



CIN - U40108CT2003SGC015820

दूरभाष PHONE: 0771- 2574172,

Web Site: sldccg.com

CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED

छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित

(C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)

STATE LOAD DESPATCH CENTRE: RAIPUR

छत्तीसगढ़ राज्य भार प्रेषण केन्द्र, रायपुर

फैक्स FAX NO. 0771-2574174

email-office@sldccg.com

No. 03-02/ED/SLDC/ TR-141/2020/1135

Raipur, Dated 29/10/2020

TENDER SPECIFICATION**TR-141/2020****FOR*****Implementation******Of******Automatic Demand Management System (ADMS)******in******Chhattisgarh State.*****LAST DATE & TIME OF SUBMISSION OF TENDER****24/11/2020** (15:00 Hrs.)**DUE DATE OF OPENING OF TENDER****24/11/2020** (15:30 Hrs.)**PRICE Rs 1000/-****(Excluding GST @12% if purchased from office)**(Excluding GST @18% if downloaded from website)*

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BEFORE SUBMITTING THE QUOTATION PLEASE ENSURE THE FOLLOWINGS:

- That required Tender Fee & Earnest Money is enclosed. In case of exemption, necessary certificate will be required. In either case, reference of earnest money deposit is to be super scribed on the outermost envelope in details along with due Date.
- That tender specification Number and Name of work are super scribed on the outermost envelope.
- Those technical specifications are very clear and exact as per our requirement.
- That "Tender form" duly signed by you, is enclosed.
- That the "Questionnaire" form duly answered and signed is enclosed. No question should remain unanswered or left blank.
- That the performance certificate / copies of order executed for similar items/ works to reputed consumers are enclosed.



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
 छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित
 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
STATE LOAD DESPATCH CENTRE: RAIPUR
 छत्तीसगढ़ राज्य भार प्रेषण केन्द्र, रायपुर

दूरभाष PHONE: 0771- 2574172,

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No. 03-02/ED/SLDC/ TR-141/2020/1135

Raipur, Dated 29/10/2020

NOICE INVITING TENDER

Sealed tenders are invited from eligible Contractor/agencies who fulfill the prequalification criteria for supplying the following equipments/material.

| S. No. | Tender No. | Particulars | Qty. | Cost of tender doc. (Incl. GST) | EMD | Due date | |
|--------|-------------|---|-------|--|------------|-------------------------|-------------------------|
| | | | | | | Submission | Opening |
| 1. | TR-141/2020 | <i>Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State.</i> | 1 Job | 1. Rs.1120/- (If Purchased from Office) 2. Rs 1180/- (If Downloaded Online) | 5,00,000/- | 24/11/2020 15:00 hrs | 24/11/2020 15:30 hrs |

Last date of sale of tender document: One day prior to due date of opening of tender.

Pre-Bid Meeting: The date of pre-bid conference shall be **17/11/2020** at 11.00 hrs.

NOTE:-

- In case any of the above date is declared as holiday, then the particular date will automatically get shifted to next working day.
- Any notice for extension of due date of tender opening shall not be published in newspapers. It will be displayed only on official website of the company.

TERMS AND CONDITIONS:-

- The tender documents can be obtained from the office of the ED (SLDC) in person on payment of cost of tender documents in the form of D.D. only made out in the name of MANAGER (RAO: HQ), CSPTCL, Raipur accompanied with firm's application on its letter head. If tender document is required by post, Rs.280/-(i.e., Rs.250/- + 12% GST) shall be paid by D.D. additionally along with the cost of tender document. If more than one tender document is required, separate DDs should be furnished for each tender. CSPTCL shall not be responsible for any postal delay in receipt/ non-receipt of tender documents. No receipt of tender shall be issued in any case.
- The tender document can also be downloaded from official website of CSPTCL "www.cspc.co.in" (go through Chhattisgarh State Power Transmission Co. Ltd. - Tender Notice) or www.sldccg.com/Tenders and required tender fee Rs. 1120/- {(i.e. Rs 1,000 /- + 12 % GST) if purchased} or Rs 1180/- {(i.e. Rs 1,000 /- + 18 % GST) if downloaded} in form of DD in favour of Manager (RAO: HQ), CSPTCL, Raipur payable at Raipur should be submitted along with EMD in envelope containing DD of EMD. The envelope containing

DDs of cost of tender document & EMD should be suitably super scribed “DDs containing cost of tender document and EMD”. The details of DDs should be mentioned on the outer side of the envelope also. Please note carefully that in absence of aforesaid requisite tender fee, further bid shall not be considered for opening.

- (iii) Tender documents and the detailed specification can be obtained on any working day one day prior to the due date. The tenders duly filled in shall be dropped/get dropped in the specified tender box up to 15:00 Hrs. on the due date. Any other means of delivery shall not be accepted. No receipt of tender shall be issued in any case. The tender box shall be locked/sealed at 15:00 Hrs. on the due date and shall be opened at 15:30 Hrs. on the same date.
- (iv) After publication of NIT & before the date of opening of TC Bid, corrigendum/ other information (if any) shall be displayed on our official web only. The bidders are requested to remain in contact with this office or visit our web-site for any development/ clarification/ amendment issued subsequently.
- (v) CSPTCL reserves the right to accept or reject any or all the offers, in part or full without assigning any reason whatsoever.

Website:- www.sldccg.com/Tenders or www.cspc.co.in/csptcl

**Sd/-
EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Raipur**



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 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
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Raipur, Dated 29/10/2020

TENDER FORM

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State.

TR-141/2020

Tender document Sr.No.....

Issued to M/s

Cost of Tender documents Rs.....

Received vide D.D.No.....Dtd.....

Name of Bank

NOTE: -

1. THIS FORM MUST BE RETURNED AT THE TIME OF SUBMITTING THE TENDER.

2. TENDER BOOK CONTAINS 134 PAGES.

Signature & Seal of Issuing Authority

CHHATTISGARH STATE POWER TRANSMISSION COMPANY LTD.

RAIPUR (C.G.) (INDIA)

TENDER FORM

The undersigned hereby tender and offer (subject to CSPTCL's conditions of tendering), the Chhattisgarh State Power Transmission Company Ltd. to test and supply, plant, machinery, materials, deliver and execute and do the several works and things which are described or referred to in the tender specifications TR-141/2020, its enclosures & Annexures to the specification, copies of which are annexed hereto and which under the terms thereof are to be supplied, executed and done by the Bidder/JV Partner in a thoroughly good and workman like manner, and to perform and observe the provisions and agreements or the part of the contract contained in or reasonably to be inferred from the said tender documents for the sum and at the rates set out in schedules annexed hereto.

It is confirmed that:

- Questionnaire for Commercial terms and conditions.
- Questionnaire for Technical specifications of the Equipments,
- Agreement on non-judicial stamp paper worth Rs. 300/- with a revenue stamp of Rs.1/- affixed on it for Pre-Contract Integrity Pact as per **Annexure-III**. The cost of stamp paper etc. shall be borne by the Contractor; and

- (d) All other conditions wherever described in the tender documents have been replied in full giving clear details. It has been noted that in case any reply is not given or any reply is incomplete/ambiguous the CSPTCL will have right to take the same to be advantageous for the CSPTCL. CSPTCL's decision in this regard will be final. The bidder will have no right to furnish any technical or commercial clarification after opening of the bid which may in any way alter the offered prices.
- (e) **It is the responsibility of bidder to make sure that all the documents required as per tender are submitted on or before the date of bid submission. The bid submission date is a cut-off date for submission of all documents required as per tender and every bidder is supposed to adhere to this deadline. EXTREMELY IMPORTANT – No additional document will be allowed after bid Submission; Bidder's to note this to avoid bid rejection.**

Dated, this day of

Bidder's Signature

Bidder's Address



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
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No. 03-02/ED/SLDC/TR-141/2020/1135

Raipur, Dated 29/10/2020

PRE-BID QUALIFYING REQUIREMENTS

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State.

PRE QUALIFYING REQUIREMENTS :-

Bidders are requested to carefully note the Pre-qualification requirement mentioned hereunder in respect of technical experience capability. They are required to furnish self- attested documentary proof in support of having the following Pre-Qualifying Requirement (PQR).

1. Bidder can be Sole Bidder or a Consortium (of not more than two members / partners).
2. In Case of Consortium, the lead member will be referred to be **Lead Partner** and the 2nd Consortium member referred to be the **Other Partner**.
3. The Bidder Shall be Original Equipment Manufacturer (OEM) of RTU or Firmware Owner of RTU. In support of manufacturing unit, bidder should submit valid NSIC/ DIC certificate. In case firm is not registered with NSIC/ DIC, bidder shall furnish copy of valid factory registration certificate issued by industries department of state/ central government for equipment/items required for project.
4. The overall responsibility of the bidder will be implementation (Supply, Installation, Integration, Commissioning and O&M) of Automatic Demand Management System in the State of Chhattisgarh.
5. Bidder(s) shall submit original MAF (Manufacturer Authorization Form) for equipment/items they are not manufacturer of (i.e equipment/item required for the Project).

Bidder shall meet following eligibility criteria -

| Qualifying Criteria | Proof |
|--|---|
| A. TECHNICAL EXPERIENCE Project Capability:- The Sole Bidder or a Consortium bidder should have successfully completed at least following ADMS and SCADA Project on turnkey basis in last 3 years i.e. FY 2017-18 to FY 2019-20 (between 1st Apr'2017 & 31st March'2020) against order issued by Indian entities mentioned below; (i) Power utilities owned and controlled by central or State Government OR (ii) PSUs, OR (iii) Government Organisations a. 1 (One) Complete ADMS Project in above Indian entities on turnkey basis. The date of order should not be older than 5 years from the date of issue of NIT of the instant tender. AND | The Sole/Consortium bidder shall submit complete detailed order copies, work completion & Performance certificate of corresponding order for satisfactory completion and operation of ADMS and SCADA project issued from the Indian entities mentioned in (i), (ii) & (iii) in the name of participating bidder, indicating date of commencement of work and it's commissioning. The word " Commissioning " shall mean Successful Installation and validation of |

| | |
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| <p>b. At least one SCADA solution in minimum 3 No's 132 KV or, 220 KV or 400 KV or Higher EHV Sub-Station should be in successful operational for minimum 1 (one) year as on date of issue of NIT.</p> | <p>ADMS/SCADA Project duly certified by concerned power utility.</p> |
| <p>B. <u>FINANCIAL CRITERIA OF PQR:-</u></p> <p>a. Minimum Average Annual Turnover (MAAT):- The Sole Bidder or a Consortium collectively must have minimum average annual turnover (MAAT) for best 3 years out of these financial years i.e FY 2014-15, 2015-16, 2016-17, 2017-18, 2018-19 & 2019-20 equal to Rs. 8.31 Cr (Rs. Eight Crore Thirty One Lakh only). In case where audited balance sheet of FY 2019-20 is not available, a self-declaration of this effect countersigned by a practicing chartered Accountants needs to be attached and in such cases audited balance sheets of financial years for FY 2014-15 to 2018-19 shall be considered. In case of joint venture/ consortium, the lead partner should meet not less than Rs. 4.98 Cr of minimum financial criteria regarding turn over requirement. The other partner should meet not less than Rs. 2.07 Cr. of minimum financial criteria regarding turn over requirement. Both the partners of joint venture/ consortium shall collectively meet the minimum financial criteria.</p> | <p>Self-attested copies (i.e., copies attested by authorised signatory of the tenderer) of the audited Balance Sheets and profit & loss accounts for last 6 years of sole bidder/each of the partners of the joint venture should be furnished in support, duly certified by chartered accountants of the firm.</p> <p>For calculation of turnover, other income indicated in P & L account shall not be taken.</p> |
| <p>b. Net Worth:- Net worth of the Sole Bidder or a Consortium for each of the last three Financial Years i.e 2017-2018, 2018-2019 & 2019-2020 out of submitted balance sheets as per clause (a) above should be positive. In case audited balance sheet for FY 2019-20 is not available net worth as per audited balance sheet of previous three years i.e 2016-17, 2017-2018 and 2018-19 should be considered for this. The bidder shall submit the self declaration countersigned by CA as per clause (a) above regarding non-availability of audited balance sheet for FY 2019-20.</p> <p>Net worth means the sum total of the 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 intangible assets.</p> | <p>Annual Audited Financial Statements as well as a certificate issued by CA for positive net worth.</p> |
| <p>c. Liquid Assets:- The bidders (Sole Bidder or a Consortium) shall currently have liquid assets (LA) or/and evidence of access to or availability of credit facilities of not less than Rs. 1.38 Cr.</p> <p>In case bidder(sole bidder/ members of joint venture collectively) is a holding company, the Financial Position criteria referred above, shall be that of holding company only (i.e. excluding its subsidiary/group companies).</p> <p>In case bidder(sole bidder/ members of joint venture collectively) is a subsidiary of a holding company, the Financial Position criteria referred above, shall be that of subsidiary company only (i.e. excluding its holding company).</p> | <p>A certificate of Chartered Accountant indicating details (break up) of available liquid assets should be furnished in support of this. <i>Liquid assets would include cash (and equivalents), bank deposits, securities that can be freely traded and receivables which has general certainty of getting received.</i></p> |

| | |
|---|--|
| | As regards certificate pertaining to evidence of access to or availability of credit facilities, a certificate from their bankers(s) (as per Annexure-IX) indicating various fund based/non fund based limits sanctioned to the bidder and the extent of utilization as on date shall be furnished. Such certificate should have been issued not earlier than 3 months prior to the date of bid opening. |
| C. The sole bidder/lead partner of the joint venture/consortium should have EPF code number allotted by EPF Commissioner. | Copy of registration certificate should be submitted along with the T/C Bid |
| D. The Bidders should have ISO/IEC – 27001:2018, ISO/IEC - 20000-1:2018, ISO - 9001: 2015 / latest and have at least CMMI ML 3 or above certification. In case of a consortium, this requirement needs to be met by the Lead partner | Copy of all required Certification. |
| E. The Bidders should have at least 10 personnel on its roll with a minimum experience of 5 - years (either in his/her own or other organization). The role & responsibilities of the personnel should include system integration of IT Applications or software or Hardware or network. In case of a consortium, the requirement of at least 10 personnel is distributed as follows: ‘Lead Partner’ needs to meet the above requirement for at least 75% i.e. 7 Curriculum Vitae (CV’s), and the ‘Other Partner’ for at least 25% i.e. 3 Curriculum Vitae (CV’s). | CV’s of employees Counter Signed by legally authorized signatory need to be submitted. Scanned signature shall be accepted. |

Common QR for Sole Bidder or a Consortium

- a. The Sole Bidder or a Consortium shall submit certificates (in original as per prescribed **Annexure - XIII**) issued by CA confirming fulfilment of following criteria:
 - i. The Sole bidder/partners of joint venture (JV) / consortium should have discharged all its payment obligations (principal/interest) on outstanding debentures (i.e. debentures which have not yet been redeemed), if any and no such payments as on 30.09.2020 should be outstanding / overdue.
 - ii. Sole bidder/partners of joint venture (JV)/consortium should not be presently in default in payment of any bank loan or interest thereon for more than three months or any load account of the bidder should not have been classified as NPA (Non-performing assets) by the creditor/lending bank, as on date of issue of NIT.

iii. The sole bidder/ each partner of JV should not be under process of insolvency or liquidation as on the date of issue of NIT and a certificate in this regard shall be furnished by the bidder. Even if at a later date up to finalization of tender, it comes to the notice of CSPTCL that the sole bidder/ any partner of JV has been going through the process of insolvency or liquidation, their bid shall be liable for rejection.

b. The sole bidder/partners of joint venture (JV) / consortium of JV should not be debarred/ blacklisted by Bank/State Govt /Central Govt/State PSU / CPSU / SEB/public utility as on date of issue of NIT. A declaration in this regard (as per prescribed Annexure - XIV) shall be furnished by the sole bidder/ each partner of JV (separately).

However, the bid may not be considered for further processing in following cases also.

- i) If sole bidder/partners of joint venture (JV) / consortium is debarred/ blacklisted by Bank/ State Govt./Central Govt./ State PSU/CPSU/SEB/ public utility up to date of opening of price bid of the instant tender.
- ii) If a case comes to notice regarding submission of forged/fake document in any other tender under process in CSPTCL up to date of opening of price bid of the instant tender.

c. All the documents / statements / attachments / information submitted by the Sole bidder or JV Partner/consortium in proof of the qualifying requirements must be authentic / genuine / correct and in case, any of the said documents / statements / attachments / information are found to be false / fake / misleading, the bidder will be disqualified and action will be taken as per relevant provisions of Tender. A declaration in this regard (as per prescribed annexure - XIV) shall be furnished by the sole bidder/each partner of JV (separately).

d. Power of attorney issued to legally authorized signatory of Tender should be submitted in the TC bid.

e. Those bidders who are not registered under GST shall not be allowed to participate in the tender.

f. Detailed information on any litigation or arbitration arising out of contracts completed or under execution by it over the last five years (counted from the date of bid submission) shall be provided in Annexure – X). A consistent history of awards involving litigation against the bidder or any partner of JV may result in rejection of bid.

g. In case of Joint Venture (JV)/ Consortium, the following conditions shall also apply:-

- (i) No bidder/member of a JV/ consortium can participate in more than one bid.
- (ii) One of the partners shall be nominated as lead partner and the joint venture/consortium shall be represented by Lead Partner. An agreement for authorizing one partner to act as “Lead partner” in Annexure - XII (Form of Power of attorney for Joint Venture) signed by legally authorized signatories of both the partners on non judicial stamp paper duly attested by Public Notary with seal and revenue stamp affixed thereon should be

submitted with the technical bid. The “Lead Partner” shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture/Consortium. The “lead partner” shall be responsible for timely execution & completion of all the activities. Entire execution of the contract shall be done by the “Lead Partner” and payment under the contract shall be received by the “Lead Partner” on behalf of the Joint Venture/Consortium as per power conferred to him in the Power of Attorney. All the correspondences etc., shall be done exclusively with the “lead partner”. The bid document should have been purchased and submitted by the “Lead Partner” only.

- (iii) The partners of the Joint Venture/Consortium shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Bid Form and in the Contract Form (in case of a successful bid). The lead partner shall be authorized to incur liabilities and receive instructions for and on behalf of all the members.
- (iv) The agreement entered into, signed by the Joint Venture/Consortium partners, shall be submitted with the bid. Original copy of JV Undertaking in Annexure - XI (form of undertaking by the Joint Venture Partners) on judicial stamp paper duly attested by Public Notary with seal and revenue stamp affixed thereon indicating joint and several liabilities among the parties to the Joint Venture should be provided with the bid. No joint venture will be accepted after submission of the tender bid. The joint venture/ consortium shall remain valid for entire contractual period and the same shall be mentioned in the agreement. In case of any breach of contract by any of the joint venture/consortium partners during execution of the contract, the same shall be deemed to be default by both the partners. It will be the sole discretion of CSPTCL to allow the other partner to complete the work or to terminate the total contract.
- (v) The bid shall be signed so as to be legally binding upon both the partners of the joint venture/consortium. The non-judicial stamp paper shall be purchased in the name of joint venture and the date of purchase should not be later than six months of date of execution of the undertaking/ agreement. The undertaking/ agreement shall be signed on all the pages by authorized representatives of each of the partners and should invariably be witnessed.

Note:-

- (i) In case of Sole bidder, the experience of the bidder shall be that of “Sole bidder” or “any other partner of the JV/ consortium” in the projects executed by them earlier.
- (ii) In case the bid is submitted by JV / consortium, either of the JV i.e., the “Lead partner” or the “Other partner” should meet the requirement as required for sole bidder.

The experience of any one of the partners of the joint ventures / consortium (lead partner or other partner) meeting the above ‘Project Capability’ criteria shall either be as “Sole bidder” or “Any Other Partner of the JV/ consortium” in the projects executed by them earlier.

Bidders may note that evaluation of various pre-qualifying experience criteria shall be done on the basis of documents / certificates submitted by the bidder, for which responsibility to furnish essential authentic, genuine & correct documentary proof / statements / attachments / information etc., entirely rests on the participating bidder(s). CSPTCL will not be responsible if the bid is considered non-responsive and rejected in the absence of such documentary proof.



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
 छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित
 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
STATE LOAD DESPATCH CENTRE: RAIPUR
 छत्तीसगढ़ राज्य भार प्रेषण केन्द्र, रायपुर

दूरभाष PHONE: 0771- 2574172,

Web Site: sldccg.com

फैक्स FAX NO. 0771-2574174.

email-office@sldccg.com

No. 03-02/ED/SLDC/TR-141/2020/1135

Raipur, Dated 29/10/2020

SECTION-I: INSTRUCTIONS FOR BIDDERS /JV PARTNERS/TENDERERS

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State.

1.1 DUE DATE OF SUBMISSION of tender is 24/11/2020 till 3.00 p.m. and Techno-Commercial (TC) bid shall be opened at 3.30 pm on the same day in the O/o ED (SLDC), CSPTCL, Daganiya Raipur, 492013. **EXTREMELY IMPORTANT – No additional document will be allowed after bid Submission; Bidder's to note this to avoid bid rejection.**

1.2 TENDERS RECEIVED AFTER THE STIPULATED DATE & time will not be considered. Covers should invariably be superscripted "*Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State*" by SLDC, CSPTCL Dangania, Raipur".

1.3 PRE-CONTRACT INTEGRITY PACT: The bidder shall have to submit pre contract integrity pact in the format enclosed as **Annexure - III** on non judicial stamp paper worth Rs 300/- duly signed by the bidder for the project along with techno commercial bid. The validity of this integrity pact shall be from the date of its signing and extended up to 2 years or the complete execution of the contract to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later. In case Bidder is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

Although details presented in this tender specification have been compiled with all reasonable care, it is the responsibility of the bidder to satisfy himself that the information given in each section are adequate and there are no conflicts between various clauses/sections/ specifications. The clarification/decision of the Executive Director/ Chief Engineer (SLDC) shall be final and conclusive.

1.4 CONTENTS of the BID: The Tender/Bid shall comprise of four parts. The contents of it shall be as under: -

- (a) **Part-I (Earnest Money Deposit):** - As per Section 1.5 of the tender.
- (b) **Part II - (PQR, Signed Tender Document, Affidavits & Undertaking etc):** - As per Section 1.6 of the tender.
- (c) **Part III - (Techno-Commercial bid):** - As per Section 1.7 of the tender.
- (d) **Part IV - (Price bid):** - As per Section 1.8 of the tender.
- (e) All the above four envelopes shall be in properly stapled / tagged sets.

1.5 **EARNEST MONEY: The EMD forms Part-I of the tender.**

- Envelope should contain a covering letter with EMD & cost of tender document (if tender document is downloaded from the website)
- The Earnest Money in the instant Tender is Rs.5, 00,000.00 (Rs. Five Lakhs only) in the form of Demand Draft from a scheduled bank payable at Raipur and shall be drawn in favour of the **Manager (RAO: HQ), CSPTCL, Raipur**.
- Offer accompanied with inadequate Earnest Money will be rejected and returned unopened.
- No interest shall be paid on Earnest Money.
- Each tenderer should submit an earnest money deposit prior to submission of quotation in a separate envelope. The tenders not accompanied with earnest money will summarily be rejected.
- The envelope containing the earnest money or a certificate in support of claim for exemption from this should be attached with your offer duly superscripted Earnest Money Deposit in appropriate form against "Tender Specification No. 03-02/SLDC/TR-141/2020/ Raipur, dated 29/10/2020 due on 24/11/2020 at 15:30 Hrs. Tender for ***Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State***".
- Following are exempted from payment of Earnest Money subject to the documentary evidence MUST furnished with offer:-
 - (i) Fully owned State/Central Govt. units.
 - (ii) Tenderer having Permanent EMD with CSPTCL.
 - (iii) Small Scale Units (SSU) of Chhattisgarh state permanently registered with DIC. The registration should be permanent & should be specifically for the items quoted in the tender & valid on the date of opening of tender.
 - (iv) Small Scale units registered with NSIC: - In case of small scale units (MSME) permanently registered with NSIC, their registration certificates should be valid for the item under tender on due date of opening of Techno-commercial bid.

The photocopy of the NSIC/ SSI registration certificate for the tendered item duly attested by G.M./Manager DIC of the area or Notarized copy should be furnished with the offer. The original certificate should be produced at the time of opening for verification failing which their offer will be liable for rejection.

- The Tenderer, who fall under above categories, must furnish documentary evidence with Part-I of the Tender failing which offer shall be rejected.
- **Forfeiture of Earnest Money Deposit:** - It should be clearly understood that in the event of tenderer failing to accept and execute the telegraphic and detailed orders, if it is placed within the validity period of the offer, the full amount of earnest money will be forfeited and CSPTCL's decision in this respect will be final and binding on the tenderer.

In case the bidder/ JV Partners withdraws his offer during the validity period or after placement of order the Earnest Money shall be forfeited. EMD of unsuccessful bidders/ JV Partners shall be returned on placement of order. EMD of Bidder/ JV Partners on whom order is placed shall be returned on acceptance of security deposit. No interest shall be paid on the EMD amount.

1.6 Formation of Part-II of the tender: The PQR, Signed Tender Document, Affidavits, Undertaking & Pre Contract Integrity Pact (for entire Project) etc.

The bidding is open to **sole Bidders/ JV Partners** only who can provide satisfactory evidence with regard to pre qualifying requirements.

1.6.1 Instructions related to Bidder:-

1. The Bidder/ JV Partners confirm they have gone through the PQR and comply it.
2. The Bidder/ JV Partners should submit proof of Original Equipment Manufacturer of RTU/ Original Firmware of the ADMS or SCADA scheme/solutions.
3. Complete detailed order copy (self attested by authorized signatory of the tender), in support of technical experience criteria of PQR for having 1 (One) Complete ADMS Project in Power Utilities / PSU's / Government Organization on turnkey basis. The date of order should not be older than 5 years from the date of issue of NIT of the instant tender and on turnkey basis in last 3 years i.e. FY 2017-18 to FY 2019-20 (between 1st Apr'2017 & 31st March'2020)
4. Complete detailed order copy, Installation and its Validation (self attested by authorized signatory of the tender), in support of technical experience criteria of PQR for having at least one SCADA solution in minimum 3 No's 132 KV or, 220 KV or 400 KV or Higher EHV Sub-Station should be in successful operational for minimum 1 (one) year as on date of issue of NIT. The date of order should not be older than 5 years from the date of issue of NIT of the instant tender and on turnkey basis in last 3 years i.e. FY 2017-18 to FY 2019-20 (between 1st Apr'2017 & 31st March'2020)
5. The Bidder/ JV Partners shall furnish the full technical details of the equipment offered.
6. Bidder/ JV Partners shall have to submit order copy and performance certificates (self attested by authorized signatory of the tender) indicating date of commencement of work and date of commissioning of the ADMS/SCADA Project duly issued by the concerned Power Utilities owned and controlled by Central or state Govt. Or PSUs or Govt. Organizations in the name of participating bidder as documentary proof for above.
7. The Bidder/ JV Partners should submit Proof of registration regarding Manufacturer/Developer with any of the industrial department State/Central.
8. The hardware should be type tested by a body approved by Govt. of India or under taking Govt. of India. The type test reports shall be of on and after dates to the enforcement of EA-2003.
9. Those bidders which are not registered under GST shall not be allowed to participate in the tender.
10. Power of attorney issued to legally authorized signatory duly registered with registration authorities should be submitted in the TC bid.
11. Detailed information on any litigation or arbitration arising out of contracts completed or under execution by it over the last five years (2015 – 2016 to 2019-2020) shall be provided. A consistent history of awards involving litigation against the bidder or any partner of JV may result in rejection of bid.
12. The bidders are required to submit tenders in the manner described in following clauses. All documents / information as per Annexure, schedules and formats enclosed in this tender document and as described below shall be placed in a sealed envelope containing four separate sealed envelopes as mentioned below.

13. In certain cases confusion takes place regarding furnishing of earnest money since the Envelopes are not properly super-scribed and sealed by the bidder. It is therefore, desired that envelopes are to be submitted as under.

14. Extremely important (Bidders to note this to avoid bid rejection) –

- (i) Attention of bidders is drawn to the fact that no additional/new documents will be allowed to be submitted after bid submission with only exception that clarification / confirmation on the points which lack clarity after techno-commercial evaluation may be obtained. Bidders are therefore requested to exercise utmost care to make sure that all the documents required as per eligibility criteria / PQR / techno-commercial requirements of the tender are submitted with their bid on or before the date of bid submission. The bid submission date is a cut-off date for submission of all the documents required as per tender conditions / requirements and the bidder must adhere to this deadline.
- (ii) It may also be noted that if a bidder has quoted 'NIL' deviation in the bid, this will have an overriding effect on any other condition noted as deviation elsewhere in the bid and no correspondence will be made to with draw such specific contradictory conditions.

1.6.2 Signed Tender Document, Affidavits, Undertaking & Pre Contract Integrity Pact etc. Bidder/ JV Partners should ensure that in addition to the PQR following documents are adequately signed by authorized signatory and placed in the **Second Envelope** of their offer.

- (i) Each page of the Tender document duly signed.
- (ii) Undertaking by tenderer as per **Annexure-I**.
- (iii) Undertaking by the tenderer for acceptance as per **Annexure-II**.
- (iv) Agreement on non-judicial stamp paper worth Rs. 300/- with a revenue stamp of Rs.1/- affixed on it for Pre-Contract Integrity Pact as per **Annexure-III**. The cost of stamp paper etc. shall be borne by the Contractor.
- (v) Duly filled Questionnaire as per **Schedule – II A & Schedule-III** along with documentary evidences mentioned therein, as per status of the tenderer.
- (vi) Latest Income Tax clearance certificate.
- (vii) Past experience details, documents, certificates.
- (viii) Certificate regarding financial status of the tenderer for suitable amount from nationalized bank.
- (ix) Copies of Profit & Loss account/Balance sheet for last Three year.
- (x) List of technically qualified personnel.

1.7 Formation of Part-III of the tender: The Demonstration Write-up & Techno-Commercial Bid-

1.7.1 Techno-Commercial Bid: The Bidder/JV Partners is to submit the filled in the Technical and commercial questionnaire as per the **Schedule –II A & Schedule-III** of the tender. And shall be placed in the **Envelope–III**.

1.7.2 Deviations from the tender: It would be obligatory on the part of Bidder/ JV Partners to enclose a separate schedule of Technical deviation as per **Schedule–VI** in case there are any deviations from our technical requirement and a separate schedule of Commercial deviation as per **Schedule–VII**, if there are any deviations from our commercial terms / conditions. Both the Technical & Commercial Deviation Schedules duly signed by the tenderer shall be placed in the **Envelope–III**. If bidder has quoted ‘NIL’ deviations in the bid, this will have an overriding effect on any other conditions noted as deviations in the bid; in this regard **no** correspondence will be made to withdraw such specific contradictory condition.

1.7.3 Demonstration of the PROPOSAL/ SCHEME:

Technically accepted vendor will have to give full functional demonstration of offered ADMS Scheme at CG-SLDC; Control center during technical scrutiny regarding that separate intimation shall be forwarded to each bidder/Tenderer. It shall be the responsibility of the bidder/Tenderer to carry all necessary equipments, accessories etc required for functional demonstration on scheduled date.

Based on scrutiny of techno commercial bid and successful functional performance of System during demonstration, the price bids of qualified Bidder/ JV Partners shall be opened at a later date. The Bidder/ JV Partners who's ADMS system's functional performance is not found satisfactory during demonstration shall not be considered for price bid opening. The date and time of opening of price bid shall be intimated through Official Correspondence/E-mail/fax message to qualified Bidder/ JV Partners only.

1.8 PRICE BID : The Part-IV of the tender : As per Schedule-IV:

1.8.1 In case the Techno-Commercial evaluations of the Bidders/ JV Partners /tenderers are found at par with the tender, the opening of part-IV (Price Bid) shall be done after proper intimation to the bidder. The date and time of opening of price bid shall be intimated through fax message to qualified Bidder/ JV Partners only. The date & time of opening of price bid shall be intimated seven days in advance. The Bidder/ JV Partners may depute their representative to witness price bid. CSPTCL's decision shall be final & binding on the tenderer/ Bidder/ JV Partners.

1.8.2 The tender offers of those Bidder/ JV Partners, who do not agree to CSPTCL's payments terms, security deposit clause, penalty clause, performance guarantee clause shall be liable for rejection.

1.8.3 Only FIRM rate is to be quoted. No price variation shall be admissible.

1.8.4 PRICE BID has to be submitted in prescribed format only as per **Schedule –IV (A, B, C, D, E F & G)** only in Indian Rupees indicating ex-works price including packing and forwarding charges. GST (wherever applicable) and any other charges & freight charges should be separately quoted. GST rates quoted shall be supported by valid document. The total F.O.R. destination price should also be clearly mentioned in relevant column for supply items. For installation, testing, commissioning work and maintenance works, applicable GST must be quoted separately in the relevant column. All taxes shall be paid by CSPTCL. However, comparison of rates shall be done on the basis of total loaded cost i.e. after loading of applicable GST.

- 1.8.5** The rates quoted in the price bid shall be taken as final for computing the competitive rates and for all purpose.

1.9 SUBMISSION OF BIDS:

1. The tender / bid shall be submitted in four (4) parts. All the four envelopes shall be submitted in four separate sealed envelopes, with proper superscription on each envelope as under: -
 - i. ENVELOPE I - Earnest Money Deposit (with details of deposited EMD).
 - ii. ENVELOPE II - PQR, Signed Tender Document, Affidavits & Undertaking, Pre-Contract integrity Pact etc;
 - iii. ENVELOPE III - Demonstration Write-up, Techno-Commercial Bid; and
 - iv. ENVELOPE IV - Price Bid.

Further, each envelope shall be superscripted with the name of work, tender specification number, due date of opening, name and address of tenderer and shall be addressed to “THE EXECUTIVE DIRECTOR, SLDC, CSPTCL, RAIPUR”.

2. All the four envelopes shall be in properly stapled / tagged sets.
3. These four envelopes duly sealed and superscripted are to be kept in **one bigger main envelope**. This envelope should be sealed and superscripted properly, stating that it contains tender in four separate parts.

