

Clarification No-I dated 01/09/2023 to Bidding Documents for Package I Replacement Upgradation of existing SCADA EMS at ERLDC and SLDCs in Eastern Region under Implementation of Unified Load Despatch and Communication (ULDC) Phase III (SCADA EMS upgradation project) Eastern Region; Specification no.: CC/NT/W-SCADA/DOM/A06/23/05954

S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
1.	ITB Clause No. 22.4, Section-III: Bid Data Sheets	<p>Replace Clause ITB 22.4 with the following:</p> <p>In the schedules, Bidder shall give the required details and a breakdown of their price considering and taking into account the Input Tax Credit (ITC) as may be available under the Goods and Services Tax (GST) Laws and Regulations, in the schedules as follows: </p> <p>(a) The break-up of Annual Maintenance Charges (AMC) for 1 year during defect liability period and for 6 years after defect liability period shall be furnished in Schedule 4b. The price indicated in respect of all items in Schedule 4b shall be excluding GST, if any, payable.</p> <p>The Annual Maintenance Charges (AMC) shall be minimum 30% of the sum total Bid Price quoted by the bidder. Also, the Annual Maintenance Charges shall be uniformly distributed over the AMC period of 7 years i.e., 1 year Defect</p>	<p>Please remove this restriction of minimum 30% of the sum total Bid Price quoted and Bidder should be allowed to quote the AMC price realistically.</p> <hr/> <p>AMC portion will be 30% of bid value- This restriction will make the cash flow negative for us. Hence kindly either remove this restriction or remove the AMC from Scope and take an offer for AMC once the main project is completed. M/s PowerGrid shall allow bidders to quote AMC price at their own without compromising on the deliverables of AMC contract</p>	<p>The provisions of the Bidding Documents shall remain unchanged.</p>

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		<p>Liability Period and 6 years AMC period.</p> <p>Bidder's failure to confirm to this requirement in its bid shall lead to outright rejection of the bid.</p>		
2.	ITB Clause No. 22.4, Section-III: Bid Data Sheets	<p>Replace Clause ITB 22.4 with the following: (e) The break-up of Annual Maintenance Charges (AMC) for 1 year during defect liability period and for 6 years after defect liability period shall be furnished in Schedule 4b.</p> <p>The price indicated in respect of all items in Schedule 4b shall be excluding GST, if any, payable.</p> <p>The Annual Maintenance Charges (AMC) shall be minimum 30% of the sum total Bid Price quoted by the bidder. Also, the Annual Maintenance Charges shall be uniformly distributed over the AMC period of 7 years i.e., 1 year Defect Liability Period and 6 years AMC period.</p>	<p>Due to technology product being prone to fast changes/ refresh/ developments, OEM guarantee 7 years support or sometime upto 8-9 years as an exception from the date of Delivery. We have to pay upfront payment to all OEMs towards Supply & long term support. Hence it is not feasible for us to keep 30% prices for AMC period. Except manpower and other logistics cost, we have to incur cost towards long terms AMC support till FAT of SCADA/EMS system. Kindly delete this requirement pf 30% prices for AMC</p>	<p>The provisions of the Bidding Documents shall remain unchanged.</p>

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		<p>Bidder's failure to confirm to this requirement in its bid shall lead to outright rejection of the bid. </p>		
3.	ITB, Clause 23	23.1 Prices shall be quoted in Indian Rupees Only.	<p>Bidder requests PowerGrid to consider price offer in USD.</p> <p>Bidder requests PowerGrid to consider price offer pegged to current price in USD. Being a long-term contractual engagement, the USD/INR exchange rate is not expected to remain constant and a Price Variation towards exchange rate should be added in the Contract.</p>	The provisions of the Bidding Documents shall remain unchanged.
4.	GCC 1.1(e) & 1.1(ee), Vol-I of Bidding documents	The Time for successful Completion of subject package shall be as per the following details: 18 Months for all utilities	<p>We request M/s PGCIL to review the project completion schedule and modify with 30 months.</p> <p>Following are the reasons:</p> <ul style="list-style-type: none"> - The project schedule/completion time (18months) as stipulated in the tender is very less looking at project requirement, scope of supply items, introduction of new items & features in scope of items metioned in the tender for e.g. DSA, SIEM, NAC etc. 	The provisions of the Bidding Documents shall remain unchanged.

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			<ul style="list-style-type: none"> - Effective time available is only 15 months excluding 3 months parallel running. - Design & Engineering time with lead time of 3rd party items required for the scope of work will need longer time. - Due to global crisis of raw components lead time for delivery of items has drastically increased, hence this is impacting on the over all delay in engineering, manufactirtung & testing of products. - SCADA & EMS projects involve huge third party items and new features being asked /stipulated in the tender technical requirement. This in turn needs validation of all these products in line with cyber security compliance also before FAT & Supply of material at site. - Any sifting of control centers & recommissioning overlapp during the stipulated project schedule may hamper the overall project schedule. 	

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5.	GCC 1.1(e) & 1.1(ee), Vol-I of Bidding documents	The Time for successful Completion of subject package shall be as per the following details: 18 Months for all utilities	Due to Vast Geographic Area under scope and multiple Sites, 18 months completion time is not feasible. Kindly amend the same as 30 months	The provisions of the Bidding Documents shall remain unchanged.
			Bidder requests POWERGRID to provide 24 months duration for Project Implementation.	
			Challenging project timeline (18 months) - We did try and bring this out during the Prebid query stage. In addition, we have raised this concern to PowerGrid earlier in different meeting at PowerGrid office. We once again request you to modify this to 30 months timeline for overall project execution from the date of NOA.	
6.	GCC 1.1(e) & 1.1(ee), Vol-I of Bidding documents	The Time for successful Completion of subject package shall be as per the following details: 18 Months for all utilities	18 Moths Completion time is not practical due to below reasons: 1. ERLDC Upgradation project cover wider Geographical area. 2. Site Surveys, Design & Engineering itself is time taking job as it covers various constituents stake 3. Lead time of OEMs (especially Switches, Routers are high to the tune of 6-8 months) and hence effect the FAT and subsequent execution	The provisions of the Bidding Documents shall remain unchanged.

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			<p>schedule</p> <p>4. Being a technology oriented solution (including cyber security solution) needs reasonable time</p> <p>We request to kindly extend the completion schedule to 30 months</p>	
7.	GCC Clause No. 2.14, Section-IV: General Conditions of Contract	<p>Governing Law & its Jurisdiction</p> <p>The Contract shall be governed by and interpreted in accordance with laws of Union of India and the Courts of New Delhi shall have exclusive jurisdiction in all matters arising under this Contract.</p>	Bidder requests PGCIL that neutral international laws shall govern this project	The provisions of the Bidding Documents shall remain unchanged.
8.	GCC Clause No. 3.3, Section V: Special Conditions of contract	<p>Replacing Sub-Clause GCC 3.3</p> <p>.....</p> <p>b) The contractor shall ensure the availability of all spare parts, besides the mandatory spares, required for the operation and maintenance of the facilities and service support for all items supplied by the Contractor for the AMC Period, including extension of AMC period, if any. The cost of these spare parts shall be included in Annual Maintenance charges.</p> <p>.....</p>	<p>b) We are already facing challenges to have confirmation from OEM's for 7 years support from the date of operational acceptance due to their standard product support policy of 5 Year. Hence we request PGCIL to delete any extension requirement or take-up separately after completion of AMC.</p> <p>d) OEM shall agree for back to back for the same price quoted during bidding, else PGCIL shall pay the differential price to contractor. Powergrid to provide the list of OEM agreeing</p>	The provisions of the Bidding Documents shall remain unchanged.

