

Additional Pre-bid Clarifications-02				
Sr. No	Requirement as per specification	Amendment proposed	Justification	TPCODL Response
Contents of the enquiry				
1	The average annual turnover of the bidder shall be a minimum of Rs. 3 Cr. for last three financial years. (FY 18-19, FY 19-20, FY 20-21) Copy of audited Balance Sheet and P&L Account to be submitted in this regard.	The average annual turnover of the bidder shall be a minimum of Rs. 3 Cr. for last three financial years. (FY 18-19, FY 19-20, FY 20-21) Copy of audited Balance Sheet and P&L Account to be submitted in this regard.	The financial qualification requirements shall be fulfilled by bidder.	Pls adhere the tender terms
2	Bidder must have successfully executed the supply order of minimum 35 Nos within last 3 Year. Copy of completion certificates to be submitted in this regard.	Bidder must have successfully executed the supply order of minimum 35 Nos within last 3 Year. Copy of completion certificates inspection report & MDCC to be submitted in this regard.	It is not possible for submit completion certificates for each and every case hence for past supply reference, inspection report & material dispatch clearance certificate shall be accepted.	Available Documents may be shared
3	The bidder should have performance certificates for similar works for one year satisfactory performance from at least one reputed power utility for similar or higher voltage rating. The work against the issued certificate should be completed in last three years from the date of bid submission.	The bidder should have performance certificates for similar works for one year satisfactory performance from at least one reputed power utility for similar or higher voltage rating. The work against the issued certificate should be completed in last three TEN years from the date of bid submission.	Since autoreclosers are relatively a new concept in Indian market hence there are very limited installations of redosers across India. Therefore request you to kindly accept performance certificates which are issued within last 10 years.	Available Documents may be shared
4		Only OEM, Indian companies in JV with global OEM should be allowed to bid.	Allowing channel partners to bid will not ensure after sales service support to TPCODL since channel partners will not be able to ensure/assure prompt service support & spare part availability. Moreover OEM shall not have any liability since they have not quoted directly. Hence if TPCODL want to allow channel partners to bid then we recommend to ask OEM to submit performance BG.	Not Acceptable
5	Price variation clause : The prices shall remain firm during the entire contract period.	Price variation clause : Applicable; base date September 2022	Looking into current uncertainty in global supply chain, since the prices needs to be kept valid for a period one year hence request TPCODL to consider variable prices with base date of Sep.22. This will help bidders to offer most competitive rates.	Not Acceptable
6	The type tests specified in TPCODL specifications should have been carried out within five years prior to the date of opening of technical bids and test reports are to be submitted along with the bids.	The type tests specified in TPCODL specifications should have been carried out within TEN years prior to the date of opening of technical bids and test reports are to be submitted along with the bids.	Type test reports conducted within 10 years from the date of technical bid opening shall be acceptable. This is inline with CEA guidelines	AS per CEA guidelines, Type test reports conducted within 10 years from the date of technical bid opening shall be acceptable.
7	Release Orders shall be placed against the awarded Rate Contract by TPCODL as and when the requirements arise & Delivery within 30 Days from RO.	Release Orders shall be placed against the awarded Rate Contract by TPCODL as and when the requirements arise & Delivery within 120 Days from the date of issue of RO to BA or manufacturing clearance or issuance of clear drawing approval, whichever is later. Max. lot size shall be 40 nos. per month.	Looking into the current issue going on with semiconductors globally, request TPCODL to accept delivery period of 120 days. The delivery shall also be linked to drawing approval since without the same manufacturing can not be started. Please cap the lot size to 40 nos. which will help for smooth planning & execution	May be discussed at the time of order
8	The payment shall be released within 60 days from the date of submission of certified bills/ invoices.	The payment shall be released within 45 days from the date of submission of certified bills/ invoices. And within 15 days from the date of invoice submission on pro rata basis for the service portion or within 60 days from the date of supply if the site front is not made available		Not Acceptable
General conditions of contract - Composite orders				
10	Reverse auction	Will reverse auction take place on line item basis which will mean the award will be on line item basis		TPCODL will take the decision
11	Scope of work	Please provide detailed scope of work for service portion.		Complete installation, testing and commissioning of Autorecloser and accessories with complete integration of system and also with SCADA.