In addition, tender specification number, due date of opening, details of EMD, name and address of the tenderer should invariably be superscripted on the main envelope. It should be properly addressed to this office.

In case any irregularity is found upon opening of the main envelope in respect of submission of bids as desired, the offer is liable for rejection.
4. The complete bid as above shall be submitted by the tenderer, latest by the closing time and date as notified, in the office of **THE EXECUTIVE DIRECTOR, SLDC, CSPTCL, RAIPUR-492013.**

- 1.10** Bidder/ JV Partners are advised to upkeep themselves with the conditions stated in Terms & Condition of Contract at the time of filling up of tender and comply accordingly, to avoid risk of rejection of tender in case of not properly complied.

- 1.11** The SLDC, CSPTCL reserves the right to reject any or all tenders or accept any tender in full or part, considered advantageous to the CSPTCL, whether, it is lowest or not without assigning any reason whatsoever.

1.12 DATE AND TIME OF OPENING OF BIDS: -

Tender shall be opened on the due date and time as notified, in the presence of the Bidder/ JV Partners/tenderer or their authorized representatives, who may be present. If due date of opening is declared as holiday by the Govt. or local administration, it will automatically get shifted to the next working day, for which no prior intimation shall be given. It may please be noted that the due date/time of opening can be altered, extended, if desired by the CSPTCL, without assigning any reason thereof. However, due intimation shall be given in such a case.

1.13 OPENING OF ENVELOPE-I, ENVELOPE -II & ENVELOPE -III: -

- 1.13.1** First envelope (**ENVELOPE-I**) containing Earnest Money shall be opened on the due date and time.
- 1.13.2** After verification about submission of EMD in proper manner, **Envelope- II** (PQR, Signed Tender Document, Affidavits & Undertaking, Pre- Contract Integrity Pact etc) shall be opened.
- 1.13.3** After PQR, Signed Tender Document, Affidavits & Undertaking, Pre- Contract Integrity Pact etc verifications, **Envelope-III** (Demonstration Write-up, Techno-Commercial Bid) shall be opened.
- 1.13.4** Tenderer shall therefore, have to ensure that their tender/bid is in conformity with the CSPTCL's tender specifications. If bidder has quoted 'NIL' deviations in the bid, this will have an overriding effect on any other conditions noted as deviations in the bid; in this regard no correspondence will be made to withdraw such specific contradictory condition.

1.13.5 DEMONSTRATION of the PROPOSAL/ SCHEME:

1.13.5.1 Technically accepted vendor will have to give full functional demonstration of their Scheme at SLDC, CSPTCL Control center during technical scrutiny. It shall be the responsibility of the bidders to carry all necessary equipments, accessories etc required for functional demonstration on scheduled date.

1.13.5.2 Based on scrutiny of techno commercial bid and functional performance of System during demonstration, the price bids of qualified Bidder/ JV Partners shall be opened at a later date. The Bidder/JV Partners whose ADMS system's functional performance is not found satisfactory during demonstration shall not be considered for price bid opening.

1.13.5.3 In case the Techno-Commercial evaluations of the Bidder/ JV Partners/tenderers are found at par with the tender, the opening of Envelope-IV (Price Bid) shall be done after proper intimation to the Bidder/ JV Partners. The date and time of opening of price bid shall be intimated through Email/fax message to qualified Bidder/ JV Partners only. The date & time of opening of price bid shall be intimated seven days in advance. The Bidder/ JV Partners may depute their representative to witness price bid. CSPTCL's decision shall be final & binding on the tenderer/ Bidder/ JV Partners.

1.14 Tenderer to please note that: -

1. Tender is to be submitted strictly in accordance with the tender specification, terms and conditions laid down in tender documents;
2. Submission of the tender by the tenderer implies that he has read and accepted the instruction, terms and conditions for the contract etc. and made himself aware of the particulars of the works/jobs to be done, site conditions and other factors having bearing on execution of the work;
3. Canvassing in any form is strictly prohibited and tenderer found to have resorted to canvassing shall be liable to have his tender rejected summarily;
4. If the tenderer deliberately gives wrong information in his tender to create circumstances for acceptance of his tender the CSPTCL reserves the right to reject such tender at any stage;
5. Tender documents are not transferable;
6. Not more than one tender for the work shall be submitted by one Contractor or one firm of Contractors;

7. All documents of the tender submitted shall bear full dated signature with seal of the tenderer at the foot of every page on right hand corner as a token of acceptance of the terms and conditions of tender;
8. Tender, which is incomplete, obscure, irregular or is only for part of the work schedule is liable to be rejected;
9. Telegraphic/telex/fax offers shall not be entertained;
10. The CSPTCL shall not be liable for any expenses incurred by the tender in preparation of tender, whether his tender is accepted or not;
11. Tender cost is not refundable;
12. The tender should be written legibly and free from errors, over writing and corrections. Any corrections, which are unavoidable, shall be made by crossing out and re-writing with dated signature;
13. Conditional tenders are liable to be rejected;
14. The Bidder/ JV Partners/tenderer confirms that in case of being awarded order to them by CSPTCL, they are directly executing the complete contract and are not subletting the contract in whole or part of the contract awarded to them;
15. The tender shall contain the name, residence and place of business of person or persons submitting the tender. All signatures shall be dated;
16. The tenderer shall have to ensure that documents are available with them in time and similarly bid is submitted as per schedule. CSPTCL shall not assume any responsibility for any unforeseen postal delay either for the receipt of document by tenderer or late receipt of bids by CSPTCL. No extension in time shall be granted on such grounds;
17. CSPTCL will not be responsible for delay on any account in respect of receipt of tender documents/submission of earnest money. If the tender documents/earnest money is received after the specified date and time due to postal delay or otherwise whatsoever the tender will not be considered and will be returned to the tenderer unopened;
18. The tenderer would be bound by the terms and conditions and specification as given therein offer and in the attached schedule;
19. The CSPTCL reserves the right: -
 1. To reject any or all tenders or to accept any tender considered advantageous to the Trans Co. whether it is lowest tender or not;
20. In case of correction done in the tender, the tenderer should initial the same otherwise the tenders may not be considered;
21. All the Tenderers shall essentially indicate the breakup of prices as shown in the tender form. In case any of the charges are not included in the quoted price, the same shall be clearly shown as "Extra" indicating specifically the rate /scale of such charges;
22. The terms and conditions mentioned in tender specification shall be binding on the tenderer and no condition or stipulation contrary to our condition shall be applicable;
23. Please note that the Tenderers who did not accept terms and conditions stipulated in this tender specification their offers are liable to be out rightly rejected without assigning any reason whatsoever.
24. **EXTREMELY IMPORTANT** – No additional document will be allowed after bid Submission; Bidder's to note this to avoid bid rejection.

1.15 DEVIATIONS:-

1.15.1 Technical Offer: It would be obligatory on the part of Bidder/ JV Partners to enclose a separate schedule of Technical Deviation in **Schedule-VI format**, in case there are any deviations from our technical requirement along with all supporting documents required for consideration of offer proposed. Even if no deviations are involved a separate schedule of deviation for technical particulars should be enclosed wherein a certificate may be recorded that there are no deviations from all our technical requirements. If bidder has quoted 'NIL' deviations in the bid, this will have an overriding effect on any other conditions noted as deviations in the bid; in this regard no correspondence will be made to withdraw such specific contradictory condition.

In the event of non-compliance of this instruction, it may be noted that the CSPTCL reserves the right to reject all such offers without assigning any reason or without making any correspondence for obtaining any clarification.

1.15.2 Commercial Offer: It would be obligatory on the part of the Bidder/ JV Partners to enclose a separate schedule of Commercial deviation in **Schedule-VII format**, if there are any deviations from our commercial terms / conditions along with all supporting documents required for consideration of offer proposed. Even if no deviations are involved, a separate schedule of deviation for commercial conditions should be enclosed wherein a certificate may be recorded that there are no deviations from all our commercial conditions. If bidder has quoted 'NIL' deviations in the bid, this will have an overriding effect on any other conditions noted as deviations in the bid; in this regard no correspondence will be made to withdraw such specific contradictory condition. All tenders, wherein these conditions are not complied with, may run the risk of rejection without any correspondence from our side.

Both the Technical & Commercial Deviation Schedules (**Schedule VI & VII**) duly signed by the tenderer shall be placed in the Envelope –III.

1.16 VALIDITY: -

Offers should be kept open for acceptance for at least 180 days from the date of opening of Tender as notified in the tender notice and subsequent amendment thereof, failing which the tender will be rejected. However, due to circumstances beyond control, the tenderer will be allowed to extend validity but they shall not be permitted to revise their rates, offer any rebate or concession while extending the validity which may materially result in any reduction / increase in the computed price of their original offer.

1.17 AUTHORISED SIGNATORY FOR THE TENDER:-

- (A) If the tender is being submitted by a proprietary concern, it shall be signed by the proprietor only.
- (B) If the tender is submitted by the firm, it shall be signed by the partners unless otherwise authorized by the deed of partnership, in which case necessary power of attorney, authorizing a person to sign the tender should be furnished. True copy of the partnership deed shall also be furnished under Envelope-II (PQR, Signed Tender Document, Affidavits & Undertaking, and Pre- Contract Integrity Pact etc.) along with Power of Attorney.

- (C) If tender is submitted on behalf of company, registered under company Act 1956 (amended in 2013) it shall be signed by the person duly authorized to submit the tender on behalf of the company and shall be accompanied by the certified true copies of the resolution extract of articles of associating special or general power of attorney and designation of person signing the tender on behalf of the company.

1.18 AMENDMENT IN SPECIFICATIONS / SCHEDULES:

CSPTCL may revise or amend specifications / schedules of work prior to the date notified for opening of the tenders. Such revision/amendment, if any will be communicated to all tenderer as amendment / addendum to the invitation of the tenders.

1.19 BIDS RECEIVED BY MESSENGER:

When tender is delivered by a special messenger, it should be deposited in the tender box kept in the office of THE EXECUTIVE DIRECTOR, SLDC, CSPTCL, RAIPUR on all working days between **11:00 to 15:00 hours** only. For tenders deposited in the tender box through messenger, no receipt shall be issued.

1.20 PRE-BID CONFERENCE :-

A pre- bid conference of prospective bidder shall be held at Raipur at least seven days before the due date of submission of tender. Intimation regarding pre-bid conference shall be given to all the bidders. During pre-bid conference, the technical & commercial terms of the tender shall be discussed. Bidder should depute their technically competent representative with authorization letter to attend the conference.

Bidders are expected to be fully conversant with the meaning of all the clauses of the specification before submitting their tenders. In the case doubt regarding the meaning of any clause, the bidder may ask for clarification in writing from the Executive Director (SLDC), CSPTCL, Danganiya, Raipur (CG) 492013, that must reach at least 07 days before the scheduled date of opening of tender. The however, does not entitle the bidder to ask for time beyond due date fixed for receipt of tender.

A pre-bid conference of all the positive bidders participating in Tender No TR-141/2020 shall be **conducted at 11:30 Hrs. on dtd. 17/11/2020 in the O/o ED (SLDC), SLDC Building, Danganiya, Raipur.** The prospective bidders may depute maximum two authorized representative along with authority letter on Company's letter head. The bidders are requested to go through the tender specification TR- 141/2020 available on the website www.cspc.co.in/csptcl/tender notice/SLDC or www.sldccg.com/Tenders thoroughly and send their queries to the O/o **Executive Director (SLDC)** through fax message on fax no. 0771-2574174. The query letters should positively reach this office by date. **17/11/2020.**

Any shortcoming or items which in the opinion of the bidders are essential for completion of work but have not been mentioned in the tender specification should also be pointed out in the queries. The queries raised by bidders shall be discussed in the pre-bid conference and based on the discussion, amendments, if any, in the tender specification shall be issued & made available on the CSPTCL's web-site.

Although details presented in this tender specification have been complied with all reasonable care, it is the responsibility of the bidder to satisfy himself that the information given in each section are adequate and there are no conflicts between various clauses/sections/specifications. The clarification/decision of the **Executive Director (SLDC)** shall be final and conclusive.

1.21 DELAYED / LATE BIDS:

- (A) The tenderer shall have to ensure that tender documents are available with him in time and similarly see that completed tender is submitted before scheduled date and time. CSPTCL shall not assume any responsibility for any unforeseen postal delay either for the late receipt of documents by the tenderer or late receipt of bids by CSPTCL, No extension in time shall be granted on such grounds.
- (B) Tender received after due date and time of submission will not be accepted on any pretext, even though the process of opening and reading of offers is not completed. Tenders received late shall be returned to the tenderer in unopened condition. No further correspondence in this respect shall be entertained.

1.22 MISTAKES IN BIDS:

Any variation in rates on any grounds such as mistakes, overwriting, misunderstanding etc. will not be allowed.

1.23 BASIS FOR RATES:

Rates are to be quoted on the basis as desired in the tender documents. Rates quoted shall be FIRM for the total period of contract. However, if desired before submission of tender offer, it is advised to visit site for better understanding of the quantum of work involved & requirement of additional tools & tackles etc.

1.24 ACCEPTANCE OF PART / WHOLE BIDS:

CSPTCL reserves the right to accept/reject wholly or partly any or all the tenders without assigning any reason whatsoever. No correspondence in this respect shall be entertained by the CSPTCL.

1.25 AMBIGUITIES IN CONDITIONS OF BID:

In case of ambiguous or self-contradictory terms / conditions in the bid, interpretation as may be advantageous to the CSPTCL, may be taken without reference to the tenderer.

1.26 DISQUALIFICATION OF BID:

A bid which gets open before the due date, as a result of improper or no indication / superscription on the main cover of the tender, to indicate that it is a tender, will be disqualified. Tenderer will not be permitted to change the substance of his tender, on grounds of post tender interpretation / improper understanding. This includes post-tender changes in price/rate and modification etc. after opening of price bids. In such event, tender will be liable for rejection.

1.27 LOCALITY OF WORK:

By Submitting a tender for the work, a tenderer will be deemed to have satisfied himself by actual inspection of site and locality of the work and ensure that rates quoted by him in the tender will be adequate to complete the work in all respects according to the specifications and other conditions and that he has taken into account all condition & difficulties that may be encountered during its progress whether or not explicitly provided in the tender documents but necessary for proper completion of the work to the entire satisfaction of Engineer-in-charge.

1.28 NEGOTIATION OF PRICES: CSPTCL reserves the right to hold negotiation with L-1 bidder as deemed necessary. Procedure adopted by CSPTCL for holding negotiation shall be final and binding on all bidders. Although details presented in this tender specification have been compiled with all reasonable care, it is the responsibility of the bidder to satisfy himself that the information given in each section are adequate and there are no conflicts between various clauses/sections/specifications. The clarification/decision of the Executive Director/Chief Engineer (SLDC) shall be final and conclusive.

**EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Raipur**



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
 छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित
 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
STATE LOAD DESPATCH CENTRE: RAIPUR
 छत्तीसगढ़ राज्य भार प्रेषण केन्द्र, रायपुर

दूरभाष PHONE: 0771- 2574172,

फैक्स FAX NO. 0771-2574174.

Web Site: sldccg.com

email-office@sldccg.com

No. 03-02/ED/SLDC/TR-141/2020/1135

Raipur, Dated 29/10/2020

SECTION-II: GENERAL TERMS AND CONDITIONS OF CONTRACT

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State.

2.1 DEFINITION OF TERMS:

- 2.1.1 CSPTCL: The 'CSPTCL' shall mean 'CHHATTISGARH STATE POWER TRANSMISSION CO. LTD.' constituted under section-5 of the Electricity (Supply) Act 1948 and shall include its successors and assigns.
- 2.1.2 ENGINEER IN CHARGE: It shall mean the Engineer of the CSPTCL, who is appointed by CSPTCL's authority as Engineer-in-charge or the Project Manager for the purpose of this contract.
- 2.1.3 BIDDER/ JV PARTNERS: 'Bidder/ JV Partners' or 'Supplier/Contractor' shall mean person, firm or company, who's tender has been accepted by the CSPTCL and shall include his heirs, executors, administrators and assigns.
- 2.1.4 WORK: The expression 'Work' or 'Works' shall there be something either in the subject or context repugnant to such construction be continued to mean work undertaken, whether temporary or permanent and whether original, altered, substituted or additional.
- 2.1.5 CONTRACT: 'Contract' shall mean and include the tender notice, instructions to the tenderers, general and special conditions of contract, Technical Specifications, Scope of Work, work schedules, under-taking by the tenderer, questionnaire, experience details furnished, all documents and letter submitted by the tender, letters issued by the CSPTCL, letter of intent issued by the CSPTCL, detailed Work Order and subsequent amendments to it and the agreement to be entered into as per conditions of the contract.

2.2 CONTRACTOR TO INFORM HIMSELF:

- 2.2.1 The Contractor shall be deemed to have carefully examined the instructions to the tenderers, these general conditions of contract, special conditions of the contract, Work schedule of this tender document and also have to be satisfied as to the nature and character of the work to be executed, site conditions and other relevant matter and details. Any information thus had or otherwise obtained from the undersigned shall not in any way relieve the Contractor from his responsibility for executing the work items / jobs in terms of the specification including all details and incidental work. In case of any doubt as to the meaning of any portion of the tender documents, he shall put forth the particulars thereof and submit them to the office of THE EXECUTIVE DIRECTOR (LD), SLDC, CSPTCL, RAIPUR in writing for clarification before the due date of submission of tenders.

- 2.2.2 If the supplier is a consortium, the members of such consortium shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract. Only the Lead Member (as mentioned at the Empanelment stage) shall have the authority to conduct all businesses for and on behalf of the Consortium during the bidding process and, in the event the Consortium is awarded the Contract, during contract execution the composition of the consortium cannot be altered

2.3 AWARD OF CONTRACT:

- 2.3.1 The official language of the Contract is English. Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, 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 the an accurate translation of the relevant passages in English in which case, for purposes of interpretation of the Contract the English translation shall govern.
- 2.3.2 The Supplier shall bear all costs of translation to English and all risks of the accuracy of such translation. The Supplier shall be bound to the English translation and what has been stated therein.
- 2.3.3 The contract will be awarded to the lowest Bidder/ JV Partners, if such Bidder/ JV Partners come out to L-1 on the basis of above evaluation. However, CSPTCL reserves its right to accept or reject any or all the offers, in part or full, without assigning any reason whatsoever.

2.4 STORAGE AND SHIPMENT OF EQUIPMENT:-

The indoor material received at site for the work under execution has to be stored under a temporary shed in proper manner so as to avoid entry of rain water, flood water and safe from theft & fire hazards etc. The outdoor equipments / materials can be stored in open space free from water logging and fire hazard .The Executing Division of the work shall ensure that the bill raised by the contractor is passed only after storage of the equipments in proper manner. The site of the store shall be selected in consultation with **Engineer in-charge** of the work. DI of materials shall be issued by this office only after getting confirmation of construction of storage shed from Engineer In-charge.

Materials / equipment have to be transported in proper manner with suitable package /cartoon to protect the equipment from damages due to injury during transportation.

2.5 SUBMISSION OF INDEMNITY BOND:

- 2.5.1 The Supplier hereby agrees to indemnify the Purchaser, for all condition and situations mentioned in this clause, in a form and manner acceptable to the Purchaser, The supplier agrees to indemnify the Purchaser and its officers, servants, agents ("**Purchaser Indemnified Person**") from and against any costs loss, damages, expense, claims including those from third parties of liabilities of any kind howsoever suffered, arising of incurred inter alia during and after Contract period out of:
- 2.5.2 The Bidder/Supplier shall submit indemnity bond (as per Annexure enclosed) towards safe custody of various material/equipments equivalent to cost of material provided in price schedule of supply order, indemnifying CSPTCL towards loss and damages if any. This bond shall be valid till contractual completion period or actual completion period whichever is later. The proforma for the indemnity bond is enclosed with this tender document as **Annexure-IV**.

2.6 SECURITY DEPOSIT:

2.6.1 On acceptance of offer, the successful Bidder/ JV Partners will be required to deposit 10% amount of the contract price as security deposit within 15 days of the receipt of work order in any of the following form for due performance and observance of terms and condition of contract, failing which the contract may be cancelled:

- a) FDR/Demand Draft In favor of The Manager (RAO: HQ), CSPTCL, Raipur drawn on any Nationalized/Scheduled Bank payable at Raipur.
- b) Bank Guarantee (BG) in lieu of cash deposit from a Nationalized / Schedule Bank strictly as per CSPTCL Performa (to be supplied along with the order). This bank guarantee shall be kept valid for a period exceeding the scheduled completion date by three months with lodgments claim period of six months.
- c) The BG shall be executed on non-judicial stamp paper worth Rs. 300/- with a revenue stamp of Rs. 1/- affixed on it, as per the proforma enclosed with this tender document as **Annexure-V**.
- d) The BG Extension, if required, at any stage of the tender shall also have to be executed on non-judicial stamp paper worth Rs. 300/- with a revenue stamp of Rs. 1/- affixed on it, as per the proforma enclosed with this tender document as **Annexure-VI**.

2.6.2 In case of firm registered under Small Scale Industries with Chhattisgarh State, the Security Deposit shall be applicable @ 5% of amount of the order after submission of copy of the valid registration of the firm in Small Scale Industries department.

NO interest shall be paid by CSPTCL on the security deposit.

2.6.3 In case of non-fulfillment of contractual obligations by the Contractor the security deposit shall be forfeited. The security deposit shall be released only after successful completion of contract period and after issue of No dues Certificate by Engineer-in-charge.

2.6.4 FORFEITURE OF SECURITY DEPOSIT:-

In the event of Contractors committing a breach on any of the terms & conditions laid down in the contract at any time for enforcement in their duties, the CSPTCL may forfeit security deposit and cancel the order by giving notice in writing in this behalf. Any dispute arising out of this contract is to be referred to the undersigned whose decision in the matter shall be final and binding on Contractor.

The security deposit will be released only after completion of entire works & issue of NO dues certificate from Engineer in charge of work & after submission and acceptance of performance guarantee.

2.7 EXECUTION OF AGREEMENT:

The successful Bidder/ JV Partners/Contractor will have to execute an agreement on non-judicial stamp paper worth Rs. 300/- with a revenue stamp of Rs. 1/- affixed on it, as per the proforma enclosed with this tender document as **Annexure-VII** on award of order. The cost of stamp paper etc. shall be borne by the Contractor. The agreement is to be executed within 15 days from the date of order for execution of contract.

2.8 CONTRACT PERIOD:

The contract period for Implementation of the ADMS will be of **One Year from the date of order** for the works mentioned in the schedule. Further, the successful Bidder/ JV Partners have to execute **separate agreement for Two Years of O&M of the ADMS system**. It may be extended for further period of six months or the contract period may be curtailed as desired by CSPTCL.

2.9 MOBILISATION PERIOD:

The Specified works shall be required to be commenced immediately after complying contractual formalities regarding "AGREEMENT" and "SECURITY DEPOSIT".

2.10 TERMINATION OF CONTRACT:

The Contractor shall abide by the terms and conditions of the contract and work as per the instructions of the Engineer-in-charge. In case the Contractor fails to carry out the works as directed or is not able to cope up with the work satisfactorily and it is found that the smooth working of the *Automatic Demand Management System (ADMS) in Chhattisgarh State* is affected due to his unsatisfactory working and he fails to improve his working, the CSPTCL reserves the right to terminate the contract any time during the currency of the contract by serving him fifteen days notice without accepting any liability of payment of any compensation to the Contractor, whatsoever it may be, without assigning any reason. Security deposit in such case shall be forfeited.

2.11 PENALTY FOR BREACH OF CONTRACT:

- 2.11.1 A minimum penalty of Rs. 1000/- shall be levied for each day of non-operation of *Automatic Demand Management System (ADMS) system* server operations subject to maximum of Rs. 25,000/- per month. A minimum penalty of Rs. 500/- shall be levied for each day per *Control Station* of non-operation subject to maximum of Rs. 10,000/- per month. A minimum penalty of Rs. 100/- per Automatic Feeder Tripping System (AFTS) for each day of non-operation of *Automatic Demand Management System (ADMS) system* subject to maximum of Rs. 1000/- per month per AFTS.
- 2.11.2 The CSPTCL shall be entitled to forfeit the Security Deposit or the balance thereof that may at the time be recoverable and to realize any further sums as damages from any sums due to the Contractor by the CSPTCL, from any breach of the terms and conditions of the contract.
- 2.11.3 On termination of the contract, the additional expense which the CSPTCL will have to bear for getting the work executed by employing labor or getting the work executed through alternative agencies for the balance period of the tender for which the contract would have been operative, will be recoverable from the Contractor, whose contract will be terminated as mentioned in the preceding Clause/Para. The difference will be worked out on the basis of actual quantum of work during the balance period of contract and the new rates as per the alternative agencies or actual payment involved plus applicable supervision charges will be recovered from the dues / deposit of the Contractor.
- 2.11.4 In the event of Bidder's/JV partner's deployed Staff/employee/Engineer's absconding from the place of duty (i.e. none of the staff/ employee/Engineer's are available) or fails to perform the assigned job as defined under "Office " or bidder failing to arrange suitable substitute then a penalty of Rs. 500/- shall be deducted against each such event per day.

If the staff engaged by Bidder's/JV partner's remains absent from duty, then the CSPTCL has the right to recover the expenditure incurred, from contractor for making alternate arrangement during such event.

- 2.11.5 If under-qualified persons of the contractor are observed on duty, then a penalty of Rs. 10000/- will be deducted from their bill whenever noticed. In case same default is noticed again, then provisions for termination of contract shall apply.

2.12 CONTRACTOR'S LIABILITY FOR LOSS, DAMAGE, ACCIDENT etc:

- 2.12.1 The Contractor shall indemnify and save the CSPTCL against all actions, suits, claims, demands, cost of expenses arising in connection with injury suffered prior to the date, when work shall have been taken over by person employed by the Contractor/his sub Contractor on the works whether under the general law or under the Workmen's Compensation Act 1923 or any other statutory provision in law in force, dealing with the question of the liability of the employer and shall take steps to ensure against any claim there under.
- 2.12.2 On the occurrence of any accident, which may result in death of any such workman (fatal accident), the Contractor within 24 hours of happening of such accident, intimate in writing to the Nodal officer/Engineer-in-Charge, the facts of such accident. The Contractor shall indemnify the CSPTCL against all loss or damage sustained by the CSPTCL resulting in direct penalties/fine/if any, payable by the CSPTCL as consequence of the CSPTCL's failure to give notice under Workmen's Compensation Act or otherwise to confirm the provisions of the Act in regards to such accidents.
- 2.12.3 In the event of any claim being made or action brought against CSPTCL and arising out of the matter referred to and in respect of which the Contractor is liable under this clause, the Contractor shall be immediately notified thereof and he shall with the assistance of the CSPTCL (if so required), but at the sole expense of the Contractor conduct all negotiations for settlement of the same or/and litigation that may arise therefore. In such case the CSPTCL shall afford all available assistance for any such purpose, at the expenses of the Contractor.
- 2.12.4 In every case in which by virtue of the provision of Section 12, sub section (1) of the Workmen's Compensation Act 1923, CSPTCL is obliged to pay compensation to workmen employed by the Contractor in execution of the work, CSPTCL will recover from the Contractor, the amount of the compensation so paid without prejudice to the right of the CSPTCL under section 12 sub section (2) of the said Act. The CSPTCL shall be at liberty to recover such amount or any part hereof by deducting it from the Security Deposit or from any sum due by the CSPTCL to the Contractor against it under section 12 subsection (1) of the said Act, except on the written request of the Contractor and upon his having given to the CSPTCL full security for all costs for which the CSPTCL might become liable in consequence of contesting such claim.
- 2.12.5 The amount of all cost, damage or expenses or other sum, which under this or any other contract, due to Contractor or if payable by the CSPTCL, may be deducted by the CSPTCL from any money due or becoming due to the Contractor or recover the same by ordinary process of law.

2.13 LAWS AND REGULATIONS:

- 2.13.1 The Contractor shall be responsible for the compliance of all statutory obligations under the Factory Act, Contract Labour (Regulation & Abolition) Act, and Contract Labour (Regulation & Abolition) Rule 1973, Minimum Wages Act, Payment of Wages Act 1936 or any other law imposed by the Government. It will be responsibility of the Contractor to maintain various

registers records required under various Acts and have to produce the same to the Engineer-in-Charge or to the inspection authorities of the Government, on demand at any time.

- 2.13.2 The Staff/employee/Engineer's engaged by the Contractor shall be bound by the provisions of the legislation whether Central or State, as in force operative in the State of Chhattisgarh, in case of any default on the part of Contractor or his agent of any to the provisions of such laws. If the CSPTCL is required to incur any expenditure, liabilities arising there from; CSPTCL may deduct and recover the same out of any sum due or becoming due to the Contractor in respect of this contract. The decision of the CSPTCL that any sums have become payable hereunder and the amount, which has become payable shall be final and binding on the Contractor.
- 2.13.3 If any penalty is imposed on occupier / factory manager due to non compliance of factory rules and labour laws, the payment of the same shall have to be made by Contractor.
- 2.13.4 As per requirement of contract-Labour (Regulation and abolition) Act 1970 and its modification till date the Contractor will have to maintain certain Register and records giving particulars of the contract, Staff/employee/Engineer's employed, the nature of work performed by the Contractor, the rates of wages paid to contract staff/labours/Engineers etc.

2.14 MINIMUM WAGES:

- 2.14.1 The Contractor shall pay not less than minimum wages to the staff/labours/Engineers engaged by him on the work. Minimum wages means the wages prescribed by the State or labour department of the district or place in which work is to be done. The Contractor will ensure that staff/ labours engaged by his sub-Contractors are not paid less than minimum wages.
- 2.14.2 The Engineer-in-Charge shall have the right to deduct an amount from bills due to the loss suffered by a worker / workers by reason or non-fulfillment of the conditions of the contract for the benefit to the workers, non-payments of wages or deduction from his or their wages, which are not justified by their terms of contract or non-observance of the regulations.
- 2.14.3 The Contractor shall primarily be liable for all payment to be made under and for the observance of the regulation aforesaid without prejudice to his right to claim indemnity from his sub-Contractors.
- 2.14.4 The regulation shall be deemed to be a part of the contract and any breach there of shall be deemed to be the breach of contract. The Contractor shall disburse the wages to his staff/workers within the time limit prescribed under the provisions of payment of Wages Act 1936 or any other similar law in force as amended up to date.

2.15 IDLE STAFF/LABOUR/ ENGINEER:

No compensation will be paid by the CSPTCL for the idle Staff/employee/Engineer's or equipment of the Contractor and no claim in this respect will be entertained.

2.16 DEATH, BANKRUPTCY, BREACH OF CONTRACT:

If the Contractor dies or become insolvent or is bankrupt or receiving order made against him or compound with or make any proposal for carrying on his business under inspection or for the benefit of his creditors or commit an act insolvency or. Bankruptcy or being a corporation pass a resolution or be ordered to wound up or have receiver of its business appointed, or commit a breach of contract, CSPTCL shall be entitled forth with by writing to the Contractor or his assigns or legal representative to determine the contract and the CSPTCL may in the event complete the

contract in such time and manner and by such persons as the CSPTCL shall think fit at the risk cost and liability of the Contractor.

2.17 SUBLETING OF CONTRACT:

The contract as a whole or any part thereof shall not be assigned or sublet, without written permission of the CSPTCL or its authorized nominee. In case, such permission is granted, it shall under no circumstances recognize the sub Contractors and responsibility of executing the work according to the specifications shall entirely rest with the principal Contractor.

2.18 WORKS TO BE OPEN TO INSPECTION:

All works under or in course of execution or executed in pursuance of the contract, shall be at all time be open for inspection and supervision of the Nodal Officer/Engineer-in-Charge and his subordinates, and the Contractor shall at all times during the usual working hours and all other times at which notice of the intention of the Engineer-in-Charge or his sub-ordinate to visit the works shall have been given to the Contractor, either himself be present to receive order and instructions or make responsible agent duly accredited in writing be present for the purpose. Order given to the Contractor's agent shall be considered to have the same force as if given to the Contractor himself.

2.19 COMPENSATION UNDER WORKMEN'S COMPENSATION ACT:

In every case in which by virtue of the provision of Section 12, sub section (1) of the Workmen's Compensation Act 1923, CSPTCL is obliged to pay compensation to workmen employed by the Contractor in execution of the work, CSPTCL will recover from the Contractor, the amount of the compensation so paid without prejudice to the right of the CSPTCL under section 12 sub section (2) of the said Act. The CSPTCL shall be at liberty to recover such amount or any part hereof by deducting it from the Security Deposit or from any sum due by the CSPTCL to the Contractor against it under section 12 subsection (1) of the said Act, except on the written request of the Contractor and upon his having given to the CSPTCL full security for all costs for which the CSPTCL might become liable in consequence of contesting such claim.

2.20 P.F. CONTRIBUTION:

As per the statutory obligation under labour laws & P.F. rules Contractor will have to furnish P.F. / EPF contribution in respect of staff engaged by him.

2.21 PRICES:

The prices should be FIRM. The charges of taxes, insurance (if any), and other charges are also to be intimated separately. No additional amount is payable for working on Holiday / Additional hours if any.

2.22 PAYMENT:

The payments are generally linked with the Power System Development Fund (PSDF) mechanism. Payment towards the work executed by the Contractor shall be made on the running bills only after submission bills in quadruplicate (4 copies) and shall normally be paid within a period of about 30 (thirty) days from the date of receipt of bills after deducting the statutory levies and other deductions, if any, and duly certified by the Engineer-in-Charge. The Payment will be done on actual measurement basis and against allocation of the fund from PSDF. The Contractor shall have no claim or reason to stop work if payment is delayed. No interest on

overdue payment shall be made under any circumstances. Tentatively the schedule of the payments shall be as under:

| Particular | Value in percentage. |
|---|----------------------------|
| (i) Mobilization Advance/ Advance Payment | 10 % of order value |
| (ii) Payment against Supplies | 40 % of order value on MRC |
| (iii) Payment against Erection | 20 % against Certificate |
| (iv) Payment against Commissioning | 15% of order value |
| (v) Payment against Documentation Handovers | 05 % of order value |
| (vi) Release of Security (after over of GP from DOCO) | 10% of order value |
| Where DOCO- Date of Commercial Operation | |
| GP- Guarantee Period | |

2.23 INCOME TAX:

Income tax (at the rate applicable during the currency of contract) shall be recovered from the firm's invoice as per prevailing rule.