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		<p>d) During entire contract period till the completion of AMC period (including extension of contract, if any), if OEM discontinues/declared ends support to any item supplied (software/hardware/security solution/OS) under the contract, contractor has to replace such hardware, software (or both, depending on software or hardware dependencies on each-other) without and additional cost to Owner. Such replacement shall be of either same or higher configuration and from the same OEMs.</p>	<p>for the same or else we request you to remove the clause.</p>				
<p>9.</p>	<p>GCC Clause No. 18.3.3.25, Section-IV: General Conditions of Contract</p>	<p>Replace the para 18.3.3.25 with the following:</p> <p>Notwithstanding above, the Contractor shall also be responsible for payment of sum as indicated below additionally which shall be deposited in Safety Corpus Fund pursuant to GCC Sub-Clause 18.3.3.26:</p> <table border="1" data-bbox="506 1230 1021 1385"> <tr> <td data-bbox="506 1230 566 1385">a.</td> <td data-bbox="566 1230 736 1385">Upon 1st Fatal Accident</td> <td data-bbox="736 1230 1021 1385">1% of the Contract price as awarded,</td> </tr> </table>	a.	Upon 1st Fatal Accident	1% of the Contract price as awarded,	<p>We will be taking required insurances for our employees as well as third party employees and thus they are covered under the policy in case of any emergencies. Accordingly, this clause should not be applicable and we request Powergrid to delete this clause.</p>	<p>The provisions of the Bidding Documents shall remain unchanged.</p>
a.	Upon 1st Fatal Accident	1% of the Contract price as awarded,					

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				limited to Rs. 50,00,000/-		
		b.	Upon 2nd Fatal Accident	1.5% of the Contract price as awarded, limited to Rs. 75,00,000/-		
		c.	Upon 3rd Fatal Accident	2% of the Contract price as awarded, limited to Rs. 1,00,00,000/-		
		d.	Re-occurrence of Fatal Accident even after 3rd Fatal Accident	2% of the Contract price as awarded, limited to Rs. 1,00,00,000/- per fatal accident		
		For the purpose of calculation of the aforesaid amounts, 'Contract price, as awarded', shall mean the total Contract Price for both Supply of Goods and Services for the works/facilities as per the				

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		<p>originally awarded Contract/Notification/ Letter of Award (where contract has not been signed) exclusive of any taxes & duties additionally payable/reimbursable by POWERGRID or any change/adjustment due to Price Variation or subsequent amendments to the Contract or Notification/Letter of Award (where contract has not been signed).</p> <p>In case of a fatal accident in a contract awarded to Joint Venture of 2 or more firms, for the purpose of recoveries as per GCC Sub-Clause 18.3.3.24 and GCC Sub-Clause 18.3.3.25 above, the monies shall be recovered from the monies payable under the Contract to the JV in proportion to the price component of the scope of work of the respective partner. However, in case of shortfall in the recoveries of the due amount from any partner, the amount of such shortfall shall be recovered from the other partners(s) of JV.</p> <p>In case of a fatal accident in a contract awarded to and being executed by an Associate of Contractor, for the purpose of</p>		

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		<p>recoveries as per GCC Sub-Clause 18.3.3.24 and GCC Sub-Clause 18.3.3.25 above, the monies shall be recovered from the monies payable to the Contractor and the Associate under their respective contract(s) in proportion to the Contract Price of respective portion of scope, as awarded. However, if such monies to be recovered under any of the Contracts (say Services Contract), cannot be recovered from the concerned contractor (say Associate), it shall be suitably recovered from the other contracts (say CIF and Ex-works Supply contract).</p> <p>GST, if any, applicable on recoveries as mentioned at GCC Sub-Clause 18.3.3, shall be payable by the Contractor in addition to the amount of recoveries mentioned therein.</p>		
10.	GCC Clause No. 36.2.6, Section-IV: General Conditions of Contract	<p>If the Employer completes the Facilities, the cost of completing the Facilities by the Employer shall be determined.</p> <p>If the sum that the Contractor is entitled to be paid, pursuant to GCC Sub-Clause 36.2.5, plus the reasonable costs incurred</p>	We request Powergrid to delete the below lines. PGCIL shall retain such other payments due to the Contractor under the Contract for the reasons attributable to contractor under this contract only and shall delete the provisions to encash the Bank Guarantees of the Contractor available with the employer for any other contract.	The provisions of the Bidding Documents shall remain unchanged.

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		<p>by the Employer in completing the Facilities, exceeds the Contract Price or the entire Facilities if entire Facilities have been completed or the price for part of the Facilities if part of the Facilities have been completed, the Contractor shall be liable for such excess.</p> <p>If such excess is greater than the sums due the Contractor under GCC Sub-Clause 36.2.5, the Contractor shall pay the balance to the Employer, and if such excess is less than the sums due the Contractor under GCC Sub-Clause 36.2.5, the Employer shall pay the balance to the Contractor. For facilitating such payment the Employer shall encash the Bank Guarantees of the Contractor available with the Employer and retain such other payments due to the Contractor under the Contract in question or any other Contract that the Employer may have with the Contractor.</p> <p>The Employer and the Contractor shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.</p>		

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11.	Appendix-1 (Terms and Procedures of Payment), Section-VI: Sample Forms and Procedures	<p>.....</p> <p>Interest Bearing Advance (Optional*): Ten percent (10%) of the Ex-Works Price Component of Main Equipment/Materials (including Mandatory Spares) shall be paid as an interest bearing initial advance <i>after signing the Contract Agreement</i> and on submission of (a) detailed invoice, (b) Advance Bank Guarantee for {110% (one hundred ten percent) of the amount of Advance}, in line with GCC Clause 9.2, (c) Performance Securities in line with GCC Clause 9.3, (d) Detailed PERT Network/Bar chart and its approval by the Employer.</p> <p>.....</p>	<p>Since this is large volume & value project and we request Powergrid to kindly provide interest free advance for the balanced cash flow for contractor.</p>	<p>The provisions of the Bidding Documents shall remain unchanged.</p>
12.	Appendix-1 (Terms and Procedures of Payment), Section-VI: Sample Forms and Procedures	<p>B Progressive Payment</p> <p>.....</p> <p>B.1 Seventy five percent (75%)** of the Ex-works price component of Contract price shall be paid as follows:</p> <p>a) Software</p> <p>i) Twenty percent (20%) # of the Ex-works price of Software shall be paid</p>	<p>Software payment terms are not acceptable. Hardware & software payment terms shall remain same, hence we request Powergrid to modify the payment terms as proposed below:</p> <p>Ninety five percent (95%)** of the Ex-works price component of Contract price shall be paid as follows:</p> <p>a) Software</p> <p>i) Seventy percent (70%)* of the Ex-works price of Software shall be paid on pro-rata basis on alongwith shipment of equipment.</p>	<p>The provisions of the Bidding Documents shall remain unchanged.</p>

