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STATE LOAD DESPATCH CENTRE

ODISHA POWER TRANSMISSION CORPORATION LIMITED

GRIDCO Colony, P.O.- Mancheswar Rly. Colony, Bhubaneswar-17, FAX-0674- 2748509

CIN: U40102OR2004SGC007553

CORRIGENDUM – III to TENDER NOTICE NO. SLDC-02/2023-24

TENDER NOTICE NO. SLDC-02/2023-24

“Design, Development, Supply, Installation, Testing & Commissioning of 0.2S Accuracy Class AC Tri Vector ABT compliant Energy Meters, AMR (CDCS-MDAS) Software (at DC & DR) along with DCU and associated hardware and Comprehensive AMC for AMR Solution & Energy meters for State Load Despatch Center, OPTCL, Odisha.”

(A) Following modifications are made in respect of the TENDER NOTICE NO. SLDC-02/2023-24. The bidders are requested to go through these amended clauses before submission of the bid.

The bidders who have already submitted the tender documents in the tender portal are hereby requested to resubmit the bid as per the amended clauses of this corrigendum notice. The bids submitted earlier to publication of this corrigendum shall not be considered for technical bid evaluation.

SECTION-II : GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.]

38.1 General:

- c) The bidder must possess valid ISO 9001:2015 certification for meter manufacturing, ISO 27001:2013 for information security management system & ISO 14001:2015 for environmental management system and 18001:2015 or above (OHSAS) for occupational Health & Safety Management (H&S).

52.0 Delivery milestones of ABT Meters and Software

ABT Meters, Software and Hardware materials shall be delivered as per the table given below.

T0- Date of Issue of LoA

Table 1 Delivery Milestones

| Sl. No | Activities | Hardware |
|--------|---|-------------|
| 1 | Supply of ABT Meters with metering Panels, DCU, AMR software with other accessories | T0+6 months |

| | | |
|---|--|---------------|
| 2 | Installation, testing and commissioning of ABT Meters, hardware and software with associated Items | T0+10 Months |
| 3 | Site Acceptance Test (SAT) | T0+11 Months |
| 4 | Go-Live | T0+ 12 months |

SECTION IV: SCOPE OF WORK

2.0 Scope of the Contractor

c) 4G/ 5G modems for GSM connectivity. (Where no other communication channels are available)

d) All station wiring using shielded cat 6/RJ45 cable connecting meters and DCU via LAN Switch. Wiring required for placement of 4G/5G modem antenna for optimum signal strength.

f) The contractor has to provide AMR solution for 2600 Energy Meters (IEMs) including existing, new and replacement for billing and audit purposes, installed at about 210 locations within the State. At present, there are 50 Nos. of interface points with inter-state transmission system. ABT complaint energy meters have been installed by PGCIL at these interface points. Some additional locations/ interface points may also come up during commissioning of the project or after commissioning of the project

Note: The above figure is tentative and subject to change after physical survey by the bidder after issuance of LoA.

SECTION – V, TECHNICAL SPECIFICATIONS

1.1 Functionality

vii) Penalty will be 1% for every 1% or part there of decrease in availability under 99% subject to maximum 10 % the Unit AMC price of that quarter.

2.6 FUNCTIONAL REQUIREMENTS:

d) Firmware of the proposed Metering equipment shall be upgradable in future use in case to serve the requirement of Standards/Regulation with backward compatibility facility.

2.7 CONSTRUCTIONAL REQUIREMENTS:

a) The Meter shall be housed in a single unit/enclosure which shall be Rack/panel mounted at indoor panels.

h) Availability of automatic CT shorting facility shall be a preferred feature

2.10 TECHNICAL REQUIREMENTS

c) CONNECTION DIAGRAM

The connection diagram of the meter for both 3P4W & 3P3W mode shall be available permanently on meter terminal cover/Meter case. The meter terminals shall be properly marked to identify voltage, Current, Auxiliary power supply, communication ports and output terminals etc.

x) ANOMALY DETECTION FEATURES

xii (D): There shall be compartments as per IS 15959 for logging of different type of anomalies:

| |
|--|
| Compartment No.1 : 100 events of Voltage related events |
| Compartment No.2 : 100 events of current related events |
| Compartment No.3: 100 events for Power Failure / Power On-Off |
| Compartment No.4 : 50 events of Transaction related changes as per ICS |
| Compartment No.5 : 100 events of Magnetic Interference, ND (Optional) |

xii (G): In case of events logged in compartment No. 1 to 4, persistence time of 3 5 min. for occurrence and restoration respectively need to be supported in meter. In case of events logged in compartment No. 5, the events shall be logged instantaneously within 30 seconds.

bb) TYPE & ROUTINE TESTING

i. TYPE TEST & TYPE TEST CERTIFICATES

The offered meter should be successfully passed all type tests described in the IS- 14697 and the meter Data Transfer and Communication capability as per IS- 15959 for DLMS companion Standard (ICS). Type test certificate along with test reports carried out within 5 (five) years from the date of offer shall have to be submitted along with the offer unless which the bid may be considered as non- responsive. Make & type of major components used in the type-tested meter shall be indicated in the QAP.

Further Purchaser shall reserve the right to pick up energy meters at random from the lots offered and get the meter tested at third party lab i.e. CPRI / agencies listed at Appendix-C of CBIP 88 / NPL / CQAL/ ERTL / ERDA/any NABL accredited Testing Laboratory except the laboratory of the manufacturer.

The supplier has no right to contest the test results of the third-party lab or for additional test and has to replace/take corrective action at the cost of the supplier. This is under the sole discretion of the purchaser.

It shall be the responsibility of the supplier to arrange such tests and Purchaser shall be informed

the date and time of conduction of tests well in advance to enable him to witness such tests.

3.8 Component Wiring:

All internal wiring shall be made with annealed copper wire. Wires for current transformer 4.0 Sq mm and voltage transformer circuits , Aux. Supply AC & DC shall not be smaller than 2.5 Sq mm with proper phase identification, indication of LED lamp wiring shall not less than 0.5 Sq. mm copper wire, all other size shall be of 2.5 Sq mm multi strand copper flexible FRLS PVC wire. Wiring between terminals of various devices shall be point to point & rout through suitable size cable tray. All internal wiring will be neatly truncated in wiring troughs, bound and anchored. Sufficient stack shall be left at component terminals to permit rearrangement of connection between the terminals of any particular component. Wiring will terminate not lower than 200mm above the floor of the panel. All wires will be identified at both ends using ferrules. Colour of wires shall have phase identification as red/ yellow/ blue and black for Neutral of CT & PT wiring and red/ black for auxiliary DC/ AC wirings. CT & PT wires should be provided with round lugs and all lugs shall be insulated/ sleeved to prevent short between the lugs at meter and terminal block end.

4.4 Acquiring energy and status data from energy meters:

The following line has been deleted from the Clause 4.4:

“It shall be possible to change/update the energy meter protocol driver from CDCS.”

8.0 Planning and Procedure for Testing (FAT/SAT/STLC-Software Testing Life Cycle)

xvi. Cyber Security Audit:

The cyber security audit shall be conducted by certified empaneled CERT-IN third party auditor before go-live and once in each year during AMC period following CEA guidelines on cyber security amended from time to time.

SECTION –VI-A: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR AMR AND HARDWARE

8. System availability

The nature and maintenance support required for systems and components are described below:

Table 2: System availability

| Sl.No. | System | System Availability requirements |
|--------|-----------------------------|----------------------------------|
| 1 | ABT Meters data at user end | 100% |
| 2 | AMR Solution Software | 99% |

Note: Availability shall be calculated on the basis of cumulative running hours of individual

items fortnightly (15 days). The System Availability shall be subject to communication link availability between the DCU/Gateway and DC/DR of OPTCL with due certification of concerned OPTCL/SLDC officer in charge.