12	Indemnity	The Associate assumes responsibility for and shall indemnify and save harmless the TPCODL from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by the TPCODL and its officers, directors, employees, affiliates, agents, successors and assigns arising from any breach of the Associate's obligations under any local or national law or laws, or in respect to all salaries, wages or other compensation for all persons employed by the Associate or his Sub-Associates or suppliers in connection with the performance of any work covered by the Contract.		Pls adhere the tender terms
13	Disposal Waste at site	We shall not be considering the disposal at site in our scope of work .		Installation, testing and commissioning is in bidder scope, so waste generated during unpacking, installing etc. and its disposal will be in bidder scope.
14	Issuance of Material : The material issued to the Associate shall be in the custody of the Associates who shall be fully responsible for the same. After completion of the works, the Associates will reconcile the material. Any cost of material which is short or damaged/lost will be deducted from Associate bill/ deposits	Clause to be waived off	We request to pls. waive off this clause though complete care shall be taken for returning the issued material without any damage but as we shall not be having any provision like that of space and enclosed area for protection kindly waive off this clause .	Not Acceptable
15	If Taking Over Certificate is delayed for any reason, for which TPCODL's decision shall be final and binding upon the Associate.....	If Taking Over Certificate is delayed for any reason attributable to BA, for which TPCODL's decision shall be final and binding upon the Associate.....	Said clause shall be applicable only for the delays which are caused due to BA. For reasons which are not attributed to BA said clause shall not be applicable.	Delay due to TPCODL shall be not be considered as delay of handing over
16	Unless specified elsewhere in the contract document, the prices/rates are inclusive of cost of finished product for which MDCC will be issued by TPCODL, packaging and forwarding charges, freight and transit insurance charges covering loading at Associate's works, transportation to TPCODL store/site & unloading & delivery at TPCODL stores/TPCODL site, cost of documentation including all the relevant test certificates and other supportive documents to be furnished.	Unless specified elsewhere in the contract document, the prices/rates are inclusive of cost of finished product for which MDCC will be issued by TPCODL, packaging and forwarding charges, freight and transit insurance charges covering loading at Associate's works, transportation to TPCODL store/site & unloading & delivery at TPCODL stores/TPCODL site, cost of documentation including all the relevant test certificates and other supportive documents to be furnished.	Unloading at site shall not be in suppliers scope.	Unloading of the material shall be in BA scope
17	Terms of payment		Please clarify exact terms of payment since there are different terms mentioned on content of enquiry & GCC.	Payment shall be released in 60 days
18	In case any non-compliance to contract conditions comes to TPCODL's notice, TPCODL will be entitled to deduct 30% of estimated wages plus 20% of wages as TPCODL's overheads.	Please remove said clause	Liquidated damages shall be the sole remedy for TPCODL on account of delays.	Pls adhere the tender terms
19	Goods/Material/Equipment delivered in condition physically damaged & incomplete as a product ordered, or not packed and transported as per the terms and conditions of the contract is liable to be rejected.	Goods/Material/Equipment delivered in condition physically damaged & incomplete as a product ordered, or not packed and transported as per the terms and conditions of the contract is liable to be rejected provided said damage/incompleteness etc of product is conveyed to supplier within 7 working days from the date of receipt of material at site.	There should be some time line for communicating transit damages to supplier.	Not Acceptable
20	Guarantee Period	No Guarantee shall be applicable instead warranty as specified in below points shall be applicable		Guarantee period shall be up to a period of at least 48 months from the date of commissioning or 60 months from the date of last supplies made under the contract whichever is earlier as per TPCODL Technical Specification clause no. 11
21	TPCODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.	TPCODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.	Only actual incurred expenses shall be recovered.	Not Acceptable
