, for the purposes of removal of inconsistencies or infirmities in its Bid. However, no change in the substance of the Financial Bid shall be sought or permitted by APDCL.

1.2.7 APDCL may verify Bidder's technical and financial data by checking with Bidder's clients/ lenders/ bankers/ financing institutions/ any other person, as necessary.

1.2.8 The Bidders shall satisfy themselves, on receipt of the RFP, that the RFP is complete in all respects. Intimation of any discrepancy shall be given to the Tender Inviting Authority (TIA) for this RFP immediately. If no intimation is received from any Bidders on or before the date and time of the pre-bid meeting as notified in the Section I, then it shall be considered that the issued document, complete in all respects, has been received by the Bidder.

1.2.9 The RFP includes statements, which reflect the various assumptions arrived at by APDCL in order to give a reflection of the current status in the RFP. These assumptions may not be entirely relied upon by the Bidders in making their own assessments. The RFP does not purport to contain all the information each Bidder may require and may not be appropriate for all persons. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in the RFP and obtain independent advice from appropriate sources.

1.2.10 All bank related documents must be submitted only from a Scheduled Bank as notified by the Reserve Bank of India (RBI).

1.3 Conflict of Interest

1.3.1 Conflict of Interest for a Procuring Entity or its personnel and consultants is considered to be a situation in which a party has interests that could improperly influence that performance of its duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

1.3.2 All bidders found to be in conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in a bidding process if they

i) Have controlling shareholders in common; or

ii) Receive or have received any direct or indirect subsidy from any of them; or

iii) Have the same legal representative for purposes of a bid; or

iv) Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on a bid of another bidder, or influence the decisions of the Employer regarding the bidding process.

1.4 Code of Integrity

1.4.1 The Client and all officers or employees of the Client, whether involved in the procurement process or otherwise, or Consultants and their representatives or service providers participating in a procurement process or other persons involved, directly or indirectly in any way in a procurement process shall maintain an unimpeachable standard of integrity.

1.4.2 The Client and the Consultants shall uphold the code of integrity which prohibits the employees of a client or a person participating in a procurement process from the following:

i) any offer, solicitation or acceptance of any bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process;

ii) any omission, including a misrepresentation that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;

iii) any collusion, bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;

iv) improper use of information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process or for personal

gain;

v) any financial or business transactions between the bidder and any officer or employee of the procuring entity, who are directly or indirectly related to tender or execution process of contract;

vi) any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;

vii) any obstruction of any investigation or audit of a procurement process;

viii) making false declaration or providing false information for participation in –

a) tender process or to secure a contract;

b) disclosure of Conflict of Interest;

c) disclosure by the Consultant of any previous transgressions with any entity in India or any other country during the last three years or of any debarment by any other procuring entity

1.4.3 In case of any breach of the Code of Integrity by a Consultant or a prospective Consultant, as the case may be, the Client after giving a reasonable opportunity of being heard, may take appropriate measures including –

i) exclusion of the Consultant from the procurement process;

ii) calling off of pre-contract negotiations;

iii) cancellation of the relevant contract and recovery of compensation for loss incurred by the Client;

iv) debarment of the consultant from participation in future procurements of any Procuring Entity for a period not exceeding three years

1.5 Eligibility of Bidder

1.5.1 The RFP issued by APDCL is open to all Consultants (fulfilling the qualifying criterion mentioned herein) which can be a legal entity in the form of sole Indian proprietorship, a partnership firm set up under Indian Partnership Act, 1932, HUF, company registered under the Indian Companies Act, 1956 or a Limited Liability Partnership (LLP) registered under the Indian LLP Act, 2008, barring those bidders with whom business is banned by the APDCL.

1.5.2 The Consultant should not have a Conflict of Interest as prescribed in the clause no. 1.3 of the existing section, which may materially affect fair competition.

1.5.3 The Bidder must not be debarred by any Procuring Entity under the State Government, the Central Government, Autonomous body, Authority by whatever name called under them.

1.5.4 In addition, any Consultant participating in the procurement process shall:

i) not be insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of the foregoing reasons.

ii) not have, and their directors and officers not have, been convicted of any criminal offence related to their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a procurement contract

within a period of three years preceding the commencement of the procurement process, or not have been otherwise disqualified pursuant to debarment proceedings.

1.6 Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its' bid including post-bid discussions, technical and other presentations etc., and the APDCL will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

1.7 Payment of Fees by Bidders

1.7.1 Tender processing fees and EMD shall be paid online during submission of bid via https://www.assamtenders.gov.in.

1.7.2 Any Bid **not** accompanied by a substantially responsive EMD shall be rejected by APDCL as non-responsive.

1.7.3 The firms registered with NSIC under the tendered service can avail exemption from payment of Tender Processing Fees and EMD amount on submission of valid supporting documents.

1.7.4 The cost of all stamp duties payable for executing the RFPs or Project shall be borne by the relevant Lead Partner.

1.7.5 No interest shall be paid to the Bidder on any amount submitted to APDCL, whether to be returned or not.

1.7.6 Deposition of Fees by the bidders as tender processing fees or EMD may be subject to any procedural changes in the bidding portal. In case of any such developments, the same will be communicated by APDCL in the bidding portal as well as APDCL website.

1.8 Bidders to inform itself fully

1.8.1 The Bidder shall make independent enquiry and satisfy itself with respect to all the required information, inputs, conditions (including site conditions) and circumstances and factors that may have any effect on its Bid. Once the Bidder has submitted the Bid, the Bidder shall be deemed to have examined the laws and regulations in force in India, the grid conditions, and fixed its price taking into account all such relevant conditions and also the risks, contingencies and other circumstances which may influence or affect the supply of power. Accordingly, the Bidder acknowledges that, on being selected as Successful Bidder, it shall not be relieved from any of its obligations under the RFP nor shall be entitled to any extension of time for commencement of supply or financial compensation for any reason whatsoever.

1.8.2 The Bidders shall particularly acquaint themselves with the scope of work, deliverables of the CONSULTANT, understanding of APDCL's systems, operations, assets, equipment, statutory codes and standards.

1.9 Study of APDCL's existing system

1.9.1 APDCL shall, if required, share certain information for the benefit of the prospective Bidders. The intention of sharing the data by APDCL is to share information about its existing resources to provide a tentative idea of the existing systems at APDCL only to provide a clear perspective of the Scope of Work.

1.9.2 The intending bidders are requested to physically survey/inspect the location or route and get themselves understood the scope of work by having discussion with the concerned field officials in order to reduce post Contract award contingencies. The requirement of any additional work/quantity for fulfilling the scope of work under the project but inadvertently left out in the BOQ may be intimated in the pre- bid meeting only. The cost of visiting the site shall be at the bidder's own expense.

1.9.3 The Bidder and any of its personnel or agents will be granted permission by APDCL to enter upon it's premises and lands for the purpose of such inspection, but only upon the express condition that the bidder, it's personnel and agents will release and indemnify APDCL and its personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of/or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.

1.9.4 Bidders shall never publish /quote information gathered in this process, either in full or part. APDCL is entitled to claim compensation from any defaulting bidders.

2. THE RFP DOCUMENT

2.1 Contents of the RFP Document

2.1.1 The RFP Document includes the following Sections, which shall be read in conjunction with any amendment issued in accordance with sub-clause 2.4 of this section.

- Section I: Invitation for Bid (IFB)
- Section II: Instruction to Bidders (ITB)
- Section III: Qualifying Requirements and Document Checklist
- Section IV: Terms of Reference (ToR)
- Section V: General Conditions of Contract (GCC)
- Section VI: Technical Proposal & Financial Proposals - Standard Formats
- Section VII: Forms of Bid

2.2 Clarifications on RFP

2.2.1 The Bidders may seek clarifications on this bid in writing as per the prescribed format (Annexure-1 of Section: VII) through email to reach APDCL on or before **17:00 Hrs. of 20.07.2023**. The Email shall be sent to cgmppd.mattc@apdcl.org,

2.2.2 The Utility shall not be obliged to respond to any request for clarification received later than the above period.

2.2.3 APDCL may issue clarification only, at its sole discretion, which is considered reasonable by it.

2.2.4 Any such clarifications issued shall be made available in the official website of APDCL www.apdcl.org

2.2.5 Verbal clarification and information given by Employer or his employee(s) or his representative(s) shall not in any way be binding on Employer.

2.2.6 APDCL is not under any obligation to entertain/respond to suggestions made or to incorporate modifications sought for.

2.3 Pre-Bid Meeting

2.3.1 In order to provide response to any doubt regarding RFP Documents or to clarify any issue arising out of it, a pre-bid meeting will take place as specified in the Section I of this RFP Document.

2.3.2 The bidder's designated representative(s) is/are invited to attend a pre-bid meeting. The purpose of the meeting shall be to clarify any issue regarding the Biding Documents in general and the Technical Specifications in particular. The Bidder is requested, as far as possible to submit any question in writing, to reach the Employer not later than the period notified in the sub-clause 2.2 under this section.

2.3.3 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

2.4 Amendments to RFP

2.4.1 At any time prior to the deadline for submission of bids, APDCL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by issuance of amendment(s).

2.4.2 The amendment(s) shall be made available in E-tendering portal as well as in the official website of APDCL. Bidders are required to regularly check / visit the E-procurement web-portal and immediately acknowledge receipt of any such amendments, and it will be assumed that the information contained therein will have been taken into account by the Bidder in its bid.

2.4.3 APDCL shall not be responsible for any delay in receipt of the addendum/ modification/ errata and/ or revised document and receipt of the same by the Bidders. Late receipt of any addendum/ modification/ errata and/ or revised document will not relieve the Bidder from being bound by that modification or the Bid Submission Deadline.

2.4.4 In order to provide reasonable time to the Bidders to incorporate the modification into account while preparing their Bid, or for any other reasons, APDCL may, at its discretion, extend the deadline/ timeline for Bid submission.

3. PREPARATION OF PROPOSAL

3.1 General Considerations

In preparing the Proposal, the Consultant is expected to examine the RFP in detail. Material deficiencies in providing the information requested in the RFP may result in rejection of the Proposal.

3.2 Language of Proposal

3.2.1 The bid prepared by the Bidder and all correspondences and documents relating to the bid, exchanged by the Bidder and APDCL shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language so long as accompanied by an English translation of its pertinent passages. Failure to comply with this may disqualify a bid. For purposes of interpretation of the bid, the English translation shall govern.

3.3 Documents comprising the Proposal

3.3.1 The E-bid submitted by the bidder shall be in two envelope and shall comprise the following: -

Envelope I: - Relevant technical and commercial documents required to fulfill the eligibility criteria as specified under Section III: Eligibility Criteria and Document Checklist shall be submitted by the bidder on the E-tendering portal by the schedule date and time of submission of bids.

Envelope II: - Financial Proposal shall also be submitted electronically as per the prescribed format provided along with the tender documents.

3.3.2 Alternative (alternate technology/method/design/functionality or proposals with multiple options) Bids shall be rejected.

3.4 Technical Proposal Format & Content

3.4.1 The Technical Proposal shall not include any financial information. A Technical Proposal containing material financial information shall be declared non-responsive. Consultant shall not propose alternative Key Experts. Only one CV shall be submitted for each Key Expert position. Failure to comply with this requirement will make the Proposal non-responsive.

3.4.2 The Consultant is required to submit a comprehensive Technical Proposal using the standard formats provided under Section VI of this RFP Document.

3.5 Financial Proposal Format & Content

3.5.1 The Financial Proposal shall be prepared and submitted electronically as per the Standard Forms provided in Section VI of the RFP.

3.6 Bid Forms

3.6.1 The participating bidders are to submit their technical and financial proposals as per the prescribed format stipulated in Section VI of this RFP. Further, the bidder shall submit the declaration on various terms and conditions of the bid pursuant to the Section VII of the RFP. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

3.7 Bid Prices

3.7.1 The contract shall be for the whole works as described in **Section IV – Terms of Reference (ToR)** based on the priced Bill of Quantities submitted by the Bidder.

3.7.2 Items against which no price is entered by the Bidder will not be paid for by APDCL when executed and shall be deemed to be covered by the prices for other items.

3.7.3 All duties, taxes, and other levies payable by the Consultant under the Contract, shall be included in the rates and prices and the total bid price submitted by the Bidder.

3.8 Bid Currencies

3.8.1 Prices shall be quoted in Indian Rupees only.

3.9 Bid Security/Earnest Money Deposit (EMD)

3.9.1 The Bidder shall furnish as part of its bid, a bid security, for the amount as specified in this RFP through online mode.

3.9.2 Any bid not accompanied by a bid security or an acceptable bid security shall be rejected by APDCL as being nonresponsive.

3.9.3 The bid security of a bidder lying with APDCL, if any, in respect of other bids awaiting decision shall not be adjusted towards bid security required under this RFP Documents.

3.9.4 The Bid Securities of the unsuccessful bidders at the techno-commercial evaluation stage shall be returned after opening of the price-bids against the said tender. However, for the responsive bidders found to be unsuccessful at the financial evaluation stage, the Bid Security shall be returned after signing of Contract Agreement and deposition of performance security by the successful bidder to the satisfaction of APDCL.

3.9.5 The successful Bidder shall be required to keep its bid security valid for a sufficient period till the performance security(ies) pursuant to ITB Clause 6.3 are furnished to the satisfaction of APDCL. The Bid Security of successful Bidder shall be released upon the signing of Contract Agreement as well as submission and acceptance of the Performance Security to the satisfaction of APDCL.

3.9.6 No interest shall be payable by the Employer on the above Bid Security.

3.9.7 The Bid Security may be forfeited–

3.9.7.1 If the Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form; or

3.9.7.2 In case of a successful bidder; if the bidder fails within the specified time limit-

i) to sign the Contract Agreement, in accordance with ITB Clause 6.4 or,

ii) to furnish the required performance security(ies), in accordance with ITB Clause 6.3 and/or to keep the bid security valid as per the requirement of ITB Sub- Clause 3.6.6.

3.10 Validity of the Bid

3.10.1 Bids shall remain valid for the period of **180 (one hundred eighty) days** from the date of submission of the proposal. A bid valid for a shorter period shall be rejected by the APDCL as being non-responsive.

3.10.2 In exceptional circumstance, APDCL may solicit the Bidder's consent to an extension of the bid validity period. The request and responses thereto shall be made in writing or by email.

4. SUBMISSION OF PROPOSAL

4.1 Method of submission of Proposal

The Consultant shall submit a signed and complete Proposal comprising the documents and forms in accordance with Section III (Document Checklist) and Section VI (Documents Comprising Technical and Financial Proposal) of this RFP document. The procedure for submission of proposal to participate in this E-tender is delineated as follows: -

4.1.1 The technical and financial bids must be submitted through online mode only at ***https://assamtenders.gov.in*** on or before the Bid Submission Deadline. The Documents to be uploaded shall be properly scanned and duly signed wherever required. All required documents as per Document Checklist must be attached as a soft copy during technical bid submission. The financial proposal should distinctly indicate the following components - Quoted price with clear differentiation of Taxes and Duties. The consultants are to quote FIRM rates showing break up of all taxes and duties in the 'Schedule of Price'.

4.1.2 Bidders must make online deposit of tender processing fee of **Rs. 10,000.00 (Rupees Ten Thousand only)** only while online submission of tenders in https://assamtenders.gov.in.

4.1.3 Bidders must make online deposit of EMD (Earnest Money Deposit) of **Rs. 15,00,000.00 (Rupees Fifteen Lakhs only)** only while online submission of tenders in https://assamtenders.gov.in.

4.2 Deadline for Submission of Proposals

The proposals must be submitted in the E-tendering portal within the stipulated date and time specified in the Section I: IFB of the RFP Document. As the mode of submission is online, the prospective bidders are recommended to submit their bids sufficiently advance in time to avoid any last hour rush.

4.3 Late Proposals

Since the Consultants have to submit bids online on E-tendering portal, so bidder will not be able to upload tender after due time for bid submission on the last date of bid submission.

4.4 Modification and Withdrawal of Proposals

4.4.1 The Bidder may modify or withdraw its bid after submission prior to the deadline prescribed for bid submission.

4.4.2 However, no bid shall be withdrawn, substituted, or modified after the expiry of bid submission period as specified in the tender.

5. BID OPENING AND EVALUATION

5.1 Opening of Techno-Commercial Bid

5.1.1 The Employer will open the Techno – Commercial Part online on the scheduled time and date as specified in the NIT. The bids shall be opened in the presence of the Bidders' authorized representatives who choose to be present, enabling them to watch the proceedings.

5.1.2 The Bids shall be deemed to be under consideration immediately after they are opened and confirmation or receipt of the Tender Processing Fee and Bid Security, and until an official intimation of award or rejection is made by APDCL to the Bidders.

5.1.3 APDCL shall prepare the summary of the bid opening in the form of Bid Opening Statement including the information of accepted bids and upload the same in the E-tendering portal to carry forward the tendering process to the Techno-Commercial Evaluation stage.

5.1.4 APDCL shall then separately evaluate the Bids with respect to the Eligible Criteria, sufficiency of the submission, as well as other parameters outlined in this RFP.

5.2 Confidentiality

5.2.1 Information relating to the examination, evaluation, comparison and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process.

5.2.2 Any attempt by a Bidder to influence APDCL in the examination, evaluation, comparison, and post qualification of the Bids or Contract award decisions may result in rejection of the Bid of that Bidder.

5.2.3 If any Bidder, from the time of opening the Technical Bids to the time of Contract award, wishes to contact APDCL on any matter related to the bidding process, it should do so in writing.

5.3 Clarification on Bids

5.3.1 To assist in the examination, evaluation, comparison and post-qualification of the Proposals, APDCL may, at its discretion, ask any Bidder for a clarification of its Proposal. Any clarification submitted by a Bidder that is not in response to a request by APDCL shall not be considered. APDCL's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by APDCL in the evaluation of the Financial Bids.

5.4 Responsiveness of Technical Proposal

5.4.1 APDCL's determination of the responsiveness of a Technical Proposal is to be based on the contents of the Technical Proposal itself.

5.4.2 A responsive Technical Proposal is one that conforms to all the mandatory requirements, terms, conditions, and specifications of the RFP Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

a) does not meet all the Minimum Technical Specifications; or
b) affects the scope, quality, or performance of the Solution; or
c) limits or is inconsistent with the RFP, APDCL's rights or the Bidder's

obligations; or

d) if rectified would unfairly affect the competitive position of other Bidders presenting responsive Technical Proposals.

5.5 Non-Conformities, Errors, and Omissions

5.5.1 Provided that a Technical Bid is substantially responsive, APDCL may waive any non-conformity or omission in the Bid that does not constitute a material deviation.