18. Payment of maintenance charges and Price Reduction (based on the total System availability)

- i. AMC charges will be payable quarterly during the AMC period (on successful completion of 3 months against invoice after due verification by the owner’s nodal officer)
- ii. In the event of availability below a certain level, the maintenance charges would be proportionately reduced as follows:

Table 3 Deduction against less availability

| Availability of the system per quarter | Deduction as % of the apportioned price of total AMC |
|--|---|
| More than or equal to 99% | NIL |
| Less than 99% | Deduction of 2% of the apportioned prices of the apportioned quarterly AMC for every 0.5 % or part there of decrease in availability under 99%. This deduction will be subject to maximum 50% of the total payable amount of the quarter. This deduction will be subject to maximum 10% of the total payable amount of the quarter. |

SECTION-VI-B: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR ABT ENERGY METER

4. TERMS OF PAYMENT: (For AMC Contract of ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters)

c) Payment will be made quarterly at the end of every 3 months, period starting from the date of contract agreement as per the details below:

All the ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters need to be Checked Properly under Preventive Maintenance (PM) to ascertain the performance to the satisfaction of OPTCL in every three months. This inspection is to be carried out in presence of OPTCL Engineer & contractor's representative. A report on inspection & testing along with the status of ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters should be jointly signed and furnished to the verifying authority (Concerned AGM/DGM of O&M Division) for verification and onward transmission to the designated Nodal Officer. The bidder have to furnish the draft format for the inspection /testing & Status report of the r scheme, which shall be approved by the Competent Authority of SLDC/OPTCL.

(B) The last date and time of online requisition of the bid document, submission of the bid document and opening of Techno-Commercial bid against Tender notice no-SLDC-02/2023-24 are rescheduled as below.

| SL.NO | DESCRIPTION | EXISTING SCHEDULE | REVISED SCHEDULE |
|--------------|---|----------------------------------|----------------------------------|
| 1 | Online request of Tender document at www.tenderwizard.com/OPTCL | Up to dt: 06-12-2023 (12.30 Hrs) | Up to dt: 18-12-2023 (12.30 Hrs) |
| 2 | Last date & time of online submission of bid document | Date: 06-12-2023 (16.30 hrs) | Date: 18-12-2023 (16.30 Hrs) |
| 3 | Date & time of online opening of Techno- Commercial bid | Date: 07-12-2023 (11.00 hrs) | Date: 19-12-2023 (11.00 hrs) |

(C) Reply of SLDC to the queries raised by the bidders is annexed herewith for information.

Sd/-

Director (SLDC)

| NAME OF THE BIDDER : SECURE METERS LIMITED | | | | |
|--|---|--|--|---|
| Sl.No | Clause No. | Tender specification | Bidders query | SLDC reply |
| COMMERCIAL QUERY | | | | |
| 1. | | | We are requesting you please provide BOQ with bifurcation of supply item, Installation items at S/S as well as CDCS, AMC portion. | Tender clause stands |
| 2. | | | Please confirm, who will bear SIM cost & its re-curing charges | SIM cost and recurring charges shall be borne by purchaser. |
| 3. | | | We are requesting you please provide No. of substation & no. meter required in each sub-station which are covered under this project. i.e. Bifurcation of meter to be installed at each substation. | As per Section-V Clause 9.7 of the tender document. |
| 4. | Part 1 PART I SECTION I: Instruction to Bidders Submission of Bids | Clause no. 6 Purchaser's Right Regarding Alteration of Quantities Tendered. i) Deviation to the revised scope of works is not permissible under the contract. However, at any time during the execution of the contract, SLDC, OPTCL reserve the right to vary the quantity of any item with reference to the BOQ to any extent within the limit of $\pm 25\%$ of the BOQ of the LOA at the same unit rate and terms conditions contained in the LOA. However, any increase in the BOQ quantity of an item beyond 25% of the BoQ of the LOA shall be lower of price available in BoQ (i.e. in LOA) or Rate Contract or Cost Data | This is very specified requirement; Every bidder will have quoted their best competitive prices at the time of bidding as per quantity mentioned in BOQ. This is more realistic figure. Order variation is also providing in tender to provide variation factor on costing. But increase in Quantity beyond 25% having lower of price available in BOQ is not correct statement. Variation quantity can be provided on same quote price not on reduction in price variation. | Tender clause stands |
| 5. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | Clause no. 18.0 Guarantee period: - (As per Section VI of Part I). a) The tendered ABT Meters & Hardware (DCU, switches etc.) shall be in warranty for 5 (five) years from the date of installation and commissioning 22.0 Price Reduction Schedule for Delay in Completion of Supply under Purchase Order/Contract. ii. During the guarantee period, if the Supplier fails to rectify/replace the equipment/material / install within 15 days from the date of intimation of defect by the purchaser, then the Price Reduction Schedule at the rate of half percent (0.5%) of the Total Taxable Value for each calendar week of delay or part thereof will be recovered by the purchaser. For this purpose, Price Reduction Schedule will be reckoned from the 30th day from the date of issue of letter on defectiveness of equipment/material. | Price Reduction Schedule applicable for Delay in Completion of Supply under Purchase Order/Contract not on guarantee period. Bidder will be penalized multiple time on single case. As Penalty is already associated on SLA as well on LD. This should be remove. Guarantee period should be a) The tendered ABT Meters & Hardware (DCU, switches etc.) shall be in warranty for 5 (five) years from the date of supply | This clause is related to delay in supply and rectification of defect during guarantee period only. |
| 6. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | Clause no. 19.0 B.G. towards security deposit, 100% payment and performance guarantee: (i) B.G for AMR solution and MDAS supply and Installation. A Composite Bank Guarantee as per the Proforma enclosed at Annexure-VII of the specification for 10% [ten percent] of the Total Landing cost (Taxable Value plus GST thereon) of the purchase order (without AMC), valid for a period of 26 months (ii) B.G for Supply and Installation of ABT compliant Energy Meters/DCU/IT hardware. A Composite Bank Guarantee as per the Proforma enclosed at Annexure-VII of the specification for 10% [ten percent] of the Total Landing cost (Taxable Value plus GST thereon) of the purchase order (without AMC), valid for a period of 74 months. | We wish to like your kind attention; bidder need to furnish multiple BG of 10% of Total Landing cost for below clause. <input type="checkbox"/> AMR Solution & MDAS supply & installation. <input type="checkbox"/> B.G for Supply and Installation of ABT compliant Energy Meters/DCU/IT hardware Looking at the quantum of work and amount of capital involved in the project. We are requesting you please accept BG will value of 5% of ex- work price (without AMC). | Tender clause stands |