2.24 GOODS & SERVICE TAX:

It will be the responsibility of the Contractor to obtain registration for GSTIN from the concerned Governmental Tax Dept. and ensure timely payment of Goods & Service Tax (GST). Rate should be quoted exclusive of GST. The GST will be quoted & paid separately. The rates of GST shall be as applicable on date will be paid. Firm has to submit copy/document of taxes Applicability/Liabilities. As per the GST-Act 2017, the Taxes will be deducted for direct submission to Governmental Tax Department and / or reimbursed to the firm on submission of documentary evidence of payment of GST. If exempted from payment of GST, the firm has to submit affidavit to that affect on non-judicial stamp paper. Firm has to submit copy of PAN card to determine whether the firm is a company or not.

2.25 OTHER TAXES / DUTIES:

Any other taxes or duties imposed by the Govt. during the currency of the contract shall be borne by the Contractor.

2.26 APPROVAL:

Modification & Alteration in the ADMS as per the requirement for the betterment of system shall have to be got approved from ADMS Committee before commencement of the work. The Project Manager shall put such proposal before the ADMS Committee.

2.27 THE ADMS EXECUTING COMMITTEE:

The EXECUTIVE DIRECTOR, SLDC, CSPTCL is the Nodal officer of the ADMS Committee. Further, the ADMS committee comprises members from office of ED/CE (C&RA) CSPTCL, ED/CE (S/s - O&M) CSPTCL Raipur/Bilaspur, ED (O&M) CSPDCL, and ED/CE (SLDC), CSPTCL, Raipur as the Project Manager for the ADMS Project. The Field Coordinators shall be (i) SE (MO), O/o ED (SLDC), CSPTCL Raipur (ii) SE (S/s-O&M) Circle, CSPTCL Bhilai for Bhilai Zone (iii) SE (S/s-O&M) Circle, CSPTCL Bilaspur for Bilaspur Zone and SE (S/s-O&M) Circle, CSPTCL Korba for korba Zone.

2.28 SUBMISSION OF BILLS:

All bills addressing to the ED/CE, SLDC, CSPTCL, Raipur shall be submitted in quadruplicate at to the O/o/ ED/CE., SLDC, CSPTCL, Raipur. The Contractor has to furnish proof of deposition

of following in respect of the works executed during claim period with the bill: - [a]. Details of works executed during the quarter duly certified by the Engineer-In-Charge; [b]. Copy of Attendance duly certified by the Engineer-In-Charge. [c]. Consolidated Statement of the Payment & Deductions and [d]. Work accomplishment from the Field Coordinators for the payment demanded.

2.29 SAFETY MEASURES:

To avoid any undesirable incidence: -

- a) Only trained and experienced person on relevant field / work may be deputed to carry out the work under direct supervision of Engineer-in-Charge.
- b) As the work is to be carried out in the SLDC, Contractor shall be fully responsible for observing the security/ safety rules and maintaining the required discipline during the contract period.
- c) As this work is to be carried out in the protected area, it should be ensured that there is no damage to any of the erected equipment/ appliances etc.

2.30 RISK COVERAGE:

The work shall be carried out on the full risk and cost of Contractor and CSPTCL will not be responsible for any kind of risk coverage arising during / arrived out to execution of work.

2.31 DETACHMENT OF PERSON:

In order to discourage frequent change of staff & maintain security aspects it shall be required that the Contractor do not frequently detach the staff personal throughout the contract period. **If more than 3 persons are changed / replaced during the contract period it will be treated as breach of contract and security will be forfeited in this regard. The change of person will be allowed only once**” However in special case when a staff person is bound to leave, the Contractor shall have to inform it to the Engineer-in-Charge and arrange to fulfill the vacancy.

2.32 LIEN UPON THE PREMISES:

The Contractor or his staff is allowed to work at the premises of the SLDC, CSPTCL, and its Substations (S/S). But, the Contractor will have no right of lien whatsoever upon the premises and the Contractor and his workers will move out of the premises as per instruction of the SLDC, CSPTCL.

2.33 NOTICES :

- 2.33.1 All notices and other communications under this contract must be in writing, and must either be mailed by registered mail with due acknowledgement Or hand delivered with proof of it having been received.
- 2.33.2 If mailed, all noticed will be considered as delivered after 5 days, of the notice having been mailed, if hand delivered, all notices will be considered, when received by the party to whom the notice is meant and sent for.
- 2.33.3 All notices under this contract shall be sent to or delivered at the address as specified by the parties.
- 2.33.4 A Notice shall be effective when delivered or on the Notice's effective date, whichever is later.

2.34 JURISDICTION:

Any dispute of difference, arising under out of or in connection with this order shall be subject to exclusive jurisdiction of competent court of Raipur (CG) only.

2.35 MISCELLANEOUS:

Any changes due to change in policy announced by the State / Central Govt. will be applicable and shall be binding on the Contractor for which no separate charges will be payable.

2.36 ARBITRATION:

If at any time, question, dispute or difference, whatsoever arises between the CSPTCL and the Contractor upon, or in connection with or in relation to the contract, either party may forth with give to the other notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by the CSPTCL and the other to be nominated by the Contractor, or in case of the said arbitrators not agreeing, then the adjudication of the Umpire to be appointed by the arbitrators, whose decision shall be final and binding on the parties and provisions of the Indian Arbitrator and conciliation Act 1996, and of the rules hereunder and any statutory modifications thereof shall be deemed to apply. The Arbitrators or the Umpire, as the case may be, are bound to give a detailed speaking award assigning for the findings. Works under the contract shall be continued by the Contractor during the arbitration proceedings unless, otherwise, directed in writing by the CSPTCL or unless matter is such that the work cannot possibly be continued until the decision of the arbitrators or the umpire, as the case be, is issued.

2.37 EXTENSION ORDER:

CSPTCL reserves the right to regulate the quantity and period of contract. In the event of an order being placed on tenderer, the tenderer is requested to give his concurrence to accept additional order on the same rate, terms & conditions, if the extension order is placed by the CSPTCL within contract period.

- (i) **Extension clause to accept additional Quantity:-** If additional No. of EHV S/S having feeders incorporated under scheme of ADMS, then CSPTCL reserves the right to place extension order for 50% additional quantity with all materials/equipments with associated accessories during any stage of the contract period and accordingly offered prices would be taken into account for these requirements. The bidder has to accept additional order on the same offered price, terms & conditions with all associated accessories. In case before placing of extension order, if new tender is opened and its rate is lower than the previous order rate then extension order will be placed on the new tender rate.
- (ii) **Extension clause for Period of contract:-** After completion of contract Period CSPTCL reserves the right to extend the existing order for another Six Months at a time on the same rate and same terms and conditions subject to satisfactory performance by the contractor. The period of contract may be curtailed as desired by CSPTCL.

2.38 WORKERS ENGAGED BY THE CONTRACTOR:

- i. The CSPTCL will not be in any manner, responsible for any act, omission or commission of the workers engaged by Contractor and no claim in this respect will lie on the CSPTCL. If any such claim is made against the CSPTCL by any worker engaged/employed by the Contractor, which the CSPTCL is obliged to discharge by virtue of any statute of any provision of law and rules due to mere fact of the workers of the Contractor working at the office or otherwise, the Contractor will be liable to indemnify/reimburse the CSPTCL all the money paid in addition to the expenses incurred.

- ii. The Contractor shall be responsible in respect of the employment or non-employment of the working force engaged by him at his own level and the CSPTCL shall have no role to play in the said matter. In case any loss is caused to the CSPTCL by the working force of the contractor, by the deeds or litigation, then the Contractor shall have to bear the cost of such litigation along with the value of the loss caused.
- iii. The Contractor shall engage the work force as per the required qualifications & it shall be the responsibility of the Contractor to maintain the records of the employees deployed by him as required in terms of the various labour laws.
- iv. The contractor shall obtain necessary license under the Contract Labour Act, 1970, and shall fully comply with requirement of all labour laws including Minimum Wages Act, 1948, Industrial Disputes Act, 1947, Workmen's Compensation Act, 1923, Industrial Employment (Standing Orders) Act, 1946, Employees Provident Funds and Miscellaneous Provisions Act, 1952, ES Insurance Act 1948, and any other labour law as applicable in the State of Chhattisgarh. Contractor will keep all workers fully insured as per law and which will remain valid and operative till the expiry of work order or time if extended further. In case if violation of any Rules, Regulations, Laws Acts etc. as mentioned above, registered in competent Court and any type of penalty/fine imposed on CSPTCL due to default of contractor, the CSPTCL reserves the right to recover such amount from contractor's bills/SD or by any other means. The decision of the CSPTCL shall be final & binding on the contractor.
- v. For any unforeseen happenings, accident etc., the risk will be covered by the contractor and Company will no way liable for any type of compensation.
- vi. Any other instructions/condition issued from time to time by the Company's competent authority will be observed by the contractor.
- vii. The contractor will issue the Identity - Card with photograph to his staff and it will be obligatory to exhibit the I-Card while on duty. The contractor will not change his staff without proper justification & bringing in knowledge of OIC of the work. The list of all staff with full address along with proof of qualification & two copy of photograph will be handed over by contractor to OIC/EIC for official record. The contractor must submit police verification report of their staff before deployment to OIC.
- viii. The payment to the employees deployed has to be ensured by contractor up to 7th of each month, through account payee Cheque/DD/Electronic transfer or by credit to employee's bank account. Cash payment is not admissible.
- ix. The Engineer-in-Charge shall have the right to deduct an amount equivalent or whatever applicable from the money due to the Contractor, for making good to the loss suffered by a worker / workers by reason of non-fulfillment of the conditions of the contract for the benefit to the workers, non-payments of wages or deduction from his or their wages, which are not justified by their terms of contract or non-observance of the regulations.

- x. All the Staff will be employed by the contractor and there shall be no master and servant **relationship between the workers and the CSPTCL.**
- xi. If the performance of the contractor is not found satisfactory or not found performing as per the operating instructions by Office In charge, at any time, the contract may be terminated by the CSPTCL. The decision of the Company shall be final and binding.
- xii. The authorization chart of staff engaged by the contractor for duty is to be displayed in control room duly approved by Executive Engineer (Office).

**EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Raipur**



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
 छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित
 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
STATE LOAD DESPATCH CENTRE: RAIPUR
 छत्तीसगढ़ राज्य भार प्रेषण केन्द्र, रायपुर

दूरभाष PHONE: 0771- 2574172,

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No. 03-02/ED/SLDC/TR-141/2020/1135

Raipur, Dated 29/10/2020

SECTION-III: SPECIAL TERMS AND CONDITIONS OF CONTRACT

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State.

3.1 SCOPE:-

(A) The scope of the work covers: -

- Name of project:- “Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State”.*
- The ADMS shall governed on about 155 No. identified feeders up to the 33 KV level at the EHV Substation through 45 RTUs spread over the Chhattisgarh State geographically from SLDC, SCADA.
- The above number is tentative and may vary according to actual requirement. The number may increase or decrease by CSPTCL.
- The entire work is broadly divided in **Two Parts A & B**. Each part comprises of work as under:

PART-A:

- **I** - Complete installation, testing and commissioning work of *Automatic Demand Management System (ADMS)* for 155 No. of feeders through independent redundant GPRS network including installation of **Field items for ABB & CHEMTROL RTU or new RTU's** with associated equipments and ADMS Server with associated software.
- **II** – Integration of ADMS system with SLDC SCADA over ICCP in real time.
- **III** – Report generations / building from all fetched data from the above two (I & II) and on monthly basis from the ADMS Server etc. to comply with the requirement of CERC/CSERC.

PART-B:

- **IV** – After Go Live, O&M of the ADMS system for 2 years by deputation of **4 No qualified** Engineers on RTC basis at the SLDC.
- (e) **Please note: - The Bidder/JV Partner can take up all the activities of the PART-A i.e I, II & III simultaneously or in chronological order until and unless it is specified in this tender and covered in the order.** However, for the PART-B i.e IV only, for the O&M of the ADMS system for 2 years, separate order shall be placed by CSPTCL to the successful Bidder/JV Partner on the basis of price quoted with this tender.
- (f) Further to Installation, Testing & Commissioning of the system, the successful Bidder/JV Partner shall operate and maintain the system for a period of two years from date of award.

- (g) All necessary software & hardware required for updating the system in order to keep it at par for incorporating the prevailing rule & regulations and the technology advancement.
- (h) GIS Solution Provider - Locating co-ordinates (Latitude-Longitude) using GPS, collection/update of attribute database of all 45 EHV Sub Stations through field survey, codification and mapping.
- (i) The services to be provided during this period shall include:
 - (i) Necessary liaison with service provider,
 - (ii) Obtain feeder data through AFTP/ RTUs,
 - (iii) Providing AFTS data in the prescribed format or customized as per requirement to SLDC, CSPTCL of consumers who have been covered under ADMS System.
 - (iv) Data analysis for the parameters logged by the AFTS and generation of reports as desired by SLDC, CSPTCL including auditing on the difference of relief recorded than what desired.
 - (v) Seamless integration of the SLDC data/ information of the ADMS reports with SLDC web site in the manner and formats followed at RLDC/ RPC/ Other SEBs.
 - (vi) Generating reports/ formats for the fulfillment of the statutory requirements of IEGC/CSEGC.
 - (vii) Training to CSPTCL's Engineers whenever required during period of contract.
 - (viii) Maintenance of hardware & software for a period of two years from date of award by deploying minimum Three (3) residential engineers at ADMS server/ center.
 - (ix) Handing over of 3 sets of CD's containing base section licensed Software.

(B) Site Coordination and Shut Downs.

- (i) The Bidder/JV Partner to note that the Site coordination and the Shut downs shall be arranged only on a prior intimated period.
- (ii) Until and unless a request is put in writing with defined activity and tentative time no outages/ shutdown application will be entertained by SLDC, CSPTCL. All such requests shall route through SLDC only.
- (iii) SLDC, CSPTCL keep the rights reserved to defer the shutdown if any warranted for the safe grid operations.
- (iv) The successful Bidder/JV Partner has to see its requirement put up for approval before the Field Coordinators with at least 4 (Four) clear working days with intimation to the Engineer-in-Charge/ Project Manager.

3.2 ACCEPTANCE OF OFFERS:-

While the Bidder/ JV Partner may make all out efforts to offer for the complete scope of tender, they may please note that the CSPTCL reserves the right to split the tender into different lots towards supply or execution or both.

Bidder/ JV Partner are advised to go through the contents of specific requirement for standard conditions very carefully and in absence of non-compliance / lapse, responsibility for the same will rest on Bidder/ JV Partner

3.3 CRITERIA FOR PLACEMENT OF ORDER:

Looking to the nature of the work covered under the instant tender, orders will be issued to the lowest evaluated Bidder/ JV Partner on the basis of overall comparative cost of the Bidder/ JV Partner who qualifies after successful demonstration of their proposal.

3.4 OFFERS:

The offers for equipment/materials are required to be submitted in duplicate in separate sealed envelopes for which following details may be noted: -

3.4.1 **ENVELOPE-I: Earnest Money Deposit:** Please refer Section – 1.5.

3.4.2 **ENVELOPE – II: PQR, Signed Tender Document, Affidavits & Undertaking and Pre contract integrity Pact etc.:** Please refer Section – 1.6.

3.4.3 **ENVELOPE - III: The Demonstration Write-up, Techno-Commercial Bid:** In addition to the tender requirements Section 1.7, the offer/ proposal of the Bidder/ JV Partner should contain the following information in three sub-envelopes.

3.4.3.1 **Part-III (A) TECHNICAL BID: (As per Section 1.4)**

3.4.3.1.1 **Completeness of Equipment and Brought out Items:-** The Bidder/ JV Partner must furnish the following information along with technical bid.

- (a) The responsibility for obtaining timely supplies of bought out items will rest on the Bidder/ JV Partner and only on this basis, delivery period will be offered in the tender.
- (b) It may be noted in the case of damages / shortages due to improper packing or any other negligence, replacement shall be arranged within one month's time. If this is not done, date of delivery of such accessory will be treated as date of delivery of main equipment and full penalty should be recoverable from the Bidder/ JV Partner on total cost of the material.
- (c) For bought out items, responsibility for guarantee and obtaining immediate replacement in case any defects are noticed and in case defective supply of any item is reported will rest on the Bidder/ JV Partner.
- (d) In case for attending to defect in any equipment or inspection / replacement of the equipment, which may be bought out item for the Bidder/ JV Partner; services of engineer of original manufacturer is required, the same will be organized on immediate basis by the Bidder/ JV Partner at his cost.

3.4.3.1.2 It would be obligatory on the part of Bidder/ JV Partner to enclose a separate schedule of Technical deviation in case there are any deviations from our technical requirement along with all supporting documents required for consideration of offer proposed. Even if no deviations are involved a separate schedule of deviation for technical particulars should be enclosed wherein a certificate may be recorded that there are no deviations from all our technical requirements. In the event of non-compliance of this instruction, it may be noted that the CSPTCL reserves the right to reject all such offers without assigning any reason or without making any correspondence for obtaining any clarification. **Schedules II, II (A), II (B), II (C), II (D), II (E) & VI** should be submitted with this part.

3.4.3.2 **Part - III (B) COMMERCIAL BID: (As per Section 1.4)**

3.4.3.2.1 This bid should clearly spell confirmation in regard to various commercial terms and conditions for supply. Basis of price, acceptance of various important terms and conditions for supply and questionnaire for commercial terms and conditions for supply duly filled in will form part of commercial bid. The Bidder/ JV Partner therefore should furnish all information clearly. **Schedules III & VII** should be submitted with this part.

- 3.4.3.2.2 It may please be noted that it is obligatory on the part of Bidder/ JV Partner to comply with all our commercial terms and conditions. In particular, specific confirmation towards acceptance of following commercial terms and conditions should be furnished in the tender.
- 3.4.3.2.3 It would be obligatory on the part of the Bidder/ JV Partner to enclose a separate schedule of Commercial deviation, if there are any deviations from our commercial terms / conditions along with all supporting documents required for consideration of offer proposed. Even if no deviations are involved, a separate schedule of deviation for commercial conditions should be enclosed wherein a certificate may be recorded that there are no deviations from all our commercial conditions. All tenders, wherein these conditions are not complied with, may run the risk of rejection without any correspondence from our side.
- 3.4.3.3 **Part - III (C) DEMONSTRATION OF the SCHEME/ PROPOSAL:**
- 3.4.3.3.1 Technically accepted vendor will have to give full functional demonstration of their Scheme at SLDC, CSPTCL Control center during technical scrutiny. It shall be the responsibility of the bidders to carry all necessary equipments, accessories etc required for functional demonstration on scheduled date.
- 3.4.3.3.2 Based on scrutiny of techno commercial bid and functional performance of System during demonstration, the price bids of qualified Bidder/ JV Partner shall be opened at a later date. The Bidder/ JV Partners who's ADMS system's performance is not found satisfactory during demonstration shall not be considered for price bid opening.
- 3.4.4 **ENVELOPE-IV PRICES:**
- 3.4.4.1 "The Prices for both the PARTs i.e. PART-A & PART-B shall be quoted separately with indicating individual prices for each **I, II** (PART-A) and **IV** (PART-B). CSPTCL **reserves right to place order for both the PART-A & PART-B or the PART-A only.**" The prices offered should be FIRM, valid for 180 days and in Indian Rupees only. The prices should be quoted in the proforma given in **Schedule-IV (A, B, C, D / E + F & G)** indicating unit ex-works price inclusive of packing & forwarding charges. GST any other taxes/duties applicable Bidder/ JV Partner except Freight charges should be separately mentioned. GST on Installation, Testing & Commissioning charges should be quoted separately. The CSPTCL will pay no any charges other than mentioned in price bid. It may please be noted that only statutory variations due to Govt. Regulation in the rate of Goods & service tax shall be permitted by us only within contractual delivery schedule but the bidder/supplier turnover. In case completion of work against the contract is done late i.e. beyond contractual delivery period and rate of GST or other taxes undergoes upward revision the payment will continue to be made only on the basis of rates prevailing during the contractual delivery period. However, in case the rate of statutory levies undergoes downwards revision than the delayed supplies beyond contractual delivery period will attract reduced rate of levies.
- 3.4.4.2 GST shall be borne by CSPTCL. However, comparative costs shall be worked out on the basis of loaded cost to CSPTCL i.e. after loading of GST; counter offer shall also be given on the basis of total loaded cost.

3.4.4.3 Goods and Service tax identification number (GSTIN)

Under GST Act 2017, every Manufacturer and Dealer having total sales more than Rs. 20 lakhs in previous financial year is required to be registered for every separate business. GSTIN is allotted state wise. Hence, in case place of business in more than one state; separate GSTIN is required for every such state.

CSPTCL's GSTIN is **22AADCC5773EIZX**.

Taxation System under GST Act 2017

If goods/service is provide to CSPTCL by a supplier registered outside Chhattisgarh state, then IGST shall be charged. This sale is termed as interstate sales if goods/service supplied to CSPTCL by a supplier registered in Chhattisgarh state then both CGST and SGST shall be charged. In such case CGST and SGST each shall be 50% of total GST. This sale termed as intrastate sales. Further, under GST act 2017, work contract has been classified as supply of services. No abatement facility is available and GST shall be charged on whole bill value.

Bidder/ JV Partner to note that then have to indicate the rate of GST of each items in the Price-Bid, and supported with the appropriate documents. Else CSPTCL shall account for GST @ 18% on all the items.

HSN codes and SAC code :-

Similarly, Harmonized System of Nomenclature code (HSN code) is unique identification code of eight digits for goods. And Service Account Code (SAC) is for services. Suppliers having annual turnover of Rs. 1.5 crores are required to mention first two digit of HSN code in their Tax Invoices. Suppliers having annual turnover above Rs. 5 crores are required to mention first four digit HSN code in their Tax Invoices. Importers and Exporters are required to mention eight HSN code in their Tax Invoices.

3.4.4.4 TERMS OF PAYMENT:

3.4.4.4.1 The payments are generally linked with the Power System Development Fund (PSDF) mechanism. Also refer the **clause 2.22** of the tender.

3.4.4.4.2 Payment against Supply, Installation Testing & Commissioning will be made for **each work of the PART-A** against submission of bills after (FAT) Final Acceptance test as under:

| Payment/ Activity | Value percentage | Claim period (Expected) |
|---|----------------------------|--|
| (i) Mobilization Advance/ Advance Payment | 10 % of order value | M1 |
| (ii) Payment against Supplies | 40 % of order value on MRC | M4-M5 |
| (iii) Payment against Erection | 20 % against Certificate | M9-M10 |
| (iv) Payment against Commissioning | 15% of order value | M10-M12 |
| (v) Payment against Doc. Hand over | 05 % of order value | M12+ |
| (vi) Release of Security | 10% of order value | After completion of GP i.e. from DOCO. |

- 3.4.4.4.3 **ADVANCE PAYMENT:** - If requested by the contractor, CSPTCL may at its option grant an advance payment of maximum 10% of contract value after obtaining approval of competent authority. "The advance shall attract interest at the rate notified by PFC for capital projects of STU's in category under which CSPTCL falls plus a margin of 2%. The interest shall be charged monthly outstanding advance. Presently, CSPTCL is rated as "A⁺" and rate notified by PFC for capital works of "A" category STUS is 11.25% p.a. which implies that **applicable interest rate at present would be 13.25%** to be charged on monthly basis". Separate order shall be issued to this effect. The contractor will furnish an unconditional and irrevocable Bank Guarantee from a Nationalized / Scheduled Bank in favour of CSPTCL for an amount equal to the advance granted plus interest up to the completion period calculated on it. The bank guarantee shall be initially valid till six months (180 days) after expiry of completion period and shall be extended from time to time 180 days as required. This BG may be reduced on pro-rata on quarterly basis based on contractor's request. The advance, if granted, shall be recovered from the running bills along with accrued interest as per CSPTCL's terms and conditions which shall be brought in the order for advance payment. The bank guarantee shall be released on recovery of entire amount of advance granted plus interest.
- 3.4.4.4.4 **Procedure for reduction in the Advance Payment Security guarantee.** The BG furnished towards advance payment may be considered to be reduced in every three months in case the validity of bank guarantee is more than one year. It should be clearly understood that reduction in value of advance Bank Guarantee shall not in any way dilute the contractor's responsibilities under the contract including in respect of the facilities for which reduction in the value of securities is allowed..
- 3.4.4.4.5 **DEDUCTION OF ADVANCE PAYMENT:** - The advance payment with interest accrued on the advance made to the contractor will be adjusted against their running bills. The adjustment of advance will be done from the running bills of the contract proportionately to the extent of 20% in supply of materials, 20% on erection charges and 20% on Commissioning charges only till the total advance plus interest gets adjusted.
- 3.4.4.4.6 If the successful Bidder/ JV Partner don't opt to draw Mobilization Advance, the Bidder/ JV Partner shall have to give their consent in writing. **In such case this amount for Mobilization Advance/ Advance Payment, which is 10% the item (i) of clause 3.4.4.4.2, shall be merged with the item (iv) of clause 3.4.4.4.2 "Payment against Commissioning", which shall hereafter be 25%.**
- 3.4.4.4.7 Payment of O&M charges shall be made on monthly basis. The running charges for the communication system shall be borne by CSPTCL on monthly basis.
- 3.4.4.5 **PAYMENT SECURITY:** In order to ensure successful operation of the system, the total amount of payment release to the successful Bidder/ JV Partner at any time shall be restricted to amount of security deposit i.e. 10% of total ordered value till the successful performance of ADMS system installed in first phase on trial basis shall be fully established.

3.5 WORK SCHEDULE:-

3.5.1 All the activities are to be taken up simultaneously in such a manner that the entire project of ADMS is accomplished in a period of 12 Months from the Date of Issue of the order.

3.5.2 The Bidder/ JV Partner has to plan all the activities within the following schedule:

| Installations and Commissioning | | |
|---|--------------------|-----------------------|
| Activity/ Locations | Quantity | Tentative time |
| (i) ADMS Servers @ SLDC | - 02 No. | 1-Month |
| (ii) ADMS Local Stations (LMU)@ DISCOM Level | - 04 Nos. | 2-Months |
| (iii) No of EHV Substations | - 45 Nos. | 6-Months |
| (iv) AFTS of FTC (Existing RTU based or NEW RTU based) for No of feeders | - 45 Nos. | 9-Months |
| (v) Local RTU Display with Hooter for each sub-station | -45 Nos. | 6-Months |
| (V) AI/O & DI/O cads and relay etc. For New RTU, 32 DI, 32 DO, 8 AI per substations +Redundant 3G/4G or latest Routers. | As per schedule IV | 9-Months |
| (vii) Field wirings etc. | - LS - | 9-Months |
| (viii) Engineering and fine tuning | - LS - | 3-Months |

3.5.3 The Bidder/ JV Partner, if prefer to execute the project in phased manner has to coordinate its activity such that the completion period remains the same 12 Months from the Date of Issue of the order.

3.5.4 The Bidder/ JV Partner have to submit the **PERT program** with his offer.

3.5.5 The time for and date of completion stipulated in the order shall be deemed to be the essence of the contract. In case of delay in execution of the order, the CSPTCL shall either:-

- (i) Recover from the supplier as agreed Penalty /liquidated damages at the rate mentioned in "Penalty" clause.
- (ii) Purchase elsewhere on account and at the risk of the supplier, the stores not delivered or other of similar description or;
- (iii) Cancel the contract.

3.6 LIQUIDATED DAMAGES:

The work should be completed within stipulated delivery period mentioned in the work order. For delay liquidated damages shall be imposed @0.5% per week or part thereof of the value of order subject to a maximum of 10% of total order value.

3.7 GUARANTEE PERIOD:

3.7.1 The software & hardware supplied against the contract should be guaranteed for a period of **36 months** from Date of Commissioning (DOCO) or **42 months** from date of supply of material to the Consignee assigned by SLDC, CSPTCL whichever is earlier.

- 3.7.2 In case any defect in the equipment / material is found within guarantee period, the same will be replaced / repaired by the bidder/ supplier on free of cost basis. The replacement / repairing will have to be organized by you expeditiously .If time for the purpose of replacement / repairs, the material is required to be dispatched to the bidder/ supplier's works, all charges towards transportation / insurance / packing / forwarding will have to be paid by bidder/ supplier for to and fro dispatches.
- 3.7.3 In this connection, please note that the following additional conditions will also be applicable in case any damages / defects are noticed in the equipments or its accessories supplied by bidder/ supplier.
- 3.7.4 In case it is observed that replacement / repairs of equipments or its accessories is not being provided to us within reasonable period and proper response is not received from the bidder/ supplier, then apart from operating clause of penalty (which provides for imposition of penalty / liquidated damages, risk purchase at the bidder/ supplier's cost and cancellation of contract) the CSPTCL may also take suitable penal action against the bidder/ supplier which may include debarring the bidder/ supplier from all future business with the CSPTCL for a period which will be at the discretion of the CSPTCL.

3.8 PERFORMANCE GUARANTEE / DEFECTIVE SUPPLIES: -

If during the course of **36 months** from the date of completion of work or **42 months** from date of supply of material to the Consignee assigned by CSPTCL whichever is earlier any of the goods is found to be defective in materials or workmanship or develop defect in service, the same will be replaced by the Contractor free of all charges.

Before issue of final taking over certificate by the Engineer in-charge of CSPTCL, contractor shall provide CSPTCL a performance bank guarantee from a nationalized / Scheduled bank for an amount of 5% (FIVE PERCENT) of the contract price in the approved proforma of the CSPTCL. This bank guarantee shall be executed in a stamp paper worth Rs.300/- or any other amount as per the CG state stamp duty act and shall be kept valid till 90 days after completion of the guarantee period mentioned in the foregoing Clause. Performance Guarantee bond shall be executed on non-judicial stamp paper worth Rs. 300/- with a revenue stamp of Rs. 1/- affixed on it, as per the proforma enclosed with this tender document as **Annexure-VIII**.

No interest shall be paid by CSPTCL for the aforesaid Bank Guarantee. In case of non-performance of the ADMS as per the contract specification, the performance Bank Guarantee shall be forfeited.

3.9 ENVELOPE - IV PRICE BID:-

Price bid shall include submission of details of **FIRM** prices as per **Schedule – IV (A, B, C, D, E, F & G)**. However, the delivery schedule offered by the bidder/ supplier should be indicated in **Schedule III** "Commercial Bid" which has been placed in envelope III. No other information should be furnished in the Price Bid since the same will be opened at a later date. It may be mentioned that no any condition should be recorded in the Price Bid which may not be in conformity with details furnished in Commercial or Technical Bids, in case of any discrepancy is found suitable loading on prices will be considered for which responsibility will rest on the Bidder/ JV Partner. It may please be noted that prices should be offered strictly as per format indicated in **IV (A, B, C, D, E, F & G)**. No addition/alteration in the format of **IV (A, B, C, D, E, F & G)** should be done.

3.10 SUBMISSION OF OFFERS:-

3.10.1 The Bidders should submit their in **five envelopes** as under:-

- i) **ENVELOPE - I:-** (To contain the EMD)
This envelope should contain a covering letter with Earnest Money (EMD) or earnest money exemption certificate. The cover of the envelope should be suitably super-scribed with the details of earnest money and tender number. The envelope should be sealed properly.
- ii) **ENVELOPE - II:-** (To contain the- PQR, Signed Tender Document, Affidavits & Undertaking & Pre-Contract Integrity Pact etc).
This envelope should contain documents in support of Pre Qualifying Requirements i.e. Order copies for similar work, Performance Certificate, Balance Sheets, Consortium Document, Credentials, Signed Tender Document etc. The envelope should be sealed properly.
- iii) **ENVELOPE - III:-** (To the Demonstration Write-up, Techno-Commercial Bid)
Envelope - Part- IIIA – as per 3.4.3.1 – Technical Bid
Envelope- Part- IIIB – as per 3.4.3.2 – Commercial Bid
Envelope - Part- IIIC – as per 3.4.3.3 – Demonstration of the scheme & proposal .
These envelopes should be complete in all respects as stated in clause 3.4.3.1, 3.4.3.2 & 3.4.3.3 of the tender and to be submitted in duplicate, placed in one envelope marked Envelope III and tender spec No. of its top. The envelope should be sealed properly.
- iv) **ENVELOPE - IV:-** (To contain the PRICE Bid)
This envelope should contain the Price Bid in duplicate in format of **Schedule-IV** complete in all respects. In case of difference in original and duplicate bid, the contents of original bid will be taken into account.
- v) **ENVELOPE - V:-**
This large envelope should contain all the above four envelopes. The envelope should be suitably super-scribed with below displayed block.

TENDER SPECIFICATION NO. TR-141/2020.

DUE FOR OPENING ON 24/11/2020

“Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State”.

THIS ENVELOPE CONTAINS FOUR ENVELOPES FOR:-

1. Envelope-I- Earnest Money Deposit.
2. Envelope II – PQR, Signed Tender Document, Affidavits & Undertaking etc.
3. Envelope-III- (A) - Technical Bid
(B) - Commercial Bid
(C) - Demonstration Scheme/ Proposal.
4. Envelope-IV- The Price Bid

Also a certificate in the below format should be recorded on main envelope itself.
Without this certificate the offer shall not be opened.

To,

The EXECUTIVE DIRECTOR (Load Dispatch),
State Load Dispatch Center, C.S. Power Transmission Company Ltd.,
Daganiya, Raipur-492013, (C.G.)