5.5.2 Provided that a Technical Bid is substantially responsive, APDCL may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial, nonconformities or omissions in the Technical Bid related to documentation requirements. Such omission shall not be related to any aspect of the Price Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

5.5.3 Provided that the Technical Bid is responsive, APDCL will correct arithmetical errors during evaluation of Price bids on the following basis:

a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of APDCL there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail, and the total shall be corrected;

c) if there is a discrepancy between words and figures, the amount in words shall prevail. However, where the amount expressed in words is related to an arithmetic error, the amount in figures shall prevail subject to (a) and (b) above.

d) Except as provided in (a) to (c) herein above, APDCL shall reject the Financial Bid if the same contains any other computational or arithmetic discrepancy or error.

5.5.4 If the Bidder that submitted the Lowest Evaluated Bid does not accept the correction of errors, its Bid shall be disqualified, and its Bid Security shall be forfeited.

5.5.5 If the price of any item is kept blank the highest rate quoted among the techno-commercial qualified bidders will be loaded for evaluation purpose. However, if the bidder happens to be L-1 then rate against the item which the bidder has kept blank will be awarded as zero i.e. he will have to execute the work without any financial involvement.

5.6 Evaluation of Technical Proposal

5.6.1 APDCL shall evaluate the bidders based on the Qualifying criteria set forth in the Section III of the RFP.

5.6.2 For evaluation of bid, technical and financial pre-qualification criteria of bidders shall be evaluated. Bids not fulfilling the minimum qualification criteria as per clause no.1.5 of Section I of (Invitation for Bids) and Qualifying requirements as per Section III (Qualifying requirements and Documents Checklist) in this RFP may be summarily rejected. The financial proposals of only those bidders qualifying this stage shall be considered in the financial evaluation.

5.6.3 The Quality and Cost based Selection (QCBS) method shall be adopted for evaluation of the technical proposals in pursuant to the APPENDIX A under Section IV (Terms of Reference) of this RFP Document.

5.7 Opening of Financial Bid

5.7.1 After completion of the technical evaluation, APDCL shall intimate the successful bidders for opening of Financial Bids of the responsive bidders. No objection/request from bidders in respect of evaluation of technical bids shall be entertained by APDCL after intimation in respect of opening of price bids is sent to the technically qualified bidders.

5.7.2 Representatives of Qualifying Bidders may be present during opening of the Financial Bids of the Qualifying Bidders at the specified date and time as intimated.

5.7.3 The prices and details as may be read out during the price bid opening and recorded in the Bid Opening Statement would not be construed to determine the relative ranking amongst the Bidders, or the successful Bidder, and would not confer any right or claim whatsoever on any Bidder.

5.8 Evaluation of Financial Bids

5.8.1 The Financial Bids will be examined to determine whether they are complete, whether any computational errors have been made and whether the bids are generally in order.

5.8.2 The Financial bids containing any arithmetic errors shall be evaluated in pursuant to Clause 5.5.3 under this section.

5.8.3 The Quality and Cost based Selection (QCBS) method shall be adopted for evaluating the financial proposals in pursuant to the APPENDIX: A under Section IV (Terms of Reference) of this RFP Document.

5.9 Overall Techno-commercial Evaluation

The Consultant with the Most Advantageous Proposal, which is the Proposal that achieves the highest combined technical and financial scores as per the QCBS Evaluation criteria set forth in Section IV (Terms of Reference) will be invited for negotiations.

5.10 Purchase/Domestic preference

No preference shall be given to any bidder.

5.11 Employer's Right to Accept Any Bid, and to Reject Any or All Bids

APDCL reserves the right to accept or reject any bid, and to cancel / annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the Bidders for which the Employer shall keep record of clear and logical reasons properly for any such action / recall of bidding process. In case of cancellation / annulment, bid securities, shall be promptly returned to the Bidders.

6. AWARD OF CONTRACT

6.1 Negotiations

6.1.1 The Employer, if felt necessary may conduct negotiations with the most advantageous consultant for discussions of the Terms of Reference, methodology, staffing, Client's inputs and other terms and conditions of the contract.

6.1.2 If required, the negotiations will be held with the representative(s) of the most advantageous consultant emerged during the QCBS evaluation. The representative(s) must have possessed power of attorney to negotiate and sign a Contract on behalf of the Consultant.

6.1.3 APDCL shall prepare minutes of negotiations that are signed by APDCL Officials and the Consultant's authorized representatives.

6.1.4 Availability of Key Experts: -

The invited Consultant shall confirm availability of all Key Experts included in the Proposal as a pre-requisite to the negotiations, or, if applicable, a replacement in accordance with GCC Clause No. 4.2. Failure to confirm the Key Experts' availability may result in the rejection of the Consultant's Proposal and the Client proceeding to negotiate the Contract with the next-ranked Consultant.

6.1.5 Notwithstanding the above, the substitution of Key Experts at the negotiations may be considered if solely due to circumstances outside the reasonable control of and not foreseeable by the Consultant, including but not limited to death or medical incapacity. In such case the Consultant shall offer a substitute Key Expert within the period of time specified as specified in the letter of invitation to negotiate the Contract, who shall have equivalent or better qualifications and experience than the original candidate.

6.1.6 Technical Negotiations

The negotiations include discussions of the Terms of Reference (TORs), the proposed methodology, the Client's inputs, CONSULTANT Deliverables and finalizing the "Description of Services" part of the Contract. These discussions shall not substantially alter the original scope of services under the TOR or the terms of the contract, lest the quality of the final product, its price, or the relevance of the initial evaluation be affected.

6.1.7 Financial Negotiations

Financial Negotiations shall be carried out by the client if the rate quoted by the selected consultant is not found to be reasonable. In such negotiations, the selected firm may be asked to justify and demonstrate that the price proposed in the contract are not out of line with the rates being charged by the consultant for other similar assignments. However, in no case, such financial negotiations should result in an increase in the financial costs as originally quoted by the consultant and on which basis the consultant has been called for negotiations.

If the negotiations with the selected consultant fail, the Client shall inform the

Consultant in writing of all pending issues and disagreements and provide a final opportunity to the Consultant to respond. If disagreement persists, the Client shall terminate the negotiations informing the Consultant of the reasons for doing so. Following this, the Client will invite the next-ranked Consultant to negotiate a Contract. Once the Client commences negotiations with the next-ranked Consultant, the client shall not reopen the earlier negotiations.

6.2 Notification on Award

6.2.1 After completing the negotiations, if any and prior to the expiration of the period of Bid validity, APDCL shall notify the successful consultant, in writing, that its proposal has been accepted and offer the Letter of Award (LOA).

6.2.2 Within 10 (ten) days of the receipt of letter of intent (LOA) from APDCL, the successful consultant shall accept the Letter of Award and furnish the Performance Security in pursuant to the clause no. 6.3 below, as per the proforma given in Annexure 5 under Section VII.

6.2.3 Failure of the successful Bidder to submit the above-mentioned Performance Security or convey the acceptance of the LOA shall constitute sufficient grounds for the annulment of the LOI and forfeiture of the Bid Security. In that event, APDCL may resort to the next successful Bidder whose offer is responsive and is determined by APDCL to be qualified to perform the project satisfactorily.

6.2.4 Until a formal Contract is prepared and executed, the Letter of Award (LOA) shall constitute a binding Contract.

6.3 Performance Security

6.3.1 The successful bidder shall have to deposit the Performance Security in the shape of Bank Guarantee of nationalized bank or scheduled bank of RBI having their regional office in Assam or at least a branch office at Guwahati (in case of those, whose regional office is not located in the state of Assam) with a certificate from the Bank to the effect that the verification or any confirmation in regard to the BG issued by the bank can be taken up with the Branch office at Guwahati pledged in favour of "ASSAM POWER DISTRIBUTION COMPANY LIMITED." as per proforma for an amount equivalent to 10% (ten percent) of the contract value of the order. The Performance Security shall be furnished to the CGM (PP&D), APDCL along with the acceptance of Letter of Award (LOA). The Performance Security shall initially be valid for a period of 3 (three) months beyond the scheduled date of completion of work by the Consultant with additional one month claim period. However, it may further be extended till 12 (twelve) months beyond the final disbursement of fund to APDCL under the project. Further another BG equivalent to 10% of the value of the FMS(Software Assistance and handhold training) period for a period of 1(one) month beyond the FMS period of 36 (Thirty Six) months shall be submitted on or before expiry of the earlier BG submitted with LOI to cover the entire FMS period. The earlier BG will be released on receipt of 2nd BG.

If the consultant fails or neglect to perform any of his obligations under the contract, the APDCL shall have the right to forfeit in full or in part at its absolute discretion the performance security deposit furnished by the consultant. No interest shall be payable on such deposits.

6.4 Signing the Contract Agreement and Commencement of Services

6.4.1 The successful consultant shall have to enter into an agreement with APDCL within 10 (ten) days from the date of issue of detailed work order (LOA) failing which the LOA shall be rescinded without any further communication from APDCL end.

6.4.2 The successful consultant shall sign the form of Contract Agreement on Stamp Paper (non-judicial) borne by the consultant with seal on each page, date as per the prescribed format provided in Annexure 4 under Section VII of this RFP.

6.4.3 The Consultant is expected to commence the assignment within 7(seven) days from the date of signing of Contract Agreement.

6.5 Fraudulent practices and Corruption

6.5.1 It is the APDCL's policy that requires the Bidders, suppliers, and consultants under the contract to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, APDCL defines, for the purpose of this provision, the terms set forth below as follows:

(i) "Corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of
anything of value to influence improperly the actions of another party;

(ii) "Fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

(iii) "Collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

(iv) "Coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

(v) "Obstructive practice" is

(a) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Employers' investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation;

or

(b) acts intended to materially impede the exercise of the APDCL's inspection and audit rights.

6.5.2 APDCL will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;

6.5.3 APDCL will sanction a firm or individual, including declaring ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a contract; and

6.5.4 APDCL will have the right to require that the provision be included in RFP Documents and in contracts, requiring Bidders, suppliers, and consultants and their sub-consultants, if any to permit the Employer to inspect their accounts and records and other documents relating to bid submission and contract performance and to have them audited by auditors appointed by the Employer.

--------***End of Section II (ITB)***----------

Section III:

Qualification Requirements

&

Document Checklist

1. Qualifying Requirements and Document Checklist

The Eligibility Criteria described below shall determine the Bidder's Qualification:

1.1 Proposals may be submitted by qualified individual consulting firms provided they can beclassified as one of the following:

1.1.1 A single firm that on its own meets all the qualification requirements as mentioned in the Section- "Technical Requirements" and "Financial Requirements" below.

1.1.2 APDCL may assess the capacity and capability of the bidder, to successfully execute the scope of work covered under the contract within stipulated completion period. This assessment shall inter-alia include (i) document verification; (ii) Consultants' details of works executed, works in hand, anticipated in future & the balance capacity available for present scope of works; (iv) details of manpower and financialresources; (v) details of quality systems in place; (vi) past experience and performance; (vii)customer feedback; (viii) banker's feedback etc. Utility/Owner reserves the right to waive minor deviations if they do not materially affect the capability of the bidder to perform the contract.

1.2 Technical Requirements

Proposals shall be submitted by an individual firm who shall meet the following technicalrequirements:

1.2.1 The bidder shall be an Indian legal entity in the form of sole proprietorship; or partnership firm set up under Indian Partnership Act, 1932; or HUF; or Pvt. Ltd/ Public Ltd. Company registered under the Indian Companies Act, 1956; or a Limited Liability Partnership (LLP) registered under the LLP Act, 2008; or Govt. Company orCorporations; or Public Sector Undertakings duly incorporated under relevant laws/acts in India only. This must be supplemented by necessary supporting documents along with the proposal.

Joint Ventures (JV) comprising not more than 2 (two) partners (referred to as JV partners of JV members), with each partner individually meeting the requirement specified in this document, are also eligible to bid, provided that the bidding Joint Venture (also referred to as the Consultant):

(i) submits, in its Technical Proposal, a copy of the Joint Venture Agreement entered between them, with a specific provision included therein that the JV partners shall be jointly and severally liable for execution of the contract in accordance with the terms and conditions of the contract, and a statement to this effect is also included in the Technical Proposal Submission Form provided in **Section 4. Technical Proposal –Forms** of the RFP/ bidding documents;

(ii) submits, in its Technical Proposal, a Joint Deed of Undertaking (JDU) in favour of the DISCOM, as per the format provided in **Section 4. Technical Proposal – Forms** of the RFP/ bidding documents**,** signed by the JV partners, inter-alia, indicating therein the delineation of responsibilities of the JV partners in relation to the execution of the Contract; and

(iii) one of the JV partners, who is designated as the Lead Partner, is authorized to incur liabilities and receive instruction for and on behalf of any and all JV partners and the entire execution of the contract including receipt of payment shall be done exclusively through the lead Partner. This authorization shall be evidenced by

submitting in Technical Part of its bid, a power of attorney in favour of the Lead Partner, signed by legally authorized signatories of all the JV partners, as per format provided in **Section 4. Technical Proposal –Forms** of the RFP/ bidding documents.

No change in the structure / constitution of the Joint Venture shall be permitted at any stage till the entire time period of execution of the contract, including any extension thereto, and completion of assignments thereunder.

1.2.2 The firm must have experience of providing **Power Distribution Sector consultancy services** to CPSUs/ State Government/ Government undertakings/ Govt. Utilities / Corporations for a **minimum period of 3 (three) years**, as on the date of opening of techno- commercial bid. In case of JV, all the partners shall have the minimum experience as mentioned in the clause.

1.2.3 The Bidder must have experience in successful completion of at least **3 (three) similar assignments for load flow study of Power System Networks in India using standard Power System Analysis Software with cumulative consultancy services cost of minimum Rs. 1 (one) Crore, in last 7 years** with State Distribution Company/Transmission Utilities/ Reputed Private Utilities/Electricity Departments/Regulatory Commissions, State or Central Govt. PSUs/ Departments in India. **In case of JV, each partner shall have experience of atleast 1 no. of similar assignment with minimum value of Rs. 25 Lakhs individually and collectively to meet the overall criteria of at least 3nos. similar assignments with financial involvement of atleast Rs. 1 crore**.

1.2.4 The Bidder must have experience in successful completion of **similar assignments for load flow study of Power System Networks in India using standard Power System Analysis Software with atleast 3(three) nos.** of State Distribution Company/Transmission Utility/Reputed Private Utilities/Electricity Departments/Regulatory Commissions, State or Central Govt. PSUs/Departments in India.

In case of JV, each partner shall have minimum experience of such services in atleast 1 nos. of State Distribution Company/Private Utilities/Electricity Departments/Regulatory Commissions, State or Central Govt. PSUs/ Corporation/ Departments in India individually and collectively to meet the overall criteria of minimum 3 different utilities.

1.2.5 The Bidder or any one partner in case of a JV must not be debarred by any Procuring Entity under the State Government, the Central Government, Autonomous body, Authority by whatever name called under them.

1.2.6 Information submitted by the consultant with respect to its experience and qualifications against point 1.2.2 to 1.2.4 above shall be supported by mandate letters and satisfactory completion certificates from the respective clients, failing which their experience claims will not be considered for evaluation.

1.2.7 The proposals submitted by the consultants shall be rejected, if-

i. If any milestones of an ongoing project of APDCL wherein the consultant is involved, has not been completed on time; or
ii. If any of the projects awarded to the consultant has not been completed within the scheduled project completion period and the reason for such

delay is solely because of fault of consultant or reasons attributed to him/her.

1.3 Financial Requirements

Proposals shall be submitted by an individual firm who shall meet the following financialrequirements:

1.3.1 The Bidder must have a Minimum Average Annual Turnover of **Rs. 10 (Ten) Crores** from **Power Sector Consulting business** for any three (03) financial years in last five (5) financial years (2017-18, 2018-19, 2019-20, 2020-21 and 2021-22). This must be certified by a registered Chartered Accountant with copies of audited balance sheets and Profit & Loss Statements for the said years along with the subsequent income tax return statements.

In case of JV, the lead partner shall meet 40% and each of the other partners shall meet at least 25% of the criteria individually and collectively meet the overall criteria.

1.3.2 Net Worth of all the bidders for any three (03) audited financial years in the last five(5) financial years (2017-18, 2018-19, 2019-20, 2020-21 and 2021-22) shall be positive. This must be certified by a registered Chartered Accountant with copies of audited balance sheets and Profit & Loss Statements for the said years along with the subsequent income tax return statements. In case of JV, each partner shall meet the criteria individually.

Net worth means the sum of total of paid up capital and free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated losses (including debit balance in profit and loss account for current year) and in tangible assets.

1.4 Document Checklist:

#	Attachment	Form of Submission	
1	Bid submission covering letter	On Official Letter Head of the bidder as per Form TECH-1 (Under Section VI of this RFP)	
2.	EMD	As mentioned in NIT	
3.	Tender Processing Fees	As mentioned in NIT	
4.	Notarized Power of Attorney by the bidder authorizing an Individual designatedrepresentative for the bidder	Non-judicial stamp paper of Rs. One Hundred only.	
5.	List of all work orders and relevant Experience Certificates establishing the Bidder's eligibility in pursuant to clause 1.2 (Technical requirements) and clause 1.3 (Financial requirements) under this section.	Submission as per Form TECH-2 (Section VI) and Annexure-5 (SectionVII). The Work orders shall be accompanied by the corresponding performance certificate clearly mentioning all relevant details on concerned utility's official letter head.	
6.	CA certified company balance sheet of last 5 (five) consecutive financial years (i.e. 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22) distinctly indicating the Net Worth, Revenue heads and Turnover corresponding to the bidder	Summary of Audited Statements asper Annex. 6 (Section VII)	
9.	Certificate of Incorporation/Firm Registration, whichever applicable		
10.	Self-Attested copy of GSTN certificate of thebidder		
11.	Self-Attested copy of PAN Card of the bidder.		
12.	Self-certification of Non-Blacklisting/ No litigation by/with any of the GovernmentDepartments, Agencies or Public Sector Undertakings (PSU) including APDCL/AEGCL/APGCL	On Official Letter Head of the bidder partner	
13.	List of Forms constituting the part of bidder's Technical Proposal: • Form TECH-1 • Form TECH-2 • Form TECH-3 • Form TECH-4 • Form TECH-5 • Form TECH-6 • Form TECH-7	As per the stipulated format provided under Section VI of the RFP with seal and sign of the bidder on every pages.	
15.	Bank Solvency Certificate satisfying the minimum financial requirements set forthin this RFP parameters (like limit of liquid assets, line of credit etc.)	On the Official Letter pad of the Bankwith seal and sign	

Section IV:
Terms of Reference (ToR)

TABLE OF CONTENT

1. Project Background: -

Assam Power Distribution Company Limited (APDCL) is a public limited company wholly owned by the Government of Assam. It was incorporated on the 23rd day of October 2009 and has been registered under Indian Companies Act 1956. The primary purpose of the Company is to undertake distribution, trading and supply of electricity in the state of Assam or outside in accordance with provisions of Applicable Law and all activities ancillary or appurtenant thereto. It has also the mandate to develop, maintain and operate the power distribution system in the state of Assam. In carrying out the work of supplying power, APDCL reaches every part of the state. From Sadiya to Mancachar and from Jonai to Lowairpowa. From the hilly areas of North Cachar Hills to the low plains of Morigaon, APDCL is expanding its distribution network in spite of many physical hindrances. APDCL is also implementing off-grid solar projects in such areas where the distribution network could not reach such as Amarpur area under Chapakhowa Sub-division and the 'Char' areas of Brahmaputra River. At Present, APDCL is serving power to a massive consumer base of approx. 65+ Lakh with a peak demand to the tune of 2379 MW for the FY 2022-23. The utility has been in the continual process of upgradation and modernization of its proliferating network infrastructure over the years with implementation of several Central Govt, State Govt. funded as well as Externally Aided Projects.