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		<p>on pro-rata basis after successful completion of Factory Tests (FAT) and delivery of software tapes to Employer's respective sites as identified in the Contract software installation, based on certification by the Employer.</p> <p># <i>In case the contractor opts not to take interest bearing advance or has opted to take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above then this payment shall be 30% instead of 20%.</i></p> <p>ii) Fifty five percent (55%) of the Ex-works price of Software shall be paid on pro-rata basis after successful completion of Field tests, based on certification by the Employer.</p> <p>b) Hardware</p> <p>i) Sixty percent (60%) ^ of the Ex-works price of Hardware (including spares) shall be paid on pro-rata basis on shipment of equipment and on submission of :</p>	<p>*In case the contractor opts not to take interest bearing advance or has opted to take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above, then this payment shall be 80% instead of 70%.</p> <p>ii) Fifteen (15%) of the Ex-works price of Hardware (including spares) shall be paid on pro-rata basis within 30 days of receipt of equipment at site and on submission of claim and physical verification by the Employer.</p> <p>** In case the contractor opts not to take interest bearing advance or has opted to take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above then this payment shall be 95% instead of 85%.</p>	

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		<p>a) Evidence of dispatch (Consignment Note (R/R or L/R)).</p> <p>b) Contractor's detailed invoice & packing list identifying contents of each shipment.</p> <p>c) Manufacturer's/Contractor's guarantee certificate of quality.</p> <p>d) Insurance Policy/Certificate.</p> <p>e) Material Inspection Clearance Certificate (MICC) for dispatch issued by the Employer's representative.</p> <p>f) Test Certificate.</p> <p>g) The details of items, components, raw materials, services etc. procured/availed from MSEs, if any, for the preceding 6 months, in respect of all the contracts in the respective executing Region of POWERGRID as per format enclosed at Section VI, Forms, Volume-I of the bidding documents.</p>		

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		<p>i) Additional performance securities, if required, as per Technical Specification and GCC Clause 9</p> <p>j) Submission of (i) Authorization certificate issued by domestic manufacturer for selling Domestically Manufactured Iron & Steel Products, if applicable; and (ii) Affidavit of Self certification regarding Domestic Value Addition in Iron & Steel Products; in line with GCC Clause 5.7.</p> <p>k) Value- addition certificate on half-yearly basis (Sep 30 and Mar 31), duly certified by the Statutory Auditors of the Domestic Manufacturer, that the claims of value-addition made for the product during the preceding 6 months are in accordance with the 'Policy for providing preference to Domestically Manufactured Iron & Steel Products in Government Procurement'.</p> <p><i>^ In case the contractor opts not to take interest bearing advance or has opted to</i></p>		

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		<p><i>take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above, then this payment shall be 70% instead of 60%.</i></p> <p>ii) Fifteen (15%) of the Ex-works price of Hardware (including spares) shall be paid on pro-rata basis within 30 days of receipt of equipment at site and on submission of claim and physical verification by the Employer.</p> <p><i>** In case the contractor opts not to take interest bearing advance or has opted to take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above then this payment shall be 85% instead of 75%.</i></p>		
13.	Appendix-1 (Terms and Procedures of Payment), Section-VI: Sample Forms and Procedures	<p>.....</p> <p>b) Hardware</p> <p>iii) Sixty percent (60%) ^ of the Ex-works price of Hardware (including spares) shall be paid on pro-rata basis on shipment of equipment and on submission of :</p>	<p>Please modify as below:</p> <p>b) Hardware</p> <p>i) Ninety five percent (95%) ^ of the Ex-works price of Hardware (including spares) shall be paid on pro-rata basis on shipment of equipment and on submission of documents as stipulated in this clause :</p> <p>^ In case the contractor opts not to take interest</p>	The provisions of the Bidding Documents shall remain unchanged.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		<p>a) Evidence of dispatch (Consignment Note (R/R or L/R)).</p> <p>b) Contractor's detailed invoice & packing list identifying contents of each shipment.</p> <p>c) Manufacturer's/Contractor's guarantee certificate of quality.</p> <p>d) Insurance Policy/Certificate.</p> <p>e) Material Inspection Clearance Certificate (MICC) for dispatch issued by the Employer's representative.</p> <p>f) Test Certificate.</p> <p>g) The details of items, components, raw materials, services etc. procured/availed from MSEs, if any, for the preceding 6 months, in respect of all the contracts in the respective executing Region of POWERGRID as per format enclosed at Section VI, Forms, Volume-I of the bidding documents.</p>	<p>bearing advance or has opted to take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above, then this payment shall be 80% instead of 70%.</p> <p>ii) Fifteen (15%) of the Ex-works price of Hardware (including spares) shall be paid on pro-rata basis within 30 days of receipt of equipment at site and on submission of claim and physical verification by the Employer. ** In case the contractor opts not to take interest bearing advance or has opted to take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above then this payment shall be 95% instead of 85%.</p>	

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		<p>i) Additional performance securities, if required, as per Technical Specification and GCC Clause 9</p> <p>j) Submission of (i) Authorization certificate issued by domestic manufacturer for selling Domestically Manufactured Iron & Steel Products, if applicable; and (ii) Affidavit of Self certification regarding Domestic Value Addition in Iron & Steel Products; in line with GCC Clause 5.7.</p> <p>k) Value- addition certificate on half-yearly basis (Sep 30 and Mar 31), duly certified by the Statutory Auditors of the Domestic Manufacturer, that the claims of value-addition made for the product during the preceding 6 months are in accordance with the 'Policy for providing preference to Domestically Manufactured Iron & Steel Products in Government Procurement'.</p> <p><i>^ In case the contractor opts not to take interest bearing advance or has opted to</i></p>		

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		<p><i>take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above, then this payment shall be 70% instead of 60%.</i></p> <p>iv) Fifteen (15%) of the Ex-works price of Hardware (including spares) shall be paid on pro-rata basis within 30 days of receipt of equipment at site and on submission of claim and physical verification by the Employer.</p> <p><i>** In case the contractor opts not to take interest bearing advance or has opted to take interest bearing initial advance but the advance payment has become inadmissible for the reason specified in 1.1 A above then this payment shall be 85% instead of 75%.</i></p> <p>.....</p>		
14.	Appendix-1 (Terms and Procedures of Payment), Section-VI: Sample Forms and Procedures	<p>.....</p> <p>C Final Payment</p> <p>(a) Balance fifteen percent (15%) of the Ex-works price component of the Main Equipment shall be paid within 30 days of Operational Acceptance (on successful completion of system availability tests) and proof of submission of the required no. of</p>	<p>Please modify as below:</p> <p>C Final Payment</p> <p>(a) Balance five percent (5%) of the Ex-works price component of the Main Equipment shall be paid within 30 days of Operational Acceptance (on successful completion of system availability tests) and proof of submission of the required no. of reproducibles, O&M manuals, approved drawings, data sheets, test reports, pamphlets</p>	<p>The provisions of the Bidding Documents shall remain unchanged.</p>