IT IS CERTIFIED THAT WE AGREE TO THE FOLLOWING CLAUSES OF TENDER SPECIFICATION: -

| | | |
|---|-------------------------|---|
| 1 | PAYMENT TERMS | AGREED |
| 2 | SECURITY DEPOSIT | AGREED |
| 3 | PENALTY | AGREED |
| 4 | PERFORMANCE GUARANTEE | AGREED |
| 5 | TECHNICAL SPECIFICATION | IT IS CERTIFIED THAT THE MATERIAL OFFERED BY US IS STRICTLY AS PER TECHNICAL SPECIFICATION AS STIPULATED IN THIS TENDER AND IN CASE ANY DEVIATION IS OBSERVED LATER ON, WE SHALL BE SOLELY RESPONSIBLE AND THAT OUR TENDER SHALL BE LIABLE FOR REJECTION. |

Sign & Seal of Bidder

In absence of above certification on the main envelope itself, the same shall not be opened and the offer shall stand rejected.

Even after certification on the body of main envelope, if any ambiguity is found upon opening of the main envelope or after opening of the Price Bids, the offer shall be rejected. In case, the above instructions are not followed properly and any of the envelopes is not available for inspection and opening, no representation at the time of tender opening will be accepted and such offers will not be considered.

- 3.11 COMPLIANCE WITH OTHER CONDITIONS:-** Although all other conditions have clearly been spelt out in the tender document, it is once again brought to the notice of Bidder/ JV Partner that they should go through our tender document carefully and comply all other conditions also, like furnishing of list of past supplies, performance certificate, profit and loss account, balance sheet for last three years etc. In the nutshell, the offer at the time of submission of Technical and Commercial bid it should be complete in all respects. It should not be expected that in case of lack of any information, the CSPTCL will make any correspondence with the Bidder/ JV Partner. The documents and details as called for in the tender must be submitted without making any reference to submission of such certificate against past order, tender or past experience of supplies with the CSPTCL etc. All tenders wherein these conditions are not complied with may run the risk of rejection without correspondence from our side.

3.12 OPENING OF PRICE BID: Based on techno commercial bid and performance of ADMS system and satisfactory full functional demonstration of ADMS system to be implemented, the price bids of technically qualified Bidder/ JV Partners shall be opened. The Bidder/ JV Partners who's ADMS system's performance is not found satisfactory during demonstration shall not be considered for price bid opening. The date & time of opening of price bid shall be intimated seven days in advance to qualified Bidder/ JV Partner through fax message. The Bidder/ JV Partner may depute their representative to witness price bid.

3.13 AGREEMENT:

The successful Bidder/ JV Partner shall execute agreement with CSPTCL on a non-judicial stamp paper of Rs.300/- in format prescribed by CSPTCL within 15 days of issue of order.

The Agreement shall be executed on non-judicial stamp paper worth Rs. 300/- with a revenue stamp of Rs. 1/- affixed on it, as per the proforma enclosed with this tender document as **Annexure-VII**.

**EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Raipur**



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
 छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित
 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
STATE LOAD DESPATCH CENTRE: RAIPUR
 छत्तीसगढ़ राज्य भार प्रेषण केन्द्र, रायपुर

दूरभाष PHONE: 0771- 2574172,

Web Site: sldccg.com

फैक्स FAX NO. 0771-2574174.

email- office@sldccg.com

NO. 03-02/ED/SLDC/TR-141/2020/1135

Raipur, Dated 29/10/2020

SECTION-IV: TECHNICAL SPECIFICATION FOR ADMS

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State

4.1 PROPOSED SCHEME for the ADMS:

- 4.1.1.1 SLDCs have been mandated by CERC to move ahead on a comprehensive scheme to extend load tripping at lower voltage level by deploying a Automatic Demand Management System.
- 4.1.1.2 The Automatic Demand Management Scheme (ADMS) shall be a system working automatically curtailing the load on rotational basis, so that the drawl of the SEB/ Distribution licensee remains within the scheduled operational band. For it, the system has to be developed in co-ordinate manner between STU and Distribution licensee such that the loads are isolated from the 33 KV levels of the STU substations.
- 4.1.1.3 The scheme would localize load sheds to geographically smaller areas and share load shed burdens quantities to geographically disparate regions simultaneously.
- 4.1.1.4 Inevitably wider the reach of a geographical scheme of an ADMS which can be realized over the same interval of time, the lesser would be the shed time these areas would be subject in order to tide over an abrupt spike in load.

4.2 **SCOPE:** Design/Develop, Supply, Install, Testing, Commissioning of ADMS on turnkey basis.

- 4.2.1 The scope of work broadly covers Consultancy, Supply, Installation, and Testing & Commissioning of Monitoring & Energy Accounting System along with Software solutions And associated hardware for about 155 no. HT feeders originating from some 45 Nos. of EHV substations spread all over Chhattisgarh State. The list of EHV Substations is indicated in the **Schedule-I (A)** of the tender.
- 4.2.2 Further the scope of work may be broadly covers design, development, supply, and erection and commissioning of ADMS :-
 - a. Development of software as per logic;
 - b. Supply of ADMS server at CG-SLDC Control center;
 - c. Design/develop and supply Automatic Demand Management System (ADMS) through existing or new RTUs.
 - d. Supply of all necessary accessories and cable as per survey;
 - e. Installation, testing and commissioning of complete system;
 - f. Integration with existing Alstom SCADA on IEC-106 i.e. ICCP (Inter Control Centre Protocol) interfaces with main both ADMS servers (redundant).

4.2.3 The Bidder/ JV Partner should note that:

- a. The number of feeders and the locations is tentative and may vary by as per extension clause 2.37.
- b. The work shall be carried out in various phases or chronological and schedules as per the tender clause and or as intimated by SLDC, CSPTCL. Orders shall be firstly issued for Part-A covering about 155 number of 33 KV feeders.
- c. The list of 33 KV feeders is indicated in the **Schedule-I (B)** of the tender.
- d. The order for the Part-B shall be placed later by CSPTCL. The hardware & software used at consumers premises and Data Center shall be handed over to CSPTCL after completion of two years of O&M contract.
- e. The hardware & software infrastructure should be considered as a part of supply portion of the contract and Bidder/ JV Partner should quote price of the required infrastructure separately.
- f. Space for Data Center shall be provided by CSPTCL to the Bidder/ JV Partner free of charge. Electricity, water supply shall also be provided by CSPTCL free of charge.
- g. The ADMS System should be compatible with the SCADA at SLDC, RTUs at the EHV Substations and or the ABT electronic meters of various any make meters installed at Substation premises. Further, the customizable software should be made available so as to enable SLDC, CSPTCL to include future locations also.

4.3 DELIVERY IN THE SCOPE OF WORK:

- 4.3.1 This tender cover the scope of delivery, technical details for consultancy services and technical support required by SLDC, CSPTCL for implementation of ADMS system in Chhattisgarh.
- 4.3.2 It is recommended that the entire scope of the work is broadly divided in **Two Parts**. Each Part comprises of works, each having a well defined starting and ending point. Each stage will conclude with a tangible output with *measurable performance parameters* as under:

PART-A:

- I - Complete installation, testing and commissioning work of ***Automatic Demand Management System (ADMS)*** for 155 No. of feeders through independent redundant GPRS/ GSM network including installation of **Field items for ABB & CHEMTROL RTU or** new RTU's with associated equipments and ADMS Server with associated software.
- II – Integration of ADMS system with SLDC SCADA over ICCP in real time.
- III – Report generations / building from all fetched data from the above two (I & II) and on monthly basis from the ADMS Server etc. to comply with the requirement of CERC/CSERC.

PART-B:

- IV – O&M of the ADMS system for 2 years by deputation of **4 No qualified Engineers** on RTC basis at the SLDC.

4.3.3 Preamble:

- (1) As per the existing Deviation Settlement Mechanism (DSM) and the Indian Electricity Grid Code (IEGC) Regulations issued by the CERC, the Regional entities (CSPDCL in instant case of Chhattisgarh) are to be abiding within the scheduled and assist in maintaining the grid security as per the provisions of the regulations 5.4.2 (a) & (b). The SLDC through respective State Electricity CSPTCL/Distribution Licensee shall formulate and implement state of art demand management schemes for Automatic Demand Management like rotational load shedding, demand response which may include lower tariff for interruptible load etc in order to reduce over drawl from the grid.
- (2) Automatic Demand Management Scheme (ADMS) shall be a system working automatically curtailing the load on rotational basis, so that the drawl of the SEB/ Distribution licensee remains within the scheduled operational band. For it, the system has to be developed in co-ordinate manner between STU and Distribution licensee such that the loads are isolated from the 33 KV levels of the STU substations.
- (3) The objective of the scheme is to improve reliability/stability and grid security of CSPTCL system in particular and the National Grid by have control over the drawl. In order to maintain the grid discipline, it is necessary that demand should within the operating range of 12% with respect to the schedule. As such the over drawl/Under Drawl of power is to be maintained within limits of 150MW or 12% of schedule whichever is lower. For that a Automatic Demand Management Scheme is required to be developed and install by CG-SLDC.
- (4) At each (155) Feeders LMU with SLDC control center above scheme with following configurable logic shall be developed.
 - a. **System Frequency;**
 - b. **CG over-drawl;**
 - c. **SS over-drawl;**
 - d. **Group;**
 - e. **Substation;**
 - f. **CG Demand Forecasting.**

4.3.4 System Study: This will consist of a state-wide survey and analysis to detail the implementation of ADMS system in Chhattisgarh. This will include discussion with all stakeholders such as CSPTCL, CSPDCL CSPGCL, as well as HT/EHT consumers in the state connected with the EHV substations, as required. Details regarding each correspondent as well as summary of interaction with them shall be prepared.

4.3.5 The Logic: shall be as under (the bidder/supplier can develop their own logic flow diagram according to supplier will write/ develop software).

- (1) SLDC CG is implementing the ADMS in the State of Chhattisgarh through an ADMS server system and the SCADA at SLDC, the later is under up gradation/replacement of the old system. The project is likely to be completed within 12 months from time of issue of the order/Handing over of site.
- (2) From the list of the 155 No. Identified feeders under the net of the ADMS scheme, that covers about 45 RTUs have to have adequate A-I/O & D-I/O cards, or Gateways, Router, Modem, LDMU and Convertor etc. at various locations are to be brought under Communication net SLDC.

- (3) For the operations of the field breaker, the feeder breakers are to be fully wired and the RTU are also required to be equipped with the AI/O & the DI/O cards, (Aux) relays and devices. Accordingly the substation wiring shall also be taken care as a policy. Such retrofitting activity / reengineering require an in-depth study and may parse at many places.
- (4) The logics for the ADMS shall be developed in consultation with SLDC CG for load regulations as well as restorations keeping in view of the system constraints like Under drawl state at high frequency etc. The overlapping of feeders under defense mechanism (UFR) shall be avoided in the logics. Each group shall have 04 to 06 feeders under ADMS.
- (5) Automatic Demand Management Scheme (ADMS) shall be a system working automatically curtailing the load on rotational basis, so that the drawl of the SEB/ Distribution licensee remains within the scheduled operational band. For it, the system has to be developed in co-ordinate manner between STU and Distribution licensee such that the loads are isolated from the 33 KV level of the STU substations.
 - System Frequency < For Band 49.4 – 49.2 – 49.0 – 49.8 Hz (150 -150-155-155 MW respectively)
 - CSPDCL over-drawl > 150 MW
 - Substation over-drawl > 50 MW.
- (6) If above condition persists for 00.00 to 00.10 time minute block with average data then generate tripping command at 00.11 minute for First group.(e.g. G1) That will cover all the sub-station under this group.
- (7) The condition persists for next 1 hour then blocks the logic for this period.
- (8) After one hour if condition persists at 00.61 to 00.70 minute block then send tripping command to second group or predefine SS.
- (9) Repeat the logic for next group if above condition persist in round robin.
- (10) This logic is applicable to all S/S.
- (11) In case of over drawl:-

Condition-1:- Provided when the system frequency is running below the desired safe limit, all feeders under ADMS should operate to the quantum sum of OD or maximum sum of the feeder drawl by ADMS feeders.

Condition-2:- The operation of the feeders under ADMS shall be in Daisy Chain form and fixed customized logic should be customizable and USER configurable for critical loads. In such case a minimum span of 12 time blocks shall be allowed for picking up the same feeder for operation under ADMS.

4.3.6 System Design:- The proposed system is to be designed keeping in view of the following points.

- (1) 24 x 7, 365 days working of system.
- (2) The system should be completely menu driven and user friendly in all respect using HMI/GUI. It should support point and click technology.
- (3) For configuration and inputting the mobile number and email ids for sending operational, tripping, trouble status with administrative privileges.
- (4) It should be robust system which is crash proof, fail safe, easy to restore & secure.
- (5) Backup & restore in-built in to the software.

- (6) Software designed should operate with Logic conceived from defined power system frequency, defined over-drawl of Chhattisgarh, defined over drawl of constituent/DISCOM or SS.
- (7) User ID & Password should be allotted to user so that no unauthorized person can work on the software.
- (8) Access to menu items for execution should be restricted up to user level.
- (9) Provision for temporarily disabling users against unauthorized use.
- (10) Full training to nominated 10 persons for H/W, S/W, configuring the device.
- (11) Development of required data entry forms and reports (if any) as per requirements. Necessary back up of database, forms etc.
- (12) Security: Security is the main key features for this application; other users need total authentication and authorization for secured application.
- (13) Addition / Alteration / modification of user will be accommodated in the application as per the instruction of EIC.
- (14) The application will be compatible with the latest technology and upgraded with the evolution of the new technologies as and when required. The hosted application should be provided with suitable protection on the host computer.
- (15) Day to day technical support 24x7 required to be ensured. For the application, the system designing shall be undertaken by the Bidder/ JV Partner which shall include.
- (16) Provision to save report in different formats like PDF, EXCEL etc...as per the requirement of SLDC& LMU.
- (17) There should be provision to print the reports as per requirement.
- (18) There should be email/SMS generation for information of the trip signal generated
- (19) All remote station Single SIM 3G/4G Modem in Redundant Configuration, status and its connectivity status should be intimated to control centre's in the SLD SCADA and alarm of failure status of connectivity must be incorporated.

4.3.7 Reporting: Real time reporting is done in the form of forms, trends and graphs generated based on data collected from the various sources viz SCADA, RTUs etc in the ADMS server. In addition, historical data analysis and report generation is facilitated based on the data stored in the local database. Standard reports based on RTU, ADMS data, schedule, declarations, min/max/average values are available in the ABT management solution. Reports are available in both tabular and graphical formats. All reports are web enabled and can be accessed from the browser. User can convert /view reports in their preferred formats such as .pdf, .xls, .rtf etc. A report builder is also available with the solution. This enables the user to create and deploy custom reports based on the historical database for the ADMS management solution.

4.3.8 Periodic Reports. This activity of Periodic Reports shall be covered in PART- A - III. A weekly report shall be issued by SLDC to all user(s) of the State and STU and shall cover the performance of the State grid covered under the ADMS net for the previous week. The weekly report shall contain the following:

- (a) Demand profile: Maximum and Minimum frequency recorded daily and daily frequency variation index (FVI);
- (b) Grid Drawl v/s Schedule: OD/ UD;
- (c) Feeder outages under ADMS;
- (d) Load Relief profile: The profile of selected sub-stations;
- (e) The Mean, Median & Mode of the operating parameters;
- (f) Constraints; and Instances of persistent/significant non-compliance of the Grid Code.

4.4 SOFTWARE DEVELOPMENT LOGIC:

4.4.1 Software Solutions:

- 4.4.1.1 Bidder/ JV Partner should have the infrastructure of capability for development of Open Standards & system Integration solution.
- 4.4.1.2 The software's shall be provided with authorization and valid certificates/ documents for SLDC, CSPTCL use.
- 4.4.1.3 The Bidder/ JV Partner shall provide all software required by the system for meeting the intent and functional/parametric requirements of the specification.
- 4.4.1.4 Industry standard operating system like Unix, WINDOWS 2016/server or latest version to ensure openness and connectivity with other system in industry standard protocols (TCP-IP etc.) shall be provided. However OWS software shall be user friendly- Window 10 or latest version based only. The system shall have user oriented operating & programming language and graphic user interface.
- 4.4.1.5 All system related software including Real Time Operating System. File management software, screen editor, database management software, On-line diagnostics/debug software, peripheral driver's software and High-level language compilers like C, VB, etc. required for the system. And any other standard language offered shall be furnished.
- 4.4.1.6 All application software for ADMS system functioning like input scanning, acquisition, conditioning processing & control along with communication among various System functional blocks, system bus, software for operator interface of monitors, displays, trends, curves, bar charts etc., Historical storage and retrieval utility functions shall be provided.
- 4.4.1.7 The Bidder/ JV Partner shall provide software locks and passwords to SLDC, CSPTCL/ Engineer In charge at site for all operating & application software in order to prevent unauthorized access and only SLDC, CSPTCL's authorized representatives be able to do modifications at site.
- 4.4.1.8 All the software's shall be provided with valid license and recovery CDs/DVDs/PDs/ Keys without requiring any time bound renewals or renewals from websites or any other source.
- 4.4.1.9 The software licenses for each software modules been supplied for the specific tender shall be furnished during the FAT, without which the system shall not be acceptable.
- 4.4.1.10 The software shall be modular and in structured in such a way that on the simultaneous operation of multiple queries at a time, it executes on FIFO and the task in queue are neither killed nor it struck the operation.
- 4.4.1.11 Development and installation software for ADMS operations to be carried out at SLDC, CSPTCL for Intra State.
- 4.4.1.12 "The software architecture diagram for the ADMS management solution shall be such that the solution is split across drivers for communication and data collection, individual software modules for carrying out ADMS functions such as Demand/Drawal calculations and reporting from SCADA falls within the

operative limits. A full-fledged web-enabled interface to both real-time and historical data as well as generated reports is provided through the portal.

4.4.1.13 The hardware architecture along with its technical specifications for handling the above software will be provided to SLDC, CSPTCL.

4.4.2 Software developed should be capable to connect ADMS server with

4.4.2.1 Alstom IEC IEC-106 i.e. ICCP (Inter Control Centre Protocol) system with Ethernet cable.

4.4.2.2 Minimum group configurable should be 8(eight).

4.4.2.3 Number of substations per group should be configurable to maximum 10 substations (at present consider 5 substations).

4.4.2.4 All Digital contacts should be configurable for enable/disable from control center.

4.4.2.5 Software should be open standard compatible, however it is not necessary.

4.4.2.6 ADMS System should intimate SMS and E-mail to designated users for load shedding trip commands.

4.4.2.7 The time delay should be in permissible limits for real time handling by ADMS server in transferring signal from control center to end sub-stations on account of device except communication delay.

4.4.2.8 There should be cyclic selection of User defined groups for tripping of designated feeders.

4.4.2.9 There should be acknowledgement signal at control center of load shedding.

4.4.2.10 Software should be configurable for designated time delay between two successive group operation (Range 00.00 to 24.00 hrs: minutes) which should be time sync as per UTC and necessary provision to be made for time sync is in the Bidder/ JV Partner scope.

4.4.3 The Bidder/ JV Partner shall provide training to 10 officials nominated by SLDC on appropriate aspects of the software of concerned department & system administrator of SLDC.

4.4.4 Maintenance of Application systems-During warranty period, removal of bugs from the application software shall be undertaken by the Bidder/ JV Partner.

4.4.5 Any updating or addition in the source code during the 02 (Two) year AMC should be well documented and maintained. New version of the software should be given and old version should be preserved once the updating, alteration or addition is done in the source code. Suitable valid compiler (with valid license) for Customized software or Complete License for the Licensed Products with latest configuration and configuration tools.

4.4.6 In case for existing RTU existing PLCC Channel / 3G / 4G communication connectivity with the respective Substation (S/S) shall be arranged by and its maintenance shall also be carried out by the Bidder/ JV Partner. Any authorization etc required for it shall be arranged by the CSPTCL.

4.4.7 Protocols:

4.4.7.1 Communication Protocol: For communication with external devices, Bidder/ JV Partner shall implement industry standard open protocol(s) like MODBUS RTU, MODBUS, TCP/IP, IEC 60870-5-104,, DNP 3.0, Device Language Message Specification (DLMS), IEC 104/IEC – 106 i.e. ICCP (Inter Control Centre Protocol) or any other industry standard protocol.

4.4.7.2 In any case proprietary protocols shall not be considered for RTU to Meter, RTU to Control Centers, VPN Connections, and Control Center to SLDC.

4.4.8 Feeder tripping logic as per SLDC rules.

4.4.9 The list of DISCOM wise Sub Station/Feeders is as per Schedule – I(A) (attached).

4.4.10 **Self-Diagnostics feature: The system shall have self-diagnostics feature to scan the healthiness of internal components and circuitry. On detection of any exception or fault, system shall display the message immediately.**

4.5 HARDWARE TECHNICAL SPECIFICATIONS:

All hardware such as computers, computer peripherals/accessories etc. and networking products proposed and implemented shall confirm to latest products based on industry standard. The Bidder/ JV Partner should ensure that at the time of final approval of hardware configuration/BOQ, all the above hardware are current industry standard models and that the equipment manufacturer has not established a date for termination of its production. Any hardware changes proposed after contract agreement shall be subject to the following: -

- (1) Such changes/updates shall be proposed and approval obtained from CSPTCL along with the approval of Drawings/documents.
- (2) The proposed equipment shall be equivalent or with better features than the equipment included in the Contract.
- (3) Complete justification along with a comparative showing the original and the proposed hardware features/parameters including brochures shall be submitted to the CSPTCL for review and approval.
- (4) Changes/updates proposed will be at no additional cost to the CSPTCL.

All hardware features described in the Technical Proposal and in the Technical proposal shall be fully supported by the computer systems.

4.5.1 Hardware Solutions:

4.5.1.1 “ADMS System shall be functioning on Client – Server architecture. The Server shall be dual redundant communicating on peer – to – peer basis both getting updated simultaneously. In case of the failure of the one, the other shall take over the assignment / command or vice-versa, thus zeroing the possibility of lost of data/ information.”

4.5.1.2 The System shall be designed by utilizing state-of-the-art technology to ensure:

- a. High System availability and reliability, taking into consideration proper redundancies at various levels.
- b. Extensive in-built diagnostic capability to pin point failure areas.
- c. Low downtime (MTTR) and high mean time between failures (MTBF).
- d. Flexibility and expansion capability of the system.

4.5.1.3 Safety of the main equipment, system and operating personnel. The server shall be commanding the linkages with the data base management module, web network, communication modem, third party server, the Client, the printer the report logger etc.

4.5.1.4 System shall have appropriate redundancies built in Following Levels

- ADMS Servers shall be Redundant.
- Communication links with SLDC shall be redundant.
- Communication with RTU shall be over redundant 3G/4G Modems or in case for existing RTU existing PLCC Channel shall be used.

4.5.1.5 Redundancy of modules means physically separate with each other.

4.5.2 **SPECIFICATIONS: FOR PART- A - I EQUIPMENTS.**

Complete installation, testing and commissioning work of **Automatic Demand Management System (ADMS)** for 155 No. of feeders through independent redundant GPRS/ GSM network including installation of **Field items for ABB & CHEMTROL RTU** or new RTU's with associated equipments and ADMS Server with associated software.

Any upgrades and or higher end versions of the equipments shall be acceptable but not lesser that the technical specification of the modules and equipment as under:

4.5.2.1 **Automatic Demand Management server (ADMS)- Qty: 6 nos.**

HP/IBM/ Dell/ Advantech/ Portwell/ Siemens/ Rockwell makes are preferred. Since the system is mission critical, the server must come with a 3 year support warranty. And the machine shall be BIS approved. Same configuration shall be applicable for LMU Computers.

Industrial grade Server having configuration;

1. Windows server licenses 2016 or Higher or Linux server with latest version as per server application software;
2. CPU: Intel, Xenon 4 core minimum or equivalent;
3. Processor: 3.0 Ghz
4. RAM: 16 GB;
5. HDD: 5 TB;
6. Dual VGA port and two 40" LED monitor including 20 feet VGA cable with VGA extender which can run up to 100mtr;
7. Master control unit Internet Lease line / MPLS Router with firewall for fix IP or equivalent BSNL 3G / 4G MPLS or private APN;
8. GPRS modem with SMS server software for SMS notification to S/S In charge Engineer, while trip indication command.
9. A - 4 Size, Colour Printer compatible with latest Generic Features Preferred Make – HP/SAMSUNG/CANON etc.

4.5.2.2 Automatic Feeder Tripping System (AFTS) - Qty: 45 nos.

(Location all Sub Station)

4.5.2.3 Feeder Trip Controller (FTC)

1. The FTC's (new RTU based or Existing RTU based) shall have an architecture that supports convenient installation, maintenance and expansion features.
2. The FTC would be tasked to monitor the Circuit Breaker Status of the feeders the devices are controlling. Any change of data is an SOE and needs to be sending across to the control center. The FTC should also respond with Digital Input data from integrity polls received from the ADMS Control Center Gateway.
3. Any two simultaneous events on the FTC shall not have a difference exceeding 10ms (plus or minus).
4. All communication ports for the FTC shall be capable of operating independently at different baud rates with different protocols simultaneously.
5. All ports shall be individually configurable.
6. The FTC shall provide online, real-time monitoring of the status and operation of substation protection schemes, installed equipment, status of AC and DC voltage of substation.
7. The FTC shall maintain a database containing the current state of all and I/O Module inputs and outputs that are connected to it. These include the internally calculated points if applicable. An SOE buffer of at least 5000 points must be maintained so that data is not lost even during communication failure with ADMS.
8. The data which is captured by the FTC, shall be used to provide to the control center with the time stamp of the Event spontaneously and all the measurements on Dead band Basis or as cyclic data.
9. The FTC shall be equipped with a Real-time Clock (RTC) with leap year support and time synchronization facility.

Main Processor

10. Advanced 32-bit microprocessor.
11. Dual RJ 45 Ethernet ports for communicating with Redundant Communication Modems.
12. 32 Digital Inputs.
13. 1 Nos. RS232 and Two nos. programmable RS 485 / RS 422 serial ports for simultaneous communication with a host of intelligent MFTs.
14. Annunciation Panel with Hooter.
15. Necessary communication module and power supply module shall be provided as part of system requirement;
16. I/O Module (Digital and Analogue) shall be provided. 32 DI, 32DO, 8AI.
17. The input voltage to the FTC power supply will be provided through 24VDC/48 VDC;
18. A Local / Remote control disable switch shall be provided to the Feeder Tripping Controller (FTC). When the switch is in the control position, the central ADMS shall have control of the digital control outputs. When the switch is in the disable position,

the digital control outputs shall be disabled. The switch position shall be reported to the ADMS system.

19. The communication between the ADMS Server and FTC shall be over redundant Secure VPN Channels supporting standard VPN Technologies (PPTP, L2TP/IPSec or Open VPN). This shall be borne by the vendor till the completion of the O&M of 2 Years as per 3.1 Part B.

4.5.2.4 Other features:

- i. Data concentration and network integration: The local network of connection between the SLDC and ADMS shall be formed using Firewalled Ethernet Network. This local network shall be integrated with ICCP communication interface.
- ii. The Ethernet Switch shall have minimum 6 No. of RJ45 spare ports over and above that utilized in the scheme (of 100 Mbps or above). It shall support all common media types. Power supply 220/110V DC or 240 AC. It shall have link loss feature. It shall also have Simple switch configuration and system integration.
- iii. Designed around a distributed architecture configuration consisting of Servers, Local Display Units and RTUs & associated communication equipment/interface.
- iv. Collecting, processing and transmitting status changes, accumulated values and analog values.
- v. The protocol for communication between RTU & Master sites shall be IEC 60870-5-101 or -104.
- vi. Modbus protocol support/ DLMS.

4.5.2.5 AFTS Software Specification:

- a. User Interface
 - (1) The complete data and control access is to be provided by a Password protected Login
 - (2) Aesthetically good looking and well finished graphics
 - (3) User is to have customized Log display
 - (4) The User should be able to configure
 - i. Tripping Logic (using parameters to be read and executed upon)
 - ii. Tripping Logic Parameters (addition/deletion)
 - iii. Tripping sequence (change in the tripping sequence)
 - iv. Tripping bypass (bypass one or more tripping)
 - v. Log Report
 1. Downloadable from User Interface;
 2. Via daily mailer to designated mail IDs Customized Alerts for each tripping.
- b. Scalability: User is to be able to add/delete/replace Sub-Station control up to 16 Nos. of Feeder at each Sub-Station control.

4.5.2.6 Tripping contactor specification: Qty: 155 Nos.

- a. Rated insulation: Voltage 690V;
- b. Rated Coil Voltage: 24-110/220V DC or 230V AC, 50Hz;
- c. Solid State Operation;
- d. No. operation cycles -15 million;
- e. Rated current minimum 10A for 110/220V DC operation and 230V AC coil operation;

4.5.2.7 SMPS should have suitable provision:

- i. Short Circuit Over current, overload &overheat Protection
- ii. Over Voltage Protection (up to 280V AC continuous), under voltage protection (At least 80 V AC)
- iii. Efficiency minimum 85%
- iv. Capacity – 1000 VA.
- v. Should have Advanced dithering switch work mode, reduce electromagnetic interference.

4.5.2.8 3G/4G Single SIM Router - Qty: 90 Nos.

1. Two independent 3G/4G LTE industrial cellular modules (two modules to get different network supported), insert SIM/UIM card to work directly;
2. Built-in SIM card slot;
3. RJ45 LAN – 1 Nos.
4. RJ45 WAN 1 Nos.
5. Optical Port Inbuilt or External (1 Nos).
6. WIFI LAN

Redundancy backup: cellular1+ WIFI+ WAN RJ45

4.5.2.9 Compatible Mobile Networks:

- i. LTE, UMTS WCDMA (HSUPA/HSDPA/HSPA/HSPA+/DC-HSPA+);
- ii. GSM EDGE/GPRS;
- iii. TD-SCDMA/TD-LTE;

4.5.2.10 VLAN: Support multi-LAN IP address, support two IP address:

1. VPN: PPTP, IPSec (IPv6), L2TP, GRE.
2. Fail Over Redundancy (network Backup feature):
3. Auto-dial feature, keep alive link;
4. LCP, ICMP check;
5. Built-in watch dog;
6. Cellular (2G/3G/4G), RJ45 WAN.
7. WIFI

4.5.2.11 Sub-station AFTS Panel – Qty: 45 Nos.

Sub-station AFTS Panel consisting of Station RTU as per the adopted architecture. AFTS Panel with IP 4x protection, with Isolator contact type ISI TB with 16 terminal connector, with Alarm annunciator (minimum 16 windows) & hooter DC operated 110/220 V DC, Including associated wiring up to Terminal connector from 3G /4G, MPLS, OFC supporting device with ISI marked flexible wires. This unit should be provided with Local / Remote switch to bypass Control from ADMS and DC supply ON/OFF switch.

4.5.2.12 Feeder Tripping relay specification:

1. DC TO DC SOLID STATE RELAY.
2. INPUT: 7.5VDC TO 250 VDC.
3. OUTPUT: 110/220 VDC, 250 VDC, 15/25 Amp,.
4. MOSFET POWER SEMICONDUCTOR RELAY DC

4.5.3 SPECIFICATIONS: FOR existing RTU EQUIPMENTS:

On standstill condition of ADMS Server in real time, about 5 sec approx or best possible scanning rate from SCADA and the demand/drawl regulated through the RTUs/ AFTS in the field. The Analog or the Digital Input/ Output Cards etc. shall be required to retrofit in the existing RTU Panels or new RTU shall be required to be installed. The technical specification of the modules and the cards shall be as under.

4.5.3.1 Analog modules for Existing RTU panels:

4.5.3.1.1 The 23AE23 module records up to 8 analog measured values. The module 23AE23 is able to process the following types of signals:

- Analog measured values (AFI)
- Measured floating point information (MFI)

4.5.3.1.2 Following measurement ranges can be configured:

1. ± 2 mA
2. ± 5 mA
3. ± 10 mA
4. ± 20 mA
5. ± 40 mA
6. ± 2 V DC
7. 0... 20 V DC

4.5.3.1.3 Other effective ranges and live zero sign l secs become generated out of these ranges though conversion of the communication unit (CMU).

4.5.3.1.4 **Power supply input:** The requirement power for the module is supplied via the RTU560 backplane.