APDCL understands that power system studies are a prerequisite for any electrical system development, renovation, modernization and expansion plan. It is also an imperative step towards meeting the objectives of system planning, design, protection and control, developing a system operation strategy, commercial and evaluation and technical feasibility studies. As such, in order to conduct a scientific, thorough and standard study of its sub-transmission and distribution network, APDCL desires to select a competent reputed and experienced Consultant/ Analytical (Electrical) Engineering Solution firm to carry out the activities of Design, Development, Deployment and Operations of Network Analysis planning software services for viewing, accessing and to perform various power system analysis on the entire power distribution network of APDCL at circle levels in the state of Assam. The consultant shall be responsible for preparation of a Detailed System Study Report of the Sub-transmission and Distribution Network of APDCL including network simulation and design using suitable and updated software alongwith handhold training to the APDCL officials for continuously conducting the network study.

2. Project Objective:

The Objective of the RFP is to select a competent, reputed and experienced Consultant/ Analytical (Electrical) Engineering Solution firm to carry out the activities of Design, Development, Deployment, Operations of Network Analysis planning software services for viewing, accessing and preparation of a Detailed System Study Report of the Sub-transmission and Distribution Network of all circles of APDCL in the state of Assam including network simulation and design using suitable and updated software alongwith handhold training to the APDCL officials for continuously conducting the network study. The objective of the Network Analysis planning software is to facilitate APDCL to perform several types of analysis on its power distribution network for calculation of technical and commercial losses and conduct load flow analysis, voltage drop analysis, fault analysis etc. as laid out in the detailed technical specification. The software shall also help in arriving at the most optimal network design. The GIS database by the GIS based Consumer Indexing and Asset Mapping module as and when made available shall also be integrated with and migrated to the Network Analysis tool for its detailed operation.

3. Scope of Work:

3.1. Overview:

The scope of work under the project shall include implementation, development and deployment, of Network Analysis planning software with provision for data migration from GIS application (as and when available) to perform various analysis on the electric network and preparation of a Detailed System Study Report of the Sub-transmission and Distribution Network of all circles of APDCL and handhold training to the APDCL officials for continuously conducting the network study.

The Technical specifications of the Integrated network analysis solution should functionally comply in all respects with technical requirements provided in this document. The features and functionalities of solution shall be as per the technical specification along with any modifications/enhancements that need to be made based on the current requirements of APDCL.

3.2. Detailed Scope of Work

The scope covered under this project is broadly categorized into the following three parts.

1. **Phase 1** shall involve the survey of network and preparation of detailed SLD for 33/11kV Distribution Substations, 33kV Feeders and sample study of 11 KV feeders at each circle up to distribution transformer level.
2. **Phase 2** shall comprise of detailed system studies and recommendation as detailed. Part 2 shall commence after part 1.
3. **Software part** shall cover the Supply of Network Planning Software License with multiple parallel users and providing training.
4. **Software Assistance:** Deployment of skilled manpower for software assistance and other technical requirement for a period of 3 (three) years post completion of the project at APDCL Head Office.

3.2.1. Scope of Work: Phase 1

Field survey of all 33/11kV Distribution Sub-Stations and sample study of 5 nos. of the existing 33kV and 11kV feeders (2 + 3) suitably selected capturing the diverse conditions with respect to geography, condition of the feeder, loading of the feeder and mutual discussion with CEO of the respective Electrical Circle and providing required numbers of AutoCAD drawings. The scope shall include existing as well as proposed network under various Govt. and centrally aided schemes viz. Saubhagya, RDSS, DDUGJY, ADSELR under AIIB, etc. The attributes for major equipment shall be captured as per data model attached.

1. List of equipment to be captured in field survey of DSS is given below
   a. Power Transformer with photograph of name plate
   b. 33 KV Circuit breaker
   c. 33 KV CT, PT, Isolators, LA
   d. Station Transformer
   e. 11kKV Panels/ Circuit Breakers
   f. Rating of 11 KV CT, PT Isolators/ LA
   g. Cable.
   h. Joints
   i. Cable Termination
   j. DC System details 24V/ 48V/110 V
   k. Any other important information

2. For Distribution Network, the power network diagram of the circle shall be collected from headquarters and verified at the respective circle level for the following information.
   a. Substation wise 33kV and 11kV feeders.
   b. Load details of the 33kV and 11kV feeders (feeder-wise).

c. Conductor details of 33kV & 11kV feeders.
d. Length and inter-connectivity of the 33kV and 11kV Feeders.

3. The following equipment shall be captured with attributes mentioned in the data model for the sample feeder study of the 33kV/11kV Feeder-wise distribution network selected for each circle.
   a. DT rating with photograph of DT name plate.
   b. Mounting arrangement of DT, whether Pole Mounted/ Plinth Mounted
   c. 11kV AB Switch for the line isolator
   d. The 11kV AB/ GO Switch for the DT
   e. The HG Fuse / Fuse unit to be indicated in the SLD
   f. The Disc-to-Disc Jumper to be reflected in the SLD
   g. Normal Open Points (NOP) in the network
   h. Type of pole i.e., Single/ double/ four pole & available switches on circuits.
   i. Condition of poles i.e., Good/ Damaged/ Tilted
   j. Condition of Stay i.e., Good/ Damaged / Loose
   k. Power Conductor or Cables Type/Name/size with length of various sections of feeders.
   l. Tapping points location, switch & conductor details.
   m. 11KV feeder Sources details if fed from other substations also
   n. HT Consumers information with load details connected to Feeder.
   o. Type of Meter for HT Customers
   p. Distribution Transformers – Connected Load/Consumptions details/Peak Loading details.
   q. 11KV feeder interconnectivity details, if connected to other feeders.

4. Location of asset to be captured for 33/11KV SS and 33kV major Tee points/ 3 Pole/4 Pole / structure only with accuracy of +/-1 meter with respective to the asset location on the field. Consultant must demonstrate the method of capturing accurate location on a sample basis.
5. Location coordinates of asset, i.e., longitude and latitude must be captured in decimal degree format up-to minimum 7 decimal digits.
6. The consultant shall get the drawing verified by the concerned SDE of the Sub Division for its correctness. The verified drawing shall be submitted to office of the CGM(PP&D) at HQ for approval.
7. Four (4) sets of approved drawings shall be submitted in Hard copy (1-Sub-Division, 1-Division, 1-Circle,1-Network planning team) in A-1 size paper, along with 3 sets of editable drawings prepared with AutoCAD (map)version 2013 or above.
8. A report on summary of the feeder wise/ division wise/ Circle wise assets including existing& proposed shall be provided in a separate booklet.

3.2.2. **Scope of Work: Phase 2**

The Phase 2 shall comprise of Network analysis. As such the consultant is advised to capture as much information as required in Phase 1, to complete Phase 2, during survey activities of Phase 1 so that project can be completed in time. Phase 2 of the scope of work shall include the following:

1. Creation of a Graphical User Interface and circle-wise network model in the Power Distribution Analysis software & a comprehensive database including Transformer MVA, Impedance, X/R Ratio, Taps, Resistance, susceptance, configuration, Conductor details, etc.
2. Validating the existing APDCL Power Distribution Network based on the data and information collected in Phase 1.
3. Preparation of "As-is" Circle-wise Network Study Report that shall include detailed information of the distribution network, determination of technical losses in the network, network constraints in

evacuation of power, immediate requirement of any renovation in the existing network, assessment of losses based on the current configuration of the network.

4. Load flow study for the power distribution network for the current scenario and 3rd, 5th and 10th Year, assessing various conditions of the network of APDCL like bus voltages, power flow in lines, transformers, cables, conductors, etc. based on the peak and off-peak load of the current year and subsequent years i.e., the current and next 3rd, 5th and 10th year. The load flow study shall also be conducted in time series wherein the loading conditions of the power network can be evaluated throughout any time of the day.

5. The study shall also identify the requirement of Grid Substations/augmentation in existing Grid Substations to ensure adequate availability and evacuation capability of quality power to the 33/11kV Distribution Substations in consideration of the load growth pattern.

6. Evaluation of Technical losses, Capacitor requirement (if any), conductor upgradation, contingency analysis, Network deficiencies in existing network (33 KV, 11KV) condition.

7. Determination of fault level (Phase to phase and phase to ground fault, both single and 3Phase) through short circuit analysis of the network buses, feeders, etc.

8. Calculation of active, reactive and apparent power through every section (Lines & Cables) of the feeder and hence determining the technical losses (I^2R or Heating Losses) in various components.

9. Evaluation of Protective Devices settings in the network by applying faults, checking sequence of operation of Devices & ensuring coordination among them.

10. Evaluation of voltage, balanced and unbalanced voltage drop & % voltage regulation at various points including load point of thefeeder.

11. Optimization (minimizing power loss) of existing Network of feeder with the minimum change in its configuration and components.

12. Forecasting of electric load demand for the short-term (3 years), Mid-term (5 years) & long-term (10 years) and propose network improvement schemes to meet load growth. Ensure proposed schemes results in reduction of technical losses & reliability and voltage regulation in the system.

13. Network planning for short term(3 years), medium term(5 years) and long term (10 years) with an objective of catering to the load growth requirements, network redundancy, reduce technical losses & reliability improvement along with BoQ and re-configuration requirements of existing network. Proposed network details (with drawings and BoQ) along with calculations shall be submitted.

14. Evaluate present network adequacy in case of contingencies/outages to
    - Ensure uninterrupted power supply to consumer
    - Propose network redundancies to improve continuous power supply.
    - Reactive Compensation requirement of the network.
    - Identify critical feeders, gather historical failure data (No. and duration of interruptions) & events for the past 3 months of summer and winter season each, identify sections/ areas suffering from repeated failures
    - Propose network improvement solutions to these challenges.

15. Analysis of "What If" scenarios and alternate network scenarios involving cost implications considering selective re-conductoring, selective re-configuration, selective re-routing, substation sizing and location, network addition/augmentation by feeders/new transformers, selective and across the network load variation.

16. Identify and shortlist network feeders/areas facing frequent load-shedding because of network constraints & propose new solutions to reduce instances of load shedding to almost zero.

17. The consultant shall review the existing network along with the proposed feeders & DSS etc., under Govt. funded and externally aided schemes viz. Saubhagya, IPDS, DDUGJY, ADSELR under AIIB, etc. and identify the requirement of new network including feeders & DSS etc. The consultant shall review the earlier Distribution Planning report prepared by the discom and consider their recommendations during proposing their recommendation.

18. Evaluate network configurations & identify possibilities of network interconnections to convert radial network into ring main networks for bringing about a redundancy in the power distribution network. Identify addition of new switches/RMU at optimal locations and recommend switching plan to attain network operations with minimal technical losses.

19. Long Term Dynamics with Impact of all grid connected rooftop & commercial solar systems, DER (Distributed Energy Resources), Electric Vehicle Charging Stations (EVCS) integration on the APDCL network and ascertain whether existing system will be able to sustain the fluctuating demand. The Impact Evaluation module shall evaluate the impact of integration of additional solar/DER/EVCS unit into the system. System shall be evaluated based upon the diverse system loading conditions with minimum and maximum effect of such systems in the network. The system shall identify the remedial solutions & deploy system to evaluate feasibility of each application received for connecting a new solar/DER/EVCS system to the network.

20. Evaluation of introducing Micro Grid in the system especially in remote locations where the cost of distribution network is more than the cost of supply.

21. Online Map services where the Google Map can be displayed in background of layer of the Distribution network for easy to identification specific site or substation.

22. Consultant also has to work on other engineering analysis as per APDCL requirement.

23. Training and Capacity Building of APDCL Engineers on all deployed solutions and Handholding for a period of 6(Six) Months after the completion of the work.

3.2.3. **Scope of Work: Software and handhold training**

3.2.3.1. The requirement of the project is to Design, Develop, Deploy and supply Network Analysis planning software with modules and functionalities as detailed herewith.

a) APDCL shall be procuring latest version of Distribution Planning Software along with 1 no. of Network License (with 5 User shall work simultaneously) of the Desktop version alongwith laptops for each user of adequate specifications (Min 8GB RAM/512GB SSD/Intel Core i5 11th Gen processor). Software for the purpose of carrying wide variety of power system studies for Distribution Network and planning pertaining to all circles of APDCL. The Software shall be suitable for unlimited bus system with capability of modeling and analysis of sub-transmission and distribution network up to LT consumer level.

b) The supplied software shall have scalability which shall support addition of future required modules as & when required. The Software shall have option for interfacing with any type of GIS Software, web applications, Mobile app for Network analysis, MDAS, SCADA & any other applications etc. after customization as per requirement in future.

c) The network analysis software should be ODBC compliant which should support international file/ data exchange file formats (For e.g.: *.CIM, ASCII, html, xml etc.)

d) Consultant must submit Training manual both in Video as well as hardcopy format for Network load flow analysis, Technical loss calculation, contingency analysis, Short-circuit Analysis, DER Analysis, Optimum Network configuration, protection device analysis, protection co-ordination, voltage drop calculation.

e) The consultant shall provide required class room and hands on training to the batch of APDCL engineers for minimum 7 days extendable upto 14 days. The training period may be extended till the APDCL engineers have developed sufficient acquaintance with the software. The period and schedule for the extended training shall be discussed with the CGM(PP&D), APDCL.

f) The consultant shall provide support for three years for fixing of bugs, updates on the software or any other support required for smooth operation of the software.

g) The consultant/software vendor shall provide required support in case of any challenges faced by the users while using different modules of the software either at station/ remote in case of any software issue or carrying out analysis on the software throughout the validity of the license.

3.2.3.2. **Network Analysis Software - General Requirements**

a) Software GUI should support for graphical creation and editing of network topology and data.

It should be compatible with all latest versions of Windows OS and shall be accessible by users in the client/server configuration It should be compatible to Microsoft Windows ® 7, 8, 8.1, 10 or 11; Microsoft Server 2008, 2008R2, 2012, 2012R2 or 2016 Support for the databases: MS SQL Server (2000, 2005, 2008, 2012 & 2014), MS ACCESS (97 & 2007), and Oracle 9 , 10, 11 & 12 etc. required. It should have separate License manager, providing option to the admin to attach or detach the respective license to particular users as per requirement.

b) Option for maintaining main utility database on main server and creation of project specific database (equipment/network/load/profile/reliability indices) should be possible as per requirement.

c) Flexible options shall be available to the user to assign User-defined attributes such as user defined extensions to various components so that additional information can be fed, which can be useful for various purpose other than analysis / calculations & utilized in the study reports.

d) It should be possible to import/export files containing equipment, network(s), loads, maps, reliability, capacitor status or meter demands or any combination of these files in ASCII *.txt formats, *.csv format,*.mdb format and *.xml format. Options shall be available to export the single line diagram to .dwg / .dxf, *.kml, ,*.xml, *.shp And *.pdf formats.

e) Software shall automatically load the network or feeder which is in close vicinity of specified address of consumer / GPS locations. This is important for the utility engineer to release the required power supply connection.

f) It should be possible to use different symbols for same type of equipment as per equipment IDs to easily identify on one line diagram.

g) Software should allow creation of user specific library of data. Different user can have different symbols, report formats, GUI settings, color coding, user specific display settings, flexibility to user as required. Option shall be available for user to select different symbols for same type of equipment but with different technical characteristics/rating.

h) Software shall be capable of modeling Unlimited nodes/ buses, Unlimited AC elements,3-phase (3 & 4 Wire) systems, Substation internal SLD, Switching Devices i.e. switches, sectionalizes, breaker etc., Photovoltaic array (PV Interconnection Study),Voltage & frequency dependent lumped load, Cable, Transmission lines, reactor & impedance branches, Auto-transformer, 2W & 3W transformers with voltage regulators, Grounding transformers and phase shifting Transformer, Open-Delta transformer & Zigzag Type of transformers, Synchronous, Induction & Electronically coupled Generators, Instrument transformers (CT, PT, Overcurrent relay, Motor relay, Distance protection relay, voltage relay, frequency relay, load shedding control relay, generic control model, impedance relay, frequency droop relay, centralized capacitor control system), Protective devices, Meters on Switches/Breakers & meters of Transformers, Spot Loads & Distributed load Modelling, ANSI, IEC, & user-defined symbols, Shunt capacitors, reactors, series capacitors, reactors etc.

i) Options to customize section IDs & automatic renaming of sections. Support for min. 64 Alfa-numeric characters for all IDs. Spaces should also be allowed in IDs. Option to define the rules used by software for validating network databases should be available.

j) Software should support creation of 1-phase, 2 phases & 3 phase or mixed network with various voltages levels. Substations with internal arrangement shall be interconnected with different voltage level transmission lines/cables. The software shall support for modeling multiple source points within a substation. Software should also support both radial & ring networks. Merging of phase shall be possible and supported in software without creating any loop.

k) Support for SI/Imperial units and network impedances shall be as defined by user in ohms or in P.U. User should get option to select particular coordinate system while attaching background maps below electrical network. It should be possible to rotate the Bus symbol by increment of certain degrees.

l) Option for selection & editing of multiple section/area should be possible. User should be able to generate small template of the electrical network which is required often and can use multiple times. There shall be option available to calculate the distance between two points in the

network.

m) Constants for transmission line and cables shall be calculated by feeding necessary data. Modelling of single, Twin & Quadrature conductors shall be possible. User should have option for defining the position of conductors. Option for considering the mutual coupling between two transmission lines and de-rating values of resistances at different temperature condition should be available. Addition of intermediate node in existing sections shall be possible. Option shall be available for drawing double circuit lines with different conductors & circuit. Option shall be available for modeling different conductors for different phases in a transmission / distribution lines & compute respective line impedances.

n) Software should provide status control for all the switches in the network from a common controlling menu. Option should be available for generating alternatives schemes in different study files without modifying the main network database. It shall support creating different network scenarios for system planning, study and analysis. Option should be available for saving study file as self-sufficient file which includes associated equipment database, network database, modifications in the network & settings of respective study.

o) Software shall support the user to model voltage sensitive & frequency sensitive load model, as per the category of customers. Constant Impedance, Current & Power load model should also be supported. Exponent model should also be possible**.** It should support modelling of uniformly distributed loads along section length as well as spot load. User should have option to convert the balanced per phase loads into 3 phase loads or vice versa. Software should detect the invalid loads which are not having any load model type, phase or network ID assigned to it.

p) Software should have capability to search by filtering devices, name of intermediate section, device number and nodes by device type attached. Advanced search options should be available through hyperlinks to search through dense networks. Option for user to check the connectivity in various sections & trace the path of power flow from source & highlight the downstream network from selected section by the user should be available. Option of defining filters based on types of device & any other electrical parameters like voltage level, current rating etc. should be available.

q) Software shall include data state option like complete, incomplete, verified, and future constructions & color-coding options. Option shall be available to generate various reports based on data status of the network.

r) Display or View, should support various symbols, network topology filtering, display of network based on various color-coding conditions/criterions, display of Power flow Direction for real, reactive and normal feeds. Display of tags and its customization by selection of desired parameters shall also be possible. Software shall support selective display of required equipment's or devices from the complete Single line Diagram.

s) Option for specifying the restrictions on equipment being modelled so that errors in input data could be checked at the time of system modeling.

t) Software must have flexibility to interface with GIS/SCADA/OMS/DMS software packages. It should support network creation, editing, querying and viewing the electrical system on a GIS base maps showing city, streets, land parcels or annotations to give context to the electrical network. It should allow performing of simulation with the geographical background (map) by supporting interfaces to AutoCAD and the most popular AM/FM/GIS packages (.shp,*.kml, *.kmz), Support for online update of GIS Maps should be available. It should be possible to superimpose Network on live Google maps or any other maps at any point of time.

u) Above all the software shall support for performing batch analysis for various analysis including Load flow analysis, short circuit analysis, protective devices analysis, equipment ratings evaluation etc.

v) The Software shall support network diagnosis before proceeding for studies to ensure the correct data feeding for analysis. It should support Detection of devices using undefined equipment (No Library reference), Validation of the system nominal voltage(s) based on a user-defined list of nominal voltages, Detection of loop points, phase merging nodes and/or disconnected sections from the new network Topology. It should provide option to select the circuits to be diagnosed, to

exclude devices types for several verifications, and exclude certain error and warning messages from the diagnostics report.