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		<p>reproducibles, O&M manuals, approved drawings, data sheets, test reports, pamphlets and manual of spares, maintenance & testing equipment etc and Taking away (buy back) of all the applicable material as per Technical Specification.</p> <p>.....</p>	<p>and manual of spares, maintenance & testing equipment etc and Taking away (buy back) of all the applicable material as per Technical Specification.</p>	
15.	Form 15, Section-VI: Sample Forms and Procedures	<p>.....</p> <p>5. It is expressly understood and agreed between the Parties to this Undertaking that the responsibilities and obligations of each of the Parties shall be as delineated in Appendix - I (<i>to be suitably appended by the Parties alongwith this Undertaking in its bid</i>) to this Deed of Undertaking. It is further undertaken by the parties that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities of the Parties under the Contract.</p> <p>.....</p>	<p>Bidder requests Responsibilities and obligations of the parties shall be upto the Contract Price as originally bid by the party (lead bidder or OEM) for their respective scope.</p>	<p>The provisions of the Bidding Documents shall remain unchanged.</p>

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
16.	Form 22, Section-VI: Sample Forms and Procedures	<p>FORM OF BANK GUARANTEE FOR CONTRACT PERFORMANCE (TO BE SUBMITTED BY THE BIDDER FOR ANNUAL MAINTENANCE PART OF THE CONTRACT AFTER DEFECT LIABILITY PERIOD)</p> <p>.....</p> <p>.....Two Percent (2%) of the Total Contract Price for Six (06) years after Defect Liability period' until ninety (90) days beyond completion of 'AMC after Defect Liability period'.....</p> <p>.....This letter of Guarantee shall remain in full force and shall be valid from the date of issue until ninety (90) days beyond completion of 'AMC after Defect Liability period'.....</p> <p>.....</p>	Bank Guarantee for AMC contract is unusual and shall not be accepted. We request PowerGrid to delete the clause.	The provisions of the Bidding Documents shall remain unchanged.
17.	General		Bidder requests PGCIL to cap Contractor's total liability shall in no case exceed the Contract Price as originally bid by the Contractor.	The provisions of the Bidding Documents shall remain unchanged.
18.	General		Bidder requests that Contractor's total liability shall in no case exceed the Contract Price as originally bid by the Contractor.	The provisions of the Bidding Documents shall remain unchanged.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
19.	General		Bidder requests that Contract Documents shall include Contractor's Software License Agreement (as negotiated and signed by the parties) which shall govern the use and operation of Contractor's proprietary Software. The form Software License Agreement has been included in Contractor's Proposal. Contract documents listed are subject to the Clarifications, Alternates and Exceptions stated in this Table of Compliance.	The provisions of the Bidding Documents shall remain unchanged.
20.	General		Bidder requests PowerGrid to consider software support from the day of supply of the software. Many software OEMs provide evaluation version of the software for testing purpose. This is requested because otherwise Software OEMs require 100% payment against delivery of license and their support starts from day1 of license delivery. Hence, software license delivery either should be deferred to post SAT or software support should be considered from the day of supply of the software.	The provisions of the Bidding Documents shall remain unchanged.
21.	General		High Complexity and Multiple customers/ payment authorities for AMC - Large scope in a single tender lead to execution complexity. In addition to this in case of ERLDC we have Eight payment authorities PowerGrid, Grid India and	The provisions of the Bidding Documents shall remain unchanged.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
			6 state utilities especially for AMC. We therefore request you to split the subject package into smaller packages and have a single Customer/ Payment authority in each of the smaller packages including AMC.	

S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
22.	Volume II Part-A Section-1, 1.10 Scope of Work	w) Dismantling, Shifting of existing system and installation of new system at temporary location in parallel for intervening period.	Our Understanding is, existing control centres shall be dismantled after successful parallel operation and handing over of new control centres Kindly clarify what is meaning of shifting existing control centers and installation of new systems at temporary systems Kindly provide the details of how many such cases along with shifting & temporary locations	Refer Amendment-I
23.	Volume II Part-A Section-4, 4.2 Maintenance support	The Owner at their own discretion may extend the duration of maintenance period for up to 2 years based on the same rates, same terms and conditions of the contract.	Looking into the Lifecycle changes and technological advancement, OEMs are not extending support beyond 7 years. Few OEMs are stretching support upto 9 years from the date of Delivery. Hence further extension of Maintenance Period shall not be possible due to reason explained. Kindly delete the requirements of Extension of Maintenance Period	Bidders to comply Technical Specification.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
24.	Volume II Part-A Section-4, 4.2 Maintenance support	(f) OEM Back-to-back Support: (pg 69/520) i. All the supplied system shall be under OEM (Hardware and Software) warranty & support till the completion of entire AMC period (including extension of contract, if any).	Kindly reconsider (including extension of contract, if any.) as OEMs do not offer back-to-back offer for such long period.	Bidders to comply Technical Specification.
25.	VOL. II, PART - A APPENDIX – D, NETWORK ARCHITECTURE	NETWORK ARCHITECTURE (pg 202/520)	Kindly provide high resolution legible copy of network architecture	The high-resolution copy is enclosed as Annexure C1 (MCC-RLDC & SLDC) and Annexure C2 (BCC-RLDC & SLDC)
26.	Volume II Part-A Appendix-A, Existing RTU Details	Existing RTU Details	We understand in two SLDC's i.e. Sikkim & Jharkhand we have to supply the new RTU. Please confirm our understanding. Existing RTU will be integrated by the bidders. We understand that support & Maintenance of the existing RTU's will be done by the Employer.	Confirmed. Support & Maintenance of the existing RTU's (not supplied under this project) will be done by the Owner.
27.	Volume II Part B, Appendix-H: Hardware Specifications, Page (223/305), Clause no 4	Sizing Parameters: a. Should have 6 Gbps or more of NGFW (FW and AVC) throughput in real-world / production environment/ Application Mix	Next Generation Firewall features must include IPS for Deep Packet Inspection and protect against Vulnerabilities, Traffic Anomalies, Protocol Anomalies, Payload Content inspection etc. IPS is resource consuming feature which significantly drops the NGFW throughput performance on enabling.	The provision referred to by the bidder is not mentioned in the bid. Please refer Vol. II, Part B, Appendix H of bidding document