| Sl.No | Clause No. | Tender specification | Bidders query | SLDC reply |
|-------|---|---|--|----------------------|
| 7. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | 21.0 Payment terms and conditions: Hardware payment Supply of 0.2S Class ABT compliant energy Meters, DCU, hardware and accessories: 70% (Seventy) taxable value with 100% GST of the material price component will be paid after due certification of the engineer in charge and verification by the respective consignee on submission of Tax Invoices. | Looking at the quantum of work and amount of capital involved in the project. Also in order to derive a workable solution, where the cash flow of successful bidder do not get hampered and there is no huge interest build up by the bidder on the project cost, we suggest to amend the payment terms. Hardware payment Supply of 0.2S Class ABT compliant energy Meters, DCU, hardware and accessories: 90% (Eighty) taxable value with 100% GST of the material price component will be paid after due certification of the engineer in charge and verification by the respective consignee on submission of Tax Invoices | Tender clause stands |
| 8. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | 21.0 Payment terms and conditions: Installation, Testing & Commissioning of ABT Meters, DCU, hardware and accessories: - 20% (Twenty) taxable value of the Material price component will be paid on progressive basis depending on the actual work done i.e. on completion of installation, testing and commissioning of the respective items and on certification of the same by the Engineering in charge and verification by the respective substation Engineering in charge. | Looking at the quantum of work and amount of capital involved in the project. Also in order to derive a workable solution, where the cash flow of successful bidder do not get hampered and there is no huge interest build up by the bidder on the project cost, we suggest to amend the payment terms: - Installation component will be paid on pro-rata basis on monthly basis on progressive basis depending on the actual work done i.e. on completion of that installation, testing and commissioning of the respective items and on certification of the same by the Engineering in charge and verification by the respective substation Engineering in charge. | Tender clause stands |
| 9. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | 21.0 Payment terms and conditions: AMR Software payment 3. Development, testing and installation of AMR software at existing AMR(MDAS) server at DC and DR. 50% (Fifty) taxable value with 100% GST of the software price component will be paid after successful UAT and Due certification of the Engineering in charge on submission of Tax Invoices. 4. Integration of AMR software with SAMAST software modules: 40 % (Forty) taxable value of the software price component will be paid after successful operation of AMR software at existing AMR(MDAS) server at DC and DR with the existing ABT compliant meters installed at OPTCL network observing its accuracy of data for a period of 3 (three) months from date of commissioning and due certification of the Engineering in charge. | Looking at the quantum of work and amount of capital involved in the project. Also in order to derive a workable solution, where the cash flow of successful bidder do not get hampered and there is no huge interest build up by the bidder on the project cost, we suggest to amend the payment terms: 3. Development, testing and installation of AMR software at existing AMR(MDAS) server at DC and DR. 70% (Eighty) taxable value with 100% GST of the software price component will be paid after successful UAT and Due certification of the Engineering in charge on submission of Tax Invoices. 4. Integration of AMR software with SAMAST software modules: 20 % (Forty) taxable value of the software price component will be paid after successful operation of AMR software at existing AMR(MDAS) server at DC and DR with the existing ABT compliant meters installed at OPTCL network observing its accuracy of data for a period of 3 (three) months from date of commissioning and due certification of the Engineering in charge. | Tender clause stands |
| 10. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | Go-Live of AMR solution and integration with SAMAST software modules. Hardware payment 10% (ten) taxable value of the material price component shall be paid within sixty (60) days after successful go-live of the ABT meters and successful integration with SAMAST software module and after due certification of the Engineering charge. AMR Software payment 10% (Ten) of taxable value of the software price component shall be paid within sixty (60) days after successful go-live of the AMR solution software at existing AMR(MDAS) server at DC and DR and after due certification by the Engineering in charge. | Looking at the quantum of work and amount of capital involved in the project. Also in order to derive a workable solution, where the cash flow of successful bidder do not get hampered and there is no huge interest build up by the bidder on the project cost, we suggest to amend the payment terms: Hardware payment 10% (ten) taxable value of the material price component shall be paid within sixty (60) days after submission of PBG of 5% of total value of ex- work price without AMC part. | Tender clause stands |

| Sl.No | Clause No. | Tender specification | Bidders query | SLDC reply |
|-------|---|--|---|--|
| 11. | Part I PART I SECTION I: Instructionto Bidders Submission of Bids SECTION IV: SCOPE OF WORK | Clause no. 38.1 General: iii) The bidder must possess valid ISO 9001:2015 certification for meter manufacturing, ISO 27001:2013 for information security management system & ISO 14001:2015 for environmental management system and 18001:2015 (OHSAS) for occupational Health & Safety Management (H&S). Clause. No. 2 Scope of the Contractor p) The supplier will ensure that the supplied equipment have been got tested as per relevant contemporary Indian or International Security Standards e.g. related elements against ISO/IEC 15408 standards, for Information Security Management System against ISO 27000 series Standards, | The bidder must possess valid ISO 9001:2015 certification for meter manufacturing, ISO 27001:2013 for information security management system & ISO 14001:2015 for environmental management system and ISO 45001:2018 (OHSAS) for occupational Health & Safety Management (H&S). | c)The bidder must possess valid ISO 9001:2015 certification for meter manufacturing, ISO 27001:2013 for information security management system & ISO 14001:2015 for environmental management system and 18001:2015 or above (OHSAS) for occupational Health & Safety Management (H&S). |
| 12. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | Minimum Qualification Criteria of Bidders 38.2 Technical a) The bidder must have experience in supply, installation, and commissioning of at least two contracts and experience of supplying 0.2S Accuracy Class ABT Compliant Tri-Vector energy meters with at least 1000 numbers for any Govt utilities in India in last five (05) years ending on the original date of bid opening. | Looking at the quantum of work & quantity required for project. Please amend as a) Bidder Shall have supplied 25,000 HT TOD meters of 0.2s and 5,000 ABT meters of 0.2s class as per IS 14697: 1999, IS 15959 during the last five financial years b) The bidder must have experience in supply, installation, and commissioning of at least two contracts and experience of supplying 0.2S Accuracy Class ABT Compliant Tri-Vector energy meters with at least 1000 numbers for any Govt utilities in India in last five (05) years ending on the original date of bid opening. | Tender clause stands |
| 13. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | Minimum Qualification Criteria of Bidders 38.2 Technical b) The bidder must submit Performance certificates issued by the owner for at least 500 nos. of such ABT Complaint energy meters supplied to Govt. utilities in India along with the bid indicating successful operation for at least two years from the date of commissioning. | Looking at the quantum of work & quantity required for project. Please amend as b) The bidder must submit Performance certificates issued by the owner for at least 1,500 nos. of such ABT Complaint energy meters supplied to Govt. utilities in India along with the bid indicating successful operation for at least two years from the date of commissioning. | Tender clause stands |
| 14. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | Minimum Qualification Criteria of Bidders 38.2 Technical c) The bidder should have executed minimum one AMR Solution project in any Government utility in India and which is in successful operation since last one year. | Looking at the quantum of work & quantity required for project. Please amend as c) The bidder should have executed minimum two AMR Solution project in any Government utility in India and which is in successful operation since last 3 year | Tender clause stands |
| 15. | SECTION-II :GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.] | 52.0 Delivery milestones of ABT Meters and Software 1. Supply of ABT Meters with metering Panels, DCU, AMR software with other accessories: T0+4 months 2. Installation, testing and commissioning of ABT Meters, hardware and software with associated Items: T0+10 Months 3. Site Acceptance Test (SAT): T0+11 Months 4. Go-Live: T0+ 12 months | Looking at the quantum of work, we are requesting you please amend delivery milestone of supply of ABT & Software as there are multiple material associated with trading, which have high lead time. 1. Supply of ABT Meters with metering Panels, DCU, AMR software with other accessories: T0+ 8 months | Clause 52.0 Delivery milestones of ABT Meters and Software, Table :8 Sl.No. 1 is amended and shall be read as: 1. Supply of ABT Meters with metering Panels, DCU, AMR software with other accessories: T0+6 months |
| 16. | ANNEXURE-XX (Reverse Auction Process Compliance Form) | e-Reverse Auction process | Generally, bidder is advice to quote best competitive prices at the time of bidding only hence the relevance of Reverse auction is not clear to us. It will abolish the healthy competition between reputed manufacturers. We are requesting you please remove this requirement. | Tender clause stands |