3.2.3.3. The planning software shall include the following features:

a) <u>Load flow Analysis:</u>

1. Software should have feature for simulating the selected substations/ feeders Power flow analysis by balanced and unbalanced load flow methods. It should support NR (Newton Raphson)-Unbalanced method. It should facilitate to adjust settings to generate the worst-case results in case of heavily unbalanced loaded network & unbalanced configurations. Option shall be available for visualizing effect (Overloading, under loading, over voltage, low voltage etc.) on the network for different loading conditions after performing Load flow analysis. Software shall show these effects on the OLD as per predefined loading limits. During the load flow simulation, user should get option for changing the status (Stopped, Running or Starting) of various Motors connected in the network and study the impact of same on feeder/substation. Support for simulation of parallel operation of Transformers and generators for voltage drop analysis etc. should be available.
2. Option for accounting the source impedance, line transposition, adjustment in line/cable/transformer impedances based on tolerances should also be available. User can adjust the transformer and regulator tap operations also. Software should have an option to use the protective devices equipment ratings for evaluation. After the load flow analysis, user shall generate the voltage, KVA, KVAR profile charts also.
3. This feature should have capability to calculate the network state (voltage phasors of all nodes, current phasors of all sections and transformers, active and reactive power losses in all sections and transformers, voltage regulation control etc., for specified network configuration.
4. Software should have flexibility to perform Load Allocation based on connected KVA, consumed KWH and number of consumers connected at the respective feeder etc. The planning tool shall have the following load allocation functionality at source:-
    - For HV network & LV Network, feeder wise load allocation shall be possible, direct import of data in available format like excel, csv & other formats *.txt shall be supported.
    - The load allocation analysis should take into account the utilization factor and power factor which the user define for each load category (residential, commercial, industrial, agricultural etc.).
5. The software should determine which load shall be reconnected to different phases for minimizing KW losses, balance the current, voltage and load etc. by including or ignoring the different restrictions.
6. Option should be available for use of meters at various locations in the network as per the user requirement & perform load-allocation to analyze boundary conditions conflicts to identify the load flow area wise. Algorithm should support multiple metering units as fixed demands and large metered customers as fixed load. All downstream meters should account for upstream meters.
7. Software should have feature to allow the user to specify the percentage change for loads during specific years, modify the loads accordingly and run the calculations to study the effect of such load changes to the network. Option to specify the load growth factors to only selected substations, zones, feeders, secondary networks or sections should also be provided.
8. The Power flow analysis module, should take into account of various types of loads, capacitors, motors, generators, DER (Distributed Energy Resources) like Solar & Windmills if any, use & respect various controls in the systems, respect the loading & voltages limits & generate study reports.

b) <u>Reactive power compensation:</u>

1. This function shall be provided for determination of optimal locations, types, sizes and switching status of capacitor banks, which have to be installed automatically in the distribution network for

the purpose of reactive power compensation, real power (energy) losses minimization, reduction of the reactive power supplied from the transmission network, power factor correction and voltage profile improvement. The user should prevent the installation of the capacitors at the desired locations by inclusions or exclusions in the network.

2. Option for evaluating capacitor placement on light, nominal & peak loading conditions should be available. The report should give details of required KVAR (with constraints applied to equipment's rating) and appropriate location with clear indication for value of switched and fixed capacitor bank size. Software should support selection of capacitor bank rating either from the library or randomly providing ratings as per KVAR requirement. The software should show the color coding where the voltage increased or loss reduction after installation of capacitors at the respective location.

c) **Calculation of fault Levels:**

1. Software should have an option to perform short circuit analysis using ANSI, IEC909 and other conventional methods. Software should consider pre-fault loading conditions during short circuit analysis, so that the fundamental frequency, voltages and currents can be taken into account while calculating the short circuit current values, plotting of profile for voltage drop, KVA, KVAR etc. There should be an option to include the contributions of different equipment's or devices. Option to customize the factors for getting the abnormal conditions in the OLD.
2. Option to perform protective devices evaluation with respect to withstand capacity and calculated short circuit analysis and load flow results shall also be included. The user shall apply the fault at all the buses or at a single section/ location in the network including change of phases also for the short circuit simulation. After the analysis user shall generate the different reports which results all type of faults like LLL, LLLG, LL, LLG, SLG etc. When running the short circuit there should be an option to monitor the results at the OLD of the network.
3. Software shall support calculation of voltage sag at various busses due to faults in system. User should be able to compute sag and identify remedial settings of protective devices to overcome the problems of Sags.

d) **Impact of Faults (Contingency Analysis) & restoration:**

1. Software should have an option to perform simultaneous fault along with option for creating outages/failures on specific equipment (s), substation (s), feeder (s) &/or section (s) up to three failures simultaneously. Software should report all the switching operations with their results (kW un-served) and final switching plan for the restoration of the un-served customer. Software shall provide filter options like by device type, zone type & rated voltage type. Software should also generate the log report about accepted & rejected switching operations and the respective reason for the same. Option to monitor or check the impact of the specified failures in the network OLD. Option for global contingency ranking shall be available in the software including voltage collapse and branch overloading.
2. Software should identify the affected area of network & consumers. Understanding the impact of plausible outages can help engineers identify weak points of their networks and put emergency switching plans in place. Software shall provide detailed switching plan (in reports and on SLD) to restore the power supply of affected consumers/network. Software also identifies weak equipment in the system which becomes obstacles in restoration of power supply in case of emergencies. Option to achieve objective; Minimize the number of switching operations, Maximize the total load restored, Balance the load among available feeders, Minimize the loading of every component, Minimize the distance between the customer and the substation.
3. Option shall be available to specify the percentage of load should be picked up during restoration stages. User shall be able to specify the loading limit & voltage limits and switching devices to be considered during this analysis. The software shall provide filter options like by device type, zone type & rated voltage type. Software should also generate the log report about accepted & rejected switching operations and the respective reason for the same. The utility engineer shall be able to

evaluate & propose schemes to provide uninterrupted power supply to our various customers. User should visualize each switching operation through navigator & study the effect on network conditions.

e) **Overhead to Underground Conversion**

1. The intended use of software module is for checking the feasibility for conversion of overhead to underground network. The software shall provide all required options and analysis capabilities for the same. It should be possible to prepare any type of power cable library as per available technical datasheet and software shall compute the sequence impedances based on construction details of power cable
2. As per requirement, it should be possible to perform steady state and transient studies on proposed power cables in place of O/H network using actual load flow results. Calculations shall be possible to evaluate the power cable ampacity or temperature rise due to loading using IEC 287 or Nehar-Mcgrath methods. Analysis shall be possible for selected duct bank configurations.
3. Study output shall include detailed calculations of electrical parameter for the defined configuration. It should generate information for resistances, reactances, capacitances, impedances, various losses in cables, charging currents, voltage drop, induced voltages etc. Report shall include temperature rise due to loading (Steady State & Transient). Based on results user should be able to modify the configurations and select correct Power cables by performing future load growth studies.
4. Several layers of Power Cable shall enable ampacity and temperature rise calculations with the Cable Thermal Rating analysis. It should be possible to model non-standard duct banks in the database. The user should be able to select Matrix or Custom duct arrangements. Dissimilar duct dimensions or defining non-aligned duct positions shall be possible. Software shall support different coordinate systems to facilitate positioning of each required duct.
5. For three-phase circuits composed of single-core cables, different transposition schemes for two-point and cross bonded circuits are now supported.
6. It shall be possible to run Steady state cable thermal analysis in Temperature mode based on results generated from a Load Flow Analysis with load demand Profiles for a user-defined time. Thermal analysis of power cable shall use the load flow based on load curves.

f) **Network reconfiguration & switching plans:**

1. One of the ways to optimize radial networks is achieved through changing the status of switching devices. The reconfiguration brings utilities economical gain by realizing energy savings, and determine possible network configurations to obtain an optimized distribution system. The software must suggest repositioning of a switch between two feeders to achieve the optimal feeder configuration, which will minimize losses, improve the voltage profile and balance the load between feeders. The module can determine the optimal location of the tie points by suggesting new location (addition of switching devices/RMU) or recommending new switching schemes to achieve the objective.
2. It should generate detailed switching plan to achieve specific objective. User should have option to select/deselect the switching devices to include of exclude from switching operations. The same switching optimization tool shall be used for identifying automation of RMUs.
3. The feature should serve the following objectives: -
   - Load transfer studies to determine loads transferred from a heavily loaded substation or feeder to another through tie-points
   - Minimize voltage abnormalities to reduce the number of voltage violations
   - Minimize overload problems to reduce the number of overloaded equipment
   - Limit the exposure of certain feeders by transferring part of their circuit to other feeders to improve reliability
   - Reduce network system kW losses

- Suggest new switching devices & their correct location in the network for optimal performance (reduced losses). User should have option to define limits on kW loss reduction, distance between two proposed switching devices, difference in feeder loading, length etc.

4. Option to show the switching plans on the OLD using different color coding for improving the supply at the customer end with less interruptions in the network.

g) **Time Series Simulation of Power distribution Network- Long Term Dynamics:**

1. The software shall offer a time-series simulation tool to study the impact of irradiance variations, wind fluctuations and load variations on network controls such as regulators, load tap changers and switched capacitors and on the behavior of battery energy storage devices. By analyzing the impact of such variations on regulators, load tap changers and capacitor switching, the software should allow power engineers to properly assess the impact of DER integration and to better understand related technical issues such as VAR control and voltage regulation. This allows the study of reserve capability of any battery energy storage device.
2. The software shall allow the user to create their own curve models along with generation curve models and motor curve models (including insolation, wind speed & load curves). The Battery energy storage model considers of charge and discharge delays, and features the following controls: No monitoring: time driven and load shape modes, Power monitoring: power driven, power peak shaving, power following, power levelling modes, DER monitoring: DER driven, DER levelling, DER support and DER smoothing modes.
3. System allows defining single and three phase converters along with manufacturer, model and standard information. Option for results plotting w.r.t. time and auto selection of PCC. Time-based simulation results shall be available in comprehensive graphs. Reports are available for device controls such as regulator tap changers, and for the penetration level of each type of distributed generation in the network. Detailed reports and charts shall be available for monitored devices. Power engineers shall easily evaluate the performance of the system with or without DER, determine the impact of different DER locations and evaluate the effect of different variable profiles.
4. The module should help to study rapid DER fluctuations over time as a function of changing loads and generation inputs. It should be used to estimate the state of charge of the BESS of an isolated microgrid with several Photovoltaic Systems during a 24-hour period, to assess whether it is appropriately sized for the entire period.

h) Trace the network in the map:

1. The planning tool shall be capable of uploading GIS map showing land use features viz. roads, buildings, railway line and water bodies etc. in order to view geography of area in conjunction with Existing / proposed network and plan physically feasible network for smooth execution of proposals. It should support the display of map images
   - AutoCAD Software (.dxf / *.dwg)
   - ArcInfo Shape (ESRI) (.SHP)
   - Kml & Kmz files formats as layers directly underneath the electrical model.

2. The Online Map Services shall support online provider map formats such as: Google maps, Google satellite views, Google hybrid views, Google terrain views, MapQuest Open Street maps, MapQuest Open satellite views. Also offered software should have a feature to show Google map as a background of distribution network display. Option for selecting various coordinate systems used in world.

i) Studying of Hosting feasibility for DER by checking Integration Capacity of network:

1. Violating a series of constraints to be checked while evaluating interconnection challenges by quickly calculating the maximum dist. generation or the load capacity that can be installed independently at each location. Tool shall perform calculations repeatedly for increasing generation or load at interconnected point until any of calculation predicts a system impact level above a predetermined threshold. With the tool, utility engineers shall be better equipped to address future load and DER integration demands and to adapt their distribution planning process.
2. The software module shall efficiently and consistently calculate the maximum generation or load capacity that can be installed independently at each point of a distribution system without adversely impacting its reliability and power quality. The maximum hosting capacity shall be calculated based on a set of user-defined limits based on criterion which should include thermal overloads, reverse power flow, abnormal steady-state voltages, transient voltage variations (flicker), reduction of protection reach and sympathetic tripping.
3. Constraints should include corroboration of abnormalities parameters, thermal, protection, reverse flow for monitored location/devices. Results visualization on network for different parameters shall be supported. Automated investigations of project impact studies should be supported to allow for automated interconnection studies and reduce overall time spent by utilities processing dist. Generation applications.

j) **Power Flow Analysis with recorded Load Curves (LFWP)**

1. The Software should be able to integrate automated meter reading (AMR) telemetry in distribution systems; short-term load forecast calibrated by AMR telemetry data and energy billing records to assists users in performing accurate time range analysis based on AMR data and combination of historical consumption patterns and real-time monitoring. Should allow the creation of profiles (load curves) for customer loads, customer types, meter demands, network demands and generators. Should facilitate the management of the import of interval and non-interval metering data such as the data obtained from automated meter reading systems, customer billing information systems and load research. It should identify off-peak overloads and abnormal voltage conditions that often go undetected using typical peak condition system analysis. It should evaluate actual load using customer consumption curves (Billing information) or customer typical load curves.
2. Validation of start and end time to establish a valid simulation range for time range analysis shall be possible. It should support operating voltage information on each feeder as per record which should be used to vary the operating voltage at the source of each feeder as a function of time.
3. Software should simplify the creation of profiles by proposing templates for the standard profile types such as the “8760 profile” and “day type” (Typical week-day and week-end). Should support the import of profiles from ASCII format (.csv). Should allow specifying user-defined intervals for the profiles (5-min,15-min., hourly, etc.) Should support various units for the profiles: Average Demand kW, Amps-PF, kW & kVAR, kVA & PF, %, p.u. (by-phase or total). Should provide the functionality for the creation, viewing, and editing of profiles for a specific customer, or by customer type, meter demand, network demand or generator. Capable of import of profiles from ASCII format (.csv), user-defined intervals for the profiles (5 min, 15-min., hourly, etc.), Option for Seasonal equipment ratings based on the start date of the summer and winter seasons shall be available
4. Software shall can calculate accurate LF & LLF based on metered interval data & billing consumption data. Detailed output reports for input energy fed through respective feeders, energy losses in LV & HV network for various components in the systems & identify the worst loss reporting sections. Option to generate various types of charts & plots for energy losses Vs Time, Power etc. The calculated energy losses for various feeders will be used in Energy Audit for further calculating AT&C losses. Abnormal Voltage and Device Loading Summary reports, BESS Usage Summary report, Dispatch able Generation Summary report. Color-coding and color map layers to facilitate result visualization shall be available. The layers should emphasize different

abnormal conditions metrics such as worst magnitude over the simulation period, longest consecutive duration, total duration, first year of occurrence.

5. It shall support of BESS controls by the Load flow with load curves. Load Model field shall allow the user to change the load model with respect to a season as per requirement. The Software shall apply the correct seasonal load model based on the time range dates selected. The Software shall check if the customer types have a ZIP model defined by the Seasonal Load Model and check it against the Time Parameters and apply the correct seasonal load model. After a Load Flow with load curves, results shall be saved to the Result database, so that users should open the simulation result sets at any given time. It should be possible open the Result set by a Time Range selection. It should allow the user to select an entire year, month, or season to view the results.

k) **Evaluation of Protective Devices settings in the network & ensuring coordination**

1. The Software should have huge library of TCC curves of various protective devices from various manufacturer. User should be able to select the respective devices from the library edit the required settings and evaluate the coordination among upstream & downstream devices in case of faults.
2. The software should be generate TCC plots for selected branch & display the settings on the plots. User should get option to drag the TCC of specific device and generate new settings for the same. Option shall be available to update the Protective Device library online.
3. Modules shall be completely attached to above software to evaluate the Protective devices coordination in the network. User get option to specify the fault at any location and check the sequence of tripping / opening of protective devices to clear the fault. Determine operating time and state of protective devices at any given fault on the network with the Sequence of Operations analysis
4. Results display on SLD as well as report. Software shall support checking loading and reach criterion of the protective devices & pin point the problems. The module shall assist for simulation of Minimum Fault Analysis to treat DER contributions more accurately, especially in scenarios where DERs are contributing to a ground fault including LLG fault type.
5. The module shall assist to evaluate integration feasibility of any type of DER in the system and check of any sympathetic tripping can be avoided.

l) "What if" studies

The software shall have provide extensive "what if" scenario on following parameters.

a. Connected load
b. Line Configuration
c. Distance
d. Conductor/Cable

The module should provide for system study and analysis of alternate network scenarios involving cost implications considering the following options:

a. Capacitor placement and sizing
b. Selective re-conductoring
c. Selective reconfiguration
d. Selective rerouting
e. Substation sizing and location
f. Network addition / augmentation by feeders / new transformers
g. Selective and across the network load variation

There must be a facility to implement "what if" changes in bulk with following criterion.

a. Changes Downward selected node: - This option will change the selected parameter, downward the selected node (i.e. the change will affect all the nodes supplied from this node.)

b. Downward on 11 kV sections only: - This will change the parameter for all 11KV section downward the selected node.

c. Upstream from selected

d. section to section no: - This option enables user to change parameter for all nodes between two connected nodes

The "what if" changes mentioned above can be made permanent, if required.

m) **MicroGrid Network Planning:**

1. Detailed modeling of grid-forming DERs, such as isochronous and droop control modes, considering their operational and/or physical limits
2. Provision to perform unbalanced power flows, short circuit analyses and time-series simulations on islanded and grid-connected microgrids to assess network performance, such as abnormal conditions, losses, generated power per DER, etc.
3. Customizable load shedding and curtailing algorithm, based on Newton-Raphson Unbalanced solver, embedded into the power flow solver for islanded simulations where the load offsets the available generation. In case of insufficient active generation the solver should start shedding or curtailing loads and motors one at a time until enough generation is available, or the entire list has been cleared.
4. Topology detection tool to identify remote load centers based on a set of user-defined criteria related to downstream load, distance from the substation and presence of circuit ties

n) Cost benefit Analysis Module

1. The module shall facilitate the evaluation of the feasibility and the profitability of a project, based on the factual system model, leading to a realistic planning in line with technical, service reliability and financial objectives. For each study, user should get option to attach costing to any modification to the power system model, the cost resulting from the installation or relocation of an asset or from a load transfer like a phase balancing operation. In addition to the asset cost, economic parameters such as operation and maintenance cost, salvage value and depreciation shall be defined and taken into account by the analysis. It should be possible to associate more than one type of cost per modification
2. It should be possible to consider discount rate, inflation rate, tax rates and depreciation etc. while performing Cost benefit analysis. The reports should be techno economic evaluation of various projects / schemes and should help the user to take accurate decision of investment in network revamping/modifications.
3. The Software shall perform detailed techno – economic analysis and generate study reports giving details like IRR & Payback period, etc. The module shall be properly interfaced with project manager module to assign different modifications to different year type Sub Projects, creating a more accurate representation of a real project.

o) Report Generation

Software should provide an option to generate the reports in user defined format. For example- feeder-wise, transformer-wise, voltage-wise etc. as well as permit user level customization of the report format. The software shall provide option for showing the results on the single line diagrams (OLD) with different tags that could be customized by the user. The user should also get option to view any selected section / node results parameters. Software should have provision for providing reports for selected equipment's in the network.