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
			<p>In real world scenario NGFW is generally deployed with IPS feature enabled, hence asking for NGFW throughput without IPS feature is not recommended from firewall sizing perspective. Kindly amend the clause as below -</p> <p>Sizing Parameters: a. Should have 6 Gbps or more of NGFW (FW, IPS and AVC) throughput in real-world / production environment/ Application Mix</p>	
28.	Volume II Part B, Appendix-H: Hardware Specifications, Page (233/305), Clause no 17	There should be Separate purpose-built Appliance for Zero Day/Sandbox/ATP with minimum 4x 1GE/FO Ethernet/FO interface (depends on proposed architecture), 950 GB or more Storage on appliance.	Kindly clarify whether the asked storage is on single disk or more (with RAID)?	Bidders are requested to provide their detail solution for discussion during Stage-I.
29.	Volume II Part B, Appendix-H-1: Software Specifications, Page (264/305), Clause no 3	4. Solution must be Sized for 3000 Sustained EPS,6000 Peak EPS with burst support for upto 10000 EPS without queuing or dropping any logs in three tiered physically segregated architecture consisting of Collection, log management and Correlation.	Request you to clarify on the number of devices to be covered against asked EPS count.	Please refer Volume II Part B, Appendix-H-1: Software Specifications, Table 3. SIEM, Sr. No 2 & 3 of bidding document for the devices to be integrated.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
30.	Volume II Part B, Appendix-H-1: Software Specifications, Page 266/305, Clause no 3	22. The UEBA must be offered fully integrated within the proposed solution	UEBA is User and Event Behavioral Analytics which is generally deployed on user devices such as Laptops/desktops/servers etc. Request you to clarify on the number of user devices to be covered under UEBA.	Please refer Amendment-I
31.	Volume II Part B, Appendix-H-1: Software Specifications, Page (266/305), Clause no 3	27.SIEM shall be integrated with SOAR or another SOC in future and provision of bidirectional message exchange in SYSLOG, CEF and LEEF format shall be provided along with the supplied SIEM system	<p>The formats asked in this clause include syslog, CEF and LEEF. Syslog and CEF are mostly commonly used open standard formats whereas LEEF was originally developed by a specific OEM as a proprietary log format and was released to the public at later stage. Currently, LEEF is not supported by all SIEM/SOAR OEMs and hence restricting healthy participation. Integration is supported on syslog and CEF by all leading OEMs. Hence, request you to amend the clause as follows -</p> <p>27.SIEM shall be integrated with SOAR or another SOC in future and provision of bidirectional message exchange in SYSLOG, CEF/LEEF format shall be provided along with the supplied SIEM system</p>	<p>The provision referred by the bidder is not mentioned in the bid.</p> <p>Please refer Volume II Part B, Appendix-H-1: Software Specifications, Table 3. SIEM, Sr. No 27 of bidding document.</p>

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
32.	Volume II Part B, Appendix-H: Hardware Specifications 13. External Network Firewall with NIPS (For DMZ and RTU-ICCP, Clause no 13 Connectivity)	18. Filtering of packets based on Source address, destination address, protocol type, user, port number, URL. (including URL Blocking)	With respect to URL Filtering, we understand that the proposed firewall must have capability to Domains based on their rating or reputation. Firewall must ensure safe access to the internet and prevent web-based attacks with real-time stopping of malicious domains and URLs. Please confirm if our understanding is correct.	Confirmed
33.	Volume II Part B, Appendix-H: Hardware Specifications External Network Firewall with NIPS (For DMZ and RTU-ICCP Connectivity) Clause 13 & 14	5.NG Firewall Features: c. Should be capable of detecting and blocking IPv4 and IPv6 attacks including capabilities like DNS sinkhole/equivalent.	With reference to DNS Security, we understand that firewall must have capability to protect against DNS attacks and disrupt attacks that use DNS for command & control and DNS tunnels. Please confirm if our understanding is correct.	Bidders to comply technical specification
34.	Volume II Part-B Section-5, 5.16 a) m).	To ensure hassle free ergonomic operations/adjustments and durability of the product, the console shall have UL/Intertek audit certified feature on all mechanisms of console.	Proprietary certificate, To the Best of our knowledge M/s. Pyrotech Workspace Pvt Ltd is the only Indian company that has "UL Audit Certificate". "UL Audit Certificate" is nothing but an activity where the manufacturer invites UL to come to there premises & physically witness this activity (This does not include any quantifiable Test or does not prove any	The provision referred by the bidder is not mentioned in the bid. Please refer Vol. II, Part B, Section 5, Clause 5.16 a) Workstation Desk: Motorized, m) of bidding document

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
			deliverable capability), request you to delete it.	
35.	Volume II Part-B Section-5, 5.16 IV	Front Edge - UL audit certified design feature on front modular Polyurethane (PU) Edge. High density Poly Urethane Foam molded on industrial grade aluminium core to form minimum 50mm deep tapered edge to be installed on worktop.	Proprietary certificate, To the Best of our knowledge M/s. Pyrotech Workspace Pvt Ltd is the only Indian company that has "UL Audit Certificate". "UL Audit Certificate" is nothing but an activity where the manufacturer invites UL to come to there premises & physically witness this activity (This does not include any quantifiable Test or does not prove any deliverable capability), request you to delete it.	The provision referred by the bidder is not mentioned in the bid. Please refer Vol. II, Part B, Section 5, Clause 5.16 IV of bidding document
36.	Volume II Part-B Appendix-G, Hardware/Software BOQ,	Software Part 1.12 Commercial Off-The-Shelf (COTS) Softwares Main Backup (b) Document Management System Lot 1 0 Hardware Part 2.9 DRS DMZ Servers as per technical specification	Here according to the Hardware BOQ, you have asked for 2-2 virtual machines for DMS application in Main/Backup control centre but according to Software BOQ you have asked for DMS application only in Main control centre as backup shows "0". Please clarify whether you have considered DMS Solution in backup also or not. If yes, Kindly share the updated BOQ. And same is the issues in SLDC level.	Bidder to quote as per Volume-III_Schedule-I Unpriced BOQ 1st_Stage,

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		No. 2 2 (d) Document Management System		
37.	Volume II Part-A Section-4, 4.2 Maintenance Support Clause h)iv	If number of cells replaced(cumulative) in battery bank exceeds more than 25% of total battery bank then contractor shall replace that entire battery bank without any additional cost to the Owner during entire period of contract (including extension of contract, if any).	Since the contractor responsibility to maintain the Batteries till M&S duration, kindly remove this clause w.r.t. 25% cells replacement.	Bidders to comply Technical Specification.
38.	Volume II Part-B Appendix-G 11.12 Relocation and Commissioning at New Location	Relocation and Commissioning at New Location	Kindly specify the address/ distance of Temporary Location and New Permanent Location	Please refer Vol. II, Part A, section 1, cl. 1.14 of bidding document