| Sl.No | Clause No. | Tender specification | Bidders query | SLDC reply |
|------------------------|--|--|--|---|
| TECHNICAL QUERY | | | | |
| 1. | SECTION V: 2.7 CONSTRUCTIONAL REQUIREMENTS: | Clause a The Meter shall be housed in a single unit/enclosure which shall be flush-mounted/ project mounted at indoor panels | Meter shall be Rack mounted instead of Project mounted | a. The Meter shall be housed in a single unit/enclosure which shall be Rack/Panel mounted. |
| 2. | | Clause g The meter shall be Rack/Panel mounted type | Meter shall be Rack mounted only | Tender clause stands |
| 3. | SECTION IV: SCOPE OF WORK | Clause. No. 2 Scope of the Contractor c) 5G modems for GSM connectivity. (Where no other communication channels are available). | There should be no constraint for communication like 4G or 5G. As bidder is reliable to meet SLA provide by Utility in additional to this penalty is also associate with availability of meter data. We understand 4G fallback to 3G/2G also acceptable. | c) 4G/ 5G modems for GSM connectivity. (Where no other communication channels are available) |
| 4. | SECTION IV: SCOPE OF WORK | Clause. No. 2 Scope of the Contractor d) All station wiring using shielded cat6/RJ45 cable connecting meters and DCU via LAN Switch. If distance is greater than 50m OFC cable shall be used for connection. Wiring required for placement of 5G modem antenna for optimum signal strength. | LAN cable used for distance up to 50 Meters beyond for distance beyond 50 meters between meters to switch or switch to DCU, OFC is required. Hence should also be specified in price schedule to cater such requirement in existing or future substations | Clause. No. 2 Scope of the Contractor d) All station wiring using shielded cat6/RJ45 cable connecting meters and DCU via LAN Switch. Wiring required for placement of 4G/5G modem antenna for optimum signal strength. |
| | | | Also requesting you please provide list S/S have meters in yard & distance between meters more than 50meters quantity bifurcation of LAN switch along with & without SPF port. Same should be amend in BOQ | The list of substations will be provided along with LoA.All the meters are within 50meter distance.Hence no other arrangement is required. |
| 5. | SECTION IV: SCOPE OF WORK | Clause. No. 2 Scope of the Contractor f) At present there are about 2600 Energy Meters (IEMs) including existing and replacement for billing and audit purposes, installed at about 210 locations within the State. At present, there are 50 Nos. of interface points with inter-state transmission system. ABT complaint energy meters have been installed by PGCIL at these interface points. Some additional locations/ interface points may also come up during commissioning of the project or after commissioning of the project | There contradiction between required quantity of meter in BOQ & mentioned clause. Please clarify & amend quantity in BOQ accordingly. | Clause. No. 2 Scope of the Contractor f) The contractor has to provide AMR solution for 2600 Energy Meters (IEMs) including existing, new and replacement for billing and audit purposes, installed at about 210 locations within the State. At present, there are 50 Nos. of interface points with inter-state transmission system. ABT complaint energy meters have been installed by PGCIL at these interface points. Some additional locations/ interface points may also come up during commissioning of the project or after commissioning of the project Note: The above figure is tentative and subject to change after physical survey by the bidder after issuance of LoA. |
| 6. | SECTION IV: SCOPE OF WORK | Clause. No. 2 Scope of the Contractor p) The supplier will ensure that the supplied equipment have been got tested as per relevant contemporary Indian or International Security Standards e.g. related elements against ISO/IEC 15408 standards, for Information Security Management System against ISO 27000 series Standards, | The bidder must possess valid ISO 9001:2015 certification for meter manufacturing, ISO 27001:2013 for information security management system & ISO 14001:2015 for environmental management system and ISO 45001:2018 (OHSAS) for occupational Health & Safety Management (H&S). | Tender clause stands. however higher/latest certification is acceptable |
| 7. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 1. SYSTEM ARCHITECTURE: Fiber cable from S/S to SLDC | We provide the status of FO availability. As per architecture provided, Bidder is responsible for FO from respective DCU to SLDC. This will impart huge cost & time consuming job. We are requesting you please remove laying FO & connectivity responsible of FO from S/S to SLDC. It should be in scope of Utility only. | Bidder is not responsible for Fiber optic cable from S/S to SLDC. |

| Sl.No | Clause No. | Tender specification | Bidders query | SLDC reply |
|-------|---|--|---|--|
| 8. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 1.1 Functionality vii. Penalty will be 1% for every 1% or part there of decrease in availability under 99%. | Looking to the diverse location the required System availability and penalty charges are specified is very higher side and also there is no max ceiling limit of penalty, hence request you to please amend the clause. Penalty will be 0.5% for every 1% or part there of decrease in availability under 95%. subject to maximum 10 % the Unit AMC price of that month/ | Clause no. 1.1 Functionality vii. Penalty will be 1% for every 1% or part there of decrease in availability under 99% subject to maximum 10 % the Unit AMC price of that quarter. |
| 9. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.0 Technical Specifications Of 0.2s Accuracy Class ABT Tri Vector Energy Meters One composite meter shall be installed for each circuit, as a self-contained device for measurement of power transmitted, as described herein, in each successive 15-minute block/ 5 min block/regulation specified block, and certain other functions, detailed in the following paragraphs. | The metering system shall be housed in 11” / 19” rack with draw out type with automatic CT shorting feature so as to ease the testing/ replacement of meters without disturbing the system. The rack shall have facility to accommodate either one or two individual 0.2s accuracy class meter modules for supporting the single and multiple points of installation practices respectively | No relevancy in bidder's query w.r.t. clause mentioned |
| 10. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.2 GENERAL FEATURES The Metering equipment shall have firmware up- gradation facilities/ BCS software up- gradation facilities with added hardware facilities for Smart Metering. Clause no. 2.6 FUNCTIONAL REQUIREMENTS: d. Firmware of the proposed Metering equipment shall be upgradable in future use in case to serve the requirement of Standards/Regulation. | It is not recommended & not feasible to change the firmware/protocol of Meter in Field. So please remove the requirement of firmware upgrade remotely & in field. CDC's DAS application shall not be provided with facility to change the meter protocol drivers as this is very technical activity for meter so this should not recommend to do by utility officials. Meter protocol change is recommended to be done by meter manufacturer only as this need special permission and authorization. This should be done by metermanufacturer's team so kindly update this clause. | Clause no. 2.2 GENERAL FEATURES The Metering equipment shall have firmware up- gradation facilities/ BCS software up- gradation facilities with added hardware facilities for Smart Metering with backward compatibility facility. Clause no. 2.6 FUNCTIONAL REQUIREMENTS: d. Firmware of the proposed Metering equipment shall be upgradable in future use in case to serve the requirement of Standards/Regulation with backward compatibility facility. |
| 11. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.5 PRINCIPAL PARAMETERS The energy meter shall be indoor type connected with the secondary side of outdoor current and voltage transformers and mounted in existing meter panel/ C & R panel. | We understand that new meters will be installed at existing panels, however existing meters are rack mounted whereas new meters required against this tender will be project mounted hence it would not possible to mount the new meters on same location. So it is recommended that new metering panel to be provided by Utility for mount the meter if space is not available in existing panel Please amend clause as below: - “The energy meter shall be indoor type connected with the secondary side of outdoor current and voltage transformers and mounted in existing meter panel/ C & R panel and if not feasible /possible to installed in existing Panel then same shall be installed in New Panel, which will provided by Utility.” | Clause no. 2.5 PRINCIPAL PARAMETERS The energy meter shall be indoor type connected with the secondary side of outdoor current and voltage transformers and mounted in existing meter panel / new meter panel if space is not available (included in the BOQ). |
| 12. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.2 General The Metering equipment shall have Watch-dog LED for healthiness of its Power Supply units. | This is very specified requirement to have watch dog LED on meter. As whole project is to avoid Manual reading. There is no requirement to have watch-dog LED on meter. Kindly remove the requirement. | Tender clause stands. |
| 13. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.7 CONSTRUCTIONAL REQUIREMENTS: a. The Meter shall be housed in a single unit/enclosure which shall be flush-mounted/ project mounted at indoor panels. h. Availability of automatic CT shorting facility shall be a preferred feature | Automatic CT shorting facility is very essential feature for any S/S for ease of installation as well as safety of manpower engaged at installation & maintenance work. Automatic CT shorting facility should be mandatory. | Clause no. 2.7 CONSTRUCTIONAL REQUIREMENTS: a. The Meter shall be housed in a single unit/enclosure which shall be Rack/panel mounted at indoor panels. h. Availability of automatic CT shorting facility shall be a preferred feature |