- Software should clearly report neutral currents in the system when performing unbalanced load flow studies and should provide figure for losses in the neutral conductor.
- Software should provide for tabular as well as graphical report generation. It should provide option for selecting different electrical fields for reporting of equipment data, input data and different analysis results.
- Software should report power flows and losses in each line section, transformer and other equipment's present in the network. Segregation of element wise losses shall also be possible. It should be possible to use the iron loss values defined in user created library for the loss

calculation.

- Software should provide report for power flows, losses, power factor, reactive power flows for all equipment/element in the network. It should provide feeder wise report for the network showing power flow, losses, attached KVAR and length of lines. Abnormal condition reports for sections with voltage violations, overloads and other abnormalities shall also be supported.
- Software should provide for exporting reports to standard packages like MS Word, MS Excel or Internet explorer.
- Software should have an option for identification of network element/equipment on a single line diagram through color coding in case of abnormal operating condition. User defined settings for color coding and threshold for various parameter shall be supported.
- Software should be capable of saving the reports in *.mdb, *.html *.xml and *.xls. & shall be capable of accepting templates for the reports and creating user-defined rules for reports.
- It should be possible to generate report for network upstream or downstream side from the selected section as per user defined parameters. It should include all the upstream or downstream side sections information.

3.2.3.4. **License Requirements**

The Integrated Network Analysis solution shall comply with the following Licensing/ User requirement:

SI No.	Module Name	No. of Users
1	Licenses for the Network Analysis software modules as per APDCL technical requirements as specified in this document alongwith laptops of adequate specifications.	As per BoQ

3.2.3.5. Handhold training of APDCL Engineers

1. **Training in Creation of Distribution Network Model and Database in Network Analysis:**

The primary objective of the required services is circle wise network modeling of the entire distribution network of APDCL, analyzing the "As is" status of the distribution network and preparation of a comprehensive network renovation and expansion plan for Distribution Network Development for the entire distribution network for the next 3, 5 and 10 years. The consultant would be responsible for assistance and technical support to the APDCL Engineers in the Head Quarters/Electrical Circles in carrying out the following important tasks:

i. **Task 1:** Authenticity and correctness of gathered data, including particulars of substation and line equipment and creation of asset database (from 33 kV grid substations to 11/0.433 kV transformer secondary) for the purpose of system study, technical loss reduction & development of power infrastructure

ii. **Task 2:** and technical support in Network modeling from 33kV grid substations to 11/0.433 kV transformer secondary

iii. **Task 3:** Assistance and technical support in Evaluation of existing network condition in terms of loading, voltages and Technical Losses reduction plan

iv. **Task 4:** Assistance and technical support in Preparation of Technical Loss Reduction & network optimization Plan for 33 kV & 11 kV Network including cost benefit analysis.

v. **Task 5:** Assistance and technical support in Preparation of comprehensive network renovation and expansion plan for Distribution Network Development.

vi. **Task 6:** Organizing required class room and hands on training to a batch of APDCL engineers for minimum 7 days extendable upto 14 days. The period and schedule for the extended training shall be discussed with the CGM(PP&D), APDCL.

4. Completion Time and Period of Contract

1. **Phase-1:** Period of works for different activities with respect to survey of network and preparation of detailed SLD for 33/11kV Distribution Substations, 33kV Feeders and sample study of 11 KV feeders at each circle up to distribution transformer level. Completion Time: 8 months
2. **Phase-2:** Period of works for different activities related to the detailed system studies in the Network Analysis Software after collection of all necessary data under Part-1. Completion time : 12 months.
3. **Operation, maintenance and support period:** The operation, maintenance and support period will be for Three years months (3 years) which will commence after completion of all works under Phase 1 and 2 and handing over of the system to APDCL. Successful bidder will do QA/QC and migration of data during O&M period on monthly basis and the frequency agreed for data updation to Network Analysis module.

5. Manpower Requirement:

The Consultant shall appoint minimum two technical resource persons during hand-holding and one technical resource FMS Project Manager in the Operation and Maintenance phase. FMS Project Manager will be single-point-of-contact for responding to all the queries from HQ/DISCOM sites or accepting its problem management requests. The consultant shall deploy sufficient and qualified, skilled manpower to carry out the FMS services. It is imperative for the FMS staff to know the requirements given in the RFP and be able to deal with all the queries related to the Network Analysis System. The Consultant shall ensure replacement in not more than 7 days of the FMS staff whose performance is not found satisfactory by the HQ/DISCOMS. Minimum technical Qualification of manpower should be BE/B.Tech. or equivalent with minimum 5 years of experience on the offered Network Analysis software.

The detailed CV of all such manpower shall be submitted along-with the bid.

SI No.	Details of Resource Persons for Execution of the Project	No. of Resource persons required during Project implementation	No. of Resource persons required during FMS
1	Project Manager - Domain expert of the project	1	
2	Network Analysis & Planning Expert	1	
3	Network Simulation Software Expert	1	1
4	Distribution Engineers for survey works	8	

A. Qualification Requirements for the Key Experts

<u>NOTE</u>: Experience of all the Key Experts in similar geographic area shall be an addedadvantage

SL. No.	Key position	Minimum Qualification and professionalExperience desired	Area of Specific Expertise Desired and other terms
1)	Project Manager / Team Leader (1 No.)	1) Power Engineer holding post-graduation degree in Electrical Engineering and having consulting engineering experience in Power System Planning, Modelling, Simulation, Load Flow Analysis etc. in distribution/transmission sector for not less than 15 (fifteen) years. 2) Experience of successfully managing atleast 2 (two) nos. of projects involving power system study and preparation of	**<u>Area of Specialization:</u>** Distribution Planning and analysis, power system studies and simulation, power system operation, control and protection, hands on experience with simulation software etc. in Distribution/Transmission Sector with voltage levels 33 kV and above **<u>Other Terms:</u>**

		master plan in Power Distribution/Transmission Sector. 3) Familiarity with power system load forecasting techniques, optimization tools for distribution network expansion and network analysis software for power distribution/transmission system planning. 4) Convergence with relevant technical standards, guidelines/norms issued by Central Electricity Authority (CEA) or other statutory bodies for compliances during the preparation of DPR. **Marking Scheme:** a) For post graduation qualification: 1 mark. b) 1 mark for 15 years experience. c) 0.5 mark for each year of experience in similar assignment above 15 years subject to maximum 2 marks. d) Experience in projects involving power system study and preparation of master plan in Power Distribution/Transmission Sector: 2 marks (0.5marks for each project subject to maximum 2 marks). e) Personal Interview: 4 marks	1) Excellent command of English both written and orally and a proven track record in team leadership as well as management of project of similar magnitude. 2) The responsibilities are included but not limited to: a) Team Leadership, Collection, analysis, validation of the network data, creation of network model for simulation, analyze the Distribution Planning and Analysis, System Studies, Project Management, Monitoring & Reporting, identify key loss areas/pockets and remedial actions, and all other works as mentioned in the scope of works of the project. b) Conduct training on load forecast and power system master planning principle and hand-holding of the concerned APDCL officials on the network modelling, simulation and various kinds of analysis in the network simulation software. c) Ensure all necessary support to APDCL in the operation, maintenance, future GIS integration and support period.
2)	Network Analysis & Planning Expert (1 No.)	1) Power Engineer holding Bachelor's degree or higher in Electrical Engineering and having professional work experience for not less than 10 (ten) years in power system/distribution/transmission sector. 2) Experience of working in Power Distribution Engineering in atleast 2 (two) projects involving power system study and planning of distribution/transmission network using reputed network simulation software, network design and analysis such as loss reduction, substation and feeder optimization and distribution planning. **Marking Scheme:** a) 1 mark for 10 years experience in power distribution/ transmission sector. b) 0.5 mark for each year of experience in similar assignment above 10 years subject to maximum 2 marks.	**Area of Specialization:** Power System Study & Network Planning and design, Distribution planning, electricity demand forecasting and areas relevant to the scope of works under Part 2 of the project. **Other Terms:** The responsibilities inter-alia include: 1) Collection, Simulation and analysis of the existing distribution network of APDCL and analyze the performance under a range of realistic operating scenarios and all the other scope of works under Part 2 of the project. 2) Assist team leader in monitoring, supervising, coordinating overall activities of other experts in the team. 3) Identify bottlenecks of the prevailing distribution network, advice remedial measures and

		c) 0.5 mark for experience in 2 nos. system study projects and network design and analysis using network simulation softwares and 0.1 marks for each project above 2 subject to maximum 1 mark). d) Personal Interview: 3 marks	propose in the scheme. 4) Ensure all necessary support to APDCL in the operation, maintenance, future GIS integration and support period.
3)	Network Simulation Software Expert (1 No.) for implementation phase and 1 no. of FMS phase.	1) Power Engineer having degree in Electrical /Power System Engineering with an overall experience of more than 7 years in the Power System analysis such as load flow, fault study, relay co-ordination analysis, contingency analysis and reliability assessment and distribution/transmission planning. 2) He/she should have worked with power system analysis tools such as MiPower /PSSE/ETAP/CymeDist or similar in atleast 2 projects. **Marking Scheme:** a) 1 mark for 7 years of experience in Power System analysis in distribution/transmission sector. b) 0.5 marks for each year of experience in power system analysis tools above 7 years subject to maximum 2 marks. c) Personal Interview: 2 marks.	**Area of Specialization:** Power System Network Planning, modelling and simulation on reputed Network Simulation Software. **Other Terms:** The responsibilities inter-alia include: 1) Simulation and analysis of the existing distribution network of APDCL and analyze the performance under a range of realistic operating scenarios and all the other scope of works under Part 2 of the project. 2) Conduct training on load forecast and power system master planning principle and hands – on. 3) Provide all necessary support to APDCL in the operation, maintenance, future GIS integration and support period.

4)	Distribution Engineers for survey works (8 nos.)	1) Power Engineer having degree in Electrical /Power System Engineering with an overall experience of atleast 5 years in Power Distribution Sector, Electrical substations, electrical power distribution, power system survey works, etc. relevant to the scope of works as in Part 1 of the project. 2) Should have minimum 3 years' experience in CAD designing. 3) Proficiency in using surveying equipment, mapping software, and GPS. **Marking Scheme:** a) 0.5 mark for 5 years of experience in Power Distribution Sector, Electrical substations, electrical power distribution, power system survey works, etc. b) 0.1 mark for each year of experience in CAD designing and surveying works as described above 5 years subject to maximum 0.5 mark.	**Area of Specialization:** Power Distribution Sector, Electrical substations, electrical power distribution, power system survey works, etc. **Other Terms:** The responsibilities inter-alia include: 1) Assist the power system planning specialist to produce and collect the network data. 2) Field visit and stay for collection of all data with respect to substations, 33kV and 11kV feeders as laid out in the scope of works of Part 1 of the project. 3) Validation and consultation of the collected data as required in part 1 of the project at every stage of data collection in consultation with the CEO and concerned field officials. 4) Prepare power network drawings in Autocad of 33/11kV DSS alongwith their 33kV connectivity and with GSS.

6. Project Deliverables

6.1. Project deliverables during Field Survey and Network Analysis Phase

a) Consolidated Field Survey report of all DSS and suitably selected feeders conducted under Part 1 of the project with details as per scope of work mentioned in Part 1.

b) Verified and amended Power Network drawings (in Autocad) of 33/11kV DSS with 33kV incoming and outgoing feeders, power transformers, 11 KV feeders with details like feeder length, conductor type, load details, capacities, etc.

c) Network Model and Asset Database of all the circles separately in the format of the network analysis and simulation software.

d) Network Modeling Analysis and Planning Report in the form of "As Is" and "To Be" reports for the short term, mid- term and long-term including but not limited to:

   i. Load flow study report for the power distribution network for the current, short term, medium term and long term and Gap Analysis Report. The report should also include short circuit studies, transient stability studies, reactive power compensation, what if scenario studies, voltage stability studies, contingency analysis, harmonic study, etc.
   ii. Technical Loss Evaluation report.
   iii. Protection Co-ordination report.
   iv. Impact Evaluation Report of growing decentralized energy generation on network including solar and EV Charging Stations.
   v. Feasibility of microgrid network shall also be analyzed with an aim to improve reliability and reduce technical losses in rural areas.
   vi. Proposed network configuration changes with an aim to reduce technical losses and improve reliability.

e) Detailed methodology on perspective planning to cater to the short term, medium term and long-term network planning.

f) Project Progress report on fortnightly basis.

g) Supply of Network Planning Software as per scope of the RFP.

6.2. Deliverables for applications & interface

a) High Level and Low-Level Design document
b) Integration Approach & methodology document
c) Solution and System Architecture
d) Application Traceability Matrix w.r.t SRS
e) Test Plan, Test Cases, Test Report
f) User Manuals
g) Product & Custom Source Code
h) Deployment of fully functional applications
i) Deployment of fully functional integration interfaces

6.3. Hardware and Software AMC/ATS/Upgrade Support

The consultant shall be responsible for providing hardware and software AMC/ATS/UPGRADE after going live of the system for next 3 years. The scope shall include the following but not limited to the following

i. Warranty of Software and hardware which include bug fixing, patches, upgrades etc. and same shall be provided
ii. Integration of the network analysis software with the upcoming GIS, SCADA and other IT support systems of APDCL.

6.4. Post implementation support

i. The Consultant shall be responsible for providing stabilization support for six months after going live of the system. The bidder shall deploy resources (to be decided during project sign-off) during this period. The scope shall include the following but not limited to the following.
ii. Maintenance of Hardware and Software system and application response time.
iii. System and database administration.
iv. Hardware responsibility
v. Existing application maintenance, correction, enhancement, new development, bug fixing etc.
vi. Maintenance, modification, enhancement and new integrated business process.
vii. Post implementation phase shall also cover the new requirement of tools, application report etc. of utility.
viii. The Consultant shall provide both onsite and offsite support of experts also to resolve the issues in shortest time.

7. Delivery Schedule

Report/Document	Number of Copies	Delivery Schedule
Supply of Distribution Network Planning Software and continuous handholding of APDCL Engineers for operation of the same.		Within 1 month from the date of issue of work order.
Submission of SLD of all 33/11kV DSS and the circle wise 33kV distribution network alongwith all incomers and outgoing feeders and survey report for 3 electrical circles.	4 (3 Hard copies+ 1 editable soft copy) in appropriate sizes	Within 2 months from the date of issue of work order.
Submission of Network Modeling Analysis Reports as per scope of work and deliverables as laid out in clauses 3 and 5 for 3 nos. electrical circles, one from each region.	4 (3 Hard copies+ 1 editable soft copy)	Within 3 months from the date of issue of work order.
Presentation of draft System Study Progress Review Report of the 3 electrical circles as mentioned above.	4 (3 Hard copies+ 1 editable soft copy)	Within 3 months from the date of issue of work order.
Submission of SLD of all 33/11kV DSS and the circle wise 33kV distribution network alongwith all incomers and outgoing feeders and survey report for 6 electrical circles.	4 (3 Hard copies+ 1 editable soft copy)	Within 4 months from the date of issue of work order.

Submission of Network Modeling Analysis Reports as per scope of work and deliverables as laid out in clauses 3 and 5 for 6 nos. electrical circles.	4 (3 Hard copies+ 1 editable soft copy) in appropriate sizes	Within 5 months from the date of issue of work order.
Presentation of draft System Study Progress Review Report of the 6 electrical circles as mentioned above.	4 (3 Hard copies+ 1 editable soft copy) in appropriate sizes	Within 5 months from the date of issue of work order.
Submission of SLD of all 33/11kV DSS and the circle wise 33kV distribution network alongwith all incomers and outgoing feeders and survey report for the remaining electrical circles.	4 (3 Hard copies+ 1 editable soft copy) in appropriate sizes	Within 8 months from the date of issue of work order.
Submission of Network Modeling Analysis Reports as per scope of work and deliverables as laid out in clauses 3 and 5 for remaining electrical circles.	4 (3 Hard copies+ 1 editable soft copy) in appropriate sizes	Within 10 months from the date of issue of work order.
Presentation of draft System Study Report of all electrical circles for approval from CGM (PP&D) after due approval from CEOs of various Electrical Circles	4 (3 Hard copies+ 1 editable soft copy) in appropriate sizes	Within 11months from the date of issue of work order.
Submission of final system study report.	7(6Hard copies+ 1 editable soft copy) in appropriate sizes	Within 12months from the date of issue of work order.

Note:

1. The above number of copies shown are indicative only. The exact number of hard copies needed will be defined at a later stage. All these reports will have to be sent by email to APDCL.
2. In case of Field Survey, the CONSULTANT has to deploy qualified and experienced manpower as mentioned in the table as per the requirement of field works to ensure timely completion of the works.
3. Within one month of the commencement of duties, the support personnel shall provide the Purchaser with a detailed work plan. The work plan shall detail the period of time to be spent on each work item, planned completion date and specific outputs. This plan must include, but should not be limited to:

   (a) System optimization

   (b) Specification and configuration documentation

   (c) Work procedures documentation

   If APDCL finds the resource/resources deployed by the vendor as technically incompetent, shows lack of interest in performing their respective tasks or behaves in unprofessional manner, APDCL may relieve such resources immediately and the vendor will have to replace the manpower within 7 days, failing which penalties will be imposed as described in the Service Level agreement of this RFP.