4.5.3.1.5 The analog input unit can execute the following processing functions on the measured values:

1. Scan cycle and line frequency interface suppression
2. Zero value supervision and switching detection
3. Smoothing
4. Threshold value monitoring on absolute value or with accumulation

5. Periodic transmission and background cycles.
6. Suitable galvanic isolation shall be provide in the analog cards

4.5.3.1.6 Analogue outputs

| | |
|-----------------------------|--|
| Number of outputs | 4 |
| Type | current /voltage bi-polar |
| Max voltage at open outputs | $\leq \pm 20V$ |
| Max over-driven output | $\leq \pm 125\%$ (hardware limiter) |
| Load influence | $\leq 0.1\%$ |
| Range/ Load (current outp) | $\pm 20mA / \leq 750\Omega$ $\pm 5mA / \leq k\Omega$ $\pm 2mA / \leq 7.5k\Omega$ |
| Range/ Load (voltage outp) | $\pm 10V / \geq 2k\Omega$ $\pm 2V / \geq 400\Omega$ |
| Residual ripple | $\leq 0.4\%$ (peak to peak at full load) |
| Auxiliary voltage influence | $\leq 0.1\%$ |
| Temperature coefficient | $\leq 0.01\%$ extra per deg C |
| Programmable response | 200ms, 300 ms, 600ms, |
| Time (t_{99}) | 900ms, 1.2s, 1.5s, 2s, 5s, 10s, 30s. |

4.5.3.2 Binary (Digital) modules for Existing RTU panels:

- 4.5.3.2.1 The inputs are galvanic isolated by means of optical couplers. 16 inputs are building a group with a common return. The input circuit is designed to keep the input current constant by using current regulative diodes.
- 4.5.3.2.2 The module has 16 LEDs to indicate the signal state at the inputs.
- 4.5.3.2.3 The LEDs follow direct the input signal.
- 4.5.3.2.4 **Power supply input:** The required power for the module is supplied via the RTU560 backplane.
- 4.5.3.2.5 The maximum permissible frequency for counter pulses is 120 Hz.
- 4.5.3.2.6 The binary input module 23BE23 provides 16 galvanic isolated inputs for up to 16 binary process signals. Scanning and Processing of the inputs are executes with the high time resolution of 1 ms. The allocation of an input signal to the processing function can be done according to the rules of configuration.
- 4.5.3.2.7 The module 23BE23 is able to process the following types of signals or a combination of them:
 - (1) 16 single point information with time stamp (SPI)
 - (2) 8 double point information with time stamp (DPI)
 - (3) 2 digital measured values each with 8 bit (DMI8)
 - (4) 1 digital measured values each with 16 bit (DMI16)
 - (5) 16 integrated totals (max.120 Hz) (ITI)
 - (6) 2 step position information each with 8 bit (STI)
 - (7) 2 bit string input each with 8 bit (BSI18)
 - (8) 1 bit string input with 16 bit (BSI16)
 - (9) Or combinations of this signal types

- 4.5.3.2.8 The binary input unit can execute the following processing function for the different types of signal:
- (i) Digital filtering to suppress contact bounce
 - (ii) Suppression of oscillating signals caused by the process
 - (iii) Validity check and suppression of intermediate input states for double indications
 - (iv) Consistency check for all channels allocated to digital measured values or step position information
 - (v) Summation of increment pulses to from integrated totals in registers of 31 bit resolution
 - (vi) Copying of integrated totals values into freezing registers for data conservation

4.5.3.2.9 Measurement generally

| | |
|-------------|--|
| Accuracy | Class 0.2 class 0.5 |
| Frequency | 50/60 Hz (45-65Hz) |
| Measurement | Up to 31 st harmonic |
| Measurement | CAT VI ≤ 300 VAC (versus earth), CAT V ≤ 600 VAC (Versus earth) |

Digital outputs

| | |
|-------------------|--|
| Number of outputs | 2 |
| Accuracy | 0.5s |
| Type | Solid-state MOSFET relay, bi- directional rating 0.2 A, 110 VAC/DC (varistor protected) |
| Pulse length | 10ms-1 s |
| R _{on} | 8 Ω (max) |

4.5.3.2.10 Voltage circuit

| | |
|---|--|
| Nominal measuring voltage (U _N) | |
| 3- Wire system: | 3 \times 100-693 V |
| 4-wire system: | 3 \times 57, 7/100-3X \times 400/693 V |
| Range | 0%-U _n – 120% |
| Input impedance: | 400k Ω (per phase) |
| Consumption: | $\leq U^2/400k\Omega \pm 3\%$ (per Ph) (W) |
| Max overload voltage | 102 \times U _N continuously 1.5 \times U _N during 10 s with max 10 attempts with 10 s between 2 \times U _N during 1s with max. 10 attempts with 10 s between. |
| Starting voltage | 0.25 V |
| Connector | screw terminals for ≤ 6 mm ² |

4.5.3.3 Current circuit

| | |
|--|--|
| Nom. Measuring current (I _N) | 1-5 A |
| Measuring range | 0-200% of I _N |
| Consumption | $\leq F \times 0.01\Omega$ (per phase) |
| Max overload current | 2 \times I _N during 1 s with max 10 attempts with 100 s between |

| | |
|------------------|--|
| Starting current | $40 \times I_N$ during 1 s with max, 5 attempts with 300 s between |
| Connector | 4 mA screw terminals for $\leq 6 \text{ mm}^2$ |

4.5.3.4 Auxiliary Supply

| | |
|----------------|---------------------------------------|
| Voltage range | 40-276 vac/VDC |
| AC frequency | 45-65 Hz |
| Max burden | $\leq 12 \text{ VA/7W}$ |
| Inrush current | $\leq 35 \text{ A} / 0.3 \text{ ms.}$ |

4.5.3.5 I/O controller (IOC) for Existing RTU

The micro-controller on the module processes all time critical tasks of the parameterized processing function moreover it carries out the interactive communication with the RTU I/O bus. All configuration data and processing parameters are loaded by the communication unit via the RTU I/O bus.

The module is equipped with a serial interface to the RTU560 I/O bus on the backplane.

4.5.3.6 Safety

The current inputs are galvanic ally isolated from each other and to any other internal or external potential. The voltage input group is galvanic ally isolated to any other internal or external potential. The analog and digital outputs and communication ports are isolated from each other and to any other internal or external potential. The module allows process voltages from 24 to 60 V DC. LED signalling is available for all inputs. The module has a common return per 8 inputs

4.5.3.7 Mini Contactors BC7-40-00-05

General Information

| | |
|------------------------|-----------------------------|
| Extended Product type: | BC740-00-05 |
| Product ID: | GJL 1313201R0005 |
| EAN: | 4013614326721 |
| Catalogue Description | BC7-40-00-05 Mini contactor |

Long description: The BC7-40-00 mini contactor is a compact 4 pole contactor with Screw terminals they reliability is a must and space is at a premium. Mini contactors are used in residential buildings, commercial buildings and industrial application for the control of single or three-phase loads up to 5.5 KW (AC-3) and 20 A 690 V (AC-1) or switching of control signals. Further features are the noiseless and hum-free coil, a switch position indication and the integrated possibility for rail or wall mounting

4.5.3.8 General requirement in case of New RTUs: The RTU has to be an embedded Remote Terminal Unit interfaced to multiple master stations. It is meant to operate under stringent substation conditions with long life and minimum hardware downtime.

1. The circuit of the DI / DO modules shall be suitably optically isolated from the external field signal by using internal isolation.
2. The command initiated from the ADMS server and received at RTUs shall be logged and time stamped at the concerned RTU and shall be downloadable at site.
3. It is expected that RTUs shall have sufficient communication ports to support RS 232/Ethernet/RS 485 communication with master Station as well as for local communication such as configuration and diagnosis. The RTU should have parallel reporting structure at output level i.e. (minimum 4 ports-two numbers on serial & two nos. on Ethernet , each of 2 ports should be capable of reporting simultaneously to 2 master SCADA/Units on IEC 60870-5-101/104 to interface any third party software.
4. The RTU shall be equipped with a Real-time Clock (RTC) with leap year support. The battery should not need replacing more often than every 3 years under normal operating conditions. There shall be a provision for setting the time locally or remotely over IEC Protocols.
5. The RTU shall provide software watchdogs that continuously monitor the hardware and software elements of these systems. These watchdogs shall ensure safe operation of the RTU at all times. The RTU shall provide visible status diagnostic indications on all the modules.
6. The RTU shall have power-on sequencing, which shall occur automatically when power is restored to a unit after an outage. This power-on sequencing shall include, inter alia a complete diagnostic check of the RTU. No data changes shall be reported to the master stations until the power-on sequence is complete. This requirement will be strictly enforced across all RTU.
7. The vendor is required to use interposing relays between RTU DO Card and Field terminations. The contact rating has to be 10 Amps at 110V DC. The inputs and outputs of the RTU I/O shall be designed to comply with the surge withstand capability tests and Electrostatic discharge immunity tests as defined in IEC 61000-4-5 and IEC 61000-4-2 respectively for serial and power ports without damage, mal operation or data corruption.
8. Digital Inputs shall be Optically Isolated with Scanning rate of at least 10ms.
9. The RTU shall produce a report Time stamped events / data to ADMS System. All events shall be time tagged at the resolution of 1ms, and logged. The RTU shall record and store events in the sequence in which they were detected.

10. The RTU log storage shall be a circular buffer of non-volatile retrievable memory storage, with a capacity of 2000 individual events.
11. All RTU configuration settings shall be stored in non-volatile memory. It shall be possible to upload the RTU configuration parameters locally / remotely. It shall not be necessary to upload the configuration parameters if the device is reset or restarted. The complete RTU configuration shall be stored in the RTU to allow complete reconfiguration using an uploaded copy. It shall be possible for the RTU configurations to be compiled offline.
12. The power supply unit shall provide galvanic isolation between the primary supplies and the RTU electronic circuitry. The aux power supply available at the station is 48/110/220 V DC. Required Power supply converter if required shall be supplied by the bidder.
13. RTU panel shall be supplied with Redundant Modems, should be able to work with normal dynamic/Static IP SIM cards as well as Private APN SIM cards. The modem shall accept the standard SIM Card. Modem should have a SMA Antenna connector. Modem must support the 2G/3G/4G/ LTE Bandwidths etc., specified by the Government of India. The modem shall be powered from the RTU power supply.
14. Antenna: The Modem should have flexible external antenna to enable placement of the antenna at the location of strongest signal inside/outside the RTU Cubicle. Vendor supply must also include suitable antennae with screw mount/Wall mount arrangement.
15. RTU must be compatible for PLCC communication using IEC 101 protocol. It should also support IEC 104 communication protocol over LAN/GPRS to support interface for Future integration with Substations over Fibre Connectivity to SLDC / ADMS System.
16. Since there is a high-volume deployment of RTUs for the control and monitoring purview of the ADMS, it thus becomes very crucial that no blind spots are created

within the network system of RTUs because of loss of connectivity or other eventualities which lead to the failure of the RTU.

The RTU should be with power supply. The Enclosure is to have heat resistant front cover with suitable lugs and screws firmly fixed.

Operating Temperature: -0 deg.C ~ +50 deg. C

Storage Temperature: -20 deg. C ~ +70 deg, C

Humidity: up to 95% RH (Non-Condensing).

17. Control Security:

Operation of control outputs shall use a true select-check-before-execute command sequence between the RTU and the SCADA system master station. The sequence shall include as a minimum, the following functional capabilities.

The master station shall transmit a control selection message addressing the proper RTU and control point within the RTU and indicate the control action desired (such as Close).

The RTU shall reset its control logic upon any error in the sequence or if the execute message is not received within a set time (user adjustable in seconds) after the command message is received at the RTU.

18. Acceptance Test:

Bidder has to offer the RTU for inspection at their works and acceptance tests as per shall be carried out in presence of personnel from concerned utility.

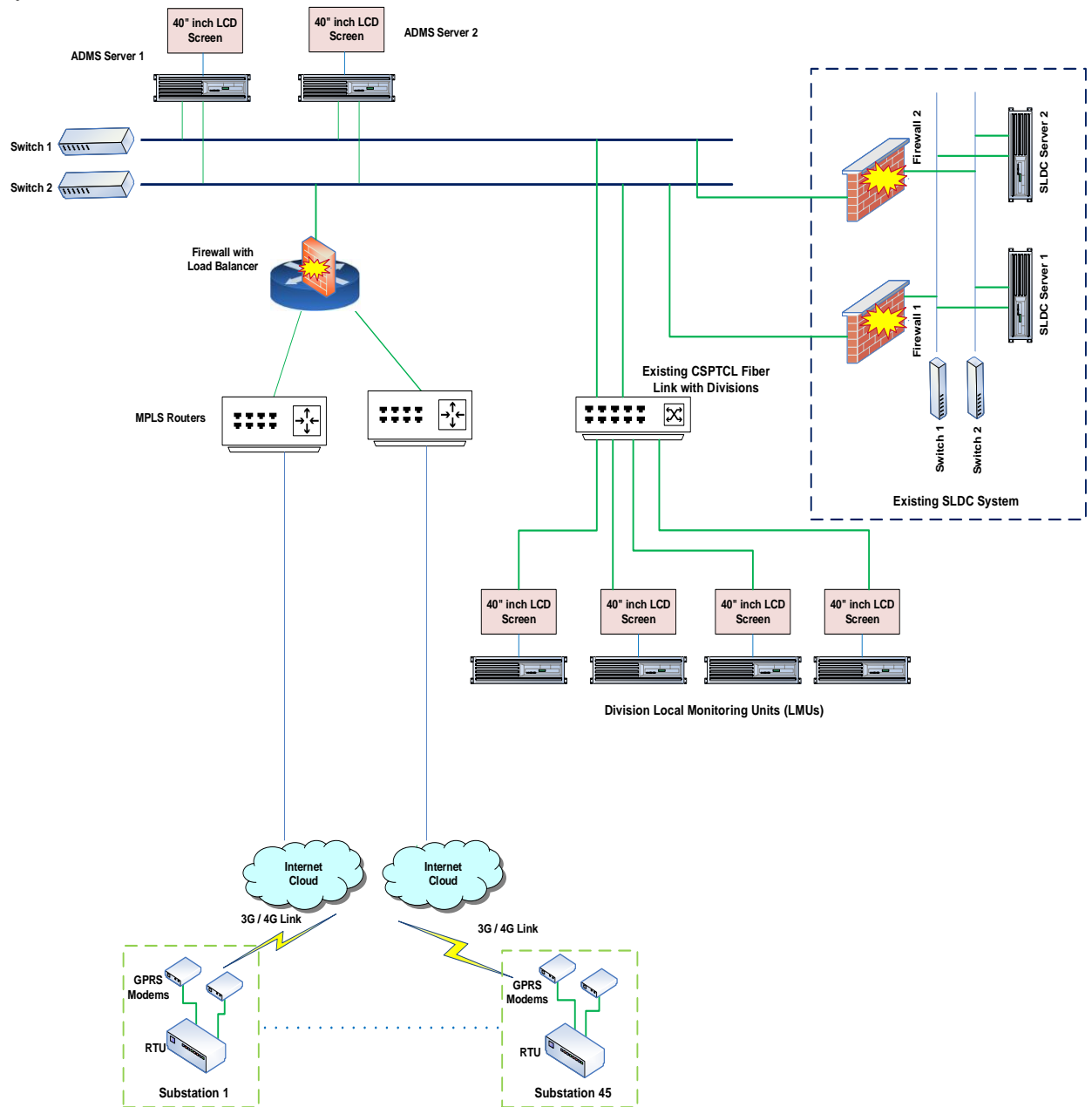
19. Type Test:

Vendor should have carried out all the type test as per IEC for the equipment intend to supply, from the NABL accredited testing agencies and shall have to submit with the offer.

20. Hardware Type

Proposed RTU shall be Single Hardware Unit for the substation, as individual IO units at Feeder level shall not be allowed for the project. There should be a single hardware device which should manage the entire analog and digital signals i.e one or two device per substation with redundancy.

4.5.3.9 System Architecture.



4.5.4 Constructional and Mechanical Specifications:

This section describes the specifications related to the constructional features of the Enclosure.

1. The Enclosure is to be with **IP 42 Protection** with built-in power supply.
2. The Enclosure is to have heat resistant front cover.
3. The complete system including the existing RTU or new RTU Panel must be mounted in this sealed enclosure with suitable lugs and screws firmly fitted.
4. Enclosures: Cabinets and housing of system shall be capable of satisfactory operation in an indoor, non-air conditioned installation.

4.6 **INSTALLATION & COMMISSIONING:**

Installation and commissioning includes following

- i End to end testing sub-station equipment with control center;
- ii 155 Nos of Substation tripping interface device with Field items for existing RTU or new RTU Panels for 45 Substations;
- iii End AFTS panel with all accessories as per specification;
- iv Visit for Survey, installation, commissioning and point to point testing.

4.7 **WARRANTY / GUARANTEE:**

Bidder/ JV Partner has to provide warranty/ guarantee of all software and hardware supplied against the contract for a **period of 36 months from date of commissioning (DOCO) or 42 months from date of supply** in SLDC, CSPTCL's Store whichever is earlier.

4.8 **COMPREHENSIVE MAINTENANCE CONTRACT(CMC):**

Comprehensive AMC contract including control centre (1 Nos.) and field substation (155 Nos.) end equipment's for 02 (Two) years after 1 year warranty including communication link. However restoration of failed communication link is to be identified and co-ordinate for restoration for full functionality of entire scheme in co-ordination with LMU representative/SLDC. Any changes during AMC should be documented and put up for approval. During the AMC period the response time must be within 48 hrs. against any means of communication made by SLDC. However, the period of resolution for device failure in the field shall be within one week.

4.9 **OTHER REQUIREMENTS:**

- 4.9.1 Bidder/ JV Partner may visit the site for assessment of actual work involved but not limit to the following :-
 - 4.9.1.1 The tenderer to check space at Control Room for installation of additional RTU meant for ADMS available.
 - 4.9.1.2 The tenderer to check feasibility for connectivity of additional RTU with AC/DC distribution box.
 - 4.9.1.3 The tender to check feasibility for construction of additional cable trench for laying cable from panel for CT, PT & breaker status.
 - 4.9.1.4 The tender to check feasibility against space in panel regarding termination of 2 Core, 6 Core cables in existing control panel.
- 4.9.2 Visit for site survey, installation, commissioning & testing is to be arranged by Bidder/ JV Partner at his cost. No extra cost shall be given.
- 4.9.3 The testing and commissioning is to be carried out in presence of SLDC engineers.
- 4.9.4 Before going for site survey, installation at sub-station end, Bidder/ JV Partner has to inform SLDC well in advance so as to convey the S/S In charge.
- 4.9.5 All tools and tackles, testing equipment's for installation, commissioning & testing shall be arranged by Bidder/ JV Partner. Only 3 phase power supply will be provided at S/S.
- 4.9.6 Technically accepted vendor will have to give full functional demonstration of their Scheme at CG-SLDC, Substation & Control Rooms during technical scrutiny.

- 4.9.7 Bidder/ JV Partner have to carry out engineering of all Control center and Substation interface device and the engineering drawings should get approved from the CG- SLDC. After approval only vendor shall start the project panel work.
- 4.9.8 Finished Sub-station interface panel shall be offered for inspection at vendor works for acceptance test before actual delivery of material. The inspected material shall be dispatched after Dispatch instruction issued by project and after that Sub-station interface panel is to be dispatched as per DI.
- 4.9.9 Bidder/ JV Partner is required to submit all the routine relevant test reports carried out for each Sub-station interface panel and should submit its copy.
- 4.9.10 Bidder/ JV Partner shall have to give free of cost training of equipment offered at site / Sub-station (S/S) or at SLDC to 10 Nos Personnel.
- 4.9.11 Bidder/ JV Partner shall accommodate 01 (one) engineer of at least JE/AE/EE level from SLDC, CSPTCL as appointed in its' implementation and Engineering team from the inception of the project as nominated by authority of SLDC.

4.10 SITE CORDINATION & SHUTDOWNS:

- 4.10.1 The Bidder/ JV Partner have to submit the PERT program with his offer. The Bidder/ JV Partner to note that the Site coordination and the Shut downs shall be arranged only on a prior intimated period.
- 4.10.2 Until and unless a request is put in writing with defined activity and tentative time no outages/ shutdown application will be entertained by CSPTCL. All such requests shall route through SLDC only.
- 4.10.3 CSPTCL keep the rights reserved to defer the shutdown if any warranted for the safe grid operations.
- 4.10.4 The successful Bidder/ JV Partner have to see its requirement put up for approval as per clause **3.1. (B)** of this tender.

4.11 INSTRUCTION MANUAL:

Bidder/ JV Partner has to provide one set of operating & Maintenance Manual for each control center Hardware and software and same way for sub-station Interface device in hard copy and one set in soft copy PROTECTED CD/PD/USB DRIVE.

4.12 DURATION of PROJECT / DELIVERY PERIOD:

- 4.12.1 The project has to be completed within **12 (Twelve) months** from the date of issue of order/Handing over of Site.
- 4.12.2 Failing which penalty shall be imposed at the rate of 1/2% per week, max 10% of project cost. As per clause 3.6.
- 4.12.3 The project shall start work of installation within **15 days from the date of issue of order/Handing over of site.**

4.13 CONNECTIVITY BETWEEN SLDC, LMU and EHV Substation :

Connectivity at sub-stations is provided using 3G/4G/MPLS / Fiber and at SLDC location will be MPLS LL and redundant line of minimum 2MBPS or higher internet Lease line from any carrier provider shall be in the scope of the Bidder/ JV Partner. However, necessary authorization for collecting the Data SIM cards shall be arranged from SLDC for which any NDA / TPA if required shall have to be taken care by the Bidder/ JV Partner.

All the charges incurred during period of contract related to communication (i.e. data communication, connectivity, data transfer charges and lease line charges etc.) shall be in scope of Bidder/JV partner or borne by the Bidder/JV partner as per 4.5.2.3 (19).

**EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Raipur**



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
 छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित
 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
STATE LOAD DESPATCH CENTRE: RAIPUR
 छत्तीसगढ़ राज्य भार प्रेषण केन्द्र, रायपुर

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NO. 03-02/ED/SLDC/TR-141/2020/1135

Raipur, Dated 29/10/2020

SECTION-V: SCOPE OF WORK

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State

- 5.1 The Contractor / tenderer scope of works for “*Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State*” covers the Complete Supply, Installation, Erection, testing & Commissioning of the system but not limited to the details spellout in the other sections/parts of the tender. However, it shall be sole responsibility of the Contractor / tenderer for the faithful completeness of the work.
- 5.2 The entire scope of the work is broadly divided in Two Parts. Each Part comprises of defined work, each having a well defined starting and ending point. Each stage will conclude with a tangible output with *measurable performance parameters* as under:

PART-A:

- I - Complete installation, testing and commissioning work of *Automatic Demand Management System (ADMS)* for 155 No. of feeders through independent redundant GPRS/ GSM network including installation of **Field items for ABB & CHEMTROL RTU or** new RTU's with associated equipments and ADMS Server with associated software.
- II – Integration of ADMS system with SLDC SCADA over ICCP in real time.
- III – Report generations / building from all fetched data from the above two (I & II) and on monthly basis from the ADMS Server etc. to comply with the requirement of CERC/CSERC.

PART-B:

- O&M of the ADMS system for 2 years by deputation of 4 No. qualified engineers on RTC basis at the SLDC.
- 5.3 The basic Set-Up/ System Architecture shall be as under 4.5.3.9. Bidder/ JV Partner can propose a better option in their offer with details and illustrations during “Demonstrations of the proposal” as per the clause 1.7.3, 1.13.5 and 3.4.3.3.
- 5.4 The bidder has to plan all the activities within the following schedule:

| Installations and Commissioning | | |
|---|-----------|----------------|
| Activity/ Locations | Quantity | Tentative time |
| (i) ADMS Servers @ SLDC | - 02 Nos. | 1-Month |
| (ii) ADMS Local Stations (LMU)@ DISCOM Level | - 04 Nos. | 2-Months |
| (iii) No of EHV Substations | - 45 Nos. | 6-Months |
| (iv) AFTS for FTC (existing RTU based or new RTU Based) or No of Substation | - 45Nos. | 9-Months |
| (v) Local RTU Display with Hooter for each sub-station | - 45 Nos. | 6-Months |

| Installations and Commissioning | | |
|--|--------------------------|----------------|
| Activity/ Locations | Quantity | Tentative time |
| (vii) AI/O & DI/O cads and relay etc. For New RTU, 32 DI, 32 DO, 8 AI per substations + Redundant 3G/4G Routers. | As per schedule IV | 9-Months |
| (vii) Field wirings etc. | - LS | 9-Months |
| (viii) Engineering and fine tuning | - LS | 3-Months |

- 5.5 The software provided by the Bidder/ JV Partner, including the system and support software provided by the original software manufacturer and all third-party software, shall comply with the latest industry accepted software standards in order to facilitate maintenance and enhancement of the systems provided.
- 5.6 All hardware such as computers, computer peripherals/accessories etc. and networking products proposed and implemented shall confirm to latest products based on industry standard. The Bidder/ JV Partner should ensure that at the time of final approval of hardware configuration/BOQ, all the hardware are current industry standard models and that the equipment manufacturer has not established a date for termination of its production.
- 5.7 **Connectivity between LDC & LMU established:** Connectivity at sub-stations is provided using / 4G Modems, for SLDC location will be MPLS LL and redundant line minimum 2 MB internet Lease line from any carrier provider shall be in the scope of the Bidder/ JV Partner. However, necessary authorization for collecting the Data SIM cards shall be arranged from SLDC for which any NDA / TPA if required shall have to be taken care by the Bidder/ JV Partners.
- 5.8 Engineering and fine tuning shall cover the ADMS interfacing, configuration, Data Validation at both Local Remote end as per quantity of material.
- 5.9 SLDC, CSPTCL keep rights to inspect its product at any stage. The Contractor / tenderer shall provide sufficient time and updates to the consignee.

- 5.10 Modification & Alteration in the ADMS as per the requirement for the betterment of system shall have to be got approved from ADMS Committee before commencement of the work. The Engineer-in Charge, who shall also be the Project Manager, shall put such proposal before the ADMS Committee.
- 5.11 SAFETY MEASURES:-The modification or Alteration works, which may affect the look, accessibility, representation etc., may be done after due approval & permission of higher authorities & in presence of SLDC representative. To avoid any undesirable incidence: -
- a) Only trained and experienced person on relevant field/work may be deputed to carry out the work under direct supervision of firms engineer and authorized person of SLDC.
 - b) As this work is to be carried out in the protected area, it should be ensured that there is no damage to any of the erected equipment / appliances etc.
- 5.12 RISK COVERAGE: - The work shall be carried out on the full risk and cost of Contractor and CSPTCL will not be responsible for any kind of risk coverage arising during / arrived out to execution of work. Any damage to SLDC, CSPTCL property during the course of the work shall be recoverable from the Contractor in full.
- 5.13 TOOLS, TACKLES, & CONSUMABLES:- It shall be the responsibility of the successful Contractor / tenderer to carry all necessary Tools, Tackles, Plants like Multimeter, Megger, Tong tester, Crimping machine, Hand gloves, Rubber mat, Lap-top etc. required for the completion of the work. All the consumables like conduit for wire and cables, lugs, insulation tape, fuse etc. required shall be in Contractor / tenderer scope for the successful commissioning and handing over of the project. After the completion of the work, the Contractor / tenderer shall submit a list of such consumable items likely to be required in future.

**EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Raipur**



CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED
 छत्तीसगढ़ राज्य पावर ट्रांसमिशन कम्पनी मर्यादित
 (C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)
STATE LOAD DESPATCH CENTRE: RAIPUR
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Raipur, Dated 29/10/2020

SECTION-VI: THE MISCELLANEOUS

Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State

6.1 TESTS

6.1.1 All Control & Instrumentation system shall be subjected to test as per approved quality plans/ test procedures/Standards to fully demonstrate to CSPTCL satisfaction, each equipment/ subsystem/ system as well as software modules furnished, fully meet the functional parameter and other requirements of the specification and CSPTCL's approved drawings/documents. The Bidder/ JV Partner shall bring out in his proposal all such tests under categories type test / routine tests etc. The tests shall include but not be limited to the following:

6.1.2 The following tests reports for the Type Tests are liable to be provided along with the technical offer:

1. Electrical interference type tests

The fully assembled and operating control and regulating equipment shall be subjected to simulated electrical interference testing in accordance with International standards as specified.

2. EMI and RFI Susceptibility Test

The equipment covered by this specification shall be capable of normal operation when subjected to Class 2 electromagnetic field strengths in Bands "a" through "c" with no false operations or data errors. The Bidder/ JV Partner will submit the test results to demonstrate the capability of his equipment. The equipment shall also be tested for immunity to radio interference. The test shall be made with the equipment operating normally and cubicle doors closed. If the equipment can be operated with its cubicle doors open the test shall be repeated in this condition. A portable transceiver or comparable apparatus shall be used operating over the range 10 to 500 MHz to give field strength of 10 V/m at the equipment on test.

3. Electrostatic Discharge (ESD) Test

The equipment furnished by the Bidder/ JV Partner shall incorporate necessary techniques for protection against ESD. Bidder/ JV Partner shall demonstrate with evidence that equipment offered by him shall meet appropriate class of protection against ESD as per IEC 61000-4-2.

4. Surge Protection Test for Solid State Equipment

All solid-state equipment shall be able to withstand the noise and surge inherent in a powerhouse. The equipment shall be designed/provided with all required protection to meet surge withstand capability as defined in ANSI/IEEE C37.90 a-1974/472-1974 or the latest Guide for Surge withstand capability (SWC) tests, or equivalent. Hence all analog input & output modules, I/O of logic cards, control cards etc. including PSU, data high way and data link lines shall be provided with protection that meets the surge with-stand capability as defined in relevant standards.

6.1.3 Factory Acceptance Test:

For each separate control systems, the correct operation of all inputs, outputs, control functions, monitoring functions, operator display systems, printing systems and all associated systems including hardware & functional test shall be tested at shop as part of Factory Acceptance Test. Test specification & procedure shall be submitted for approval to CSPTCL in advance of the factory acceptance testing. The factory acceptance testing shall be witnessed by CSPTCL. The Bidder/ JV Partner shall conduct Factory Accept Test at manufacturer's works for the system / equipment supplied under these specifications. The tests shall fully demonstrate each equipment, system, sub-system as well as the software furnished meets the functional, parametric and other requirements as approved in the Factory Acceptance Test procedure under all operating regimes to the full satisfaction of CSPTCL. During Factory Acceptance Test the system shall be staged for integration test and all the I/O points, complete software and hardware shall be checked. For testing of control loops and binary logic, all related inputs will be simulated simultaneously on loop basis. The protection / permissive and sequence operation shall be checked by energizing various relays and contacts of same and other toggle switches shall be used as feedback for execution the sequence operation and for proper checking of logic. This test shall be carried out for as many drives as desired by CSPTCL. The Bidder/ JV Partner shall arrange necessary hardware including cables for carrying out the logic and control scheme. The following test shall be conducted as a minimum:

- a) Physical inspection.
- b) Continuity test.
- c) 100% checking of ADMS system.
- d) Functional checking of all logic implemented in ADMS system.
- e) System integration test at the shop floor by simulation of all plant conditions.
- f) Hardware and software testing of ADMS.
- g) Demonstration of required spare capacity & redundancies.
- h) Demonstration of operator stations and engineering station functions.
- i) Demonstration of diagnostics features.
- j) Demonstrations of auto change over from main to standby system / hardware.
- k) Power failure test to observe the consequences of power failure.
- l) Demonstration of display and print out of all logs / reports and graphics.
- m) Demonstration of scans and update times.
- n) Demonstration of all performance calculations.

- o) Software Testing.
 - p) Environment test on cabinets /cubical or Type Test Certificates.
 - q) Power consumption & power protection checking tests.
- i. Bidder/ JV Partner shall submit the calibration certificates from approved Govt. laboratories of the instruments ranges supplied on demand of CSPTCL.
 - ii. All non-destructive tests shall be performed as per relevant standard/Codes/approved QAP.
 - iii. All the tests shall be witnessed by the representative of CSPTCL/third party nominated by the CSPTCL.
 - iv. The software licenses for each software modules been supplied for the specific tender shall be furnished during the FAT, without which the system shall not be acceptable.

6.2 SITE ACCEPTANCE TEST:

- 6.2.1 Site Acceptance test shall be conducted at site to fully satisfy the CSPTCL that each equipment, system, subsystem and software individually and the control system as a whole fully meets the functional, parametric and other requirements as specified and guaranteed by the Bidder/ JV Partner. The Bidder/ JV Partner shall provide all necessary instruments, tools, tackles and manpower required for conducting the tests at no extra cost to the CSPTCL. The Site acceptance test shall be followed by Performance Guarantee test Availability test. The site acceptance test shall be conducted after the following conditions are met.
- 6.2.2 All start-up tests have been successfully completed by the Bidder/ JV Partner and all the equipment including hardware and software supplied by Bidder/ JV Partner is successfully commissioned and in operation.
- 6.2.3 All deficiencies noticed during shop tests and start-up shall be satisfactorily resolved.
- 6.2.4 The Site acceptance test & cold plant interface test shall include all exercises which the combination of hardware and software shall be expected to perform as mentioned in the specification like:
 - a) Demonstration of proper functioning of all hardware.
 - b) Demonstration of required spare system capacity.
 - c) Demonstration of all man machine interface functions.
 - d) Demonstration of proper functioning of software.
 - e) Demonstration of diagnostic features.
 - f) Demonstrations of auto switch over from master to standby bus/ module.
 - g) Calculation functions for randomly selected variables.
 - h) Demonstration of display and printout formats.
 - i) Demonstration of all Log and Report generation functions.
 - j) Power failure test to observe the consequences of a power failure.
 - k) Successful demonstration of performance calculation and its acceptance to CSPTCL.
- 6.2.5 All the functions shall be verified for their proper functioning under this test program. The test shall comprise of verification of functioning with respect to set point and deviation for all controls under varying load conditions.

6.3 TEST INTIATION:

The following conditions must be satisfied before starting any test (exclusive of inspections or demonstrations pursuant to clause 6.1 & 6.2 of this Section-VI.

- a. All test plans and procedures for the test shall be approved by CSPTCL.
- b. All hardware and software engineering design change orders shall be incorporated into the system under test.
- c. All relevant documentation including drawings, lists of deliverables, software functional and design documents, and user manuals shall be approved by CSPTCL.
- d. A complete regeneration of the software under test for which source code is being supplied shall be performed immediately prior to the start of factory testing.
- e. All operating system parameters, files, and configuration information shall be saved to archive media so that the ADMS system operating environment can be recreated starting with an un-initialized system. The existence and completeness of this data shall be demonstrated to CSPTCL.
- f. All database, display, and report definitions shall be saved to archive media so that the databases, displays and reports can be recreated if necessary.
- g. All source code libraries shall be saved to archive media so that ADMS system software can be regenerated if necessary.
- h. A complete dry run of each factory test (excluding the integrated system test) shall be conducted by the Bidder/ JV Partner using the approved test plans and test procedures. Written certification that the dry run has been successfully completed shall be provided to CSPTCL at least one week prior to the start of each factory test. At CSPTCL's option, CSPTCL representatives will witness and participate in the dry run of any test.

6.4 TEST COMPLETION:

A test shall be deemed to be successfully completed only when:

- a) All variances have been resolved to the satisfaction of CSPTCL.
- b) All test records have been transmitted to CSPTCL.
- c) CSPTCL acknowledges, in writing, successful completion of the test.

6.4.1 Functional Performance Test

The functional performance test shall completely verify all features of the system hardware and software. As a minimum, the following items shall be included in the functional performance test:

- a) Inspection of all equipment for conformance to drawings and satisfactory construction and appearance.
- b) Testing of the proper functioning of all software, including test cases with normal and exception field and user-entered inputs and field responses to outputs.