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| 14. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.8 Terminals- Terminal block The manner of fixing the conductors to the terminals should ensure adequate and durable contact such that there is no risk of loosening or undue heating. Screw connections transmitting contact force and screw fixings that may be loosened and tightened several times during the life of the meter. | Offered meter is draw out type with rack mounting arrangement. The offered meter will have terminal block of polycarbonate on rear side of meter. The Eassaliec connector will be used as terminal block for connection of CT leads with Ring type Lugs and PT leads with H type lugs for proper terminals. The Meter carries male part of Eassaliec connector and Racks carries female part of Eassaliec connectors. Same should be acceptable. | Bidders suggestion is accepted in case of rack mounted draw out type meters. |
| 15. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.10 TECHNICAL REQUIREMENTS b) MARKING OF METER ix. Meter Constant | Same will be available at meter display. | Tender clause stands |
| 16. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.10 TECHNICAL REQUIREMENTS c) CONNECTION DIAGRAM The connection diagram of the meter for both 3P4W & 3P3W mode shall be available permanently on meter terminal cover. The meter terminals shall be properly marked to identify voltage, Current, Auxiliary power supply, communication ports and output terminals etc. | This is applicable for project mounted type meter. But the Meter is required rack mounted type (draw out with CT shorting), hence connection diagram will be provided on Meter case. Request you to please accept the same & amend the clause accordingly. | The connection diagram of the meter for both 3P4W & 3P3W mode shall be available permanently on meter terminal cover/Meter case. The meter terminals shall be properly marked to identify voltage, Current, Auxiliary power supply, communication ports and output terminals etc. |
| 17. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.10 TECHNICAL REQUIREMENTS u) Calendar & Clock An automatic backup for continued operation of the meter's calendar-clock, and for retaining all data stored in its memory, shall be provided through a long-life battery, which shall be capable of supplying the required power for at least 2 years. The meters shall be supplied duly fitted with the batteries, which shall not require to be changed for at least 10 years, as long as total VT supply interruption does not exceed two years. The battery mounting shall be designed to facilitate easy battery replacement without affecting PCB of the meter. | The offered Meter will have two batteries and both are non-rechargeable type. 1) RTC battery which will remain secured under Meter cover and not replaceable type. Having operating life of 10 years. 2) Other Battery is provided for reading through Display and Optical Port in absence of power supply. This battery is replaceable type, which is provided under separate cover with sealing arrangement. The life of battery is depending upon uses. Besides this meter is powered through auxiliary supply. | Tender clause stands. |
| 18. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.10 TECHNICAL REQUIREMENTS v) DATA COMMUNICATION iii. The metering system shall have Ethernet port (RJ45 port) and RS 485 port for remote data transfer to a central location through Sub-Station gateway (DCU). This port shall be capable of data transfer to a remote computer over suitable communication media (GSM/GPRS/LEASED LINE/OFC etc.) using suitable communication hardware (modem/multiplexer/communication cable etc.). These port shall be configured for both DLMS and MODBUS protocol. | Ethernet port must be used for remote data transfer to Central location through S/S gateway (DCU). This more reliable & fast data transfer port. Same should be acceptable & mandatory. So, all bidder can be on single point of communication. | Tender clause stands |

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| 19. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.10 TECHNICAL REQUIREMENTS x) ANOMALY DETECTION FEATURES There shall be five / six separate compartments for logging of different type of anomalies. | There shall be compartments as per IS 15959 for logging of different type of anomalies: | There shall be compartments as per IS 15959 for logging of different type of anomalies: |
| | | Compartment No.1 : 100 events of Missing Potential | Compartment No.1 : 100 events of Voltage related events | Compartment No.1 : 100 events of Voltage related events |
| | | Compartment No.2 : 100 events of CT Reversal | Compartment No.2 : 100 events of current related events | Compartment No.2 : 100 events of current related events |
| | | Compartment No.3 : 100 events for Power Failure / Power On-Off | Compartment No.3: 100 events for Power Failure / Power On- Off | Compartment No.3: 100 events for Power Failure / Power On- Off |
| | | Compartment No.4 : 50 events of Transaction related changes as per ICS | Compartment No.4 : 50 events of Transaction related changes as per ICS | Compartment No.4 : 50 events of Transaction related changes as per ICS |
| | | Compartment No.5 : 50 events of Magnetic Interference | Compartment No.5 : 100 events of Magnetic Interference, ND (Optional) | Compartment No.5 : 100 events of Magnetic Interference, ND (Optional) |
| | | Compartment No.6 : 50 events of Disturbance due to external logic (optional) | | |
| 20. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.10 TECHNICAL REQUIREMENTS x) ANOMALY DETECTION FEATURES In case of events logged in compartment No. 1 to 4, persistence time of 5 min. for occurrence and restoration respectively need to be supported in meter. In case of events logged in compartment No. 5 & 6, the events shall be logged instantaneously. | Instantaneous logging of events is not advisable as it will not record any meaning information even some interruption may also have logged as event. Hence there shall be some persistence time to log the event. In case of events logged in compartment No. 5, the events shall be logged within approx. 30 seconds. | In case of events logged in compartment No. 1 to 4, persistence time of 3 to 5 min. for occurrence and restoration respectively need to be supported in meter. In case of events logged in compartment No. 5, the events shall be logged instantaneously within 30 seconds. |
| 21. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | EVENT DETECTION FEATURES: IX. Meter “POWER OFF”: If all three phases are below V^{th} , then only, it will be called as “Power Off”. If only one or two phase(s) is/are below V^{th} , then, it will not be defined as “Power Off”, but will be termed as “Phase Missing” or “Current without Volts”. | If all three phase have zero voltage i.e. absence of supply, then meter will log power failure event along with date & time. However if average 3 phase voltage is below configured threshold value then feeder fail event will be logged. | Tender clause stands |
| 22. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | x) ANOMALY DETECTION FEATURES aa) SELF DIAGNOSTIC FEATURE The meter shall have indications for unsatisfactory/nonfunctioning/ malfunctioning of the following: i) Nonvolatile memory ii) RTC battery iii) Internal component of meter The said malfunctioning should be flagged in the meter memory and should be made available in meter reading data. The said malfunctioning shall also be available at Binary output as well as LED indication on the front of the meter. | As AMR will be performed so there in no need of such indication on meter display and has no relevance to provide information locally, as all data will be available at CDCS end. The meter shall have logging for unsatisfactory/ nonfunctioning/ malfunctioning of the following: i) Nonvolatile memory ii) RTC battery iii) Internal component of meter The said malfunctioning should be flagged in the meter memory and should be made available in meter reading data. | Tender clause stands |
| 23. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | z) BASE COMPUTER SOFTWARE (BCS) bb) TYPE & ROUTINE TESTING TYPE TEST & TYPE TEST CERTIFICATES Purchaser shall reserve the right to pick up energy meters at random from the lots offered and get the meter tested at third party lab i.e. CPRI / agencies listed at Appendix-C of CBIP 88 / NPL / CQAL/ ERTL / ERDA at the sole discretion of the Purchaser. The supplier has no right to contest the test results of the third-party lab or for additional test and has to replace/take corrective action at the cost of the supplier | We are requesting you, kindly remove the requirement as it will impact cost & timeline of project. As Bidder is submitted valid type test report from NABL accredited lab. | Purchaser shall reserve the right to pick up energy meters at random from the lots offered and get the meter tested at third party lab i.e. CPRI / agencies listed at Appendix-C of CBIP 88 / NPL / CQAL/ ERTL / ERDA/any NABL accredited Testing Laboratory except the laboratory of the manufacturer. The supplier has no right to contest the test results of the third-party lab or for additional test and has to replace/take corrective action at the cost of the supplier This is under sole discretion of the purchaser. |