8. Client's Input:

8.1. The CONSULTANT personnel shall be available at APDCL Offices. The CONSULTANT shall arrange all stationeries and other equipment for project management at their own cost. Only the sitting provision may be made available at APDCL office based on the requirement.

8.2. The Consultant should make their own arrangement for office furniture, equipment, stationeries, photocopier, printer communication facilities like telephone, internet connection etc. including its maintenance thereof. Vehicle for transportation to Project site and to & fro to APDCL's HQ shall be arranged by the consultant of its own.

8.3. The Assistant General Manager of the T&C Division of the respective Circle shall be the nodal point of contact for the Consultant.

APPENDIX A: TENDER EVALUATION METHODOLOGY

1. Tender Evaluation Methodology (QCBS)

The Proposals shall be evaluated following the QCBS method. In case of QCBS, each bidder shall be given a score against various eligibility criteria as per the following modalities. Under this RFP, technical proposals will be allotted weightage of **80 % (eighty percent)** while the financial proposals will be allotted weightages of **20 % (twenty percent).** The proposal with highest technical marks (as allotted by the evaluation committee) shall be given a score of 100 (Hundred) and other proposals be given technical score that are proportional to their marks w.r.t the highest marks. The total score, both technical and financial, shall be obtained by weighing the quality and cost scores and adding them up. On the basis of the combined weighted score for quality and cost, the consultant shall be ranked in terms of the total score obtained. The Proposal obtaining the highest total combined score in evaluationof quality and cost will be ranked as H-1 followed by the proposals securing lesser marks as H-2, H-3 etc. The proposal securing the highest combined marks and ranked H-1 will be invited for negotiations, if required and shall be recommended for award of contract. In the event two or more bids have the same score in final ranking, the bid with highest technical score will be H-1.

In such a case, an Evaluated Bid Score (B) will be calculated for each responsive Bid using the following formula, which permits a comprehensive assessment of the Bid price and the technical merits of each Bid:

$$B = \frac{C_{low}}{C} X + \frac{T}{T_{high}}(1 - X)$$

Where,

C	=	Evaluated Bid Price
C_{low}	=	the lowest of all Evaluated Bid Prices among responsive Bids
T	=	the total Technical Score awarded to the Bid
T_{high}	=	the Technical Score achieved by the Bid that was scored best among all responsive Bids
X	=	weightage for the Price as specified above viz. 20 %

The Bid with the best evaluated Bid Score (B) among responsive Bids shall be the Most Advantageous Bid.

2. EVALUATION OF TECHNICAL PROPOSAL

The eligibility criteria and the scoring mechanism for evaluation of technical proposal is as follows: -

SL No.	Experience Category	Criteria			Maximum Marks
1	Consulting Experience	No. of years of experience of providing **Power Distribution Sector consultancy services** to CPSUs/ State Government/ Government undertakings/ Govt. Utilities / Corporations, as on the date of opening of techno- commercial bid			10
2	Similar Assignment Experience	No. of successfully completed **similar assignments for load flow study of Power System Networks in India using standard Power System Analysis Software with cumulative consultancy services cost of minimum Rs. 1 (one) Crore, in last 7 years** with State Distribution Company/Private Utilities/Electricity Departments/Regulatory Commissions, State or Central Govt. PSUs/ Corporation/ Departments in India.			10
		#	**Weightage**	**%**	
		1	Cumulative Project Value	50	
		2	No. of successfully completed projects	50	
3	Experience in Power System Analysis Software	The Bidder must have experience in successful completion of **similar assignments for load flow study of Power System Networks in India using standard Power System Analysis Software with atleast 3(three) nos.** of State Distribution Company/Private Utilities/Electricity Departments/Regulatory Commissions, State or Central Govt. PSUs/ Corporation/ Departments in India.			10
		#	**Weightage**	%	
		1	No. of completed projects.	50	
		2	No. of State Distribution Company/Private Utilities/Electricity Departments/Regulatory Commissions, State or Central Govt. PSUs/ Corporation/ Departments in India for whom similar projects have been completed.	50	
4	Key Expert's Experience	Proposed team strength comprising Key-Experts and Surveyors with roles and responsibilities as per terms and conditions mentioned in the RFB. 1. Project Manager / Team Leader – 10 marks 2. Network Analysis & Planning Expert (1 No.) – 7 marks 3. Network Simulation Software Expert (2 Nos.) – 5 Marks for each expert 4. Distribution Engineers for survey works (8 nos.)– 1 Mark for each expert. All the proposed key experts except Surveyors shall be on the pay-roll of the consulting firm.			35
6	Completeness of the proposed methodology	Adequacy and quality of the proposed methodology, and work plan in response to the Terms of Reference [The client will assess whether the proposed methodology is clear, responds to the ToRs, work plan is realistic and implementable; overall team composition is balanced and has an appropriate skills mix; and the work plan has right input of Experts]			10
		#	**Weightage**	**%**	
		1	Completeness of detailed work plan and task wise methodology for execution of the scope of work including capacity building of APDCL officials.	30	

		2	Furnishing of detailed schedule of operations to achieve the scope of work alongwith PERT Chart, detailed timeline and identification of critical tasks.	50	
		3	Proposed Capacity Building and Training Schedule and methodology of APDCL Officials.	20	
8	Compliance of the Network Analysis and Simulation Software	Adequacy and compliance of the Network Analysis and Simulation Software in the demonstration of the proposed software solution.			15
		#	**Weightage**	**%**	
		1	No. of available analysis features as per requirement.	25	
		2	GIS/SCADA/OMS/DMS Integration feature and compatibility across platforms	20	
		3	Completeness of network elements database as in transformers, conductors, relays, etc.	15	
		4	Simulation of an extensive 33kV power network (min. 40 feeders) and 11kv feeder distribution network in the distribution software	20	
		5	Network tracing in maps	10	
		6	Demonstration of the software at APDCL office and Availability of detailed user manual of the software.	10	
	Financial Capability	Average annual turnover of the bidder for the last three consecutive financial years (FY 2019-20, FY 2020-21, FY 2021-22) shall be as per RFP and the annual turnover must be certified by a registered Chartered Accountant.			10
		#	**Parameter**	**%**	
		1	Rs 10 Crores	5	
		2	Rs 10 Crores to Rs 100 Crores	Proportionate marking	
		3	Above Rs 100 Crores	10	

Note to Bidders: -

- **Scores shall be assigned in proportion to highest submission against the qualifying criteria.**
- **A bidder failing to fulfill the minimum eligibility against any given criteria as tabulated above shall be awarded "zero" marks against thatparticular criterion.**
- **Minimum marks required for qualifying the Techno-commercial evaluation stage: 70**
- **Bidders shall have to submit documentary evidence in support of above claim in the form of LOA/LOI/work orders/ contract agreement/ performance certificate/completion certificate issued by the client, etc. Experience of Foreign or In-house assignments shall not be considered.**

3. In case of JV, the scores obtained against respective evaluation parameters by each partner shall be added together subject to maximum allocation against the criteria. Evaluation of Financial Proposal: -

The Financial Evaluation of the bidder will be as follows: -

Evaluated score of the bidder = **$(C_{low}/C) \times 100$**

where,

C_{low} = the lowest of all Evaluated Bid Prices among responsive Bids

C = Financial proposal of the bidder under consideration

Section V:
General Conditions of Contract
(GCC)

Table of Contents

1. General Introduction

1.1 Definitions & Interpretations

The following terms appearing in the RFP shall have the meaning herein indicated unless there is anything repugnant in the subject or context.

1.1.1 Employer/Purchaser/Client/Owner means Assam Power Distribution Company Limited (in short APDCL)

1.1.2 "Consultant" means the firms whose proposal to perform the Contract has been accepted by the Employer and is named in the Contract Agreement, and includes the legal successors or permitted assigns of the Consultant.

1.1.3 "Contract" shall mean and include the general conditions, specifications, schedules, tender forms, bidding schedules, covering letter, schedule of prices, any special conditions applying to the particular contract specification, amendments if any, letter of award, letter of acceptance and contract agreement to be entered into.

1.1.4 "Contract Period" means the period from the Contract commencement date to the date on which Warranty Period is over. Date of Awarding of LOA shall be treated as the "date of commencement of contract".

1.1.5 "Facilities" means the Materials and Equipment to be supplied and installed/erected, as well as all the Installation Services to be carried out by the Consultant under the Contract.

1.1.6 "Site" means the land and other places upon which the Facilities are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site.

1.1.7 "Taking Over" means the Employers' written acceptance of the Facilities under the Contract, after successful Operation and acceptance of the facilities by the Employer.

1.1.8 "Time for Completion" means the time within which Completion of the Facilities is to be attained in accordance with the scope of work and specifications, as a whole and "Taking Over" by the Employer is to be attained.

1.1.9 "Day" shall mean a calendar day.

1.1.10 "Month" shall mean a calendar month.

1.2 Language

1.2.1 The official language of the Contract is English. Contract as well as all correspondence and documents relating to the Contract exchanged by the Consultant and APDCL shall be written in English. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, the English translation shall govern.

1.2.2 The Consultant shall bear all costs of translation to English and all risks of the accuracy of such translation. The Consultant shall be bound to the English translation and what has been stated therein.

1.3 Governing Laws

1.3.1 The Contract shall be governed by and interpreted in accordance with the laws of the

India. The Gauhati High Court shall have exclusive jurisdiction in respect of any disputes relating to the tendering process, award of Contract and execution of the Contract.

1.3.2 In all cases, this contract shall be governed by and interpreted in accordance with the Law of the Union of India. In this context, the expression 'Law' takes within its fold statutory law, Judicial Decisional Law, Delegated Legislation and relevant regulations as well.

1.4 Intellectual Property

1.4.1 Copy Right

The Consultant shall indemnify APDCL against all claims, actions, suits and proceedings for the infringement or alleged infringement of any patent, design or copyright protected either in the country of origin or in India for the use of any documents/deliverables by the Consultant but such indemnify shall not cause any use of the documents other than for the purposes indicated by or reasonably to be inferred from the specification.

1.4.2 Confidential Information

1.4.2.1 Both Consultant and APDCL shall undertake to each other to keep confidential all information (written as well as oral) concerning the business and affairs of the other, which has been obtained or received as a result of the discussions leading up to or the entering of the Contract.

1.4.2.2 After the entering of the contract, APDCL and the Consultant shall keep confidential and shall not, without the written consent of the other Party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other Party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Consultant may furnish to its subconsultant such documents, data, and other information it receives from APDCL to the extent required for the subcontractor to perform its work under the Contract, in which event the Consultant shall obtain from such subcontractor an undertaking of confidentiality similar to that imposed on the Consultant under this Clause.

1.4.2.3 APDCL shall not use such documents, data, and other information received from the Consultant for any purposes not related to the Contract.

Similarly, the Consultant shall not use such documents, data, and other information received from APDCL for any purpose other than the design, procurement, or other work and services required for the performance of the Contract.

1.4.2.4 The obligation of a Party under Clauses 1.4.2.1 and 1.4.2.2 above, however, shall not apply to information that:

- APDCL or Consultant need to share with the institutions participating in

the financing of the Contract;

- now or hereafter enters the public domain through no fault of that Party;
- can be proven to have been possessed by that Party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other Party; or
- Otherwise lawfully becomes available to that Party from a third Party that has no obligation of confidentiality.

1.4.2.5 The above provisions of this Section 1.4.2 shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of the Contract in respect of the Services or any part thereof.

1.4.2.6 Each of the Parties to this contract, undertakes to the other to take all such steps as shall from time to time be necessary to ensure compliance with the provisions of the above clauses by its employees, agents and sub-consultants.

1.4.2.7 The provisions of this Section 1.4.2 survive completion or termination, for whatever reason, of the Contract.

2. Subject Matter of Contract

2.1 Scope of Works

As stipulated under clause no. 2 under Section IV: Terms of Reference of the RFP.

2.2 Consultant's Responsibilities

The Consultant shall successfully implement this project as per the Scope of Work, Functional Requirements, Project Deliverables as mentioned in this RFP.

2.2.1 **Standard of Performance**:

a) The Consultant shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with the third parties.

b) The Consultant shall employ and provide such qualified and experienced Key Experts and Sub-consultants as are required to carry out the Services.

2.2.2 **Law applicable to Services**

The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and other Staff, comply with the Applicable Law.

2.2.3 **Conflict of Interests**

The Consultant shall hold the Client's interest paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own

corporate interests.

Conflict of Interest for a Procuring Entity or its personnel and consultants is considered to be a situation in which a party has interests that could improperly influence that performance of its duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

All bidders found to be in conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in a bidding process if they

a) Have controlling shareholders in common; or

b) Receive or have received any direct or indirect subsidy from any of them; or

c) Have the same legal representative for purposes of a bid; or

d) Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on a bid of another bidder, or influence the decisions of the Employer regarding the bidding process

2.2.4 **Accounting, Inspection and Auditing**

a) The Consultant shall keep accurate and systematic accounts and records in respect of the Services in such form and detail as will clearly identify relevant time changes and costs.

b) The Consultant shall permit the Bank and/or persons appointed by the Bank to inspect the site and/or the accounts and records relating to the performance of the Contract and the submission of the Proposal to provide the Services, and to have such accounts and records audited by auditors appointed by the Bank.

2.2.5 **Reporting Obligations**

The Consultant shall submit to the Client the reports and documents in the form, in the numbers and within the time periods specified under Section IV: Terms of Reference of the RFP Document.

2.2.6 **Proprietary Rights of the Client in Reports and Records**

a) Unless otherwise specified, all reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential and become and remain the absolute property of the Client. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval of the Client.

b) If license agreements are necessary or appropriate between the Consultant and third parties for purposes of development of the plans, drawings, specifications, designs, databases, other documents and software, the Consultant shall obtain the Client's prior written approval to such agreements, and the Client shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned. The Client shall not use such information in future without prior written consent of APDCL.

2.3 APDCL's Responsibilities

2.3.1 The CGM(PP&D) of APDCL shall act as the nodal point for implementation of the contract and for issuing necessary instructions, approvals, commissioning, acceptance certificates, payments etc. to the Consultant.

2.3.2 APDCL may provide on Consultant's request, particulars/ information / or documentation that may be required by the Consultant for proper planning and execution of Scope of Work under this Contract.

2.3.3 Assist the Consultant with obtaining work permits and such other documents as shall be necessary to enable the Consultant to perform the Services

2.3.4 **Access to Project Site:**

The Client warrants that the Consultant shall have, free of charge, unimpeded access to the project site in respect of which access is required for the performance of the Services. However, the Consultant shall indemnify and hold harmless the Employer and Employer's Officials against any damage to the project site or any property thereon resulting from such access in pursuant to clause 7.1 under this section.

2.3.5 **Changes in the Applicable Law Related to Taxes and Duties**

If, after the date of this Contract, there is any change in the Applicable Law in the Client's country with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be according to the final sanction value of the Project.

2.3.6 **Payment Obligations**

In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to theConsultant and in pursuant to the Terms of Payment mentioned under Clause no. 5 of this existing Section of the RFP.

2.4 Funding of the Project

The proposed project is funded by GOA under the scheme "Consultancy for system study and preparation of master plan for power distribution network of Assam till 2030 with capacity building and necessary training for the personnel" under SOPD for the FY 23-24.

3. Execution of the Project

3.1 Project Completion Period

The entire project as mentioned in the scope of works section must be completed within 12 (twelve) months from the date of award of Contract.

3.2 Project implementation Schedule

The CONSULTANT shall submit his proposed action plan for the monitoring of works to APDCL for approval. The program shall include the following: -

i. The order in which the CONSULTANT proposes to carry out the services;
ii. Detailed schedule of operations to achieve the scope of work alongwith PERT Chart, detailed timeline and identification of critical tasks.
iii. The scheduled date for completion of all works, as approved by the Tenderer's Representative;
iv. Proposed Capacity Building and Training Schedule and methodology of APDCL Officials.

3.3 Extension of time for Completion

Primarily, there shall not be any extension of time for project completion irrespective of size & volume of work except under the following circumstances: -

3.3.1 If at any time during performance of the Contract, the Consultant encounters conditions impeding completion of related Services under the purview of the contract, the Consultant shall promptly notify APDCL in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Consultant's notice, APDCL shall evaluate the situation and may at its discretion extend the Consultant's time for performance, in which case the extension shall be ratified by the Parties by amendment of the Contract.

3.3.2 Any occurrence of Force Majeure as provided under sub-section 7.3 under this section of the RFP.

3.4 Project Management and Site Organizations

In Consideration of the stringent schedule of the project, the successful bidder(s)/Consultant(s) shall exercise systematic and tightly controlled project management system with the aid of commonly used soft tools like **MS Project**. Any alterations regarding the baseline plan submitted in conformity to **TECH- 5** format under Section VI may be accorded with due approval from APDCL.

3.5 Sub-Contracting

The Consultant shall not be permitted to subcontract its obligations under the Contract with APDCL.

3.6 Site Regulation & Safety

3.6.1 Consultant's Supervision

The Consultant shall give or provide all necessary superintendence during the installation of the Facilities, and the Construction Manager or its deputy shall be constantly on the Siteca to provide full-time superintendence of the installation. The

Consultant shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequatelysupervise the work at hand.

3.6.2 Environmental Considerations

The CONSULTANT shall inform the reasonable steps to be taken by the contractors to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations. The CONSULTANT shall ensure that air emissions, surface discharges and effluent from the Site during the Contract Period shall not exceed the values prescribed by law Adherence to Safety Provisions

3.6.3 Adherence to Safety Provisions

3.6.3.1 The CONSULTANT shall comply with all applicable rules/safety regulations/guidelines issued by appropriate authorities including regulation 7(4) of the Central Electricity Authority (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants and Electric lines) Regulations, 2011., Electricity Rules 2005, and Safety instruction notified by the Electrical Inspector, Electrical Inspection Departments Govt. of Assam and "best practices" established within the industry.

3.6.3.2 The CONSULTANT shall ensure the adequate safety devices, as per the applicable codes, standards and practices, for handling and installing the Plant and Equipment and testing the facilities.

3.6.3.3 The CONSULTANT shall verify the safety plan submitted by the contractor and ensure the safety precautions during execution of works. CONSULTANT to ensure the Safety Plan shall be developed to ensure Zero fatal accidents and Zero hazardous incidents/occurrences during the services, and during the Guarantee Period. The Employer's Representative shall scrutinize, modify if required and approve such proposed Safety Plan, in consultation with the CONSULTANT. If the Employer's Representative does not give its approval or objection within the stated period, the Safety Plan shall be deemed to be accepted. Nevertheless, any approval by the Employer's Representative, or failure to object to the proposed Safety Plan, will not relieve the CONSULTANT of any of its obligations or responsibility under the contract.