22	The Warranty period for such replaced parts shall be until the expiry of twelve months from the date of such replacement or renewal or until the end of original Guarantee period, whichever is later.	The warrantee period of replaced parts shall be same as that of original equipment.	No separate extended warrantee shall be provided for replaced parts.	Not Acceptable
23	In case the Associate is not able to rectify/ replace the faulty equipment/ material within the stipulated timelines as mentioned above, penalty shall be levied as per the Liquidated Damages clause mentioned in this document. The penalty amount shall be recovered from the payment due to the vendor or by encashment of the SPBG as the case may be.	Said clause shall be removed	LD/penalty on account of warrantee failure shall not be in acceptable to us.	Not Acceptable
24	Hidden defects in manufacturing or design of the product supplied and which could not be identified by the tests conducted but later manifested during operation of the equipment are termed as latent defects.	Hidden defects in manufacturing or design of the product supplied and which could not be identified by the tests conducted but later manifested during operation of the equipment are termed as latent defects.	Only design defects shall be considered in latent defects. If manufacturing defects are included in the same then there is no change in normal warrantee & latent defect warrantee.	Not Acceptable
25	Liquidated damages @1% of the total executed contract value per week or part thereof, for the period of delay in integrated completion, subject to maximum 10% of the value of the contract shall become leviable without prejudice to other rights of the TPCODL	Liquidated damages @0.5% of the undelivered value per week or part thereof, for the period of delay in integrated completion, subject to maximum 5% of the value of the undelivered portion shall become leviable without prejudice to other rights of the TPCODL	The limit of LD shall be 0.5% per week upto maximum 5% of undelivered portion.	Not Acceptable
26	Liquidated damages	• LD shall be computed on the undelivered lot upto the max LD limit. • LD shall be exclusive remedy for delay and in full satisfaction. Under the contract, TPCODL shall first exhaust the LD max limit before resorting to any other remedy available under the contract		Not Acceptable
27	Intellectual Property Rights	Any intellectual property developed or acquired by Associate during course of contract shall be owned by Associate. TPCODL will such rights as granted by Associate in intellectual property on development.		Pls adhere the tender terms
28	Indemnity	The Associate assumes responsibility for and shall indemnify and save harmless the TPCODL from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by the TPCODL and its officers, directors, employees, affiliates, agents, successors and assigns arising from any breach of the Associate's obligations under any local or national law or laws, or in respect to all salaries, wages or other compensation for all persons employed by the Associate or his Sub-Associates or suppliers in connection with the performance of any work covered by the Contract.		Pls adhere the tender terms

29	Liability & limitations	Notwithstanding any provision to the contrary, Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof) arising out of or in connection with the Performance of the Work or supply of Goods unless caused by Associate's gross negligence, or willful misconduct.		Pis adhere the tender terms
30	FORCE MAJEURE	safety measures against covid, quarantine restrictions shall be force majeure events.		Shall be Examine
31	Termination for convenience of TPCODL	In case of termination for convenience of TPCODL, Associate shall also be paid for the cost of work in progress along with supplies/services rendered until date of termination.		Pis adhere the tender terms
32	Requirements for 'Clearance for Commencement of Work' (CCW); Requirements during execution of work; Requirements for 'No Objection Certificate' (NOC) for closure of work.	We need brief clarity on this process for our better understanding		BA cell compliance is mandatory for working in TPCODL premises, Bidder has to comply
33	LIST OF PERSONAL PROTECTIVE EQUIPMENT AND TESTING FREQUENCY		Our organization also follows predefined safety guidelines, in case of any mismatch it shall be discussed and sorted out as specific makes only can cause hurdles in some of the equipments	BA has to comply all TPCODL safety guidelines.