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
39.	Volume II Part-B Section-5, 5.19 Centralized Keyboard & Mouse Control Solution (CKMC)	As per Clause 5.19 Centralized Keyboard & Mouse Control Solution (CKMC) (pg 439/520)	The requirement of CKMC doesn't contain the screen size & same is duplicated with Workstations. Please elaborate the requirement of CKMC. Do we need Workstations with CPU as well as CKMC. Kindly confirm.	No separate monitor is envisaged with CKMC. Bidders are requested to provide their detail solution for discussion during Stage-I
40.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage Sheet - Backup SCADAEMS for ERLDC , 1.12 Commercial Off-The-Shelf (COTS) Softwares	1.12 Commercial Off-The-Shelf (COTS) Softwares (n) OPC client licenses to be installed outside OT network to exchange data from SCADA & Historian	As per technical specs OPC servers are mentioned & we understand Data exchange shall be done from SCADA & Historian which shall have inbuilt OPC-UA Server functionality so that OPC Client shall able to take the data. We understand that there are no OPC client services required for the backup SLDC control centre's (BSPTCL,OPTCL,Sikkim,WBSETCL) as no quantity is mentioned in the BOQ. Kindly confirm/clarify.	Please refer Amendment-I
41.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage Sheet - Main SCADAEMS for ERLDC	1.12 Commercial Off-The-Shelf (COTS) Softwares (j)End Point Security Solution with centralised management	We understand that End Point security Solution (AV) shall be installed in Servers, workstations, VPS & Laptop. The total quantity comes 124 (79+5+40) whereas in BOQ as 75.Kindly clarify if same applies for other SLDC's	Please refer Vol. II, Part A, Appendix D (Network Architecture). 1. End Point Security Solutions shall be installed on Devices on all LANs except External

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
	1.12 Commercial Off-The-Shelf (COTS) Softwares			DMZ LAN 1 & 2, Internal DMZ/DRS LAN, ICCP/FEP LAN. These Devices include Servers, Workstations, Remote Consoles, Laptops, SMC, VPS, PCMT, DCPC etc. located in Control center and in any other locations. 2. HIPS shall be installed on Servers located at following LANs. a. External DMZ LAN 1 & 2, b. Internal DMZ/DRS LAN c. ICCP/FEP LAN
42.	Volume II Part-A Section-1, As per the clause 1.8	As per the clause 1.8 , (pg 13/520) Integration with Offline Applications with Main and Backup SLDC.	Kindly clarify the list of offline applications that has to be integrated with Main & Backup SLDC.	Please refer Amendment-I
43.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage, General Query	General Query on BOQ	kindly provide the RTU BOQ & I/O Count for ERLDC, BSPTCL, DVC, WBSETCL	New RTUs are not procured for ERLDC, BSPTCL, DVC & WBSETCL under this project.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
44.	Volume II Part-A Section-1, As per clause 1.10 Scope of Work	As per clause 1.10 Scope of Work, (pg 16/520) f) Integration of Main and Back up Control Centers on ICCP protocol with Distribution Companies	Please let us know the integration process with Distribution Companies	All SLDC main and Backup Control Centre are to be integrated with Distribution companies. Bidders to comply Technical Specification.
45.	Volume II Part-A Section-1, Volume II Part-A Section-1 1.13	As per the Clause in Volume II Part-A Section-1 1.13 (pg 26/520) 1.13 Relocation and Commissioning at New Location (as per BOQ)	As per the detailed description in RFQ & BOQ mentioned (pg 141/305) of Volume-ii_PART_2_TS, the statements are contradicting. Kindly clarify.	Bidders to comply Technical Specification.
46.	Volume II Part B, Appendix-H, Appendix -H	As per Appendix -H , (pg 209/305) 5. Back-up Solution 28. Interface ports – The appliance should be offered with Min.4x 10 Gbps SFP+. If Fiber Ethernet ports are provided then SFPs to be supplied for all ports. The appliance should have minimum 2 x 16 Gbps FC	Kindly clarify how many of number of ports with bandwidth capacity to be considered.	The provision referred by the bidder is not mentioned in the bid. Please refer Volume II Part B, Appendix-H: Hardware Specifications, Table 5. Back-up Solution of bidding document.
47.	03-Volume-III_Schedule-I- Unpriced BOQ 1st_Stage, As per Clause 2.7 & 2.10	As per Part B Hardware under, 2.7 Third Party Applications Servers as per technical specification (a) End Point Security Solution Server & (b) Patch management Server & 2.10 External DMZ Servers as per technical specification	There are two numbers of End Point Security Solution Server & Patch Management Server each is mentioned under PDS LAN & External DMZ LAN 1(as per the architecture). We understand both the servers should only be accommodated in only DMZ LAN. As, the same servers are also mentioned	Bidders to comply Technical Specification.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		(b) End Point Security Solution Server (c) Patch management Server	under 2.7 & 2.10. Kindly explain us the purpose of the duplicity of the server.	
48.	Volume II Part-B Section-9, 9.1.2 Remote Diagnostic	As per 9.1.2 Remote Diagnostic (pg 498/520) ISP will be provided and maintained by the owner however number of public IPs and bandwidth requirement to be indicated by the contractor.	We understand that ISP will be on the name of Owner. Please confirm. Any interruption in the ISP services if affecting the Availability of the system will not come under Contractor's scope. During DLP & AMC period, ticket raising to ISP vendors on link down will be under Owner's scope.	1. ISP will be provided and maintained by the owner. 2. Bidders to comply Technical Specification.
49.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage, As per Clause 2.8 of Hardware BOQ	As per Part B Hardware, 2.8 Management Applications Servers as per technical specification (a) Internal Centralised Management Server (b) External Centralised Management Server	Why internal and External Centralised Management server is required. Kindly elaborate. As per the Network Architecture Diagram given (Volume II Part-A Appendix-D), we understand Internal Centralised Management Server will include the functionality of Centralised Management and Log Analyser of all FWs (mentioned in BOQ Part A Software 1.12 (k)) & Virtualisation Software for all the virtual servers envisaged and required under the project along-with centralised management software (mentioned in BOQ Part A Software1.12 (g)) and	Bidders are requested to provide their detail solution for discussion during Stage-I

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
			<p>As per the Network Architecture Diagram given (Volume II Part-A Appendix-D), we understand External Centralised Management Server will include the functionality of</p> <ul style="list-style-type: none"> - Centralised Management and Log Analyser of all FWs (mentioned in BOQ Part A Software 1.12 (k)) - Virtualisation Software for all the virtual servers envisaged and required under the project along-with centralised management software (mentioned in BOQ Part A Software1.12 (g)) - Host based intrusion prevention system (HIPS) with centralised management (mentioned in BOQ Part A Software1.12 (i)) - AV <p>Kindly clarify our understanding.</p>	
50.	General Query, As per clause 9.1.7	As per clause 9.1.7 End Point Security Solution (Antivirus)	<p>We understand that End Point Security Solution Server covers the Antivirus Solution. However, as per the Network Architecture provided (Volume II Part-A Appendix-D), it has been mentioned in the Architecture that AV is part of External Centralised Management server. Kindly clarify.</p>	<p>AV is not part of External Centralised Management server.</p> <p>Bidders are requested to provide their detail solution for discussion during Stage-I</p>