3.7 Compliance with Labour Regulations

3.7.1.1 During continuance of the contract, the Consultant and his sub- consultants shall abide at all times by all applicable existing labour enactments and rules made there under, regulations notifications and byelaws of the State or Central Government or local authority and any other labour law (including rules). The employees of the Consultant in no case shall be treated as the employees of APDCL at any point of time.

3.7.1.2 The Consultant shall keep APDCL indemnified in case any action is taken against the Consultant by the competent authority on account ofcontravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments.

3.7.1.3 If APDCL is caused to pay under any law as principal employer such amounts as may be necessary to cause or observe, or for non- observance of the provisions stipulated in the notifications/ byelaws/Acts/ Rules/regulations including

amendments, if any, on the part of the Consultant, APDCL shall have the right to deduct any money due to the Consultant under this contract or any other contract with APDCL including his amount of performance security for adjusting the aforesaid payment. APDCL shall also have right to recover from the Consultant any sum required or estimated to be required for making good the loss or damage suffered by APDCL.

3.7.1.4 Notwithstanding the above, the Consultant shall furnish to APDCL, the details/documents evidencing the Consultant's compliance to the laws applicable to establishments engaged in building and other construction works, as may be sought by APDCL.

4. CONSULTANT'S EXPERTS

4.1 Description of Key Experts

The title, agreed job description, minimum qualification and time-input estimates to carry out the Services of each of the Consultant's Key Experts are described in Terms of Reference under Section IV of this RFP Document.

4.2 Replacement of Key Experts

4.2.1 Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts.

4.2.2 Notwithstanding the above, the substitution of Key Experts during Contract execution may be considered only based on the Consultant's written request prior to contract signing and due to circumstances outside the reasonable control of the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, meet eligibility requirements set forth in the Terms of Reference under Section IV of this RFP Document.

4.3 Approval of Additional Key Experts

4.3.1 If during execution of the Contract, additional Key Experts are required to carry out the Services, the Consultant shall submit to the Client for review and approval a copy of their Curricula Vitae (CVs). If the Client does not object in writing (stating the reasons for the objection) within twenty two (22) days from the date of receipt of such CVs, such additional Key Experts shall be deemed to have been approved by the Client.

4.3.2 The rate of remuneration payable to such new additional Key Experts shall be based on the rates for other Key Experts position which require similar qualifications and experience.

4.4 Removal of Key Experts/Non-Key Experts

4.4.1 If the Client finds that any of the Experts has committed serious misconduct or has been charged with having committed a criminal action, or if the Client determines that a Consultant's Expert has engaged in Fraudulent and Corrupt Practice while performing the Services, the Consultant shall, at the Client's written request, provide

a replacement.

4.4.2 Key Experts, Non-key Experts who are found to have breached the Consultant's Code of Conduct (ESHS) e.g., spreading communicable diseases, sexual harassment, gender based violence, illicit activity or crime) shall be replaced by the Consultant, or at the Client's written request

4.4.3 In the event that any of Key Experts, Non-Key Experts is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Consultant to provide a replacement.

4.4.4 Any replacement of the removed Experts shall possess better qualifications and experience and shall be acceptable to the Client.

4.5 Replacement/Removal of Experts- Impact on Payments

4.5.1 Except as the Client may otherwise agree, (i) the Consultant shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and (ii) the remuneration to be paid for any of the Experts provided as a replacement shall not exceed the remuneration which would have been payable to the Experts replaced or removed.

5. PAYMENT

5.1 Contract Price

5.1.1 The Contract Price will be calculated based on the percentage fee quoted by the bidder and shall be payable against the final sanction value of the DPR by the MoP to the APDCL.

5.1.2 Prices charged by the Consultant for the scope of work performed under the Contract shall not vary from the prices quoted by the Consultant in its Bid, with the exception of any price adjustments authorized in the RFP.

5.1.3 Prices shall not be subject to any upward/downward revision on any account whatsoever throughout the period of contract. Provided that any revision in taxes, statutory levies, duties which is not occasioned due to any change in place, method and time of services or non-performance/ non- fulfilment of any condition of any exemption considered by the Consultant at the time of proposal, shall be considered for price adjustments.

5.2 Terms of Payment

5.2.1 The bidder shall submit the invoices on completion of works against each milestone. The overall CONSULTANT payment shall be released as per the following timelines. The release of payment will be in Indian Rupees: -

Milestone	Payment	Payment (Cumulative)	Eligibility
I	Lump-sum amount for 30% of the Project excl. Software Assistance service charges	30%	Presentation of draft System Study Progress Review Report of the 3 electrical circles after submission of network SLDs, Field survey reports and network modeling analysis reports + Supply of Network Planning Software License with multiple parallel users alongwith laptops of adequate specification and providing training and software assistance till the execution of the project.
II	Lump-sum amount for 20% of the Project excl. Software Assistance service charges	50%	Presentation of draft System Study Progress Review Report of the next 6 electrical circles after submission of network SLDs, Field survey reports and network modeling analysis reports.
III	Lump-sum amount for 30% of the Project excl. Software Assistance service charges	80%	Presentation of draft System Study Progress Review Report of the remaining 10 electrical circles after submission of network SLDs, Field survey reports and network modeling analysis reports,
IV	Lump-sum amount for 20% of the Project excl. Software Assistance service charges	100%	Submission of final system study report for the entire state

Note: The Payment percentage shall be excluding the payment against Software assistance for a period of 3 (three) years post completion of project.

6. LIQUIDATED DAMAGES AND PENALTIES

6.1 Liquidated Damages

6.1.1 Except as provided under the provision of "Force Majeure", if a Consultant fails to deliver any or all of the related Services within the period specified in the Contract, APDCL shall without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 1% of the value of the Services of contract value for each week or part thereof of delay until actual delivery or performance, subject to a maximum of 10% of contract value.

6.1.2 In case of default of the Consultant regarding slippage/non-fulfilment of the services as per the Contract, APDCL shall be free to impose any penalty as per the Clause No. 6.2 as mentioned in the following point. In addition, APDCL shall reserve the right to terminate the contract and recover liquidated damages by forfeiting the Performance Guarantee submitted to APDCL.

6.2 Penalty against Non-Performance/Slippage of Milestones

6.2.1 Penalty of 1% will be levied on every payment milestone for delay of every week or part thereof up to limit of 10% of payment milestone owing to reasons attributable on the part of the CONSULTANT.

6.2.2 Apart from the above clause, if the Consultant fails to perform as per Terms and Conditions of contract, the penalty of 0.5% per week of the respective payment milestone shall be imposed for each occasion of non-performance.

6.3 Liability/Indemnity

The Consultant hereby agrees to indemnify APDCL, for all conditions and situations mentioned in this clause, in a form and manner acceptable to APDCL. The Consultant agrees to indemnify APDCL and its officers, servants, agents ("APDCL Indemnified Persons") from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:

a) any negligence or wrongful act or omission by the Consultant or its agents or employees or any third Party associated with consultant in connection with or incidental to this Contract; or
b) Any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied Goods and Related Services or any part thereof.

7. RISK DISTRIBUTION

7.1 Loss of/ Damage to Property; Accident or Injury to Workers; Indemnification

The Consultant shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property (other than the Facilities whether accepted or not), arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Consultant or its Sub-consultants, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its consultants, employees, officers or agents.

7.2 Insurance

The Consultant shall take out and maintain, at its own cost but on terms and conditions approved by the Client, insurance against the risks, and for the following coverages, and at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid. The Consultant shall ensure that such insurance is in place prior to commencing the Services as stated in Clause no. 6.4 under Section II of this RFP Document.

(a) Professional liability insurance, which shall insure the CONSULTANT's liability by reason of professional negligence in providing the services under the contract, with a minimum coverage of one times the Contract value. The CONSULTANT shall use his best endeavors to maintain such professional indemnity insurance in full force and effect throughout

the periods of his liability, under the Contract and under the law of Country. The CONSULTANT undertakes to give the Employer reasonable notice in the event of such difficulty (if any) in extending, renewing or reinstating such insurance.

(b) **Insurance against Injury to Persons and Damage to Property**; The CONSULTANT shall insure against liability to third parties, in the joint names of the Employer and theCONSULTANT, for any loss, damage, death or bodily injury which may occur to any physical property or to any person (except persons insured under Sub-Clause d of Clause 7.2 below), which may arise out of the performance of the Contract and occurring before the issue of the Performance Certificate.

(c) **Insurance for CONSULTANT Personnel**; The CONSULTANT shall effect and maintain insurance against losses and claims arising from the death or injury to any person employed by the CONSULTANT, in such a manner that the Employer and the Employer's Representative are indemnified under the policy of insurance

(d) **Insurance for Services and CONSULTANT's equipments, if any**; Insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultant's property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services.

7.3 Force Majeure

7.3.1 The Consultant shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

7.3.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Consultant that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Consultant. Such events may include, but not be limited to warsor revolutions, earthquake, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

7.3.3 If a Force Majeure situation arises, the Consultant shall promptly and no later than 10 (ten) days from the first occurrence thereof, notify APDCL in writing of such condition and the cause thereof. Unless otherwise directedby APDCL in writing, the Consultant shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

7.3.4 The decision of APDCL with regard to the occurrence, continuation, periodor extent of Force Majeure shall be final and binding on the Consultant.

8. Change in Contract Elements

8.1 Change in Laws & Regulations

Unless otherwise specified in the Contract, if after the date of the Invitation for Bids,

any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in India where the site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date, then such Delivery Date shall be correspondingly increased or decreased, to the extent that the Consultant has thereby been affected in the performance of any of its obligations under the Contract.

8.2 Change Orders and Contract Amendments

8.2.1 APDCL may at any time order the Consultant through Notice to make changes within the general scope of the Contract in any one or more of thefollowing:

a) deliverables under the Project;
b) project Scheduling Plan; and
c) any other related Services to be provided by the Consultant for successful execution of the Contract.

8.2.2 If any such Change Order causes an increase or decrease in the cost of, or the time required for, the Consultant's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery and Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Consultant for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Consultant's receipt of APDCL's Change Order.No variation or modification of the terms of the contract shall be madeexcept by written amendment signed by the Parties.

9. Resolution of Disputes

9.1 Settlement of Disputes

9.1.1 APDCL and the Consultant shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

9.1.2 If the Parties fail to resolve such a dispute (the date of commencement of the dispute shall be taken from the date when this clause reference is quoted by either Party in a formal communication clearly mentioning existence of dispute or as mutually agreed) or difference by mutual consultation within twenty-eight (28) days from the commencement of such consultation, either Party may require that the dispute be referred for resolution to the formal mechanisms specified in the subsequent Clauses 9.2 and 9.3 under this RFP.

9.2 Arbitration

All disputes or differences in respect of which the decision, if any, of the Employerhas not become final or binding as aforesaid shall be settled by arbitration in the manner provided in the Company's General Conditions of Supply and Erection (GCSE). The GCSE can be downloaded from the APDCL website under the head "Acts & Policies".

9.3 Legal Jurisdiction

For any litigation arising out of the Contract which cannot be resolved through mutual agreement or through Arbitration, the Gauhati High Court will have the sole

jurisdiction.

10. Suspension and Termination

10.1 Suspension

The Client may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the Consultant ofsuch notice of suspension

10.2 Termination of Contract

This Contract may be terminated by either Party as per provisions set up below: -

10.2.1 **Termination by the Employer:** The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written noticein case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in(f).

(a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a Notice of suspension pursuant to Clause No. 10.1 under Section V: GCC;

(b) If the Consultant becomes insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;

(c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause No. 9.1 under Section V: GCC;

(d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;

(e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;

(f) If the Consultant fails to confirm availability of Key Experts as required in Clause GCC 13.

Furthermore, if the Client determines that the Consultant has engaged in corrupt, fraudulent, corrupt, collusive, coercive or obstructive practices, in competing for or in executing the contract [in pursuant to clause no. 6.7 under Section II] then the Client may, after giving fourteen (14) Calendar

days written notice to the Consultant, terminate the Consultant's employment under the Contract.

10.2.2 **Termination by the Consultant:** The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause

(a) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a periodof not less than sixty (60) calendar days.

(b) If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Sub-clause No. 9.2 under Clause 9 of this Section V of the RFP.

10.2.3 **Cessation of Services**: Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GCC 10.2.1 or GCC 10.2.2, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the Client, the Consultant shall proceed as provided by Sub-clause No. 2.2.6 under Clause 2 of this section.

10.2.4 **Payment upon Termination:** Upon termination of this contract, the Client shall make payment for the renumeration for Services performed satisfactorily prior to termination of the Contract.

11. Assignment

The Consultant shall not assign, in whole or in part, their obligations under this Contract.

12. Disclaimer

While the Company will make every endeavor to extend necessary facilitation in expediting the work, the consultant shall be responsible to organize and arrange all necessary inputs right from mobilization activities up to completion of the project. Company will not entertain any failure / delay on such accounts. Also, Company will not be responsible for any compensation, replenishment, damage, theft etc. as may be caused due to negligent working, insufficient coordination with Government / non-Government / Local Authority by the consultant and/ or his personnel deputed for work. The consultant shall take necessary insurance coverage under LIC/GIC etc. for his working personnel and the goods in store as well as in transit. The consultant will be deemed to have made him acquainted with the local working conditions at site(s) and fully provide for into the bid submitted.

----- End of Section-V (GCC) ----

Section VI:
Technical & Financial Proposal
(Standard Formats)

Table of Contents

FORM TECH-1
TECHNICAL PROPOSAL SUBMISSION FORM

{Location, Date}

To: *[Name and address of Client]*

(On Bidder's Letterhead)

Name of Contract: - Consultancy Services for Preparation of detailed System Study Report of the Sub-Transmission And Distribution Network of APDCL including simulation and design using suitable and updated distribution planning software along with handhold training

Reference RFP: - **NIT No. APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03, Dtd: 05.07.2023**

To Chief General Manager (PP&D), APDCL
6th floor, Bijulee Bhawan, Paltanbazar
Guwahati- 781001, Assam, India

Sir,

We have examined the conditions of Contracts for appointment of CONSULTANT to APDCL mentioned in the bid document. We have understood and checked these documents and have not found any errors in them. We accordingly put forward our offer as System Study Consultants to APDCL. The worksinvolves field survey of the distribution network of APDCL under various circles, preparation of a detailed system study, load survey report, supply of distribution planning and simulation software, etc. and any other works, as defined in the bid document, fit for its purpose in conformity with these documents and the enclosed proposal.

We hereby declare that we accept all the terms, conditions, specifications and all other matters set forth in all the sections of this RFP Document and agree that these will forma part of the Contract if we are selected for award of Contract.

We have submitted price bids electronically for RFP No. **NIT No. APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03, Dtd: 05.07.2023.** We have submitted complete details of our technical and financial capabilities for establishing our eligibility to on all this undertake all the works in the RFP. However, we hereby confirm that we accept that the Tenderer's decision on our eligibility to undertake the works in accordance with the requirements set out in the Instruction to the bidders will be final and binding on us, and that we will not raise any objection should the Tenderer decide to reject our Bid for one or more Tenders on the grounds that we do not satisfactorily meet the minimum qualifying criteria and qualification requirement.

This Bid and your written acceptance shall be the basis for Contract Agreement. Weunderstand that you are not bound to accept the lowest or any bid you receive or assign any reason thereof for the rejection.
We agree to keep this bid open for acceptance for a period of 180 days from the date of opening thereof and also agree not to make any modification in the terms and conditions on our own accord. We further agree to sign an Agreement to abide by the Conditions of Contractand carry out all works according to specific clauses.

We accept and confirm that Dispute Resolution procedures shall be carried out in accordance with Arbitration Act 1996 for resolution of any disputes that cannot be mutually agreed with the Client.

Yours' Faithfully

Signature (of Consultant's authorized representative) {In full and initials}:

Full name: {insert full name of authorized representative}
Title: {insert title/position of authorized representative}
Name of Consultant (company/firm name):
Capacity: {insert the person's capacity to sign for the Consultant}
Address: {insert the authorized representative's address}
Phone/fax: {insert the authorized representative's phone and fax number, if applicable}
Email: {insert the authorized representative's email address}

FORM TECH-2
CONSULTANT'S ORGANIZATION AND EXPERIENCE

Form TECH-2: a brief description of the Consultant's organization and an outline of the recent experience of the Consultant that is most relevant to the assignment. In the case of a joint venture, information on similar assignments shall be provided for each partner. For each assignment, the outline should indicate the names of the Consultant's Key Experts and Sub- consultants who participated, the duration of the assignment, the contract amount (total and, ifitwas done in a form of a joint venture or a sub-consultancy, the amount paid to the Consultant), and the Consultant's role/involvement.

A - Consultant's Organization

1. Provide here a brief description of the background and organization of your company.
2. Include organizational chart, a list of Board of Directors, and beneficial ownership.

B - Consultant's Experience

List only previous similar assignments successfully completed in the last *seven (7)* years.

1. List only those assignments for which the Consultant was legally contracted by a client as a company or was one of the joint venture members. Assignments completed by the Consultant's individual experts working privately or through other consulting firms cannot be claimed as the relevant experience of the Consultant, or that of the Consultant's partners orsub-consultants, but can be claimed by the Experts themselves in their CVs. The Consultant should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by the Client.

Duration	Assignment name/& brief description of main deliverables/outputs	Name, Address of the Clients with contact no.	Approx. Contract Value (in INR)/ Amount paid to your firm	Role on the Assignment
{e.g., Jan.2009–Apr.2010}	{e.g., "Improvement quality of .....": designed master plan for rationalization of .....;}	{e.g., Ministry of ....., country}	{e.g., INR 1 Crore}	{e.g., Lead partner in a JV A&B&C}
{e.g., Jan-May 2008}	{e.g., "Support to sub-national government .... ": drafted secondary level regulations on .....}	{e.g., municipality of..... , country}	{e.g., INR 1 Crore}	{e.g., sole Consultant}

FORM TECH-3
COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE, COUNTERPARTSTAFF, AND FACILITIES TO BE PROVIDED BY THE CLIENT

Form TECH-3: comments and suggestions on the Terms of Reference that could improve the quality/effectiveness of the assignment; and on requirements for counterpart staff and facilities, which are provided by the Client, including: administrative support, office space, local transportation, equipment, data, etc.

A - On the Terms of Reference

{improvements to the Terms of Reference, if any}

B - On Counterpart Staff and Facilities

{comments on counterpart staff and facilities to be provided by the Client. For example, administrative support, office space, local transportation, equipment, data, background reports, etc., if any}

FORM TECH-4
DESCRIPTION OF APPROACH, METHODOLOGY, AND WORK PLAN IN RESPONDING TO THE TERMS OF REFERENCE

Form TECH-4: A description of the approach, methodology and work plan for performing the assignment, including a detailed description of the proposed methodology and staffing for training, if the Terms of Reference specify training as a specific component of the assignment.