- c) Testing of all user interface functions, including random tests to verify correct database linkages.
- d) Simulation of hardware failures and input power failures to verify the reaction of the system to processor and device failure.
- e) Demonstration of all features of the database, display, and report generators and all other software maintenance features.
- f) Demonstration of the software utilities, libraries, and development tools.
- g) Verification that the ADMS computer system meets or exceeds CSPTCL's performance requirements.
- h) Verification of the accuracy of hardware and software documentation via random tests.
- i) Testing of all spare parts through substitution.
- j) Verification that ultimate expansion requirements are met.

6.4.2 Integrated System Test

The integrated system test shall verify the stability of the system hardware and software after the functional performance test has been successfully completed. During the integrated system test, all system functions shall run concurrently and all Bidder/ JV Partner-supplied equipment shall operate for a continuous 100-hour period. The test procedure shall include periodic repetitions of the normal and peak loading scenarios. This minimum level of activities that represent normal at the discretion of CSPTCL, by other activities that represent normal day-to-day operation of the system as long as these activities are conducted in accordance with the training and documentation provided with the system. These other activities may include, but shall not be limited to database, display, and report modifications software development activities, configuration changes (including user-commanded processor and device failovers), and the execution of any function described in this specification.

The integrated system test shall assure CSPTCL that the computer system is free of improper interactions between software and hardware while the system is operating as an integrated whole. CSPTCL will not accept the system for shipment if more than two uncommanded functional restarts or processor or device failovers have occurred. The test shall be extended by 24-hour increments until this requirement is satisfied.

There are two sections to program testing. The first is testing of each module in the program. This is similar to conventional debugging. The second is testing of the complete program or instrument. This test not only how well the modules behave together but it also tests how well the software fits the application.

6.5 TRAINING, SUPPORT SERVICES, SPARES, AND MAINTENACE:

The section describes the requirements for training to personnel. It also describes the project support services spares, and maintenance requirements.

6.5.1 General

- a) Training shall be conducted by Bidder/ JV Partner personnel who are experienced instructors and who speak understandable English.
- b) All necessary training material shall be provided by the Bidder/ JV Partner. Each trainee shall receive individual copies of all technical manuals and all other documents used for training. These materials shall be sent to CSPTCL at least two months before the scheduled commencement of the particular training course.
- c) Class materials, including the documents sent before the training courses as well as class handouts, shall become the property of CSPTCL. CSPTCL reserves the right to copy such materials, but for in-house training and use only.
- d) The number of participants shall be 3 nos. At least two batches per course shall be arranged. In case of upward variations no addition or reduction of training charges will be required.
- e) The schedule, location, and detailed contents of each course will be finalized during CSPTCL and Bidder/ JV Partner discussions.

6.5.2 Spare Parts

The Bidder/ JV Partner shall submit in the Technical Bid a list of recommended spare parts along with the quantities that the Bidder/ JV Partner deems necessary to achieve the specified system availability **for a period of five years**. A list of recommended spare parts shall be submitted.

On review of the submitted lists, CSPTCL will categorize the items on the lists as either mandatory spare parts or optional spare parts. The mandatory spare parts will be included, whereas the optional spare parts will not be included, as part of the proposal evaluation.

The Bidder/ JV Partner shall ensure the availability of spare parts for all supplied items for a minimum period of 05 years from Operational Acceptance by the CSPTCL. However, in the event that a equipment/component is declared to be withdrawn from production, Bidder/ JV Partner shall ensure the availability of spare parts for the supplied items for a minimum period of 05 years from the date of withdrawal from production or from Operational Acceptance by the CSPTCL, whichever is greater, however not exceeding overall period of 07 years.

For the balance of the period, if any, up to 07 years from Operational Acceptance by CSPTCL, Bidder/ JV Partner shall ensure that functionally equivalent hardware is available which is compatible with all software delivered with the system. If CSPTCL chooses to purchase said functionally equivalent hardware, any software modifications necessary to maintain complete functional compatibility with all software delivered by Bidder/ JV Partner shall be made at no cost to CSPTCL. In the event the modified software is not found compatible with all software with functional equivalent hardware, the Bidder/ JV Partner shall make suitable corrections to this modified software & install this corrected software at no cost to CSPTCL.

Further, the Bidder/ JV Partner shall provided advance notification to CSPTCL of the pending termination of production of spare parts in sufficient time (not less than one year prior to such termination) to permit CSPTCL to procure needed requirements. The blue prints, drawings and specifications of the spare parts should be furnished to CSPTCL at no cost, to the extent that such documentation is available to the Bidder/ JV Partner.

6.5.3 Consumables

The Bidder/ JV Partner shall supply, at its own expense, all consumables required for use during all phases of the project through completion of the system availability test. A complete itemized list of proposed consumables, including quantities, shall be submitted with the technical proposal.

6.6 SYSTEM DOCUMENTATION:

The Bidder/ JV Partner shall furnish detailed system and equipment documentation. It shall include detailed system and components description covering the installation, operation, care and maintenance of all system components. All final system documentation for ADMS system hardware and related software shall be furnished. The same shall be complete, accurate and fully representative of the supplied system and its elements. All documentation/ catalogues etc., shall be furnished in English language. In addition to the hard copies, protected CD/DVD ROM based documentation system shall also be provided.

6.6.1 HARDWARE DOCUMENTATION:

1. Detailed technical literature, reference manuals, user's guide/manuals for the complete hardware like control system hardware, ADMS system hardware, bulk memory units, peripherals and their controllers, communication hardware including controllers, man-machine interfaces programmers unit, power supply modules etc., shall be furnished by the Bidder/ JV Partner.
2. Operation and Maintenance manuals: The operation and maintenance manuals shall include all information required for trouble shooting, repair and maintenance information regarding all equipments furnished for the completeness of the system. Sufficient documentation including block diagrams, component level circuit diagram with all component value, make, model, type, detailed wiring and external connection drawing etc., shall be provided to carryout trouble shooting and repair of all electronic cards (PCB), power supply modules at component level.

6.6.2 SOFTWARE DOCUMENTATION AND SOFTWARE LISTINGS:

1. All technical manuals, reference manuals, user's guide etc., in English required for modification/editing/addition/deletion of features in the software of the ADMS shall be furnished. The Bidder/ JV Partner shall furnish a comprehensive list of all system/application software documentation after system finalization for CSPTCL's review and approval.

2. The software listings shall be submitted by the Bidder/ JV Partner for source code of application software and all special-to-project data files.

**EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Raipur**

SCHEDULE-I (A): LIST of EHV SUB STATION
EHV SUBSTATIONS COVERED UNDER THE ADMS

| TR-141/2020: -“Implementation of Automatic Demand Management System (ADMS) in the Chhattisgarh State | | | | |
|---|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|
| LIST EHV SUBSTATIONS COVERING FEEDRERS IN ADMS MAP | | | | |
| Sl.No. | Bilaspur Circle | | Bhilai Circle | |
| | No. of Substations - 19 Nos. | No. of Feeders - 68 Nos. | No. of Substations - 26 Nos. | No. of Feeders - 87 Nos. |
| Sl.No. | EHV S/s make ABB | | EHV S/s make ABB | |
| 1 | 220 KV S/S Raigarh | 3 | 220 KV Sarapalli | 8 |
| 2 | 220 KV S/S Banari | 2 | 220 KV Suhela | 1 |
| 3 | 220 KV S/S Mopka | 3 | 220 KV Bhatapra | 2 |
| 4 | 220 KV S/S Kotmikala | 4 | 220 KV Paraswani | 1 |
| 5 | 132 KV S/S Gharghodha | 3 | 220 KV Bemetera | 2 |
| 6 | 132 KV S/S Champa | 5 | 132 KV Sankara | 3 |
| 7 | 132 KV S/S Akaltara | 5 | 132 KV Balodabazar | 6 |
| 8 | 132 KV S/S Jamnipalli | 1 | 132 KV Dhamdha | 6 |
| 9 | 132 KV S/S Kota | 4 | 132 KV Doma | 1 |
| 10 | 132 KV S/S Pathariya | 2 | 132 KV Monnet | 2 |
| | | | | |
| Sl.No. | EHV S/s make Chemtrol | | EHV S/s make Chemtrol | |
| 1 | 132 KV S/S Raigarh | 4 | 220KV S/s Gurur | 4 |
| 2 | 132 KV S/S Baremkela | 4 | 132KV S/s Mahasamund | 2 |
| 3 | 132 KV S/S Chaple | 3 | 132KV S/s Bagbahara | 4 |
| 4 | 132 KV S/S Sarangarh | 4 | 132KV S/s Nawagarh | 4 |
| 5 | 132 KV S/S Adbhar | 6 | 132KV S/s Saja | 4 |
| 6 | 132 KV S/S Chakarbhata | 1 | 132KV S/s Bhilai | 1 |
| 7 | 132 KV S/S Bilaspur | 4 | 132KV S/s Singa | 6 |
| 8 | 132 KV S/S Silpahari | 4 | 132KV S/s Kuhera | 1 |
| 9 | 132 KV S/S Mungeli | 6 | 132KV S/s Dhamtari | 7 |
| 10 | | | 132KV S/s Jhalap | 6 |
| 11 | | | 132KV S/s Balod | 3 |
| 12 | | | 132KV S/s Gunderdehi | 3 |
| 13 | | | 132KV S/s Dallirajhara | 1 |
| 14 | | | 132KV S/s Birgaon | 1 |
| 15 | | | 132KV S/s Kurud(D) | 4 |
| 16 | | | 132KV S/s Rajim | 4 |

SCHEDULE-I (B): LIST of 33 KV FEEDERS
33 KV FEEDERS COVERED UNDER THE ADMS

| Groupwise proposal for feeders covered under ADMS | | | | | | SCHEDULE-I(B) |
|---|---------|----------------|----------------|------------------|-------------------------|-----------------------------|
| Sl.No. | Gr. No. | NAME OF REGION | NAME OF CIRCLE | NAME OF DISTRICT | NAME OF EHV S/S | NAME OF FEEDER |
| 1 | A1 | BILASPUR | Raigarh | Raigarh | 220 KV S/S Raigarh | 33 KV Sarangarh-1 |
| 2 | A2 | BILASPUR | Raigarh | Raigarh | 220 KV S/S Raigarh | 33 KV Kharsiya |
| 3 | A3 | BILASPUR | Raigarh | Raigarh | 220 KV S/S Raigarh | 33 KV Gharghoda |
| 4 | A4 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Raigarh | 33 KV Sarangarh-II |
| 5 | A5 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Raigarh | 33 KV Kusmura |
| 6 | A6 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Raigarh | 33 KV Kondatarai |
| 7 | A7 | Bilaspur | Raigarh | Raigarh | 132 KV S/S Raigarh | 11 KV Gharghoda |
| 8 | A8 | BILASPUR | Raigarh | Raigarh | 132 KV Baramkela | 33 KV Baramkela |
| 9 | A9 | BILASPUR | Raigarh | Raigarh | 132 KV Baramkela | 33 KV Lendhra |
| 10 | A10 | BILASPUR | Raigarh | Raigarh | 132 KV Baramkela | 33 KV Sariya |
| 11 | A11 | BILASPUR | Raigarh | Raigarh | 132 KV Baramkela | 33 KV Salheona |
| 12 | A12 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Gharghoda | 33 KV Lailunga |
| 13 | A13 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Gharghoda | 33 KV Gharghoda |
| 14 | A14 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Gharghoda | 33 KV Tamnar |
| 15 | A15 | BILASPUR | Raigarh | Raigarh | 132 KV Kharsiya(Chaple) | 33 KV Nandeli |
| 16 | A16 | BILASPUR | Raigarh | Raigarh | 132 KV Kharsiya(Chaple) | 33 KV Madanpur |
| 17 | A17 | BILASPUR | Raigarh | Raigarh | 132 KV Kharsiya(Chaple) | 33 KV Belwadih |
| 18 | B1 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Saranggarh | 33 KV Saraipali |
| 19 | B2 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Saranggarh | 33 KV Baramkela |
| 20 | B3 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Saranggarh | 33 KV Sarsiwa |
| 21 | B4 | BILASPUR | Raigarh | Raigarh | 132 KV S/S Saranggarh | 33 KV Sarangarh(T) |
| 22 | B5 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33 KV Basana II |
| 23 | B6 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33 KV Basana I |
| 24 | B7 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33KV Basna III(Navarangpur) |
| 25 | B8 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33 KV Saraipali |
| 26 | C1 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33 KV Basna IV |
| 27 | C2 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33 KV Baloda |
| 28 | C3 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33 KV Sagaripali |
| 29 | C4 | RAIPUR | Mahasamund | Mahasamund | 220 KV Saraipali | 33 KV Baldidih |
| 30 | C5 | RAIPUR | Mahasamund | Mahasamund | 132 KV Jhalap | 33 KV Jhalap |
| 31 | C6 | RAIPUR | Mahasamund | Mahasamund | 132 KV Jhalap | 33 KV Pithora |
| 32 | C7 | RAIPUR | Mahasamund | Mahasamund | 132 KV Jhalap | 33 KV Raitum |
| 33 | C8 | RAIPUR | Mahasamund | Mahasamund | 132 KV Jhalap | 33 KV Bawankera |
| 34 | C9 | RAIPUR | Mahasamund | Mahasamund | 132 KV Sankara | 33 KV Baldidih |
| 35 | C10 | RAIPUR | Mahasamund | Mahasamund | 132 KV Sankara | 33 KV Paraswani |
| 36 | C11 | RAIPUR | Mahasamund | Mahasamund | 132 KV Sankara | 33 KV Bhagat Deori |
| 37 | D1 | RAIPUR | Raipur O&M | Baloda Bazar | 220 KV Suhela | 33 KV Suhela(Town) |
| 38 | D2 | RAIPUR | Raipur O&M | Baloda Bazar | 220 KV S/S Bhatapara | 33 Nipaniya |
| 39 | D3 | RAIPUR | Raipur O&M | Baloda Bazar | 220 KV S/S Bhatapara | 33 KV B.Bzr I/C |
| 40 | D4 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Balodabazar | 33 KV Bhatapara I/c |
| 41 | D5 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Balodabazar | 33 KV Palari |

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|----|-----|----------|----------------|--------------|-------------------------------|------------------------|
| 42 | D6 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Balodabazar | 33 KV Kasdol |
| 43 | D7 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Balodabazar | 33 KV Sandi |
| 44 | D8 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Balodabazar | 33 KV Sonadih |
| 45 | D9 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Balodabazar | 33 Suhela I/c |
| 46 | D10 | RAIPUR | Mahasamund | Mahasamund | 220 KV Mahasamund (Paraswani) | 33 KV Patewa |
| 47 | D11 | RAIPUR | Mahasamund | Mahasamund | 132 KV S/S Mahasamund | 33 KV Bagbahara |
| 48 | D12 | RAIPUR | Mahasamund | Mahasamund | 132 KV Mahasamund | 33 KV Arang |
| 49 | D13 | RAIPUR | Mahasamund | Mahasamund | 132 KV Jhalap | 33 KV Nartora |
| 50 | D14 | RAIPUR | Mahasamund | Mahasamund | 132 KV Jhalap | 33 KV Tendukona |
| 51 | D15 | RAIPUR | Mahasamund | Mahasamund | 132 KV Baghbahara | 33 KV Sunsuniya |
| 52 | D16 | RAIPUR | Mahasamund | Mahasamund | 132 KV Baghbahara | 33 KV Tendukona |
| 53 | D17 | RAIPUR | Mahasamund | Mahasamund | 132 KV Baghbahara | 33 KV Baghbahara(T) |
| 54 | D18 | RAIPUR | Mahasamund | Mahasamund | 132 KV Baghbahara | 33 KV Temri |
| 55 | E1 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Champa | 33 KV Bamhanidih-I |
| 56 | E2 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Champa | 33 KV Bamhanidih-II |
| 57 | E3 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Champa | 33 KV Urga |
| 58 | E4 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Champa | 33 KV Sakti |
| 59 | E5 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Champa | 33 KV Kharsia |
| 60 | E6 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Sakti | 33 KV Malkharoda-I |
| 61 | E7 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Sakti | 33 KV Faguram-1 |
| 62 | E8 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Sakti | 33 KV Faguram-II |
| 63 | E9 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Sakti | 33 KV Malkharoda-II |
| 64 | E10 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Sakti | 33 KV Nadelibhatta |
| 65 | E11 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Sakti | 33 KV Sakti |
| 66 | E12 | BILASPUR | Janjgir-Champa | Janjgir | 220 KV Banari (Champa) | 33 KV Nawagarh |
| 67 | E13 | BILASPUR | Janjgir-Champa | Janjgir | 220 KV Banari (Champa) | 33 KV Shyam Agro |
| 68 | E14 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Akaltara | 33 KV Shivarinarayan |
| 69 | E15 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Akaltara | 33 KV Baloda |
| 70 | E16 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Akaltara | 33 KV Janjgir |
| 71 | E17 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Akaltara | 33 KV Akaltara-1 |
| 72 | E18 | BILASPUR | Janjgir-Champa | Janjgir | 132 KV S/S Akaltara | 33 KV Akaltara-II |
| 73 | F1 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV Chakarbhatta | 33 KV Sargaon |
| 74 | F2 | BILASPUR | Bilaspur City | Bilaspur | 220 KV S/s Mopka | 33 KV Seepat |
| 75 | F3 | BILASPUR | Bilaspur City | Bilaspur | 220 KV S/s Mopka | 33 KV NTPC-I |
| 76 | F4 | BILASPUR | Bilaspur City | Bilaspur | 220 KV S/s Mopka | 33 KV NTPC-II |
| 77 | F5 | BILASPUR | Bilaspur City | Bilaspur | 132 KV S/S Bilaspur | 33 KV Akaltara |
| 78 | F6 | BILASPUR | Bilaspur City | Bilaspur | 132 KV S/S Bilaspur | 33 KV Kota |
| 79 | F7 | BILASPUR | Bilaspur City | Bilaspur | 132 KV S/S Bilaspur | 33 KV Belgahna |
| 80 | F8 | BILASPUR | Bilaspur City | Bilaspur | 132 KV S/S Bilaspur | 33 KV Takhatpur |
| 81 | F9 | BILASPUR | Bilaspur O&M | Bilaspur | 220 KV S/S Kotmikala, | 33 KV Kotmikala |
| 82 | F10 | BILASPUR | Bilaspur O&M | Bilaspur | 220 KV S/S Kotmikala, | 33 KV Marwahi |
| 83 | F11 | BILASPUR | Bilaspur O&M | Bilaspur | 220 KV S/S Kotmikala, | 33 KV Gaurela |
| 84 | F12 | BILASPUR | Bilaspur O&M | Bilaspur | 220 KV S/S Kotmikala, | 33 KV Pendra |
| 85 | F13 | BILASPUR | Korba | Korba | 132 KV Darri | 33 KV Katghora Town |
| 86 | G1 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV S/S Kota | 33 KV Kota |
| 87 | G2 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV S/S Kota | 33 KV Belgahana |
| 88 | G3 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV S/S Kota | 33 KV Kargi Kala-Lormi |

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|-----|-----|----------|--------------|--------------|----------------------|-------------------------|
| 89 | G4 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV S/S Kota | 33 KV Ratanpur |
| 90 | G5 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV Silpahari | 33 KV Malhar |
| 91 | G6 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV Silpahari | 33 KV Bartori |
| 92 | G7 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV Silpahari | 33 KV Silpahari Indl-II |
| 93 | G8 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV Silpahari | 33 KV Torwa |
| 94 | G9 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV S/S Pathariya | 33 KV Pathariya |
| 95 | G10 | BILASPUR | Bilaspur O&M | Bilaspur | 132 KV S/S Pathariya | 33 KV Sargaon |
| 96 | G11 | BILASPUR | Bilaspur O&M | Mungeli | 132 KV S/S Mungeli | 33 KV Lormi |
| 97 | G12 | BILASPUR | Bilaspur O&M | Mungeli | 132 KV S/S Mungeli | 33 KV Patharia |
| 98 | G13 | BILASPUR | Bilaspur O&M | Mungeli | 132 KV S/S Mungeli | 33 KV Manoharpur Pump |
| 99 | G14 | BILASPUR | Bilaspur O&M | Mungeli | 132 KV S/S Mungeli | 33 KV Pandariya |
| 100 | G15 | BILASPUR | Bilaspur O&M | Mungeli | 132 KV S/S Mungeli | 33 KV Fasterpur |
| 101 | G16 | BILASPUR | Bilaspur O&M | Mungeli | 132 KV S/S Mungeli | 33 KV Thakhatpur |
| 102 | H1 | DURG | Durg O&M | Bemetara | 220 KV Bemetara | 33 KV Matka |
| 103 | H2 | DURG | Durg O&M | Bemetara | 220 KV Bemetara | 33 KV Bemetara Rural |
| 104 | H3 | DURG | Durg O&M | Bemetara | 132 KV S/S Dhamdha | 33 KV Parpodi |
| 105 | H4 | DURG | Durg O&M | Bemetara | 132 KV S/S Dhamdha | 33 KV Saja |
| 106 | H5 | DURG | Durg O&M | Bemetara | 132 KV S/S Dhamdha | 33 KV Dargaon |
| 107 | H6 | DURG | Durg O&M | Bemetara | 132 KV S/S Dhamdha | 33 KV Litiya |
| 108 | H7 | DURG | Durg O&M | Bemetara | 132 KV S/S Dhamdha | 33 KV Dhamdha |
| 109 | H8 | DURG | Durg O&M | Bemetara | 132 KV S/S Dhamdha | 33 KV Nankatti |
| 110 | H9 | DURG | Durg O&M | Bemetara | 132 KV Nawagarh | 33 KV Nawagarh |
| 111 | H10 | DURG | Durg O&M | Bemetara | 132 KV Nawagarh | 33 KV Sambalpur |
| 112 | H11 | DURG | Durg O&M | Bemetara | 132 KV Nawagarh | 33 KV Marka |
| 113 | H12 | DURG | Durg O&M | Bemetara | 132 KV Nawagarh | 33 KV Chhirha |
| 114 | H13 | DURG | Durg O&M | Bemetara | 132 KV Saja | 33 KV Saja |
| 115 | H14 | DURG | Durg O&M | Bemetara | 132 KV Saja | 33 KV Bortara |
| 116 | H15 | DURG | Durg O&M | Bemetara | 132 KV Saja | 33 KV Mohgaon |
| 117 | H16 | DURG | Durg O&M | Bemetara | 132 KV Saja | 33 KV Thelka |
| 118 | H17 | DURG | Durg O&M | Durg | 132 KV Bhilai | 33 KV Patan |
| 119 | I1 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Simga | 33 KV Bemetara-II |
| 120 | I2 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Simga | 33 KV Bilaspur |
| 121 | I3 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Simga | 11 KV Limtara |
| 122 | I4 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Simga | 11 KV Hathbandh |
| 123 | I5 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Simga | 11 KV Baikunth |
| 124 | I6 | RAIPUR | Raipur O&M | Baloda Bazar | 132 KV S/S Simga | 11 KV Town |
| 125 | I7 | RAIPUR | Raipur O&M | Raipur | 220 KV Doma | 33 KV Raweli |
| 126 | I8 | RAIPUR | Raipur O&M | Raipur | 132 KV Kuhera | 33 KV Pond |
| 127 | I9 | RAIPUR | Raipur O&M | Dhamtari | 132 KV S/S Dhamtari | 33 KV Amdi |
| 128 | I10 | RAIPUR | Raipur O&M | Dhamtari | 132 KV S/S Dhamtari | 33 KV Basin |
| 129 | I11 | RAIPUR | Raipur O&M | Dhamtari | 132 KV S/S Dhamtari | 11 KV Purur |
| 130 | I12 | RAIPUR | Raipur O&M | Dhamtari | 132 KV S/S Dhamtari | 33 KV Abhanpur |
| 131 | I13 | RAIPUR | Raipur O&M | Dhamtari | 132 KV S/S Dhamtari | 33 KV Bakhara |
| 132 | I14 | RAIPUR | Raipur O&M | Dhamtari | 132 KV S/S Dhamtari | 33 KV Kharenga |
| 133 | I15 | RAIPUR | Raipur O&M | Dhamtari | 132 KV S/S Dhamtari | 33 KV Chhati |
| 134 | I16 | DURG | Durg O&M | Balod | 220 KV S/S Gurur | 33 KV Balod |
| 135 | I17 | DURG | Durg O&M | Balod | 220 KV S/S Gurur | 33 KV Gurur |
| 136 | I18 | DURG | Durg O&M | Balod | 220 KV S/S Gurur | 33 KV Nipani |
| 137 | I19 | DURG | Durg O&M | Balod | 220 KV S/S Gurur | 33 KV Palari |
| 138 | I20 | DURG | Durg O&M | Balod | 132 KV S/S Balod | 33 KV Balod-1 |

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|-----|-----|--------|----------------|------------|-------------------------|---------------------|
| 139 | I21 | DURG | Durg O&M | Balod | 132 KV S/S Balod | 33 KV Latabod |
| 140 | I22 | DURG | Durg O&M | Balod | 132 KV S/S Balod | 33 KV Sakara |
| 141 | I23 | DURG | Durg O&M | Balod | 132 KV Gunderdehi | 33 KV Sikosa |
| 142 | I24 | DURG | Durg O&M | Balod | 132 KV Gunderdehi | 33 KV Rewagahan |
| 143 | I25 | DURG | Durg O&M | Balod | 132 KV Gunderdehi | 33 KV Arjunda |
| 144 | I26 | DURG | Durg O&M | Balod | 132 KVDalli Rajhara | 33 KV Lohara |
| 145 | J1 | RAIPUR | Raipur City-II | Raipur | 132 KV Birgaon | 33 KV Simga |
| 146 | J2 | RAIPUR | Raipur O&M | Raipur | 132 KV Monnet | 33 KV Mandir Hasaud |
| 147 | J3 | RAIPUR | Raipur O&M | Raipur | 132 KV Monnet | 33 KV Shiva Pump |
| 148 | J4 | RAIPUR | Raipur O&M | Dhamtari | 132 KV Kurud (Dhamtari) | 33 KV Gadadih |
| 149 | J5 | RAIPUR | Raipur O&M | Dhamtari | 132 KV Kurud (Dhamtari) | 33 KV Marod |
| 150 | J6 | RAIPUR | Raipur O&M | Dhamtari | 132 KV Kurud (Dhamtari) | 33 KV Magarlod |
| 151 | J7 | RAIPUR | Raipur O&M | Dhamtari | 132 KV Kurud (Dhamtari) | 33 KV Kurud |
| 152 | J12 | RAIPUR | Mahasamund | Gariyaband | 132 KV S/S Rajim | 33 KV Abhanpur |
| 153 | J13 | RAIPUR | Mahasamund | Gariyaband | 132 KV S/S Rajim | 33 KV Bhendri |
| 154 | J14 | RAIPUR | Mahasamund | Gariyaband | 132 KV S/S Rajim | 33 KV Fingeshwar |
| 155 | J15 | RAIPUR | Mahasamund | Gariyaband | 132 KV S/S Rajim | 33 KV Paragaon |

SCHEDULE-II: TECHNICAL BID
TECHNICAL INFORMATION
[TO BE KEPT IN THE ENVELOPE - III (A)]

(i) **Strike-off, whichever is not applicable**

(ii) **Separate sheet should be used, wherever necessary.**

| S. No. | TECHNICAL INFORMATION | SCHEDULE-II(A) |
|--|--|----------------------|
| 1 | Whether material offered is exactly as per the technical specification | Yes/No |
| 2 | Whether the copies of orders received from other utilities enclosed | Yes/No |
| 3 | Whether performance certificate from such organization enclosed | Yes/No |
| 4 | Whether the Bidder/ JV Partner has furnished details of manufacturing equipments and short history of plant | Yes/No, give details |
| 5 | Mention in brief the type test reports enclosed name of test, agency at which testing done, date of testing. | |
| 6 | Whether the Bidder/ JV Partner has furnished Guaranteed Technical Parameters details of equipments to be supplied in the ADMS system | Yes/No, give details |
| <div style="display: flex; justify-content: space-between; padding: 10px;"> <div> PLACE DATE </div> <div> SIGNATURE OF BIDDER/ JV PARTNER NAME IN FULL DESIGNATION/ STATUS IN THE FIRM COMPANY SEAL </div> </div> | | |

SCHEDULE – II (A)**GUARANTEED TECHNICAL PARTICULARS OF MAIN SERVER****[TO BE KEPT IN THE ENVELOPE - III (A)]**

| Sr.No | Description | Specifications |
|--------------|-------------------------------|-----------------------|
| 1 | Make | |
| 2 | Model | |
| 3 | Processor | |
| 4 | Rack Mounting | |
| 5 | No. of processors | |
| 6 | Memory | |
| 7 | Bays available | |
| 8 | HDD | |
| 9 | Controller | |
| 10 | Raid | |
| 11 | Networking | |
| 12 | Ports | |
| 13 | Bus Slots | |
| 14 | Systems Management | |
| 15 | CD RW/DVD/ drive | |
| 16 | Floppy drive | |
| 17 | Fans | |
| 18 | Power supply | |
| 19 | Software | |
| 20 | Certification | |
| 21 | Operating System | |
| 22 | Backup Device | |
| 23 | Audited TPC-C throughput | |
| 24 | Mouse | |
| 25 | Monitor | |
| 26 | Accessories & Service support | |
| 27 | Warranty | |
| 28 | Ordering Catalogue enclosed | |

PLACE
DATE

SIGNATURE OF BIDDER/ JV PARTNER
NAME IN FULL
DESIGNATION/ STATUS IN THE FIRM
COMPANY SEAL

SCHEDULE -II (B)
GUARANTEED TECHNICAL PARTICULARS OF
DESKTOP PERSONAL COMPUTERS
[TO BE KEPT IN THE ENVELOPE - III (A)]

| Sr.No | Description | Specifications |
|--------------|----------------------------------|-----------------------|
| 1 | Make | |
| 2 | Model | |
| 3 | CPU | |
| 4 | Memory | |
| 5 | Mother board | |
| 6 | Monitor | |
| 7 | Display Controller | |
| 8 | Hard Disk | |
| 9 | Floppy Drive | |
| 10 | CD RW/DVD | |
| 11 | Ethernet Interface | |
| 12 | Audio Ports | |
| 13 | Ports | |
| 14 | Key Board | |
| 15 | Cabinet | |
| 16 | Mouse | |
| 17 | BIOS | |
| 18 | Power supply | |
| 19 | Power Management | |
| 20 | Manageability, Safety & Security | |
| 21 | Operating System | |
| 22 | Office Software | |
| 23 | Accessories & Service support | |
| 24 | Warranty | |
| 25 | Ordering Catalogue enclosed | |

PLACE
DATE

SIGNATURE OF BIDDER/ JV PARTNER
NAME IN FULL
DESIGNATION/ STATUS IN THE FIRM
COMPANY SEAL

SCHEDULE –II (C)
GUARANTEED TECHNICAL PARTICULARS OF
ONLINE UNINTERRUPTED POWER SYSTEM (UPS)
[TO BE KEPT IN THE ENVELOPE - III (A)]

| Sr.No | Description | Specifications |
|-------|---|----------------|
| 1 | Make | |
| 2 | Model | |
| 3 | Capacity | |
| 4 | Technology | |
| 5 | Input Voltage | |
| 6 | Input Frequency | |
| 7 | Input Power Factor | |
| 8 | Output Voltage | |
| 9 | Output Frequency | |
| 10 | Total Harmonic Distortion | |
| 11 | Load Power Factor | |
| 12 | Certification | |
| 13 | Efficiency | |
| 14 | Communication Port | |
| 15 | Remote Monitoring | |
| 16 | Back-up time | |
| 17 | Battery Type | |
| 18 | Alarm/ Indications | |
| 19 | Audible Noise | |
| 20 | Hot Standby Static Bypass with Automatic Transfer | |
| 21 | Protections | |
| 22 | Application | |
| 23 | Warranty | |
| 24 | Ordering Catalogue enclosed | |

PLACE
DATE

SIGNATURE OF BIDDER/ JV PARTNER
NAME IN FULL
DESIGNATION/ STATUS IN THE FIRM
COMPANY SEAL

SCHEDULE –II (D)
GUARANTEED TECHNICAL PARTICULARS OF
LASER PRINTER (Colour, A4 Size Paper)
[TO BE KEPT IN THE ENVELOPE - III (A)]

| Sr.No | Description | Specifications |
|--------------|-----------------------------|-----------------------|
| 1 | Make | |
| 2 | Model | |
| 3 | Paper Size | |
| 4 | Print Speed | |
| 5 | Resolution | |
| 6 | Memory | |
| 7 | Paper Type | |
| 8 | Paper Handling | |
| 9 | Duplex Printing | |
| 10 | Color Matching | |
| 11 | Interface | |
| 12 | Network Interface | |
| 13 | Printer Server S/W | |
| 14 | Compatibility | |
| 15 | Duty Cycle | |
| 16 | Ordering Catalogue enclosed | |

PLACE
DATE

SIGNATURE OF BIDDER/ JV PARTNER
NAME IN FULL
DESIGNATION/ STATUS IN THE FIRM
COMPANY SEAL

SCHEDULE –II (E)
GUARANTEED TECHNICAL PARTICULARS OF NEW RTU
[TO BE KEPT IN THE ENVELOPE - III (A)]

| Sr.No | Description | Specifications |
|--------------|-------------------------------------|-----------------------|
| 1 | Make | |
| 2 | Model | |
| 3 | Digital Input Count & SCAN | |
| 4 | Digital Output Count | |
| 5 | Analog Input Count | |
| 6 | Isolation type and value | |
| 7 | AI Resolution (16 Bit) | |
| 8 | No. of Serial Ports | |
| 9 | No. of LAN Ports | |
| 10 | Protocols | |
| 11 | Type Test Certificates with | |
| 12 | No of Master supported over IEC 104 | |
| 13 | 3G/4G Modem | |
| 14 | VPN Technologies | |
| 15 | GPS Tagging (GEO Tagging) | |
| 16 | RTU Panel IP Rating | |
| 17 | Annunciation Windows | |