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| 24. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | z) BASE COMPUTER SOFTWARE (BCS) bb) TYPE & ROUTINE TESTING Additional acceptance shall include Surge withstand (SWC), Lightning impulse and HF disturbance as per IEC62052-11. For these specific tests, one sample meter from one of the offered lot shall be subjected to SWC/other semi-destructive tests. | The offered meters will be installed in the substation i.e. indoor and not in any consumer premises or outside. Meter will comply with IS 14697, hence, testing on meter is not applicable & required. Additional acceptance should be as per IS 14697 | This is under sole discretion of the purchaser. The purchaser may go for testing if desired and hence Tender clause stands |
| 25. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 2.12 SUBMISSION OF SAMPLE METER & ACCESSORIES One (01) No. sample meter having all the mentioned features, BCS and a sample of Ethernet switch for testing purpose is to be submitted to SLDC, OPTCL Any other accessories required for observing the performance & capabilities of the Meter, BCS, etc is also to be submitted. Offer will not be accepted without submission of sample and the Tender will not be opened. | We are requesting you please remove the requirement of sample, as we are regular supplier of Utility for quoted meter. Sample requirement must be removed for reputed manufacturer or bidder whose quoted meter is already supplied in utility. | Tender clause Stands for the bidders other than the regular supplier of meters to OPTCL |
| 26. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 3.0 TECHNICAL SPECIFICATION OF METERING PANELS SUITABLE FOR ACCOMMODATING 08 NOS OF 0.25 ACCURACY CLASS TRIVECTOR ENERGY METERS IN EACH PANEL Component Wiring: 3.8. All internal wiring shall be made with annealed copper wire. Wires for current transformer and voltage transformer circuits shall not be smaller than 4.0Sq mm with proper phase identification and all other size shall be of 2.5 Sq mm multi strand copper flexible FRLS PVC wire. Wiring between terminals of various devices shall be point to point & rout through suitable size cable tray | We are requesting you please amend this clause as below “All internal wiring shall be made with annealed copper wire. Wires for current transformer 4.0 Sq mm and voltage transformer circuits, Aux. Supply AC & DC shall not be smaller than 2.5 Sq mm with proper phase identification, indication of LED lamp wiring shall not less than 0.5 Sq. mm copper wire, all other size shall be of 2.5 Sq mm multi strand copper flexible FRLS PVC wire”. | Bidders suggestion is accepted. |
| 27. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | 4.0 TECHNICAL SPECIFICATION OF DATA CONCENTRATER UNITS (DCU). b. DCU should be capable to acquire meter data from IEM as per this technical specification of all makes (secure, L&T, Genus etc.) over different protocols i.e. MODBUS, DLMS over different communication ports i.e. RS485 and Ethernet. DCU shall be a self-contained, standalone box with minimum 1 serial (RS485), 1 RJ45 Ethernet port for meter connection and with one RJ45 Ethernet 10/100 mbps port for communication to CDCS through substation communication equipment. One RJ45 Ethernet port for local PC shall be provided. DCU shall have in built modem or external modem facility. DCU shall have MODBUS port in addition to DLMS. | Multiple Ethernet port in DCU is not mandatory to have as Ethernet switch plays a same role to connect multiple devices with DCU. And there is no technically functionality and SLDC requirement impacted to have one Ethernet port DCU shall be a self-contained, standalone box with minimum two serial (RS232/RS485 selectable) port for meter connections (connecting directly main & check meter, if required) and with one RJ45 Ethernet 10/100 Mbps port | Tender clause stands |
| 28. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | 4.0 TECHNICAL SPECIFICATION OF DATA CONCENTRATER UNITS (DCU). DCU shall provide meter status, alarm etc. and energy data to local personal computer, if required. | Please specify the type of alarms expected from DCU to local PC. Local monitoring is not in scope against this tender, please confirm | Local monitoring is not in the scope of this tender |