Technical Specification for 11kV pole mounted autorecloser, ENG-LV-040				
34		This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site/store and performance of 11kV Pole mounted Autorecloser complete with all accessories and necessary training for efficient and trouble free performance.	Our scope shall be limited to supply of reclosers only. Unloading at site, training of recloser shall not be in or scope of supply. Please remove performance word from the scope of supply.	No deviation shall be acceptable from TPCODL technical specification.
35	Wind Pressure : 300kN/m ²	Wind Velocity : 180 km/hr	As per IS 875-3 (1987) appendix A the basic wind speed at 10 meter height (where autorecloser is getting mounted) for Bhubaneswar is 50 meter per second.	Acceptable
36	Operating sequence 0-0.5s-CO-10s-CO-10s-CO	Operating sequence shall be 0-0.2s-CO-2s-CO-2s-CO	Initial tripping mentioned in operating sequence in specification i.e. 0.5sec is higher than normal outdoor breaker i.e. 0.3 sec. Hence request you to change it to 0.2 sec instead of 0.5 sec this will help TPCODL to have product tested with more stringent requirement. Also request TPCODL to verify that the said auto reclosing duty has been proven by the type test reports of the bidders.	As per TPCODL technical specification or better as per OEM Type tested design
37	Copper chromium with silver plating or better	Copper chromium or better	Since the contacts are inside vacuum hence silver plating is not required for the same.	Acceptable
38	CT Accuracy : 1-630A - +0.5%	CT accuracy shall be 5P10	Since the CT's are used for protection purpose hence same shall have accuracy class of 5P10. Recloser CT are not meant for metering purpose. Our inbuilt CT of 600/1 A is suitable for detecting current (for protection) up to 1.2 Amp. Same shall be sufficient for TPCODL requirement.	Acceptable. CT accuracy shall be 5P10
39	The mounting bracket for Autorecloser and Aux. Pt	Please specify exact no of requirement for double pole & single pole mounting		Details shall be shared during detailed engineering stage
40	The controller shall have battery having capacity of minimum 20 complete operations and 100Hrs of backup	The controller shall have battery having capacity of minimum 20 complete operations and 48Hrs of backup	Battery backup of max. 48 Hrs can be provided.	The controller shall have battery having capacity of minimum 20 complete operations and 72Hrs of backup which shall be charged by a temperature compensated charging circuit, allowing the battery to charge at an optimal rate to extend battery life. Battery warranty should be treated equal to AR
41	Shielded Control cable for connection from pole top unit to controller cabinet should be provided with minimum length of 7 meter.	Shielded Control cable for connection from pole top unit to controller cabinet should be provided with minimum length of 6 meter.	Length of control cable shall be 6 meters.	Shielded Control cable for connection from pole top unit to controller cabinet should be provided with minimum length of 7 meter. Min. 6m length may be acceptable depending upon the site condition after installation Controller within safe operating height.
42	The controller should monitor battery voltage and provide alarm if the voltage falls below 21V and cut-off at 18 V	The controller should monitor battery voltage and provide indication if the voltage falls below 21V and cut-off at 18 V	Indication through programmable LED's on relay HMI or signal to SCADA shall be provided.	Acceptable
43	Controller must have at least one TCP/IP Ethernet port to / for communication with master station over IEC-60870-5- 104 & MQTT.	Controller must have at least one TCP/IP Ethernet port to / for communication with master station over IEC-60870-5- 104.		Acceptable
44	Support IEC - 60870-5-104 & MQTT for communicating with master station. Shall also support SFTP protocol to transfer disturbance record to remote server.	Support IEC - 60870-5-104 for communicating with master station. Shall also support SFTP protocol to transfer disturbance record to remote server.		Acceptable
45	Event storage in internal memory of controller as below:	Event storage in internal memory of controller shall be 1024 events.		Acceptable
46	The bidder should provide necessary support for integration of field device with TPCODL SCADA/ADMS/DA	The bidder should provide necessary support for integration of field device with TPCODL SCADA/ADMS/DA. The support can be provided through remote or physical presence at site.	Remote support for integration shall also be accepted.	The bidder should provide necessary support for integration of field device with TPCODL SCADA/ADMS/DA. The support can be provided through remote or physical presence at site. Details requirement shall be shared during approval stage.