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
51.	Volume II Part-B Section-5, clause 5.11	As per the clause 5.11 Server Management console system: (pg 429/520) Management console system shall be provided. It will be a system connecting all consoles of network devices to a single system through a switch. A separate LAN scheme should be available for management console and it should not interact with any of the SCADA LAN. It should be possible to configure, change and access any network device through this system console. All associated hardware and software shall be provided by the contractor.	We understand SMC should have the provision to configure, change, show the health status of network devices as well as servers & workstations. Please clarify.	Bidders are requested to provide their detail solution for discussion during Stage-I
52.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage, BOQ Hardware	As per the BOQ , Part I Services (Main SCADAEMS for ERLDC sheet) 9.3 Existing RTU Integration - 150 9.4 Integration Existing RTU with Data Concentrator Cum Protocol Convertor - 0	The number of present RTU as per System Sizing mentioned in Volume-ii_PART_2_TS document is on IEC 101 & IEC 104 protocol are 100 & 200. The mentioned quantity in BOQ are different. Both are contracting. Kindly clarify which Present System Sizing has to be followed & under which protocol. (the same applies to other SLDC's)	Bidder to comply Technical specification.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
53.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage, BOQ Hardware	As per the BOQ , (Main SCADAEMS for ERLDC sheet) Part K AMC 11.6 Integration of RTU with SCADA during AMC - 150	Kindly clarify the integration to be done under which protocol. (the same applies to other SLDC's)	Integration of RTU/SAS to be done in IEC 101/104 and same shall be applicable for SLDCs also.
54.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage, BOQ Hardware	As per the BOQ , (Main SCADAEMS for Jharkhand sheet) , (Backup SCADAEMS for Jharkhand sheet), (SCADAEMS for KASBA) (SCADAEMS for ALDC)	Please mention the no. of Printer Table required since there are no quantity mentioned.	Bidder to quote as per Volume-III_Schedule-I-Unpriced BOQ 1st_Stage.
55.	03-Volume-III_Schedule-I-Unpriced BOQ 1st_Stage	DG System	Due to Change in CPCB Norms, It is Proposed to de-scope DG from Tender Requirements. Respective Employer/ Owner shall procure DG directly from OEMs as per latest available CPCB guidelines. Kindly delete the requirements	Bidders to comply Technical Specification
56.	Volume II Part-A Section-4 Page 34 of 43, 4.12.4 Scope of work	C. Integration of new bays & reconfiguration... Material such as CPU, PSU, AI, DI, DO, MFT, MODEM, CMR, HDR and any other material required for additional bay integration during AMC shall be provided by	Kindly quantify the following, 1) Indicative Length of the Power and Instrumentation Cable 2) Indicative count of DI, DO, AI for each bay 3) We also understand that the number of new bays added in each substation will not exceed the Expansion Capacity of the respective Substation RTU as per the RFP.	1. Bidders to comply Technical Specification. 2. Typical point count for each bay: - • Digital Input status (point count): - 13

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		Contractor for RTUs installed at various location		<ul style="list-style-type: none"> Digital Output status (point count): - 2 Analog Input status (point count): - 1 (in case of Transformer Bay) <p>3. Bidders to comply Technical Specification.</p>
57.	Vol. II, Part-A Appendix-H Details of Control Centers— Location		<p>Kindly clarify the following,</p> <p>1) Readiness of front for new CC sites like Guwahati, Sarwal (JH), Chandauti (BH), Melli (SI) in terms of,</p> <p>a) Control Center Bldg. (Server room, Communication Room, Control Center etc.)</p> <p>b) Communication Links for RTUs and ICCP</p>	Control Centre Building and Communication Links expected to be tentatively ready by August'24.
58.	Section – IV: General Conditions of Contract /Vol. II, Part-A Appendix - E / 4.0 / 3.3	Time for Commencement and Completion Appendix – 4 (Time Schedule) to the Contract Agreement APPENDIX E IMPLEMENTATION SCHEDULE Project Schedule	<p>We request M/s PGCIL to review the project completion schedule and modify with 30 months.</p> <p>Following are the reasons:</p> <ul style="list-style-type: none"> The project schedule/completion time (18months) as stipulated in the tender is very less looking at project requirement, scope of supply items, introduction of new items & features in scope of items metioned in the tender for e.g. DSA, SIEM, NAC etc. Effective time available is only 15 months 	Bidders to comply Technical Specification

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			<p>excluding 3 months parallel running.</p> <ul style="list-style-type: none"> - Design & Engineering time with lead time of 3rd party items required for the scope of work will need longer time. - Due to global crisis of raw components lead time for delivery of items has drastically increased, hence this is impacting on the over all delay in engineering, manufacturing & testing of products. - SCADA & EMS projects involve huge third party items and new features being asked /stipulated in the tender technical requirement. This in turn needs validation of all these products in line with cyber security compliance also before FAT & Supply of material at site. - Any sifting of control centers & recommissioning overlapp during the stipulated project schedule may hamper the overall project schedule. 	
59.	Volume II Part-A Section-1 / 1.13	Relocation and Commissioning at New Location BOQ in Appendix-G	We request PGCIL to delete the scope towards "Relocation and re-commissioning scope as per BOQ", Please release separate tender for the same after commissioning. Or else we request PGCIL to arrange commissioning of the system in the new location itself with some grace period. - Please provide the status and location of new control centers location as per BOQ in	Bidders to comply Technical Specification