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| 29. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | TECHNICAL SPECIFICATION OF DATA CONCENTRATER UNITS (DCU) Clause no. 4.2 Application Requirement: DCU/Gateway should be capable to acquire meter data from IEM as per this technical specification of all makes (secure, L&T, Genus etc.) over different protocols i.e. MODBUS, DLMS over different communication ports i.e. RS485 and Ethernet. | DCU/Gateway should be capable to acquire meter data from IEM as per this technical specification of all DLMS makes (secure, L&T, Genus etc.) over different DLMS protocol. | Tender Clause Stands |
| 30. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | TECHNICAL SPECIFICATION OF DATA CONCENTRATER UNITS (DCU) Clause no. 4.2 Application Requirement: g. DCU should have non-volatile memory for storing meter data for at least 30 (thirty) days for FIFO buffer mode. | For implementation of SAMAST project, Data are required at SLDC at frequency 5/15 min. There is no relevance to store data at DCU end DCU/Gateway should have non-volatile memory for storing meter data for at least 7 days for FIFO buffer mode. | Tender Clause Stands |
| 31. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | TECHNICAL SPECIFICATION OF DATA CONCENTRATER UNITS (DCU) Clause no. 4.3 General Construction Application Requirement: Data Concentrator Unit (DCU) along with the suitable Rack mounted panel enclosure shall be placed in the control room in the Substation/ Generating Plant. DCU is functionally required to acquire the IEM data and transferring the same to Data Control Center (SLDC) using communication system and AMR software. | We would like to inform that SMC/PC enclosure suitable to ease mount, and eliminate chances of electronic circuit harm due to the magnetic interference & provide better signal strength Data Concentrator Unit (DCU) along with the suitable panel enclosure shall be placed in the control room in the Substation/ Generating Plant. DCU is functionally required to acquire the IEM data and transferring the same to Data Control Center (SLDC) using communication system and AMR software. | Tender Clause Stands |
| 32. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 5.0 TECHNICAL SPECIFICATIONS OF SWITCH FOR METER LAN 16 Port Industrial Ethernet Switch | This very specified requirement for LAN port, there should be constraint for make & specification of LAN switch. As bidder is responsible for workable solution & penalty is also associated with SLA. Kindly accept 16 port LAN port of any reputed make. | Tender Clause Stands |
| 33. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | Clause no. 5.0 TECHNICAL SPECIFICATIONS OF SWITCH FOR METER LAN Input Voltage: 230VAC/ 110-220V DC, Redundant Input, complied with the requirements of SELV | Hardly any OEM is having Industrial Switch complying to this spec. 12 to 48V DC is a very standard DC Power supply available in Industry. However, if customer desires to connect the Switch to a 230 V AC supply, the same can be done by using an external AC-DC Converter, same is also needs to mentioned in Price schedule 18-57V DC Redundant Input, complied with the requirements of SELV Switch shall be 10/100Mbps with 16RJ45+2FX SM s(as Ethernet switch will connecting to Meters, & all meters have 10/100 Ethernet ports, hence suggest to consider 10/100Mbps Ethernet ports. | Tender Clause Stands |
| 34. | | 4.0 TECHNICAL SPECIFICATION OF DATA CONCENTRATER UNITS (DCU) Clause no. 4.2 Application Requirement: DCU shall be able to communicate to the local PC for substation local monitoring, if required. iii. BCS shall be able to convert the meter dump/ raw data to readable format which can be processed in the existing as well as upcoming energy accounting software module used for Energy Accounting and its report generation. | Please specify the type of alarms expected from DCU to local PC. Local monitoring is not in scope against this tender, please confirm. | No local monitoring is included in this tender but only communication is required to local PC to download /view the data if required ,no alarm is required. |
| 35. | PART-I SECTION – V TECHNICAL SPECIFICATIONS | It shall be possible to change/update the energy meter protocol driver from CDCS. | We are requesting you please delete this clause. Protocol of Meter couldn't be change once the meter manufactured. Even Meter firmware upgrade is not recommended remotely | Bidders suggestion is accepted and the clause is deleted. |
| 36. | SECTION –VI-A: COMPREHENSIVE ANNUAL MAINTENANCE | Clause no. 8. System availability The nature and maintenance support required for systems and components are described below: | Since there are many remote sites where availability of the network is not guaranteed and also as per our practical experience availability of data at least of 99% is too difficult over GPRS network.Also, acceptable limit & penalty can only be finalized after technical feasibility & finalization of communication media and excluding the scheduled maintenance & failure of power source.We are requesting you please amend below: - | Clause no. 8. System availability The nature and maintenance support required for systems and components are described below: Note: The System Availability shall be subject to communication link availability between the DCU/Gateway and DC/DR of OPTCL with due certification of concerned OPTCL/SLDC officer in charge |

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| | CONTRACT FOR AMR AND HARDWARE | Sl.no. System System Availability requirements | Sl.no. System System Availability requirements | Sl.no. System System Availability requirements |
| | | 1 ABT Meters data 99% | 1 ABT Meters data 95% | 1 ABT Meters data at user end 100% |
| | | 2 AMR Solution Software 99% | 2 AMR Solution Software 95% | 2 AMR Solution Software 99% |
| 37. | SECTION-VI-A: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR AMR AND HARDWARE | Clause no. 14. Severity level: The details of the system under different severity levels is as below; | We are requesting you please remove the penalty per excess day required in INR as Penalty on SLA is already imposed on bidder | Tender Clause Stands |
| 38. | SECTION VI-A: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR AMR AND HARDWARE | 18. Payment of maintenance charges and Price Reduction (based on the total System availability) Availability of the system per quarter : Deduction as % of the apportioned price of total AMC More than or equal to 99% : NIL Less than 99% : Deduction of 2% of the apportioned prices of the apportioned quarterly AMC for every 0.5 % or part there of decrease in availability under 99%. This deduction will be subject to maximum 50% of the total payable amount of the quarter. | Kindly amend as below: Availability of the system per quarter : Deduction as % of the apportioned price of total AMC More than or equal to 95% : NIL Less than 95% : Deduction of 0.5 % of the apportioned prices of the apportioned quarterly AMC for every 0.5 % or part there of decrease in availability under 95%. This deduction will be subject to maximum 10% of the total payable amount of the quarter. | 18. Payment of maintenance charges and Price Reduction (based on the total System availability) Availability of the system per quarter : Deduction as % of the apportioned price of total AMC More than or equal to 99% : NIL Less than 99% : Deduction of 2% of the apportioned prices of the apportioned quarterly AMC for every 0.5 % or part there of decrease in availability under 99%. This deduction will be subject to maximum 50% of the total payable amount of the quarter.This deduction will be subject to maximum 10% of the total payable amount of the quarter. |
| 39 | SECTION -VI-A: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR AMR AND HARDWARE | 11. Integration of New Equipment:/ Addition/Deletion/Integration of new IEMs including substation equipment in the AMR database and application software will also be the responsibility of the Bidder without any extra cost to SLDC, OPTCL. | We understand that in case of any addition in new IEMs and DCUs during contract period, same will be taken by OPTCL as per price specified in Purchase order. | Tender clause stands |
| 40 | SECTION-VI-B: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR ABT ENERGY METER | 5. CYBER SECURITY The cyber security audit will be done during entire the project duration period (one time before Go-Live and thereafter yearly). | CYBER SECURITY The cyber security audit will be done during entire the project duration period one time after Go-Live | Tender Clause Stands |

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| 41. | SECTION-VI-B: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR ABT ENERGY METER | <p>Testing with Phantom Load: For such testing, use of Reference Standard with "Total Uncertainty" level as specified in IS 15707 will be used, however accuracy class 0.05 or better for reference standard is recommended:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Remove MUT connection from the Terminal block (TTB) for testing. <input type="checkbox"/> Connect Reference Standard with MUT & Phantom Load. <input type="checkbox"/> Note down the instantaneous values of Voltage, Current, Power Factor, as displayed by the reference standard. <input type="checkbox"/> It is recommended to start testing 2 minutes after load is ON. Check the stability of the error of the MUT by checking the initial errors at 20 pulses. <input type="checkbox"/> Meter to be tested on various testing points: preferably 3 test points. <input type="checkbox"/> The typical test duration should be 2 minute but should not be more than 5 minutes. <input type="checkbox"/> Start the test and note down the test parameters & results in percentage errors. <input type="checkbox"/> Re-install the meter after completion of testing and restore supply. <p>Precautions</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ensure the test equipments are duly calibrated and have uncertainty level within acceptance range. <input type="checkbox"/> Only certified / trained personnel should conduct testing. <input type="checkbox"/> Observe all safety precautions and take all precautions while reinstalling the MUT or switching ON to the load. <p>Accuracy tests wherever applicable, shall be conducted for both the import and export mode.</p> | <p>As the meters are already tested & inspected at works before dispatch, so further testing at site is not require. Also it will increase the lead time of installation.</p> <p>However even if the same is required to be done then we request you to please clarify as with which frequency we have to test the meters and also the same shall also be separately mentioned in the price schedule with price quoted on per unit basis.</p> | <p>Each meter shall be tested at site during commissioning for acceptance as per the standard practice of OPTCL</p> |