47	Indicating LEDs shall be provided by the bidder: a)Open (Separate LED) b)Close (Separate LED) c)Over current pickup with phase & ground indication d) Lockout e)Unit status f)Two user programmable LEDs g)Contact & breaker health status h)Battery & battery charger health status	Indicating LEDs shall be provided by the bidder: a)Open (Separate LED) b)Close (Separate LED) c)Over current pickup with phase & ground indication d) Lockout e) Unit status f)Two user programmable LEDs g)Contact & breaker health status h)Battery & battery charger health status	AR healthy indication shall be provided instead of contact and breaker health status.	Acceptable
48	J) Minimum TMS settings for IDMT element shall be 0.01 for better relay co-ordination with upstream breaker. K) The high set/definite time delay shall have minimum 20ms setting.	J) Minimum TMS settings for IDMT element shall be 0.05 for better relay co-ordination with upstream breaker. K) The high set/definite time delay shall have minimum 40ms setting.		No deviation shall be acceptable from TPCODL technical specification.
49	Following metering capabilities shall be provided by the bidder which shall be monitored from local & remote (through SCADA): a) Current: Phase & Neutral b) Voltage: Phase to phase & Phase to Neutral c) kWh- Single & Three phase d) kVAr- Single & Three phase (lag & lead) e) Power Factor f) Frequency g) Positive, Zero and Negative Sequence Currents h) Positive, Zero and Negative Sequence voltage	The below mentioned measurement options are available in the relay:- a. Three-phase current measurement b. Sequence current measurement c. Residual current measurement d. Three-phase voltage measurement e. Sequence voltage measurement f. Three-phase power and energy measurement g. Single-phase power and energy measurement h. Frequency measurement i. Load profile record		Acceptable
50	Isolator as per IS 9921 part 4 (Inspection at OEM factory can be conducted by TPCODL team)	Please remove said clause	As per clause 4.42, page no. 5 of 19 the isolator is in scope of TPCODL hence same shall not be supplied by associate.	Noted.
51	Type tests shall have been conducted in certified Test laboratories during the period not exceeding 5 years from the date of opening the bid.	Type tests shall have been conducted in certified Test laboratories during the period not exceeding 10 years from the date of opening the bid.	Type test reports conducted within 10 years from the date of technical bid opening shall be acceptable. This is inline with CEA guidelines	The Bidder shall furnish the type test certificates of same design as offered in bid for the tests as mentioned in specification as per the corresponding standards. All the tests shall be conducted at CPRI/ERDA or International accredited Laboratory like KEMA as per the relevant standards of IEC/IEEE. Type tests shall have been conducted in certified Test laboratories during the period not exceeding 10 years from the date of opening the bid. In the event of any discrepancy in the test reports, i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPCODL. Bids without all type test reports shall stand disqualified.
52	In the event any defect is found by the TPCODL up to a period of at least 48 months from the date of commissioning or 60 months from the date of last supplies made under the contract whichever is earlier.	In the event any defect is found by the TPCODL up to a period of at least 48 months from the date of commissioning or 60 months from the date of last supplies made under the contract whichever is earlier.	The warranty of equipment shall be linked with individual supply date instead of last supplies made under contract.	Warranty shall be as per TPCODL Technical specification clause no. 11
53	TPCODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.	TPCODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.	Only actual incurred expenses shall be recovered.	No deviation shall be acceptable from TPCODL technical specification.
54	In case of GP failure, BA shall report at site within 48 hours from intimation and arrange for rectification of fault within a mutually agreed time.	In case of GP failure, BA shall respond to rectification of fault within 48 hours from intimation and arrange for rectification of fault within a mutually agreed time.		No deviation shall be acceptable from TPCODL technical specification.