PLACE
DATE

SIGNATURE OF BIDDER/ JV PARTNER
NAME IN FULL
DESIGNATION/ STATUS IN THE FIRM
COMPANY SEAL

SCHEDULE-III: COMMERCIAL BID
COMMERCIAL INFORMATION
[TO BE KEPT IN THE ENVELOPE -III (B)]

Strike-off, whichever is not applicable

| S. No. | COMMERCIAL INFORMATIONS | SCHEDULE-II(B) |
|--------|--|--|
| 1. a) | Name and Address of the Bidder /JV Partner Authorized signatory | |
| b) | Name of the Company | |
| c) | Address & Contact Details of the Company | |
| 2. a) | Whether Tender purchased from this office or Downloaded from the website? | Yes/No |
| b) | If downloaded, whether tender cost Rs. 1000/- + GST @ 18% i.e. Rs. 180/- is paid Furnished? Details of MICR DD for tender cost | Yes/No |
| 3. i) | Earnest Money details : In favour of Manager R A.O. (HQ) CSPTCL, Raipur. | Bank draft details (if any) |
| ii) | Amount of EMD and full details | Rs. |
| iii) | If exempted, state the reason for exemptions with documentary proof | |
| iv) | Reference of documentary evidence regarding exemption enclosed | Yes/No |
| 4 | Whether the offer is valid for 180 days from the date of opening of commercial/ technical bid | Yes/No (If no, state validity period) |
| 5. | State whether the quoted prices are FIRM | Yes/No |
| 6. | Mention the taxes applicable with their rates. Also confirm whether these taxes have been included in the quoted price or not. | |
| 7. | PAYMENT TERMS:- Whether CSPTCL's terms of payment as per the tender is acceptable to the Bidder /JV Partner (if 'No', state conditions) | Yes/No |
| 8. i) | MOBILIZATION ADVANCE:-:- Whether Bidder /JV Partner wish to draw "Mobilization Advance/ Advance Payment". | Yes/No |
| ii). | If 'YES', whether the Bidder /JV Partner will submit the irrevocable BG for it as per the tender conditions. | Yes/No |

| S. No. | COMMERCIAL INFORMATIONS | SCHEDULE-II(B) |
|--------|--|----------------|
| iii). | Whether Bidder /JV Partner don't opt to draw "Mobilization Advance/ Advance Payment", in such case do the Bidder /JV Partner agrees for the Payment terms as per the tender clause 3.4.4.3.5. | Yes/No |
| 9. | COMPLETION SCHEDULE:- (i) Total period for completion of PART-A (I & II) from date of order. (ii) Total period for completion of PART-A (III) from date of order. | |
| 10. | LIQUIDATED DAMAGES: Whether agreeable to CSPTCL's Penalty clauses. | Yes/No |
| 11. | GUARANTEE PERIOD:- Intimate guarantee period of hardware and software offered by the bidder/supplier you | |
| 12. | SECURITY DEPOSIT Whether agreeable to furnish CSPTCL's Standard security deposit @ 10% of value of order for satisfactory execution of the order and to cover guarantee period | Yes/No |
| 13. | EXTENSION ORDER:- Whether agreeable to accept extension order for the quantity and period of contract on the same rates, terms and conditions, if any extension order is placed within the currency of this existing contract period. | Yes/No |
| 14. | Mention Turnover of the sole Bidder /JV Partner / consortium / joint venture for last three years a) 2014-15; b) 2015-16; c) 2016-17; d) 2017-18; e) 2018-19. f) 2019-20. Enclose balance sheets in support | |
| 15. | Do the bidder/ supplier agree with clauses regarding demonstration of ADMS System as per tender specification? In case of non agreement, mention the deviation offered. | Yes/No |

| S. No. | COMMERCIAL INFORMATIONS | SCHEDULE-II(B) |
|--|---|----------------|
| 16. | Whether the system offered by the bidder/ supplier is type tested and tests certificates of approved Govt. Test Laboratories or under Taking govt. Test laboratories have been enclosed. Mention the name of agency and date of testing. | Yes/No |
| 17. | FIRM's PAN CARD Details (Photo Copy to be enclosed) | |
| 18. | BIDDER /JV PARTNER'S AADHAR CARD Details (Photo Copy to be enclosed) | |
| 19. | FIRM's ROC Certificate No. (Photo Copy to of CIN by ROC be enclosed) | |
| 20. | FIRM's BANK Details (Photo Copy of a cancelled cheque to be enclosed) | |
| <div style="display: flex; justify-content: space-between; align-items: flex-start; padding: 10px;"> <div style="width: 40%;"> PLACE DATE </div> <div style="width: 60%; text-align: center;"> SIGNATURE OF BIDDER/ JV PARTNER NAME IN FULL DESIGNATION/ STATUS IN THE FIRM COMPANY SEAL </div> </div> | | |

SCHEDULE – IV –A: PB-TOTAL
PRICE BID - TOTAL
[TO BE KEPT IN THE ENVELOPE –IV]

The Undersigned hereby tender & offer to complete the following work in State Load Despatch Centre, CSPTCL, Raipur for the quantities at the rates indicated hereunder: -

| TR-141/2020: - <i>“Implementation of Automatic Demand Management System (ADMS) in the Chhattisgarh State”</i> | | | | |
|--|---------------------------------|--|-----|-------------------------------|
| Cost Break-up of Automatic Demand Management System (ADMS) system. | | | | |
| S.No. | Activity | Particular | | (all fig. in Lakh Rs.) |
| 1 | PART –A (From schedule IV-B) | Complete installation, testing and commissioning work of Automatic Demand Management System (ADMS) for 155 No. of feeders through independent redundant GPRS/ GSM network including installation of Field items for ABB & CHEMTROL RTU or new RTU’s with associated equipments and ADMS Server with associated software. | Rs. | |
| 2 | PART - A | Integration of ADMS system with SLDC SCADA over ICCP in real time. | Rs. | |
| 3 | PART - B | O&M of the ADMS system for 2 years by deputation of 4 No qualified engineers on RTC basis at the SLDC. | | |
| | | Total | Rs. | |

(In words

Rs.....)

Other Conditions (if any): -

The undersigned undertakes to observe and abide by the terms & conditions of the tender specifications enclosed herewith.

Earnest Money Deposit of Rs. 5, 00,000/- (Rupees Five Lakh only) has been deposited in favour of Manager (RAO-H.Q.), CSPTCL, Dangania, Raipur vide D.D. No. _____ dt. _____ drawn on (the bank) _____ Branch_____.

PLACE:

DATE:

Signature of Tenderer
 Designation/Status in the Company
 Name & Address in full
 Company Seal.

SCHEDULE – IV (B): PB- SUPPLIES & TAXES
PRICE BID- SUPPLIES, INSTALLATION & COMMISSIONING & TAXES
[TO BE KEPT IN THE ENVELOPE –IV]

The Undersigned hereby tender & offer to complete the following work in State Load Despatch Centre, CSPTCL, Raipur for the quantities at the rates indicated hereunder: -

| TR-141/2020: - | | | | |
|---|---|-----------------------------------|-----|--|
| <i>“Implementation of Automatic Demand Management System (ADMS) in the Chhattisgarh State”</i> | | | | |
| (All fig. in Lakh Rs.) | | | | |
| I. | <u>Material /Supplies</u> | | | |
| | From Schedule-IV-(C) | ADMS Servers etc | Rs. | |
| | From Schedule-IV-(D) | New RTU with associated materials | | |
| | Or | Or | Rs. | |
| | From Schedule- IV-(E+F) | Field items for ABB &CHEMTROL RTU | | |
| | From Schedule-IV-(G) | Additional /Optional items | Rs. | |
| | Total Material/ Supplies | | Rs. | |
| | Total Taxes as per GST @% (As per GST) | | Rs. | |
| TOTAL - I | | Rs. | | |
| II. | Service: INSTALLATION & COMMISSIONING | | | |
| | From Schedule-IV-(C) | ADMS Servers etc | Rs. | |
| | From Schedule-IV-(D) | New RTU with associated materials | | |
| | Or | Or | Rs. | |
| | From Schedule- IV-(E+F) | Field items for ABB &CHEMTROL RTU | | |
| | From Schedule-IV-(G) | Additional /Optional items | Rs. | |
| | Total Taxes as per GST @% (As per GST) | | Rs. | |
| | TOTAL - II | | Rs. | |
| | | ADMS –PROJECT COST (I +II) | Rs. | |

PLACE:
DATE:

Signature of Tenderer
Designation/Status in the Company
Name & Address in full
Company Seal.

SCHEDULE – IV (C): PART-A ITEMS**PRICE BID (PART- A ITEMS)****[TO BE KEPT IN THE ENVELOPE –IV]**

| TR-141/2020: -“Implementation of Automatic Demand Management System (ADMS) in the Chhattisgarh State” | | | | | | | |
|--|---------------|--|-----------------|------------------------------|---------------------|----------------------------|-----------------------------|
| Cost Break-up for Automatic Demand Management System (ADMS) Server system. | | | | | | | |
| Item Code | S. No. | Description | Quantity | P.U. Price (in lakhs) | GST | | Amount (in Lakh Rs.) |
| | | | | | In % | Value (in Lakh Rs.) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ADMS-MAT1 | 1 | Development supply and installation of ADMS Server, Engineering Station, MIS, Control Cubicle with ADMS software, Window base as per Technical specification for all 5 Control centre's | 1 JOB | | | | |
| ADMS-MAT2 | 2 | Industrial grade PC having configuration as per technical specifications for all 5 Nos. Control Centre along with required networking equipment and Printer. | 6 Nos | | | | |
| ADMS-MAT3 | 3 | GSM/ GPRS gateway / modems device for substation access control as per technical specifications | 1 JOB | | | | |
| ADMS-MAT4 | 4 | End cubicles with IP4x protection with isolator contact type ISI TB with 12 terminal connector, or new RTU Panel as per the requirements | 1 JOB | | | | |
| ADMS-MAT5 | 5 | Annunciation System (Minimum 16 windows) with hooter DC operated 110/220 V DC, including associated wiring up to Terminal connector from GSM/ GPRS/MPLS/Optical device with 2.5 sq mm ISI flexible wires. This unit shall be provided with manual bypass switch as DC supply ON/OFF switch. In case of new RTU supply, Annunciation System and GPRS modems shall be installed in new RTU Panel Only. | 1 JOB | | | | |
| | | | | | Total Price | Rs. | |
| ADMS | | | | | As per GST @% | Rs. | |
| | | | | | Say | Rs. | |

PLACE:

DATE:

Signature of Tenderer
 Designation/Status in the Company
 Name & Address in full
 Company Seal.

SCHEDULE – IV (D): PART-A ITEMS**PRICE BID (PART- A ITEMS)****[TO BE KEPT IN THE ENVELOPE –IV]**

| TR-141/2020: -“Implementation of Automatic Demand Management System (ADMS) in the Chhattisgarh State”. | | | | | | | | |
|--|----------------------------|--|------|--------|--------------------------|------|------------------------|-------------------------|
| Cost Break up for installation of New RTU’s with associated equipments | | | | | | | | |
| Item Codes | COST FOR ADMS with New RTU | | Unit | Qty | P.U. Price (in Lakhs) | GST | | Amount (in Lakh Rs.) |
| | | | | | | In % | Value (in Lakh Rs.) | |
| 1 | 2 | | 3 | 4 | 5 | 6 | 7 | 8 |
| | | A. Material detail | | | | | | |
| NRTU- MAT1 | 1 | RTU Panel for hosting RTU, Annunciation System and GPRS Modems | No. | 45 | | | | |
| NRTU- MAT2 | 2 | RTU with required IOs | No. | 45 | | | | |
| NRTU- MAT3 | 3 | 3G / 4G GPRS Modem (2 Nos at each Substation) | No. | 90 | | | | |
| NRTU-MAT4 | 4 | D.O. relay set (16 Nos.) for CB control | No. | 45 | | | | |
| NRTU-MAT5 | 5 | Auto manual switch | No. | 45 | | | | |
| NRTU-MAT6 | 6 | Power Supply Unit | No. | 45 | | | | |
| NRTU-MAT7 | 7 | 4 core 2.5 sq mm control cable for breaker ON/OFF and DI each feeder 250 mtr | Mtr | 38,000 | | | | |
| NRTU-MAT8 | 8 | 10 /12 core control cable CT/PT connection each feeder 25 mtr | Mtr | 4,000 | | | | |
| NRTU-MAT9 | 9 | MFT | No. | 155 | | | | |
| NRTU-AT10 | 10 | Communication Cable Serial for Looping MFT to RTU | Mtr | 5000 | | | | |
| | A | Total material Amount - | | | | | | |
| | | B. Services detail | | - | | | | |
| NRTU-SER1 | 11 | Installation & testing charges for Panel | No. | 50 | | | | |
| NRTU-SER2 | 12 | Installation & testing charges for RTU and other items | No. | 50 | | | | |
| NRTU-SER3 | 13 | laying of 4 core control cable | Mtr | 38,000 | | | | |
| NRTU-SER4 | 14 | laying of 10 core control cable | Mtr | 4,000 | | | | |
| NRTU-SER5 | 15 | service charges per MFT Installation and Integration | No. | 50 | | | | |
| NRTU-SER6 | 16 | Installation & fitting charges of Annunciation Panel | No. | 91 | | | | |
| | B | Total Service Amount - | | | | | | |
| | | Grand total with New RTU (A+B) | | - | | | | |

PLACE:

DATE:

Signature of Tenderer
 Designation/Status in the Company
 Name & Address in full
 Company Seal.

SCHEDULE – IV (E): PART-A ITEMS**PRICE BID (PART- A ITEMS)****[TO BE KEPT IN THE ENVELOPE –IV]**

| TR-141/2020: -“Implementation of Automatic Demand Management System (ADMS) in the Chhattisgarh State”. | | | | | | | | |
|--|-------------------------------|--|------|--------|--------------------------|------|------------------------|-------------------------|
| Cost Break up for installation of Field items for ABB RTU | | | | | | | | |
| Item Codes | COST FOR ADMS IN ABB MAKE RTU | | Unit | Qty | P.U. Price (in Lakhs) | GST | | Amount (in Lakh Rs.) |
| | | | | | | In % | Value (in Lakh Rs.) | |
| 1 | 2 | | 3 | 4 | 5 | 6 | 7 | 8 |
| | | A. Material detail | | | | | | |
| ABB-MAT1 | 1 | Analog Card | No. | 40 | | | | |
| ABB-MAT2 | 2 | Digital card | No. | 40 | | | | |
| ABB-MAT3 | 3 | 23BA20 Card | No. | 40 | | | | |
| ABB-MAT4 | 4 | BC 7-40-00 Relay contactor | No. | 640 | | | | |
| ABB-MAT5 | 5 | Auto manual switch | No. | 64 | | | | |
| ABB-MAT6 | 6 | Miscellaneous item | No. | 40 | | | | |
| ABB-MAT7 | 7 | 4 core 2.5 sq mm control cable for breaker ON/OFF and DI each feeder 350 mtr | Mtr | 16,000 | | | | |
| ABB-MAT8 | 8 | 10 /12 core control cable CT/PT connection each feeder 50 mtr | Mtr | 1,600 | | | | |
| ABB-MAT9 | 9 | MFT | No. | 64 | | | | |
| | A | Total material Amount - | | | | | | |
| | | B. Services detail | | - | | | | |
| ABB-SER1 | 10 | Installation & testing charges for AI Card | | 40 | | | | |
| ABB-SER2 | 11 | Installation & testing charges for DI Card | | 40 | | | | |
| ABB-SER3 | 12 | laying of 4 core control cable | Mtr | 16,000 | | | | |
| ABB-SER4 | 13 | laying of 10 core control cable | Mtr | 1,600 | | | | |
| ABB-SER5 | 14 | service charges per D.O. card | No. | 64 | | | | |
| ABB-SER6 | 15 | Installation & fitting charges of auto manual switch | No. | 64 | | | | |
| | B | Total Service Amount - | | | | | | |
| | | Grand total- ABB RTU (A+B) | | - | | | | |

PLACE:

DATE:

Signature of Tenderer
 Designation/Status in the Company
 Name & Address in full
 Company Seal.

SCHEDULE – IV (F): PART-A ITEMS**PRICE BID (PART- A ITEMS)****[TO BE KEPT IN THE ENVELOPE –IV]**

| TR-141/2020: -“Implementation of Automatic Demand Management System (ADMS) in the Chhattisgarh State”. | | | | | | | | |
|--|------------------------------------|--|------|--------|--------------------------|------|------------------------|-------------------------|
| Cost Break up for installation of Field items for CHEMTROL RTU | | | | | | | | |
| Item Codes | COST FOR ADMS IN CHEMTROL MAKE RTU | | Unit | Qty | P.U. Price (in Lakhs) | GST | | Amount (in Lakh Rs.) |
| | | | | | | In % | Value (in Lakh Rs.) | |
| 1 | 2 | | 3 | 4 | 5 | 6 | 7 | 8 |
| | | A. Material detail | | | | | | |
| CHM-MAT1 | 1 | Analog Card | No. | 50 | | | | |
| CHM-MAT2 | 2 | Digital card | No. | 50 | | | | |
| CHM-MAT3 | 3 | Digital output module(16 output) | No. | 50 | | | | |
| CHM-MAT4 | 4 | D.O. relay set (16 Nos.) for CB control | No. | 50 | | | | |
| CHM-MAT5 | 5 | Auto manual switch | No. | 91 | | | | |
| CHM-MAT6 | 6 | Miscellaneous item | No. | 50 | | | | |
| CHM-MAT7 | 7 | 4 core 2.5 sq mm control cable for breaker ON/OFF and DI each feeder 250 mtr | Mtr | 22,900 | | | | |
| CHM-MAT8 | 8 | 10 /12 core control cable CT/PT connection each feeder 25 mtr | Mtr | 2,550 | | | | |
| CHM-MAT9 | 9 | MFT | No. | 91 | | | | |
| CHM-MAT10 | 10 | Shielded cable 4 core | Mtr | 300 | | | | |
| | A | Total material Amount | | | | | | - |
| | | B. Services detail | | - | | | | |
| CHM-SER1 | 11 | Installation & testing charges for AI Card | No. | 50 | | | | |
| CHM-SER2 | 12 | Installation & testing charges for DI Card | No. | 50 | | | | |
| CHM-SER3 | 13 | laying of 4 core control cable | Mtr | 22,900 | | | | |
| CHM-SER4 | 14 | laying of 10 core control cable | Mtr | 2,550 | | | | |
| CHM-SER5 | 15 | service charges per D.O. card | No. | 50 | | | | |
| CHM-SER6 | 16 | Installation & fitting charges of auto manual switch | No. | 91 | | | | |
| | B | Total Service Amount | | | | | | - |
| | | Grand total Chemtrol RTU (A+B) | | - | | | | |

PLACE:

DATE:

Signature of Tenderer

Designation/Status in the Company

Name & Address in full

Company Seal.

Signature of Tenderer with seal & Date

SCHEDULE – IV (G): ADDITIONAL/ OPTIONAL ITEMS
ADDITIONAL/ OPTIONAL ITEMS not covered in Schedule- IV (A, B, C, D, E and F),
If required to be offered for successful Commissioning of ADMS.
[TO BE KEPT IN THE ENVELOPE –IV]

| S.No | PARTICULAR/ ITEM | Unit | Qty | P.U. Price (in Lakhs) | GST | | Amount (in Lakh Rs.) |
|------|------------------|------|-----|--------------------------|------|------------------------|-------------------------|
| | | | | | In % | Value (in Lakh Rs.) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| a | | | | | | | |
| b | | | | | | | |
| c | | | | | | | |
| d | | | | | | | |
| e | | | | | | | |
| f | | | | | | | |
| | TOTAL | | | | | | |

Note: 1. Bidder/ JV Partner should ensure that all the items required for successful Commissioning of the ADMS System are covered.
2. The items not covered in Schedule IV (A, B, C, D, E and F) and felt necessary by the Bidder/ JV Partner should be quoted in this Schedule.
3. Any items not mentioned in this Schedule shall not be considered for payment.

PLACE:

DATE:

Signature of Tenderer
Designation/Status in the Company
Name & Address in full
Company Seal.

SCHEDULE – V: PAST EXPERIENCES**SCHEDULE OF PAST EXPERIENCE****[TO BE KEPT IN THE ENVELOPE –II]**

From: - Bidder/ JV Partner Name & Address

To,
 The EXECUTIVE DIRECTOR (LD),
 SLDC, CSPTCL, Dangania,
RAIPUR - 492013 (C.G.)

Dear Sir,

Sub: - Performance / Past Experience.

We furnish herewith the record of our performance and experience, which is as follows:

| S. No. | Client's Name & Address | Order No. & Date | Value of the order | Brief details of Past Order |
|--------|-------------------------|------------------|--------------------|-----------------------------|
| 1 | 2 | 3 | 4 | 5 |
| | | | | |
| | | | | |
| | | | | |

Note: - Photocopies of the orders and Performance Reports received from other Power utilities owned and controlled by central or State Government/PSUs/Government Organizations should be enclosed.

UNDERTAKING

I..... sole proprietor / partner / Director / Authorized Signatory of M/s am giving undertaking that details given are correct to the best of my knowledge and I agree to abide by all your Tender / Order terms and conditions. In case it is observed to be false / incorrect / incomplete subsequently, I will be solely responsible.

PLACE:
 DATE:

SIGNATURE OF TENDERER
 NAME IN FULL
 DESIGNATION/STATUS IN THE
 COMPANY
 COMPANY SEAL

SCHEDULE – VI: TECHNICAL DEVIATIONS**SCHEDULE OF TECHNICAL DEVIATIONS****[TO BE KEPT IN THE ENVELOPE -III A]**

From: - Tenderer's Name & Address

To,

The EXECUTIVE DIRECTOR (LD)

SLDC, CSPTCL, Dangania,

RAIPUR - 492 013 (C.G.)

Dear Sir,

Sub: - Technical Deviation.

We/I have carefully gone through the Technical requirement of the tender specifications and have satisfied ourselves/myself and hereby conforms to the requirement of technical specification and General Conditions of contract except for the deviations, which are given below:-

| S. No. | Condition | Clause No. of Tender Document | Page No. of Tender Document | Statement of Deviations and Variations |
|---------------|------------------|--------------------------------------|------------------------------------|---|
| 1 | 2 | 3 | 4 | 5 |
| | | | | |
| | | | | |
| | | | | |

- Except for aforesaid Technical Deviations, the entire order, if placed on us, shall be executed in accordance with your specification and any other conditions, variations / Deviations etc. if found elsewhere in our offer should not be given any considerations while finalizing the tender.
- It will be discretion of CSPTCL either to consider any Technical Deviation or Not while placing the order.

Note: - Continuation Sheet of like size & format may be used as per Bidder/ JV Partner's requirements and shall be annexed to this schedule.

PLACE:

DATE:

SIGNATURE OF TENDERER

NAME IN FULL

DESIGNATION/STATUS IN THE
COMPANY

COMPANY SEAL

SCHEDULE – VII: COMMERCIAL DEVIATIONS**SCHEDULE OF COMMERCIAL DEVIATIONS****[TO BE KEPT IN THE ENVELOPE-III B]**

From: - Tenderer's Name & Address

To,
The EXECUTIVE DIRECTOR,
SLDC, CSPTCL, Dangania,
RAIPUR - 492 013 (C.G.)

Dear Sir,

Sub: - Commercial Deviation.

We/I have carefully gone through the Commercial requirement of the tender specifications and have satisfied ourselves/myself and hereby conforms to the requirement of technical specification and General Conditions of contract except for the deviations, which are given below:-

| S. No. | Condition | Clause No. of Tender Document | Page No. of Tender Document | Statement of Deviations and Variations |
|---------------|------------------|--------------------------------------|------------------------------------|---|
| 1 | 2 | 3 | 4 | 5 |
| | | | | |
| | | | | |
| | | | | |

2. Except for aforesaid Commercial Deviations, the entire order, if placed on us, shall be executed in accordance with your specification and any other conditions, variations / Deviations etc. if found elsewhere in our offer should not be given any considerations while finalizing the tender.
3. It will be discretion of CSPTCL either to consider any commercial deviation or Not while placing the order.

Note: - Continuation Sheet of like size & format may be used as per Bidder/ JV Partner's requirements and shall be annexed to this schedule.

PLACE:
DATE:

SIGNATURE OF TENDERER
NAME IN FULL
DESIGNATION/STATUS IN THE
COMPANY
COMPANY SEAL

ANNEXURE-I: UNDERTAKING (U/T)**AFFIDAVIT/ UNDERTAKING****[TO BE KEPT IN THE ENVELOPE –II]**

(On non judicial stamp paper worth Rs. 100/- duly notarized)

Or

(Self adhesive non judicial stamp paper)

Before the district court of Raipur**In favour of EXECUTIVE DIRECTOR, SLDC, CSPTCL Raipur**

1. I/ we..... hereby sway this affidavit before the honorable district court of Raipur.
2. That, I/ we..... are hereby participating in the Tender No -**141/2020 Dated 29/10/2020** of SLDC, CSPTCL, Raipur without any prejudice.
3. That, I/We Proprietor/Partner of (name of firm)hereby undertake that in case low rates is quoted by more than one firm then I/We shall have no objection in deciding successful Bidder/ JV Partner among the lowest Bidder/ JV Partner on the basis of lottery. Once the successful Bidder/ JV Partner is determined through lottery, I/We will honor the same and not lodge any claim on any matter in respect of this tender.
4. That, I /we _____ shall maintain the integrity & security of the place of work and bid with all the rules and regulations enforced. I/we shall keep the discipline and decorum of the place of work intact.
5. That, I/we shall not make damage to the SLDC, CSPTCL property.
6. That, I /we shall keep SLDC, CSPTCL indemnified at all times and undertake to indemnify, defend and save the losses, claims and actions relating to injury to or death of any person or damage to property, demand suits, recoveries, costs and expenses, court costs attorney fees, and all other obligations by or third parties, arising out of or resulting from this order.

Signature of Tenderer.....

Name (in full)

Status in the firm

Seal of the firm.....

ANNEXURE – II: U/T ACCEPTANCE**UNDERTAKING BY THE TENDERER FOR ACCEPTANCE****[TO BE KEPT IN THE ENVELOPE –II]**

(On non judicial stamp paper worth Rs. 100/- duly notarized)

Or

(Self adhesive non judicial stamp paper)

1. I/we hereby tender and offer, subject to CSPTCL's terms and conditions of tendering to CSPTCL to execute work as described or referred to in the tender documents and its enclosure under the TENDER SPECIFICATION No. **141/2020 Dated 29/10/2020** ("**Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State**") and which under the terms thereof are to be executed and done by contractor and to perform and observe the provisions and agreements or the part of the contract contained in or reasonable to be referred from the said tender documents for the sums of and the rates indicated in the Price (Schedule-IV) of the tender submitted herewith.
2. Should this tender be accepted, I/we hereby agree to abide by and fulfill all the terms and provision of the said conditions of the contract and if default thereof, authorized the CSPTCL or its successors and assigns in the office to forfeit and pay full value of Earnest Money Deposit, should I/we fail to commence the work specified and awarded or should I/we do not deposit the full amount of Security Deposit to be submitted under the conditions.

Dated day of

Name & Address of tenderer:

SIGNATURE

.....

Name of the authorized, person signing

.....

.....

.....

.....

ANNEXURE-III: INTEGRITY PACT
PRE-CONTRACT INTEGRITY PACT
[TO BE KEPT IN THE ENVELOPE –II]

(On non judicial stamp paper worth Rs. 300/- duly notarized)

Or

(Self adhesive non judicial stamp paper)
 (Plus affix a Revenue stamp of Re 1/-)

1. GENERAL

- 1.1 This pre-bid contract Agreement (hereinafter called the Integrity Pact) is made on.....day of the month20..., between the CSPTCL acting through Shri.....ED (SLDC) (hereinafter called the “BUYER”, which expression shall mean and include, unless the context otherwise requires, his successors in the office and assigns) and the First Party, proposes to procure (name of the Stores/Equipment/Work/Service) and M/s. represented by Shri.....Chief Executive Officer (hereinafter called the “Bidder/ JV Partner /Seller”, which expression shall mean and include, unless the context otherwise requires, his successors on permitted assigns) and the Second Party, is willing to offer/has offered.
- 1.2 Whereas the BIDDER/ JV PARTNER is a Private Company/Public Company/ Government undertaking/Partnership/Registered Export Agency, constituted in accordance with the relevant law in the matter and the BUYER is a power company an undertaking of Govt. of CG, performing its function on behalf of the Government of Chhattisgarh.

2. OBJECTIVES

NOW, THEREFORE, the BUYER and the BIDDER/ JV PARTNER agree to enter into this pre-contract agreement, hereinafter referred to as Integrity Pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the Contract to be entered into with a view to:-

- 2.1. Enabling the BUYER to obtain the desired Stores/Equipment/Work/Service at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and
- 2.2. Enabling BIDDER/ JV PARTNER's to abstain from bribing or indulging in any corrupt practices in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing any corrupt practices and the BUYER will commit to prevent corruption, in any form, by its official by following transparent procedures.

3. COMMITMENTS OF THE BUYER

The BUYER commits itself to the following:-

- 3.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER/ JV PARTNER, either for themselves or for any person,

organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting of implementation process related to contract.

- 3.2 The BUYER will, during the pre-contract stage, treat BIDDER/ JV PARTNER s alike, and will provide to all BIDDER/ JV PARTNER s the same information and will not provide any such information to any particular BIDDER/ JV PARTNER which could afford an advantage to that particular BIDDER/ JV PARTNER in comparison to the other BIDDER/ JV PARTNER s.
- 3.3 All the officials of the BUYER will report the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 3.4 In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER/ JV PARTNER to the BUYER with the full and verifiable facts and the same prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

4. COMMITMENTS OF BIDDERS/ JV PARTNERS

The BIDDER/ JV PARTNER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

- 4.1 The BIDDER/ JV PARTNER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 4.2 The BIDDER/ JV PARTNER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage, or inducement to any official of the BUYER or otherwise in procuring the Contract of forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the CSPTCL for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the CSPTCL.
- 4.3 The BIDDER/ JV PARTNER further confirms and declares to the BUYER that the BIDDER/ JV PARTNER in the original Manufacture/Integrator/Authorized government sponsored export entity of the stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of

the contract to the BIDDER/ JV PARTNER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

- 4.4 The BIDDER/ JV PARTNER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payment he has made, is committed to or intends to make to officials of the BUYER or their family members, agents,

brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

- 4.5 The BIDDER/ JV PARTNER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 4.6 The BIDDER/ JV PARTNER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 4.7 The BIDDER/ JV PARTNER shall not use improperly, for purpose of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposal and business details, including information contained in any electronic data carrier. The BIDDER/ JV PARTNER also undertake to exercise due and adequate care lest any such information is divulged.
- 4.8 The BIDDER/ JV PARTNER commit to refrain from giving any compliant directly or through any other manner without supporting it with full and verifiable facts.
- 4.9 The BIDDER/ JV PARTNER shall not instigate or cause to instigate any third person to commit any of the acts mentioned above.

5. PREVIOUS TRANSGRESSION

- 5.1. The BIDDER/ JV PARTNER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER/ JV PARTNER's exclusion from the tender process.
- 5.2. If the BIDDER/ JV PARTNER make incorrect statement on this subject, BIDDER/ JV PARTNER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

6. EARNEST MONEY (SECURITY DEPOSIT)

- 6.1 Every BIDDER/ JV PARTNER while submitting commercial bid, shall deposit an amount as specified in RFP as Earnest Money/Security Deposit, with the BUYER through any of the following instruments:
 - 6.1.1 Bank Draft or Pay Order in favour of.....
 - 6.1.2 A confirmed guarantee by an Indian Nationalized Bank, promising payment of the guarantee sum to the (BUYER).....on demand **within three working days without any demur** whatsoever and without seeking any reasons whatsoever. The demand for payment by the BUYER shall be treated as conclusive proof of payment.
 - 6.1.3 Any other mode or through any other instrument (to be specified in the RFP).
- 6.2 The Security Deposit shall be valid up to complete conclusion of the contractual obligations to the complete satisfaction of the BIDDER/ JV PARTNER and BUYER, including warranty period, whichever is later.
- 6.3 In the case of successful BIDDER/ JV PARTNER a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.4 No interest shall be payable by the BUYER to the BIDDER/ JV PARTNER on Earnest Money/Security Deposit for the period of its currency.

7. SANCTIONS FOR VIOLATIONS

7.1 Any breach of the aforesaid provisions by the BIDDER/ JV PARTNER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER/ JV PARTNER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-

- (i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER/ JV PARTNER. However, the proceedings with the other BIDDER/ JV PARTNER(s) would continue.
- (ii) To forfeit fully or partially the Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed), as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
- (iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER/ JV PARTNER.
- (iv) To recover all sum already paid by the BUYER, and in case of the Indian BIDDER/ JV PARTNER with interest thereon at 2% higher than the prevailing Prime Lending Rate while in case of a BIDDER/ JV PARTNER from a country other than India with Interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER/ JV PARTNER from the BUYER in connection with any other contract such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- (v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER/ JV PARTNER, in order to recover the payments, already made by the BUYER, along with interest.
- (vi) To cancel all or any other contracts with the BIDDER/ JV PARTNER and the BIDDER/ JV PARTNER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER/ JV PARTNER.
- (vii) To debar the BIDDER/ JV PARTNER from participating in future bidding processes of the CSPTCL for a minimum period of five years, which may be further extended at the discretion of the BUYER.
- (viii) To recover all sum paid in violation of this Pact by BIDDER/ JV PARTNER (s) to any middlemen or agent or broken with a view to securing the contract.
- (ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER/ JV PARTNER, the same shall not be opened.
- (x) If the BIDDER/ JV PARTNER or any employee of the BIDDER/ JV PARTNER or any person action on behalf of the BIDDER/ JV PARTNER, either directly or indirectly, is closely related to any of the officers of the BUYER, or alternatively, if any close relative of an officer of the BUYER has financial interest/stake in the BIDDER/ JV PARTNER's firm, the same shall be disclosed by the BIDDER/ JV PARTNER at the time of filling of tender. Any failure to disclose the interest involved shall entitle the BUYER to rescind the contract without payment of any compensation to the BIDDER/ JV PARTNER.