{Suggested structure of your Technical Proposal (in FTP format):

(a) Technical Approach and Methodology
(b) Work Plan
(c) Organization and Staffing}

a) ***Technical Approach and Methodology.*** {Please explain your understanding of the objectives of the assignment as outlined in the Terms of Reference (TORs), the technical approach, and the methodology you would adopt for implementing the tasks including the Environmental, Social, Health and Safety (ESHS) aspects] to deliver the expected output(s), and the degree of detail of such output. Please do not repeat/copy the TORs in here.}

b) ***Work Plan.*** {Please outline the plan for the implementation of the main activities/tasks of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client), and tentative delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing your understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents (including reports) to be delivered as final output(s) should be included here. The work plan should be consistent with the Work Schedule Form.}

c) ***Organization and Staffing.*** {Please describe the structure and composition of your team, including the list of the Key Experts, Non-Key Experts, Surveyors and relevant technical and administrative support staff.}

FORM TECH-5

WORK SCHEDULE AND PLANNING FOR DELIVERABLES

N°	Deliverables [1] (D-..)	Months											
		1	2	3	4	5	6	7	8	9	.....	12	TOTAL
D-1													
D-2													
D-3													
.													
.													
.													
.													
.													
D-n													

1. List the deliverables with the breakdown for activities required to produce them and other benchmarks such as the Client's approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase.
2. Duration of activities shall be indicated in a form of a bar chart.
3. Include a legend, if necessary, to help read the chart.

FORM TECH-6
CURRICULUM VITAE (CV)

Position Title and No.	{e.g., K-1, TEAM LEADER}
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Country of Citizenship/Residence	

Education: {List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained}

Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization andyour title/position. Contact information for references	Country	Summary of activities performedrelevant to the Assignment
[e.g., May 2005-present]	[e.g., Ministry of ……, advisor/consultant to… For references: Tel..... /e-mail……; Mr. Hbbbbb, deputy minister]		

Membership in Professional Associations and Publications:

Language Skills (indicate only languages in which you can work): _____

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Teamof Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks as in TECH- 5 in which the Expert will be involved)	

Expert's contact information: (e-mail ……., phone.....)

<u>Certification:</u>

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

{day/month/year}

Name of Expert | Signature | Date

{day/month/year}

Name of authorized Representative of the Consultant (the same who signs the Proposal) | Signature | Date

STANDARD FORMAT FOR SUBMISSION OF FINANCIAL PROPOSAL

The financial proposal against the RFP shall be submitted as per the following format only **in online modethrough E-tendering portal**.

Appointment of Consultant for Preparation of a Detailed System Study Report of the Sub-transmission and Distribution Network of APDCL including network simulation and design using suitable and updated software along with handhold training to the APDCL officials

RFP No. APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03, Dtd: 05.07.2023

Sl.No.	**Name of Work**	**Amount (All Inclusive)** (Quote in 3 digits only after the decimal point) **(Rs)**
1	Phase-1: - Survey of network and preparation of detailed SLD for 33/11kV Distribution Substations, 33kV Feeders and sample study of 11 KV feeders at each circle up to distribution transformer level	In figures
2	Phase-2: -Creation of GUI and System Studies and recommendations as detailed as per RfP	In figures
3	Software Part: Supply of Network Planning Software License with multiple parallel users and providing training	In figures
4	Operation, maintenance and software support	In figures
	Total: Rs	In figures

I/We hereby offer to complete the above-described works contained in all sections by CONSULTANT (in words Rupees…….. only).

Note:

1. Bidders are advised to quote the most competitive rates considering all factors like geographical layout, site conditions, all local conditions and factors, which may have any effect on the execution of the contract safety requirements.
2. In case of increase in quantity for any item, the unit rate as quoted by the bidder shall be considered for the same.
3. The bidders are required to quote the network survey and SLD preparation cost considering the associated manpower cost deployed for the assignment against Sl. No. 1 above, i.e. Phase-1 works as detailed in this RfP.
4. Likewise, the manpower cost shall also be considered at the time of quoting the rates against Sl. No. 2 above i.e. Phase -2 works as detailed in this RfP.
5. The cost of manpower requirement against the Project Implementation phase shall be deemed to be covered by the bidder in his quote against Sl. No. 1 & 2 above.

APDCL Circle-wise Infrastructure Profile (As on 31.03.2023)

CIRCLE	No of 33/11kV Substations (No.)	33/11kV Power Transformers (No.)	No. of Distribution Transformers Capacity wise - Nos.	No. of 33kV Feeders (No.)	33kV Line - O/H (Ckm)	No. of 11kV Feeders (No.)	11kV Line -O/H (Ckm)
GEC-I	37	667.5	1628	95	399.02	267	1251.58
GEC-II	28	330.5	4706	94	445.5	138	3355.5
Bongaigaon	26	283.82	8458	28	541	104	4835.7
Kokrajhar	25	278.16	7720	34	478.8	93	5484.5
Barpeta	24	276.98	7165	40	473.6	101	4565
Rangia	23	200.66	5760	44	418	99	8470
Mangaldoi	20	195.66	5587	31	315	88	5017
N. Lakhimpur	23	217.5	6296	22	958	89	5472.5
Nagaon	27	305.66	7411	46	655.4	112	5214
Morigaon	10	83.16	2847	7	211	38	1980
Cachar	19	250.66	4489	40	455.15	79	2694.9
KANCH	22	163.82	4397	30	542.1	85	5197
Badarpur	16	220	5959	25	201	65	2634.2
Tezpur	35	269.62	5854	55	657.7	163	5029.5
Golaghat	21	210.66	4348	14	344.1	82	3230.31
Jorhat	30	286.98	5517	36	433.27	111	5191.9
Sibsagar	25	265	7200	20	280.44	104	5415.8
Dibrugarh	24	285.66	4815	68	424	131	3151.24
Tinsukia	31	366.32	5134	46	437.1	113	3935.14
Grand Total	**466**	**5158.32**	**105291**	**775**	**8670.18**	**2062**	**82125.77**

SECTION -VII

FORMS OF BID

Annexure 1. Format for sending query to APDCL

[Query may be sent via email to **cgmppd.mattc@apdcl.org**]
From:

[Reference No.]

[Address of the Bidder] [Telephone No., Fax No., Email] [Date]

To:

The Chief General Manager (PP&D)
Assam Power Distribution Company Limited
6thFloor, Bijulee Bhawan, Paltanbazar
Guwahati, Assam

Sub: Query.
Ref: Your RFP No. APDCL/CGM (PP&D)/ SYSTEM STUDY/FY22-23/NIT NO. 23/03, Dtd: 05.07.2023
Dear Sir,

Please find below our query with respect to the RFP DOCUMENT subject to the termsand conditions therein:

SL.	Reference Section	Reference Clause No.	Page No.	Concise Query
1.				
2.				
3.				

Thanking you,

Sincerely yours,

[Insert Signature here] [Insert Name here] [Insert Designation here]

Annexure 2: Proforma of Bank Guarantee for Contract Performance

(To be stamped in accordance with Stamp Act)

Ref…….. **Bank Guarantee No……..**
Date…….

To

The Chief General Manager (PP&D)
Assam Power Distribution Company Ltd.
Bijulee Bhawan, Paltanbazar
Guwahati-1

Dear Sirs/ Madam,

In consideration of Assam Power Distribution Company Ltd., (herein after referred to as the 'Owner' which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s…… ….……with registered/ Head office at .....(hereinafter referred to as " Contractor" which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns), a Contract by issue of Owner's Letter of Award No……dated…. .....and the same having been acknowledged by the contractor, resulting in a contract and contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to 10(%) of the said value Contract to the Owner.

We.....(Name & Address) having its Head Office at ..... (hereinafter referred to as the " Bank" ,which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the owner, on demand any or all monies payable by the contractor to be extent of ₹ ..... at anytime up to ……..**(day/month/year) without any demur, reservation , contest , recourse or protest and / or without any reference to this contractor. Any such demand made by the owner on the bank shall be conclusive and binding notwithstanding any difference between the Owner the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The bank undertakes not to revoke this guarantee during its currency without previous consent of the owner and further agrees that the guarantee herein contained shall continue to be enforceable till the owner discharges this guarantee.

The Owner shall have the fullest liberty without affecting in any way the liability of the Bank under the guarantee, from time to time to extend the time for performance or the contract by the contractor. The owner shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any power vested in them or of any right which they might have against the contractor, and to exercise the same at any time in any matter, and either to enforce or to for bear to enforce any covenants, contained or implied, in the contract between the owner and the contractor or any other course or remedy or security available to the owner. The Bank shall not be released to its obligations under these presents by any exercise by the owner of its liberty with reference to the matters aforesaid or any of them or by reason of any other act of omission or commission on the part of the owner or any other indulgences shown by the owner or by any other

matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The bank also agrees that the owner at its option shall be entitled to enforce this guarantee against the Bank as a principal debtor, in the first instance without proceeding against the contractor and not withstanding any security or other guarantee the owner may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to …… And it shall remain in force up to an including .....and shall be extended from time to time for such period (not exceeding 1 year) as may be desired by M/s .....on whose behalf this guarantee has been given.

Dated this……. Day of …….. 20…… at……

WITNESS

…….	……
(Signature)	(Signature)
……	……..
(Name)	(Name)
……..	……..
(Official address)	(Officialaddress)

Attorney as per power
Of Attorney No……..
Date……..

NB: The stamp paper of appropriate value shall be purchased in the name of issuing bank.

Annexure 3: Proforma of Extension of Bank Guarantee

Ref…….. **Date…….**

To

The Chief General Manager (PP&D)
Assam Power Distribution Company Ltd.
Bijulee Bhawan, Paltanbazar
Guwahati-1

Dear Sirs/ Madam,

Sub: Extension of Bank Guarantee No…….. for Rs .....Favouring yourselves, expiring on ……. On account of M/S .....in respect of contract no……. dated..... (hereinafter called original Bank Guarantee).

At the request of M/s …… we .....bank, branch office at …….. and having its Head Office at..... Do hereby extend our liability under the above mentioned Bank Guarantee No…… dated……for a further period of .....(Years / Months) from…….. to expire on..... expect as provided above, all other terms and conditions of the original Bank Guarantee No……. dated ..... Shall remain unaltered and binding.

Please treat this as an integral part of the original Bank Guarantee to which it would be attached.

Yours faithfully

For……
Manager/ Agent/Accountant ……..
Power of attorney No……
Dated……
SEAL OF BANK

Note: The non-judicial stamp paper of appropriate value shall be purchased in the name of the Bank who has issued the Bank Guarantee.

Annexure 4: Proforma of Contract Agreement

(To be executed on non-Judicial stamp paper)

This Agreement made this …….. day of …… two thousand…….. between Assam Power Distribution Company Ltd. having its head office at Bijulee Bhawan, Paltanbazar, Guwahati-781001 (hereinafter referred to as 'Owner' or 'APDCL', which expression shall include its administrators, successors and assign on one part and M/s…… , [Address] (hereinafter referred to as the "Project Management Agency" or "CONSULTANT" which expression shall include its administrators, successors, executors and permitted assigns) on the other part.

WHEREAS APDCL desirous to appoint System Study Consultant for Preparation of detailed System Study Report of the Sub-Transmission And Distribution Network of APDCL including simulation and design using suitable and updated distribution planning software along with handhold training, invited proposals for …….. [*briefly describe scope of works*] for the first state of the project as per its RFP Document No. ……..

AND WHEREAS……."CONSULTANT"……Had participated in the above referred Bidding vide their proposal No…….. dated…….. And awarded the Contract to……."CONSULTANT" .. on terms and conditions documents referred to therein which have been acknowledged by…… "CONSULTANT"….. resulting into a "Contract".

NOW THEREFORE THIS DEED WITNESS AS UNDER: -

1.0 Article

1.1 Award of Contract

APDCL awarded the contract to……."CONSULTANT"…… for the work of …… on the terms and conditions contained in its letter of Award No…….. Dated…… and the documents referred to therein. The award has taken effect from aforesaid letter of award. The terms and expression used in this agreement shall have the same meaning as are assigned to them in the 'Contract Documents' referred to in this succeeding Article.

2.0 Contract Document

The following documents shall be deemed to form as Contract Documents and shall be read and construed as part of this Agreement.

a) The Letter of Award No. …….. Dated. ……..
b) RFP Document comprising of
    - Invitation for Bid
    - Instruction to Bidders
    - Qualifying Requirements and Document Checklist
    - Terms of Reference
    - General Conditions of Contract
    - Technical and Financial Proposal
    - Forms of Bid
c) Corrigendum/Addendum nos. ……..
d) CONSULTANT's Bid Reference No. …… dtd. ……..
e) Technical Proposal
f) Financial Proposal
g) Work Plan, Milestone Chart etc. enclosed as a part of this Agreement.

In consideration of the payments to be made by the Owner to the CONSULTANT as hereinafter mentioned, the CONSULTANT hereby covenants with the Tenderer to execute and complete the services till remedy any defects therein in conformity in all respects with the provisions of the Contract.

3.0 Contract Price

The Tenderer hereby covenants to pay the CONSULTANT, in consideration of the execution and completion of the services specified, the remedying of defects therein, the amount of **Rs Lakhs (Rs. in words only)**

4.0 Contract Commencement and Completion Schedule

The Contract commencement date shall **be..... 2023** i.e. [the date of issue of Letter of Award (LOA)] by the Owner. The engagement of CONSULTANT services under this contract will be for 12 (sixty) months from the date of award of contract or the Project Sunset date as notified by Ministry of Power, Govt. of India, whichever is later. The time stipulated for completion of works shall be the essence of the contract. The CONSULTANT shall so organize his resources and perform and complete the services within the required period.

5.0 **Description of Services**

<to be entered while executing the contract>

6.0 **Deliverables of CONSULTANT**

<As per the clause no. 3 under Section IV: Terms of Reference and subsequent amendments thereof, if any> <To be entered while executing the contract>

7.0 **Terms of Payment**

<As per the clause no. 5.2 under Section V: General Conditions of Contract (GCC) and subsequent amendments thereof, if any> <To be entered while executing the contract>

8.0 Taxes and Duties

Tax Deducted at Source (TDS) towards Income Tax will be deducted from the payment of Contract value asper rate applicable.

9.0 Performance Security

Within 10(ten) days from the date of issue of Letter of Award, the CONSULTANT shall have to deposit the Performance Security in the shape of Bank Guarantee of nationalized bank or scheduled bank of RBI having their regional office in Assam or at least a branch office at Guwahati (in case of those, whose regional office is not located in the state of Assam) with a certificate from the Bank to the effect that the verification or any confirmation in regard to the BG issued by the bank can be taken up with the Branch office at Guwahati pledged in favour of "ASSAM POWER DISTRIBUTION COMPANY LIMITED." as per proforma for an amount equivalent to 10% (ten percent) of the contract value of the order. The Performance Security shall be furnished to the CGM (PP&D), APDCL along with the acceptance of Letter of Award (LOA), valid for a period of 60(sixty) days beyond final disbursement of fund under the project.

10.0 Liquidated Damages for Delay

<As per clause no. 6.1 under Section V: General Conditions of Contract (GCC) of RFP document and subsequent amendments, if any> <To be entered while executing the Contract>

11.0 Penalty Clause

<As per clause no. 6.1 under Section V: General Conditions of Contract (GCC) of RFP document and subsequent amendments, if any> <To be entered while executing the Contract>

12.0 Limit for Penalty and Liquidated Damages for Delay

<As per clause no. 6.1 under Section V: General Conditions of Contract (GCC) of RFP document and subsequent amendments, if any> <To be entered while executing the Contract

13.0 Insurance Coverage

The CONSULTANT shall take all required insurance coverage as stipulated in Clause No. 7.2 under General Conditions of the Contract of the RFP Document.

14.0 Governing Laws

The Contract shall be governed by and interpreted in accordance with the laws of the India. The Gauhati High Court shall have exclusive jurisdiction in respect of any disputes relating to the tendering process, award of Contract and execution of the Contract.

In all cases, this contract shall be governed by and interpreted in accordance with the Law of the Union of India. In this context, the expression 'Law' takes within its fold statutory law, Judicial Decisional Law, Delegated Legislation and relevant regulations as well.

15.0 Settlement of Disputes

It is specifically agreed between parties that all the differences or disputes arising out of the agreement or touching the subject matter of the agreement shall be decided by process of settlement and Arbitration as specified in clause no. 9 under Section V: General Condition of the Contract and provision of the Indian Arbitration Act, 1996 shall apply. Guwahati Courts alone shall have exclusive jurisdiction over the same.

16.0 Notice of Default

Notice of default given by either party to the other under agreement shall be in writing and shall be deemed to have been duly and properly served upon the parties hereto if delivered against acknowledgement or by telex or by registered mail with acknowledgements due addressed to the signatories at the addresses mentioned at Guwahati.

All notices to be given under this Agreement shall be in writing and in English language. A Notice shall be effective when delivered or on the notice effective date whichever is later.

17.0 Any modification of the agreement shall be affected only by a written instrument signed by the authorized representative of both the parties. All other terms and conditions shall be applicable as stipulated in RFP/ Contract Documents.

IN WITNESS WHEROF, the parties through their duly authorized representatives have executed these presents (execution where of has been approved by the competent authorities of both the parties) on the day, month and year first above mentioned at Guwahati.

WITNESS:

1. …….. (Owner's signature) (Printed Name)

2. …… (Designation)(Company's Stamp)

3. …… (CONSULTANT's Signature) (Company's Name)

4. …… (Designation)(Company's Stamp)

Annexure 5: Format for List of Ongoing and Completed Projects in 1) APDCL & other successor Companies of ASEB and 2) Outside the State of Assam

SL No.	Name of Company	Name of Work	Contract Value (inRs.)	Date of Letter of Award/ Work Order	Expected Date of Completion of Work (as per work order)	Actual Date of Completion of Work (attach completion certificate from Client)	Physical Progress (%)
1.							
2.							
3.							
4.							
5.							

Annexure 6: Format for Summary of Audited Financial Statements distinctly indicating the revenue heads and Annual Turnover for the last 5(five) consecutive FYs

FORM FIN-1

Financial Data for Previous 5 Years [Rs in lakhs]				
Year 1: 2017-18	**Year 2: 2018-19**	**Year 3: 2019-20**	**Year 4: 2020-21**	**Year 5: 2021-22**

Information from Balance Sheet

Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			

Form FIN - 2: Average Annual Turnover

Annual Turnover Data for the last 5 Years (from the Power Sector Consultancy Business)	
Year	**Amount (Rs. In lakhs)**
2017-18	
2018-19	
2019-20	
2020-21	
2021-22	

Form FIN – 3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as indicated in Section 3 (Evaluation and Qualification Criteria)

Financial Resources		
No.	**Source of financing**	**Amount (Rs. In lakhs)**
1		
2		

- **All the information furnished above shall be CA (Chartered Accountant) certified and duly supplemented by Audited Balanced sheet for the respective financial years.**

********** End of Forms of Bid **********