55	To ensure proper operation of Product the bidder shall provide onsite training of TPCODL teams as and when required.	To ensure proper operation of Product the bidder shall provide onsite training of TPCODL teams during installation & commissioning of supplied reclosers.	Training shall be provided by service engineer visiting TPCODL for supervision of erection & commissioning of supplied reclosers only. Training can not be given as and when required.	Installation, commissioning and operation related training shall be conducted for site engineers at TPCODL site/office. At least one day shall be considered for training. At later date a virtual training shall be arranged if required. The trainings shall be conducted by OEM specialist Engineers only.
56	To ensure quality of installations bidder shall provide supervision support during impartation.		Please specify exact no of man days to be considered for supervision per reclosers.	The Bidder Engineer Shall present at the time of testing and Energisation of product for each installation. Additionally for each site, bidder Automation engineer will configure the AR on automation aspects.(Complete functionality of AR)
General				
57		Exclusion of Consequential Damages : Notwithstanding any other provision to the contrary, in no event shall BA, its suppliers, sub-contractors, employees and Affiliates, be liable under this contract for any loss of profits, loss of use, loss of production, loss of contracts, loss of data or any indirect or other consequential losses/damages, whether in contract, warranty, tort, negligence, strict liability or caused otherwise.		Pis adhere the tender terms
58	Liability limitation	Notwithstanding anything contained in this Contract/PO or any of its parts, it is agreed between the parties hereto that the aggregate cumulative liability of the BA under this Contract/PO (regardless whether the claim is based upon tort, negligence or strict liability) resulting in any way from the performance or non-performance, all indemnities, liabilities, loss, damages, expenses, claims, direct damages risk purchase etc. shall not exceed 100% of the Contract value/PO value.		Pis adhere the tender terms

59		The parties are aware of the shortage of raw material, electronic components worldwide which is likely to last for the foreseeable future, as well as of market fluctuations in the availability and cost of other raw materials, commodities, other critical components, and transport capacities. Notwithstanding anything to the contrary in the contract/terms and conditions/purchase order, if after the date of BA's proposal/offer or during the term of the performance of the contract/purchase order there are any changes to availability and/or market conditions for electronic components, raw materials, commodities, and transportation capabilities directly or indirectly affecting BA's performance, BA shall be entitled to relief in the schedule of the performance or delivery of the directly or indirectly affected scope of work under the contract/purchase order. In such circumstances BA may not be able to comply with the originally agreed delivery or completion schedule and that BA shall not be liable for any liquidated or actual damages in connection thereto.	Looking into the current crisis going on with global supply chain request you to kindly include the said clause.	Shall be Examine
60			pls. share the tentative shutdown schedule / site activities schedule for our reference , Site team depuattaion to be informed 45 days prior to the actual schedule of work-at site	Will be informed 7 days prior to actual schedule of work
61			There shall be no retention payment after supply and completion of work	Payment term shall be follow
62			Pls. suggest in one visit how many minimum quantity will be available for work and over complete rate contract period how many visits tentatively are to be considered in reference of site schedule	One visit minimum 5 nos of A/R
63			Crane lifter at site shall be arranged by customer	Installation is in bidder scope, so arranging crane lifter is part of installation, so it will be in scope of bidder.
64			Watch & ward with storage (theft protected) shall be responsibility of customer , Shifting from stores to site and site to stores of equipments shall be in customer scope	Shifting from store to site and site to store is in bidder scope. Material to be unloaded at store.
65			Proper roads shall be available to go to the site where actual work is to be accried out	Proper roads are there
66			No CEIG approval ot government officials approvals shall be in our scope of work	Acceptable
67			Battery Shelf life will be 6 months from the date of delivery .	No deviation shall be acceptable from TPCODL technical enacrifirattin.