The term 'close relative' for this purpose would mean spouse whether residing with the Government servant or not, but not include a spouse separated from the Government servant by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Government servant, but does not include a child or step child who is no longer in any way dependent upon the

Government servant or of whose custody the Government servant has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Government servant or to the Government servant's wife or husband and wholly dependent upon Government servant.

- (xi) The BIDDER/ JV PARTNER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER, and if he does so, the BUYER shall be entitled forthwith to rescind the contract and all other contracts with the BIDDER/ JV PARTNER. The BIDDER/ JV PARTNER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER/ JV PARTNER.

- 7.2 The decision of the BUYER to the effect that a breach of the provisions of this pact has been committed by the BIDDER/ JV PARTNER shall be final and conclusive on the BIDDER/ JV PARTNER. However, the BIDDER/ JV PARTNER can approach the Monitor(s) appointed for the purpose of this Pact.

8. INDEPENDENT MONITORS

- 8.1. The BUYER will appoint Independent Monitors (hereinafter referred to as Monitors) for this Pact.
- 8.2. The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3. The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4. Both the parties accept that the Monitors have the right to access all the documents relating to the project/ procurement, including minutes of meetings. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/ JV PARTNER / Subcontractor(s) with confidentiality.
- 8.5. As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6. The Monitor will submit a written report to the designated authority of BUYER/Secretary in the department/within 8 to 10 weeks from the date of reference or intimation to him by the BUYER / BIDDER/ JV PARTNER and, should the occasion arise, submit proposal for correcting problematic situations.

9. FACILITATION OF INVESTIGATION

In case of any allegation of violation of any provision of this fact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the books of Account of the BIDDER/ JV PARTNER and the BIDDER/ JV PARTNER shall provide necessary information of the relevant documents and shall extend all possible help for the purpose of such examination.

10. LAW AND PLACE OF JURISDICTION

This pact is subject to Indian Law, the place of performance and jurisdiction shall be the seat of the BUYER.

11. OTHER LEGAL ACTIONS

The actions stipulated in this integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of any other law in force relating to any civil are criminal proceeding.

12. VALIDITY

- 12.1 The validity of this integrity Pact shall be from the date of its signing and extend up to 2 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/ JV PARTNER /Seller whichever is later. In case BIDDER/ JV PARTNER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.
- 12.2. If one or several provision of this pact turn out to be invalid; the reminder of this pact shall remain valid. In such case, the parties will strive to come to an agreement to their original intention.
13. The parties hereby sign this integrity Pact aton.....

BUYER/BIDDER

Name of Officer
Destination Department/PSU

CHIEF EXECUTIVE OFFICER

Witness

- 1).....
2).....

Witness

- 1)
2)

ANNEXURE – IV: PROFORMA- INDEMNITY**PROFORMA INDEMNITY BOND**

(On non judicial stamp paper worth Rs. 300/- duly notarized)

Or

(Self adhesive non judicial stamp paper)

(Plus affix a Revenue stamp of Re 1/-)

THIS INDEMNITY BOND is made thisday of20..... By M/s., a company registered under the Companies Act (hereinafter called as 'Contractor' or 'Obligator' which expression shall include its successors and permitted assigns) in favour of Chhattisgarh State Power Transmission Company Limited, Raipur being the Company constituted under Companies Act, 1956 (amended in 2013), (hereinafter called the CSPTCL) and its project for Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh along with supply, testing & commissioning of ADMS in the EHV network of CSPTCL thereof(hereinafter called "Employer" which expression shall include its successors and assigns):

WHEREAS EMPLOYER has awarded to the 'Contractor' a Contract for Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State complete erection/commissioning thereof, vide Order No..... DTD..... And Amendment No.....(applicable when amendments have been issued) (hereinafter called the "Contract") in terms of which Employer is required to hand over various Material to the 'Contractor' for execution of the Contract.

And WHEREAS by virtue of Clause No..... of tender specification No....., the 'Contractor' is required to execute an Indemnity Bond in favour of Employer for the Material handed over to it by Employer for the purpose of performance of the Contract/Erection portion of the Contract (hereinafter called the 'Materials').

Now THEREFORE, This Indemnity Bond witnessed as follows:

1. That in consideration of various EHV Feeders / substations involved in Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State vide Order No..... dated. handed over to the 'Contractor' in installments from time to time for the purpose of performance of the Contract, the 'Contractor' hereby undertakes to indemnify and shall keep Employer indemnified for the full value of the Material. The 'Contractor' hereby acknowledges receipt of the initial installment of the Material as per details in the schedule appended hereto. Further, the 'Contractor' agrees to acknowledge receipt of the subsequent installments of the Material as required by Employer in the form of Schedules consecutively numbered which shall be attached to this Indemnity Bond so as to form integral parts of this Bond. It is expressly understood by the 'Contractor' that handing over of the dispatch title documents in respect of the said Materials duly endorsed by Employer in favour of the 'Contractor' shall be construed as handing over of the Material purposed to be covered by such title documents and the 'Contractor' shall hold such Material in trust as a Trustee for an on behalf of Employer.
2. That the 'Contractor' is obliged and shall remain absolutely responsible for the safe transit/protection and custody of the Material at Employer project Site against all risks

whatsoever till the Material are duly used/erected in accordance with the terms of the Contract and the Plant/Package duly erected and commissioned in accordance with the terms of the Contract, is taken over the Employer. The 'Contractor' undertakes to keep Employer harmless against any loss or damage that may be caused to the Material.

3. The 'Contractor' undertakes that the Material shall be used exclusively for the performance/execution of the Contract strictly in accordance with its terms and conditions and no part of the Material shall be utilized for any other work or purpose whatsoever. It is clearly understood by the 'Contractor' that non-observance of the obligations under this Indemnity Bond by the 'Contractor' shall interalia constitute a criminal breach of trust on the part of the 'Contractor' for all intents and purpose including legal/penal consequences.
4. That Employer is and shall remain the exclusive Purchaser of the Material free from all encumbrances, charges or liens of any kind, whatsoever. The Material shall at all times be open to inspection and checking by the Purchaser's Representative or other employees/Agents authorized in this regard. Further, Employer shall always be free at all times to take possession of the Materials in whatever form the Materials may be, if in its opinion, the Materials are likely to be endangered, mis-utilized or converted to uses other than those specified in the contract by any acts of omission or commission on the part of the 'Contractor' or any other person or on account of any reason whatsoever and the 'Contractor' binds himself and undertakes to comply with the directions of demand of EMPLOYER to return the Material without any demur or reservation.
5. That this Indemnity Bond is irrevocable. If at any time any loss or damage occurs to the Material or the same or any part thereof is mis-utilized in any manner whatsoever, then the 'Contractor' hereby agrees that the decision of the Purchaser's Representative as to assessment of loss or damage to the Material shall be final and binding on the 'Contractor'. The 'Contractor' binds itself and undertakes to replace the lost and/or damaged Material at its own cost and/or shall pay the amount of loss to Employer without any demur, reservation or protest. This is without prejudice to any other right or remedy that may be available to Employer against the 'Contractor' under the Contract and under this Indemnity Bond.
6. NOW THE CONDITION of this Bond is that if the 'Contractor' shall duly and punctually comply with the terms and conditions of this Bond to the satisfaction of Employer, THEN, the above Bond shall be void, but otherwise, it shall remain in full force and virtue.

IN WITNESS WHEREOF, the 'Contractor' has hereunto set its hand through its authorized representative under the common seal of the Company, the day, month and year first above mentioned.

For and on behalf of

M/s. _____

WITNESS

1. Signature

Signature.....

2. Name

Name

3. Address

Designation

Authorized representative

2. 1. Signature

2. Name

(Common Seal)

3. Address

(In case of Company)

-
- 1) Indemnity Bonds are to be executed by the authorized person having the Power of Attorney issued under common seal of the company with authority to execute Indemnity Bonds. The Original Power of Attorney if it is specifically for this Contract or a Photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to Indemnity Bond.
-

ANNEXURE – V: PROFORMA- BG
PROFORMA FOR BANK GUARANTEE TOWARDS SECURITY DEPOSIT

(On non judicial stamp paper worth Rs. 300/- duly notarized)

Or

(Self adhesive non judicial stamp paper)

(Plus affix a Revenue stamp of Re 1/-)

Bank Guarantee No. _____ Dtd. _____

In consideration of State Load Despatch Centre, Chhattisgarh State Power Transmission Co. Ltd., Raipur having agreed to accept this bank guarantee in lieu of cash deposit by way of Security for due and faithful performance required from M/s _____ herein after referred to as contractors, the bank of _____ hereby agrees unequivocally and unconditionally to pay within 48 hours on demand in writings from the CSPTCL or any officer authorized by it in this behalf, of any amount up to and not exceeding Rs. _____ (In words) Rs. _____ to the said Chhattisgarh State Power Transmission Co. Ltd. on behalf of the aforesaid M/s. _____

who have tendered and contracted for the supply of materials, equipments or services to the said CSPTCL against order No. _____ Dtd. _____ for the order value of Rs. _____.

This agreement shall be valid and binding on this bank up to and including _____ or for such further period as may hereunder be mutually fixed from time to time in writing by the CSPTCL, and the contractor, and shall not be terminable by notice or any change in the constitution of the aforesaid bank or the firm of contractors or by any other reasons whatsoever, and the banker's liability hereunder shall not be impaired or discharged by any extension of time or variation or alteration made, given, conceded or agreed to with or without the bank's knowledge or consent by or between the CSPTCL and the contractors in the existing and/ or further tenders and /or contracts.

It is agreed to by the Bank with CSPTCL that if for any reason a dispute arises concerning the Bank's liability to pay requisite amount to the CSPTCL under the terms of this guarantee the competent Court at Raipur shall have the jurisdiction to determine the said dispute and that this shall be without prejudice to the liability of Bank under the terms of this guarantee being unequivocal and unconditional as mentioned above.

The liability under this guarantee is restricted to Rs. _____ (In words) _____ only. This Guarantee shall remain in force until _____. Unless a demand to enforce a claim is made under this Bank Guarantee by the CSPTCL to the Bank within six month from the date i.e. up to _____ the rights of CSPTCL under this guarantee shall be forfeited and the bank shall be relived and discharged from all liability there under.

Signature

For _____

Bank

Witnesses: -

1. _____ (Signature)
 _____ (Name)
 _____ (Address)

2. _____ (Signature)
 _____ (Name)
 _____ (Address)

ANNEXURE – VI: PROFORMA- BG-EXTENSION
PROFORMA FOR DEED of EXTENSION OF BANK GUARANTEE

(On non judicial stamp paper worth Rs. 300/- duly notarized)

Or

(Self adhesive non judicial stamp paper)

(Plus affix a Revenue stamp of Re 1/-)

Extension Deed No _____

Date _____

B.G. No. _____ Date _____

C.S. Power Transmission Company Ltd.

Sub: - The Extension of Bank Guarantee No. _____ Dated _____ for the
Rs _____ Favours yourself expiring on _____.

- i. At the request of our client M/s _____ we hereby extend our Guarantee No. _____ dtd. _____ given on their behalf for the further period from _____ to _____.
- ii. The beneficiary of this Bank Guarantee shall be Chhattisgarh State Power Transmission Company Ltd (A Successor Company of CSEB).
- iii. Our liability under this guarantee is restricted to Rs _____ (Rupees _____). This guarantee shall remain in force up to _____. Unless a demand to enforce a claim is made under this Bank Guarantee by the CSPTCL to the Bank within six months from the date i.e. up to _____ the rights of the CSPTCL under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liability hereunder.

Witness: -

Signed for Bank

1)

2)

ANNEXURE – VII: PROFORMA- AGREEMENT
PROFORMA OF AGREEMENT- BETWEEN THE CONTRACTOR & THE
CSPTCL

(On non judicial stamp paper worth Rs. 300/- duly notarized)

Or

(Self adhesive non judicial stamp paper)

(Plus affix a Revenue stamp of Rs 1/-)

This Agreement is made on this _____ day of _____ 2020 between M/s _____ being a firm partnership/ proprietor registered under Indian Companies Act. 1956 (amended in 2013) having its office at _____ (herein after called the contractor which expression shall where the context to admit, be deemed to include all and each of partners as included in the deed of partnership jointly & separated and their heirs, executors, administrators and representatives) of the one part and SLDC, CSPTCL, Raipur being the Company constituted under section 131 of the electricity ACT, 2003 (CA 36 of 2003). (Herein after called the CSPTCL, which expression shall where the context so admits, be deemed to include its permitted assigns) of the other part.

Where as in accordance with the tender Notice No. _____ issued by the _____ CSPTCL, Raipur of the CSPTCL and the contractor has submitted his tender No. _____ Dtd. _____ and opened on _____ for ***“Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State”*** more particularly described, mentioned enumerated or referred to in the general conditions, specifications, schedule, drawings form of tender, covering letters, schedules, of price and further correspondence a copy of each of which is hereto annexed and it for purpose of identification signed by Shri _____ on behalf of the contractor and EXECUTIVE DIRECTOR (SLDC), SLDC, CSPTCL, Raipur, on behalf of the Transmission Company and all of which shall be deemed to form part of this Agreement or through separately get put herein and are included in the expression “Contractor” herein used (herein after referred to be the paid work).

And whereas the Transmission Company has accepted the tender of the contractor vide order No. _____ Dtd. _____ for the sum of Rs. _____ (Rupees _____) only, on the terms and subject to the conditions herein after mentioned.

Now therefore, this agreement witness and it is hereby agreed as follows: -

The contractor shall execute the said work and do perform and carry out all matter incidental and/or ancillary thereto within the time and terms and conditions specified in the contract.

- i) For the fulfillment of the contract, the Transmission Company shall pay to the contractor

Rs. _____ (Rs.) _____) only or such other sum as may become payable in accordance with the contract.

- ii) In all matters existing under out of or in relations to this agreement, the terms and conditions of the contractor order No. _____ Dtd. _____ shall apply and such matters shall be determined accordingly.
- iii) The agreement shall be deemed to be entered into at Raipur and all disputes and claims, if any, out of or in respect of this agreement are to be settled at Raipur or to the tribunal only in any competent Court situated at Raipur.

In witness where of the parties hereto have signed this agreement on the date and year mentioned against their respective signature.

NAME & SIGNATURE OF WITNESS

i) Signature

Address

SIGNATURE OF THE
CONTRACTOR

ADDRESS: -

ii) Signature

Address

NAME & SIGNATURE OF WITNESS

i) Signature

Address

ii) Signature

Address

EXECUTIVE DIRECTOR (LD),
SLDC, RAIPUR

ANNEXURE – VIII: PROFORMA- PERFORMANCE
PROFORMA FOR BANK GUARANTEE TOWARDS PERFORMANCE

(On non judicial stamp paper worth Rs. 300/- duly notarized)

Or

(Self adhesive non judicial stamp paper)

(Plus affix a Revenue stamp of Re 1/-)

Bank Guarantee No..... Dtd.....

In consideration of the Chhattisgarh State Power Transmission Company Limited, Raipur (A successor company of Chhattisgarh State Electricity Board, Raipur hereinafter referred to as 'CSPTCL') having agreed to accept this Bank Guarantee in lieu of cash deposit by way of Security for due and faithful performance required from M/s. _____ (herein after referred to as "Contractors", the Bank of _____ hereby agrees unequivocally and unconditionally to pay within 48 hours on demand in writing from the Chhattisgarh State Power Transmission Company Limited or any officer authorized by it in this behalf of any amount up to and not exceeding Rs..... (in words) only to the said Chhattisgarh State Power Transmission Company Limited on behalf of the aforesaid M/s who have tendered and contracted for the supply of materials, equipments or services to the said the Chhattisgarh State Transmission Company Ltd, against order No..... dated..... For the order value of Rs.....

The beneficiary of this Bank Guarantee shall be Chhattisgarh State Power Transmission Company Limited, Raipur (A Successor Company of CSEB Raipur). The proceeds / encashment of this Bank Guarantee would go in the name of Chhattisgarh State Power Transmission Company Limited, Raipur (A Successor Company of CSEB Raipur).

This agreement should be valid and binding on this bank up to and including _____ 20____ of for such further period as may hereunder be mutually fixed from time to time in writing by the Chhattisgarh State Transmission Company Ltd. And the contractor and shall not be terminable by notice or any change in the constitution of the aforesaid bank or the firm of Contractors or by any others reasons whatsoever and the Banker's liability hereunder shall not be impaired or discharged by any extension of time or variations or alteration made, given conceded or agreed to with or without the Bank knowledge or consent by or between the Chhattisgarh State Transmission Company Ltd. and contractor in the existing and / or further tenders and / or contracts.

It is agreed by the Bank with the CSPTCL that if for any reason a dispute arises concerning the Bank's liability to pay the requisite amount to the CSPTCL under the terms of this guarantee the competent court at Raipur alone shall have the jurisdiction to determine the said dispute and that this shall be without prejudice to the liability of the Bank under the terms of this guarantee being unequivocal and unconditional as mentioned above.

The liability under this guarantee is restricted to Rs..... (in words) only. This guarantee shall remain in force until Unless a demand to enforce a claim under the guarantee is made under this Bank Guarantee by the CSPTCL to the Bank within six months from that date the rights of the Chhattisgarh State Transmission Company Ltd. Under this guarantee shall be forfeited and Bank shall be relieved and discharged from all liabilities there under.

WITNESSES: -

SIGNATURES

1.

2.

Authorized Signatories of Bank

1. Signed. _ _ _ _ _

2. for _ _ _ _ _ Bank

ANNEXURE – IX: CREDIT/FACILITIES BANK CERTIFICATE
FORMAT FOR EVIDENCE OF ACCESS TO OF AVAILABILITY OF CREDIT/FACILITIES
BANK CERTIFICATE

This is certify that M/s (insert Name & address of the Contractor) who have submitted their bid to (insert name of the Employer)..... against their tender specification vide ref. No. for “*Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State*” (insert name of the project along with the project name)..... is our customer for the pastyears.

Their financial transaction with our Bank have been satisfactory. They enjoy the following fund based and non fund based limits including for guarantees, L/C and other credit facilities with us against which the extent of utilization as on date is also indicated below:

| Sl No. | Type of Facility | Sanctioned Limit as on Date | Utilization as on Date |
|--------|------------------|-----------------------------|------------------------|
| | | | |
| | | | |

This letter is issued at the request of M/s.....

Signature

Name of Bank

Name of Authorized.....

Designation.....

Phone No.

Address.....

SEAL OF THE BANK

ANNEXURE – X: LITIGATION HISTORY OF THE BIDDER*(To be furnished for Sole bidder/Lead Partner as well as other Partner of JV)*

Name of the bidder:

The bidder should provide detailed information on any litigation or arbitration arising out of contracts completed or under execution by it over the last five years. A consistent history of awards involving litigation against the bidder or any partner of JV may result in rejection.

| Year | Name of client, cause of litigation/ arbitration and matter in dispute | Details of contract and date | Award for or against bidder | Disputed amount (current value in Rs.) |
|------|--|------------------------------|-----------------------------|--|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

Date

Place

SIGNATURE OF BIDDER

NAME

DESIGNATION

(SEAL)

ANNEXURE – XI: PROFORMA FOR UNDERTAKING BY THE JOINT VENTURE PARTNERS

(To be executed on Non-Judicial Stamp Paper worth Rs. 100.00 & Rs. 1.00 revenue stamps)

THIS JOINT DEED OF UNDERTAKING executed on this..... day of..... Two Thousand and..... by a company incorporated under the laws of and having its Registered Office at(hereinafter called the “Lead Partner” which expression shall include its successors, executors and permitted assigns) and M/s..... a company incorporated under the laws ofand having its Registered Office at (hereinafter called the “Other partner” which expression shall include its successors, executors and permitted assigns) for the purpose of making a bid and entering into a contract [hereinafter called the “Contract” {in case of award}] against the Specification No **TR-141/2020 Dated 29/10/2020** for **“Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State”** (*insert name of the project*) of C.S. Power Transmission Co. Ltd, a Company incorporated under the Companies Act of 1956 having its registered office at Dangania, Raipur (hereinafter called the “CSPTCL”).

AND WHEREAS CSPTCL invited bids as per the above mentioned Specification for construction ofstipulated in the bidding documents under Specification No **TR-141/2020 Dated 29/10/2020** **“Implementation of Automatic Demand Management System (ADMS) in Chhattisgarh State”** (*insert name of the project*)

AND WHEREAS Qualification Criteria of the specification stipulates that an Undertaking of not more than two firms as partners, meeting the requirements of Qualification Criteria, as applicable may bid, provided, the Joint Venture fulfills all other requirements of Qualification Criteria and in such a case, the Bid Forms shall be signed by both the partners so as to legally bind the Partners of the Joint Venture, who will be jointly and severally liable to perform the Contract and all obligations hereunder.

The above clause further states that this Undertaking shall be attached to the bid and the Contract performance guarantee will be as per the format enclosed with the bidding document without any restrictions or liability for either party.

AND WHEREAS the bid is being submitted to CSPTCL vide proposal No.....dated by the “Lead Partner” based on this Undertaking between both parties; under these presents and the bid in accordance with the requirements of Tender specification & Qualification Criteria has been signed by both the parties.

NOW THIS UNDERTAKING WITNESSETH AS UNDER:

In consideration of the above premises and agreements the parties of this Deed of Undertaking do hereby declare and undertake:

1. In requirement of the award of the Contract by the CSPTCL to the Joint Venture Partners, we, the Parties do hereby undertake that M/s..... shall act as “Lead Partner” and further declare and confirm that we the parties to the Joint Venture shall jointly and severally be bound unto the CSPTCL for the successful performance of the Contract and shall be fully responsible for the design, supply, erection, testing, commissioning and successful performance of the project in accordance with the Contract.
2. In case of any breach or default of the said Contract by the Lead Partner of the Joint Venture, the other partner do hereby undertake to be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.

3. Further, if the CSPTCL suffers any loss or damage on account of any breach in the Contract or any shortfall in the performance of the equipment/ material in meeting the performances guaranteed as per the specification in terms of the Contract, the Party(s) of these presents undertake to promptly make good such loss or damages caused to the CSPTCL, on its demand without any demur. It shall not be necessary or obligatory for the CSPTCL to proceed against Lead Partner to these presents before proceeding against or dealing with the other Party(s), CSPTCL can proceed against other partner who shall be jointly and severally liable for the performance and all other liabilities/obligations under the Contract to the CSPTCL.
4. The financial liability of the Parties of this Deed of Undertaking to the CSPTCL, with respect to any of the claims arising out of the performance or non-performance of the obligations set forth in this Deed of Undertaking, read in conjunction with the relevant conditions of the Contract shall, however not be limited in any way so as to restrict or limit the liabilities or obligations of any of the Partners of this Deed of Undertaking.
5. It is also understood that this Undertaking is provided for the purposes of undertaking joint and several liabilities of the partners to the Joint Venture for submission of the bid and performance of the Contract and that this Undertaking shall not be deemed to give rise to any additional liabilities or obligations, in any manner or any law, on any of the Parties to this Undertaking or on the Joint Venture, other than the express provisions of the Contract.
6. This Undertaking shall be construed and interpreted in accordance with the provisions of the Contract.
7. In case of an award of a Contract, we the parties to this Deed of Undertaking do hereby agree that we shall be jointly and severally responsible for furnishing a Contract performance security from a bank in favour of the CSPTCL in the currency/currencies of the Contract.
8. It is further agreed that this Deed of Undertaking shall be irrevocable and shall form an integral part of the bid and shall continue to be enforceable till the CSPTCL discharges the same or upon the completion of the Contract in accordance with its provisions, whichever is earlier. It shall be effective from the date first mentioned above for all purposes and intents.

IN WITNESS WHEREOF, the Parties to this Deed of Undertaking have through their authorized representatives executed these presents and affixed Common Seals of their companies, on the day, month and year first mentioned above.

Seal of
 has been affixed in my/ our
 presence pursuant to Board of
 Director's Resolution dated
 Name
 Designation
 Signature

For "Lead Partner"
 For and on behalf of M/s

 (Signature of the authorized
 Representative)

WITNESS :

I.....

II.

Seal of
 has been affixed in my/ our
 presence pursuant to Board of
 Director's Resolution dated
 Name

For "other Partner"
 For and on behalf of
 M/s.....

(Signature of the authorized

Designation
Signature

representative)

WITNESS :

I.....

II.

Note :

1. The non-judicial stamp papers of appropriate value shall be purchased in the name of Joint Venture and the date of purchase should not be later than six months of date of execution of the Undertaking.
2. The Undertaking shall be signed on all the pages by the authorized representatives of each of the partners and should invariably be witnessed.

ANNEXURE – XII: PROFORMA FOR POWER OF ATTORNEY FOR JOINT VENTURE

(To be executed on Non-Judicial Stamp Paper worth Rs. 100.00 & Rs.1.00 revenue stamps)

KNOW ALL MEN BY THESE PRESENTS THAT WE, the Partners whose details are given hereunder have formed a Joint Venture under the laws of and having our Registered Office(s)/Head Office(s) at (hereinafter called the 'Joint Venture' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) acting through M/s being the "Lead Partner" do hereby constitute, nominate and appoint M/s.....(*Lead Partner*) a Company incorporated under the laws of and having its Registered/Head Office at as our duly constituted lawful Attorney (hereinafter called "Attorney" or "Authorized Representative" or "Partner In-charge") to exercise all or any of the powers for and on behalf of the Joint Venture in regard to Specification No **TR-141/2020 Dated 29/10/2020** the bids for which have been invited by Executive Director/Chief Engineer (SLDC), Dangania, Raipur of C.S. Power Transmission Co. Ltd. (CSPTCL) to undertake the following acts :

- i) To submit proposal and participate in the aforesaid Bid Specification of the CSPTCL on behalf of the "Joint Venture".
- ii) To negotiate with the CSPTCL the terms and conditions for award of the Contract pursuant to the aforesaid Bid and to sign the Contract with the CSPTCL for and on behalf of the "Joint Venture".
- iii) To do any other act or submit any document related to the above.
- iv) To receive, accept and execute the Contract for and on behalf of the "Joint Venture".

It is clearly understood that the Lead Partner shall ensure timely execution of the Contract. In case of any breach of contract by any of the joint venture/consortium partners during execution of the contract, it will be the sole discretion of CSPTCL to allow the other partner to complete the work or to terminate the total contract.

It is expressly understood that this Power of Attorney shall remain valid binding and irrevocable till completion of the Maintenance Period in terms of the Contract.

The Joint Venture hereby agrees and undertakes to ratify and confirm all the whatsoever the said Attorney/Authorized Representatives/Partner in-charge/Lead Partner quotes in the bid, negotiates and signs the Contract with the CSPTCL and/or proposes to act on behalf of the Joint Venture by virtue of this Power of Attorney and the same shall bind the Joint Venture as if done by itself.

IN WITNESS THEREOF the Partners Constituting the Joint Venture as aforesaid have executed these presents on this day of under the Common Seal(s) of their Companies.

For and on behalf of the
Partners of Joint Venture

.....
.....
.....

The Common Seal of the above Partners of the Joint Venture:

The Common Seal has been affixed there unto in the presence of:
WITNESS

1. Signature.....
Name
Designation
Occupation

2. Signature.....
Name
Designation
Occupation

Note:

1. The non-judicial stamp papers of appropriate value shall be purchased in the name of Joint Venture and the date of purchase should not be later than six months of date of execution of the Agreement.
2. The Agreement shall be signed on all the pages by the authorized representatives of each of the partners and should invariably be witnessed.

**ANNEXURE – XIII: CERTIFICATE ISSUED BY
CHARTERED ACCOUNTANT**

*(To be furnished for Sole bidder/Lead Partner as well as other Partner of JV in original)
(Please ensure the language of the format is maintained to avoid bid rejection)*

Name of the bidder (Sole bidder/JV parteners):

- a) All payment obligations (principal / Interest) on outstanding debentures (i.e. debentures which have not yet been redeemed) have been discharged and no such payment as on **30.09.2020** is outstanding / overdue.
- b) The bidding company is presently not in default in payment of any bank loan or interest thereon for more than three months or any loan account of the bidder has not been classified as NPA (Non performing assets) by the creditor/ lending bank as on date of issue of NIT.
- c) The bidding company is not going through the process of insolvency or liquidation as on the date of issue of NIT. Even, if at a later date up to placement of order against the instant tender, it comes to the notice of CSPTCL that the sole bidder/ any partner of JV has been going through the process of insolvency or liquidation, their bid will be rejected.

Date

SIGNATURE OF CHARTERED
ACCOUNTANT

Place

NAME
(SEAL)

ANNEXURE – XIV: DECLARATION BY THE BIDDER

(To be furnished by Sole bidder/Lead Partner as well as other Partner of JV Separately)

(Please ensure the language of the format is maintained to avoid bid rejection)

Name of the bidder (Sole bidder/JV partners) :

- 1) (Name of the bidder) M/s is not debarred/ blacklisted by Bank/State Govt/Central Govt/State PSU/CPSU/SEB/ public utility as on date of issue of NIT.
- 2) All the documents/ statements/ attachments/ information submitted by (Name of the bidder) M/s..... in proof of the qualifying requirements are authentic / genuine /correct and in case, any of the said documents / statements / attachments / information is found to be false / fake / misleading, the bid will be disqualified and action will be taken as per relevant provisions of the tender.

Date

Place

SIGNATURE OF BIDDER

NAME

DESIGNATION

(SEAL)

ANNEXURE – XV: ABBREVIATION'S

| | |
|--------|--|
| ABT | Availability Based Tarrif |
| ADMS | Automatic Demand Management System |
| AFTP | Automatic Feeder Tripping Panel |
| AFTS | Automatic Feeder Tripping System |
| ANSI | American National Standards Institute |
| APN | Access Point Name |
| BG | Bank Guarantee |
| BOQ | Bill of quantity |
| CERC | Central Electricity Regulatory Commission |
| CG | Chhattisgarh |
| CGST | Central Goods Service Tax |
| CMC | COMPREHENSIVE MAINTENANCE CONTRACT |
| CMMI | Capability Maturity Model Integration |
| CPSU | Central Public Sector Undertakings |
| CPU | Central Process Unit |
| CSERC | Chhattisgarh State Electricity Regulatory Commission |
| CSPDCL | Chhattisgarh State Power Distribution Company limited. |
| CSPTCL | Chhattisgarh State Power Transmission Company limited. |
| CV | Curriculum Vitae |
| DASP | Data Acquisition Solution Provider |
| DIC | District Industries Centre |
| DISCOM | Chhattisgarh State Power Distribution Company Limited (CSPDCL) |
| DLMS | Device Language Message Specification |
| DOCO | Date of Commissioning |
| DOCO | Date of Commissioning |
| DSM | Deviation Settlement Mechanism |
| EHV | Extra High Voltage |
| EIC | Engineer In-Charge |
| EMD | Earnest money Deposit |
| EPF | Employee's Provident Fund |
| ESD | Electrostatic Discharge |
| F.O.R. | Freight on Road |
| FAT | Final Acceptance test |
| FDR | Fixed Deposit Receipt |
| FTC | Feeder Trip Controller |
| FVI | frequency variation index |
| GIS | Geographic information System |
| Govt. | Government |
| GPRS | General Packet Radio Service |
| GSP | GIS solution Provider |
| GUI | Graphical User Interface |

| | |
|------|--|
| HDD | Hard Disk Drive |
| HMI | Human Machine Interface |
| HQ | Head Quarter |
| HSN | \Harmonized System of Nomenclature |
| ICCP | Inter Control Centre Protocol |
| IEC | International Electro technical Commission |
| IEGC | Indian Electricity Grid Code |
| ISO | International Organization for Standardization |
| JV | Joint Venture |
| LA | Liquid Assets |
| LDMU | Local Discom Monitoring Units |
| LED | Light Emitting Diode |
| LMU | Local Monitoring Units |
| MAAT | Minimum Average Annual Turnove |
| MFI | Measured floating point information |
| MPLS | Multi Protocol Label Switching |
| MSME | Micro, Small and Medium Enterprises |
| MTBF | Mean Time between Failures |
| MTTR | Mean Time to Repair |
| NDA | Non Disclosure Agreement |
| NIT | Notice Inviting Tender |
| NPA | Non-performing assets |
| NPA | Nonperforming assets |
| NSIC | National Small Industries Corporation |
| NSP | Network Solution Provider |
| OD | Over-Drawl |
| OEM | Original Equipment Manufacturer |
| OIC | Officer In-Charge |
| P.F. | Provident Fund |
| PERT | Program Evaluation Review Technique |
| PFC | Power Finance Corporation |
| PLCC | Power Line Carrier Communication |
| PPTP | Point to Point Tunnelling Protocol |
| PQR | PRE QUALIFYING REQUIREMENTS |
| PSDF | Power System Development Fund |
| PSU | Public Sector Undertakings |
| RAM | Random Accesses Memory |
| RAO | Regional Account Office |
| RLDC | Regional Load Despatch Centre |
| ROM | Read Only Memory |
| RPC | Regional Power Committee |
| RTC | Real-time Clock |
| RTU | Remote Terminal Unit |

| | |
|-------|--|
| SAC | Service Account Code |
| SCADA | Supervisory Control and Data Acquisition |
| SEB | State Electricity Boards |
| SEB | State Electricity Board |
| SGST | State Goods Service Tax |
| SI | System Integrator |
| SLD | Single Line Diagram |
| SLD | Single Line Diagram |
| SLDC | State Load Despatch Center |
| SMS | Short Message Service |
| SOE | Sequence of Events |
| SSI | Small scale industries |
| SSU | Small Scale Units |
| STU | State Transmission Utility |
| TC | Techno-Commercial |
| TPA | Trading Partner Agreement |
| UFR | Under Defense Mechanism |
| UTC | Universal Time Coordinated |
| VDC | Volts of Direct Current |
| VGA | Visual Graphics Array |
| VLAN | Virtual LAN |
| VPN | Virtual Private Network |