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|-------|--|---|--|---|
| 42. | SECTION-VI-B: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR ABT ENERGY METER | <p>Payment will be made equally at the end of every six months, period starting from the date of contract agreement as per the details below:</p> <p>a) Release of payment for the 1st installment: The payment of 1st installments of each year are to be paid to you at the end of 6(six) months. All the ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters need to be Checked Properly under Preventive Maintenance (PM) to ascertain the performance to the satisfaction of OPTCL in every six months. This inspection is to be carried out in presence of OPTCL Engineer & contractor's representative. A report on inspection & testing along with the status of ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters should be jointly signed and furnished to the verifying authority (Concerned AGM/DGM of O&M Division) for verification and onward transmission to the designated Nodal Officer. You have to furnish the draft format for the inspection /testing & Status report of the Bus-Bar scheme, which shall be approved by the C.G.M (O&M), OPTCL, Bhubaneswar.</p> <p>b) Similarly, the payment of 2nd installments of each year are to be paid to you at the end of 12(Twelve) months, during which the inspection of ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters to keep the schemes in a healthy and functional condition, shall be carried out by the Bidder, on production of documents as indicated above.</p> | <p>In place of half yearly payment terms of AMC period, please accept and amend the clause with quarterly or monthly payment terms. As per the clause no. (B) Of (III) Price Reduction Schedule, penalty for delay will be imposed, considering quarterly payment.</p> | <p>Payment will be made quarterly at the end of every 3 months, period starting from the date of contract agreement as per the details below: All the ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters need to be Checked Properly under Preventive Maintenance (PM) to ascertain the performance to the satisfaction of OPTCL in every three months. This inspection is to be carried out in presence of OPTCL Engineer & contractor's representative. A report on inspection & testing along with the status of ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters should be jointly signed and furnished to the verifying authority (Concerned AGM/DGM of O&M Division) for verification and onward transmission to the designated Nodal Officer. The bidder have to furnish the draft format for the inspection /testing & Status report of the r scheme, which shall be approved by the Competent Authority of SLDC/OPTCL.</p> |
| 43. | SECTION-VI-B: COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR ABT ENERGY METER | <p>PRICE REDUCTION SCHEDULE:</p> <p>A) In the event of failure on your part to comply with the provisions of the contract regarding attending to the Breakdown of the ABT Compliant 0.2S AC Energy Accounting and also Interface Meters at various grid substations as indicated elsewhere, a price reduction schedule @0.5% of the Unit AMC price for each day of delay, or part thereof, for such delay, subject to no upper ceiling, will be levied, without prejudice to any other remedies to which OPTCL may also be entitled, under the provisions of the contract/bid specifications.</p> <p>B) In the event of failure on your part to comply with the provisions of the contract regarding attending to the Preventive maintenance (PM) of the ABT Compliant 0.2s Acc Energy Accounting and also Interface Meters at various grid substations as indicated elsewhere, a price reduction schedule @30% of the total AMC value for the period shall be imposed for that six monthly period.</p> | <p>Request you to please accept and amend the clause as per below: A) In the event of failure on your part to comply with the provisions of the contract regarding attending to the Breakdown of the ABT Compliant 0.2S Acc Energy Accounting and also Interface Meters at various grid substations as indicated elsewhere, a price reduction schedule @0.5% of the Unit AMC price for each day of delay, or part thereof, for such delay, subject to maximum 10% the Unit AMC price , will be levied, without prejudice to any other remedies to which OPTCL may also be entitled, under the provisions of the contract/bid specifications. B) In the event of failure on your part to comply with the provisions of the contract regarding attending to the Preventive maintenance (PM) of the ABT Compliant 0.2s Acc Energy Accounting and also Interface Meters at various grid substations as indicated elsewhere, a price reduction schedule @10% of the total AMC value for the period shall be imposed for that quarter.</p> | <p>Tender Clause Stands</p> |

| NAME OF THE BIDDER : GENUS | | | | |
|----------------------------|---------------------------------------|---|---|-----------------------------------|
| SLNo | Clause no & Page no | Tender specification | Bidders query | SLDC reply |
| COMMERCIAL | | | | |
| 1 | 2.2 GENERAL FEATURES and CT secondary | The meter shall have wide secondary current range support i.e. same meter shall be put up for 1A or 5A rating as per field availability of CT's and 3 x -/1 Amps or 3 x -/5 Amps (configurable as per requirement) | You are requested to you kindly accept different different current rating meters according to field requirements.we will offer -/5A and -/1A meters saperately. | Tender Clause Stands |
| 2 | 2.2 GENERAL FEATURES | The meter shall be suitable for connection to 3 phase 4 wire & 3 phase 3 wire metering type with corresponding secondary CT value. | Kindly accept Meter Work 3 phase 3 wire metering type:-we need to change connection. | Tender Clause Stands |
| 3 | 2.2 GENERAL FEATURES | The metering equipment shall have Binary/ Digital programmable at least four numbers Binary/ Digital inputs & 4 numbers Binary/ Digital outputs. Binary/ Digital inputs/ outputs may be configurable to Meters time- synchronizing purpose or other parameters such as pre-definedranges of average frequencies/ over drawl in last IP in VA/ under frequency for development of Smartmetering. | You are requested to you kindly accept Meter has 2 Binary input and 4 Binary output Meters time syn with communication port .Please accept. | Tender Clause Stands |
| 4 | 2.10(i) | The meter shall have Graphical LCD type display with backlight and soft push button for proper depicting of values in user friendly manner | We will request to you kindly accept Seven Segment 8 digit LCD display with green backlight. with user friendly display | Tender Clause Stands |
| 5 | 2.10(ii) | It should be possible to easily identify the single or multiple displayed parameters through legends on the meteringsystem display like graphs, values with unit, OBIS codes etc. | Kindly accept For batter understanding we will provide OBIS Code and Graphs on BCS Software. | Tender Clause Stands |
| 6 | O) DISPLAY PARAMETERS | The graphical display shall be capable to show vector diagram, harmonics & other display parameters. | We will request to you kindly accept Seven Segment 8 digit LCD display with green backlight. with user friendly display | Tender Clause Stands |
| 7 | v) DATA COMMUNICATION | The meter shall have at least one USB port on one of the sides, from where all the data stored in the meter can be downloaded through external storage device. | Please review the clause we will provide Optical to USB cable for local reading, for remote reading RS232,RS485,Ethernet port . | Tender Clause Stands |
| 8 | x) ANOMALY DETECTION FEATURES | Current Circuit open:Check whether line current is less than Lth open; Current circuit Bypass:-b. The current vectors are summed and the meter checks if the difference is more than Lth; | Please check the clause and provide means of Check whether line current is less than Lth open . | Tender Clause Stands |
| 9 | x) ANOMALY DETECTION FEATURES | VRMS Meter "POWER OFF": If all three phases are below Vth, | Please provide what is the means of If all three phases are below Vth, | |
| 10 | x) ANOMALY DETECTION FEATURES | Events shall be five / six separate compartments for logging of different type of anomalies: Compartment No.1 100 events of Missing Potential Compartment No.2 100 events of CT Reversal Compartment No.3 100 events for Power Failure / Power On-Off Compartment No.4 50 events of Transaction related changes as per ICS Compartment No.5 50 events of Magnetic Interference Compartment No.6 50 events of Disturbance due to external logic (optional) | You are requested to you please accept tamper events compartment as per IS-15959 (i) Voltage related (ii)Current related (iii)others related | Bidder's suggestion accepted |
| 11 | 2.7(h) | Availability of automatic CT shorting facility shall be a preferred feature | CT Shorting facility can be done through TTB mounted in Panel | Automatic CT shorting is optional |
| PANEL | | | | |
| 1 | 3.3 Construction | Metering cubical should be of dimension 1800 + 100mm (H) x 750mm (W) x 750mm (D) | We will offer Metering cubicalbe of dimension 1600 + 100mm (H) x 750mm (W) x 640mm (D) kindly accept. | Tender Clause Stands |
| 2 | 3.3 Construction | Panel should have provision to mount 19" Rack mounted 8 nos of energy meters | As per meter technical specification we will provide projection type meters. | Tender Clause Stands |