68			Will there be separte PO for Service portion / ETC or will be separate line in same PO of the supply with separate line item for service . pls. clarify	Single RC shall be issued

Sl no	Service
1	Pole erection with concreting and coupling in supplier scope as well transportation of pole from tpcodl store to erection site upto 100 km is in supplier scope
2	Cut point(channel, angle, fish palte) with insulator, hardware fitting, lugs, terminal connector, spacer, wedge connector, jumpering,stay set along with necessary items for complete erection is in supplier scope. Bisecting of our conductor and normalising of conductor is in supplier scope
3	Installation and erection of isolator,AR, aux pt, lv cabinet , LA in supplier scope
4	excavation of earth pit, earth pipe installation ,earth chamber preparation and connection to equipment through proper GI flat is in supplier scope
5	Achieving the earthing value of all earth pit below 1 ohm is in supplier scope
6	Erection of necessary GI structural steel required for installation of AR, Aux PT, LA, Isolator , LV cabinet , GI flat is in supplier scope
7	Testing of isolator, aux pt, A/R, Relay, controller, modem is in supplier scope
8	Relay configuration & modem configuration adaptation is in supplier scope
9	Modem communication and configuration and remote checking of all parameters as well operation from TPCODL SCADA is in supplier scope
10	Packing, un packing, lifting of A/R, sectionalizes , isolator, aux pt, lv cabinet, LA/SA and other necessary associated material in supplier scope. Delivery of material at TPCODL store as well as lifting of material from tpcodl store to TPCODL erection site for installation is in supplier scope
11	minimum five no of sites will undergo erection parallely, supplier has to arrange
12	Vermin proofing and cleaning etc is in supplier scope
13	commissioning of isolator, aux pt, A/R, Relay, controller, modem is in supplier scope
14	Erection and installation of HT insulation tape, bird guard, lugs crimping ,terminal connector, spacer, control cable termination, spacer, hdpe pipe, surge arrester is in supplier scope
15	erection of insulated ASCR conductor for jumpering with wedge connector is in supplier scope
16	crimping of cable, ferulling, tagging, earthing, lugging of cable is in supplier scope
17	Return of balance material after complete commissioning to Tpcodl store and hand over of AR to tpcodl stakeholder is in supplier scope
18	Prior survey, feasibility, vegetation cleaning, tree trimming as well as cleaning of erection site after and before erection is in supplier scope.
19	Complete training (O&M) to all tpcodl stakeholders is in supplier scope
20	Relay & modem back up file in pen drive, commissioning report, sim with ip list, gps location of erected AR to be submitted by supplier.
21	Adaption of relay setting/ nomenclature/ zebra painting/danger board/ barbed wire (anti climbing) erection is in supplier scope
22	Ensuring complete safety and safety equipment(ladder, discharging rod, neon tester, induction helmet, safety shoe, reflecting jacket, first aid box, safety gloves, full body harness with double lanyard, BA compliance from BA cell) is in supplier scope
23	Test charging of AR under presence of concerned TPCODL stake holders is in Supplier scope.
	Few requirements.
Sl no	
1	Earthing Pit to be done and resistance to be kept below 1ohm
2	As we have instance blasting of Aux. PT so LA for Aux PT to be considered.
3	LA earthing flat should not be mixed with body earthing flat, both to be kept separate
4	LA earthing flat should not touch the body of AR breaker as well body of Aux PT.
6	All connecting channel angle flat for installation of AR & Isolator to be provided by BA and should of proper GI
7	There should be provision for terminal block for injecting secondary current for testing of relay/controller where in present AR there is only provision of primary current injection
8	There should be provision for taking timing of breaker C,O,CO where in present AR there is no provision of taking timing test
9	There should be provision for push button for close/open for control cabinet as well from relay/controller
10	Relay configuration as well as SCADA configuration as well as modem configuration should be finalised and uploaded in relay/modem before dispatch of material.
11	Modem should be properly installed inside the control cabinet with antenna, so that antenna should not installed outside cabinet or else it will be lost/stolen
12	control cable connection from LV cabinet and HV cabinet should be plug & socket type