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
			<p>Appendix-G. - PGCIL to confirm that the relocation & recommissioning activity shall be given additional time period over and above the stipulated project schedule of 18 months as per tender.</p>	
60.	Volume II Part-A Section-4, 4.2 Maintenance support	<p>OEM Back-to-back Support: i. All the supplied system shall be under OEM (Hardware and Software) warranty & support till the completion of entire AMC period (including extension of contract, if any).</p> <p>For all third-party equipment (Hardware & Software) Contractor shall have back-to-back support & warranty along with supply of spare with appropriate response time from OEM and these Back-to-Back contracts will be shared with owner before start of defect liability period. The contractor shall be responsible for coordination with the OEM for all matter related to that equipment.</p> <p>The period of maintenance support shall consist of one-year Warranty (Defect Liability) period (Defect Liability period extendable, if defects</p>	<p>Please support with the list of OEM agreeing for back to back support for models quoted by OEM during bidding stage to the bidders.</p> <p>We are already facing challenges to have confirmation from OEM's for 7 years support from the date of operational acceptance due to their standard product support policy of 5 Year. Hence we request PGCIL to delete any extension requirement or take-up separately after completion of AMC.</p>	Bidders to comply Technical Specification.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		found) commencing from Operational Acceptance and six years Maintenance period thereafter. Payment will not be released during defect liability period. The Owner at their own discretion may extend the duration of maintenance period for up to 2 years based on the same rates, same terms and conditions of the contract. For any addition (e.g. integration of new RTUs or new control center) during maintenance period, contractor shall provide all the services at control center end without any additional cost during entire period of the contract including extension (if any).		
61.	Volume II Part-A Section-4 , 4.3.1	The support personnel so deployed shall be qualified personnel having at least 2 years of experience in the SCADA/EMS system including one-year experience in the delivered SCADA/EMS system. The person deputed shall be a permanent employee on the direct pay roll of the contractor.	The bidder should be allowed to depute resources with suitable experiences from sub-contractor payroll and not necessarily to be a permanent employee of bidders firm.	Bidders to comply Technical Specification.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
62.	Volume II Part-B Section-8	Load Forecast	Load Forecast is generally done by DISCOMs as part of the demand forecast which is shared to LDCs by them. As this is already being done by the DISCOMs it may not be required to be done again at NRLDC and SLDC's. This will also enable a single source information w.r.t demand/load forecast. Hence, this shall be removed from the specification.	Bidders to comply Technical Specification.
63.	PART-C Section 9: LT Switchgear / SECTION: LT SWITCHGEAR	<p>1.0 This section describes the scope of the planning, designing, engineering, supply, transportation, insurance, delivery at site, unloading, handling, storage, installation, termination, testing, integration and demonstration for acceptance, commissioning, and documentation of New 415V LT AC Power Distribution Panel at ERLDC, Grid-India. The detailed scope is given below:</p> <p>-</p> <p>1. Shifting of existing CESC RMU installed at Switch gear room to a suitable place to create additional space for installation of new 415V LT AC Power distribution panel.</p> <p>2. Making necessary Busbar arrangement for DG & incomer source to power-up the existing & new</p>	We request Powergrid to delete this scope and issue separate tender for LT switchgear scope.	Bidders to comply Technical Specification.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
		415 V LT AC power distribution panel at switch gear room. 3. Supply, installation & commissioning of new 415 V LT AC power distribution board at new switchgear panel to cater the loading of new UPS system.		
64.	Volume II, Part-B Section-1 Clause 1.3.3.9,	Line and Transformer Loss Calculations	As this is part of EMS function and EMS applications are included in the scope, request Powergrid to remove this function from SCADA specifications.	Bidders to comply Technical Specification.
65.	Volume II, Part-B Section-1 Clause 1.3.3.10,	Power Factor Calculation	As meters/MFMs which are interfaced with RTUs shall be sending the Power Factor data directly which can be acquired in SCADA on IEC104. Calculation is not required to be done at SCADA end, hence we request Powergrid to remove this clause.	Bidders to comply Technical Specification.
66.	Volume II Part-B Section-8 / 8.1.3	Integration with Scheduling Application (WBES)	Bidder requests PGCIL to provide more details about WBES, i.e regarding integration with other applications.	WBES is a scheduling application which is used for creating schedule for constituents. Bidders are requested to provide their detail solution for integration for discussion during Stage-I.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
67.	Volume II, Part-A, Section-1 / 1.8 / 1.10 / 3.8.5	<p>Intent of the Project - Main Control centers shall be treated as Main 1 and Back up Control Centers shall be treated as Main 2 and both shall operate in ACTIVE- ACTIVE mode.</p> <p>Scope of Work - Both main and backup control center shall work in active-active mode and in case of failure of main control center backup shall come in role of main without any manual interruption (except commands/signals)</p> <p>User Documentation for Dispatchers - Initially both Main & backup control Centre shall operate active-active mode and their various combination of operation in case of failures in communication/control center.</p>	<p>With reference to 1.15, Main and Backup Control Center Operational Philosophy the main control center will be primary and back up control center shall be stand-by mode. The data synchronisation and changeover shall be as specified in this clause. Request Powergrid to modify clause 1.8, 1.10, 3.8.5 accordingly.</p>	<p>The requirement is for ACTIVE-ACTIVE mode of operation. Bidders are requested to provide their detail solution for discussion during Stage-I.</p>
68.	Volume II Part-A Section-4, Table 4.1 Volume II Part-A Section-4	System Availability 99.99%	Please review the system availability requirement. We propose 99.9% availability.	Bidders to comply Technical Specification

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
69.	Volume II Part-A Section-4 /4.10	<p>Detailed Scope of work during Warranty and AMC Period</p> <p>Technical upgrade of the installation to the new version (wherever applicable), as and when required, shall be done by the Contractor. Any version upgrade (in version) of the software / tool / appliance by Contractor to be done after taking prior approval of Owner and after submitting impact assessment of such upgrade at no additional cost to Owner.</p>	<p>Bidder shall extend software support for 8-years which includes installation of compatible patch files/service packs of offered SCADA software on the same versions of Operating systems and applications. Versions upgrade shall not be applicable as the upgrade itself becomes another complete project to be executed like the present tender, hence needs to be taken up separately after the end of AMC.</p>	<p>Bidders to comply Technical Specification</p>
70.	Part II/Section 8	<p>Capability to build on-the-fly dashboard by combining subsets/Cut-Outs of different displays onto a dashboard area. For example, the user may want to monitor a particular problem in the network and will need information from a number of different displays to do it. The portions of displays that are dropped onto a dashboard display continue to be updated in real-time. Dashboards shall offer essential data customized to each area of interest for the user with various statistical parameters of the grid data.</p>	<p>The requirement is not clear. Is a separate tool required and also there may not one tool for all the requirements.</p> <p>It is possible for Powergrid to integrate such tools with the SCADA system/Database and create / configure dashboards and visualisation based on the requirement. As this is not an integral part of SCADA-EMS, we request Powergrid to delete this requirement.</p>	<p>Bidders to comply Technical Specification.</p>

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		A Business Tool shall be provided with user friendly configurable with drag and drop query builder, report builder and trend builder facility. Reports can be generated on user demand, on a preset timed interval, or be driven by specific events																																												
71.	Part- B, Appendix-D: PERFORMANCE REQUIREMENTS / DSA Functions	<p>DSA Functions</p> <p>Voltage Stability Assessment - 2 Studies</p> <p>Transient Stability Assessment - 2 Studies</p> <p>Load Flow Analysis - 2 Studies</p> <p>Small Signal Analysis - 2 Studies</p>	<p>We understand that these DSA study functions are required in offline or study mode and not online. Please confirm.</p> <p>Please also clarify whether 2 or more offline/study licenses are required.</p>	<p>Both Online as well as Offline DSA is required.</p> <p>Offline/Online study should be limited with number of workstations (operator workstation-19, DSA workstation-3, VPS -2,) supplied in the project and not limited to the licenses.</p>																																										
72.	Volume II Part-B Appendix-G / Table 3a. Bill of Quantity for SCADA/EMS System of ERLDC	<p>BOQ for DSA as per Appendix-G</p> <table border="1"> <thead> <tr> <th rowspan="2">Sl. No.</th> <th rowspan="2">Item Description</th> <th rowspan="2">Unit</th> <th colspan="2">Quantity</th> </tr> <tr> <th>Main CC</th> <th>Backup</th> </tr> </thead> <tbody> <tr> <td colspan="5">A Software</td> </tr> <tr> <td>1.6</td> <td>Dynamic Security Assessment Software (DSA)</td> <td>Lot</td> <td>1</td> <td>1</td> </tr> <tr> <td colspan="5">B Hardware</td> </tr> <tr> <td>2.2</td> <td>Dynamic Security Assessment Server (DSA)</td> <td>No.</td> <td>2</td> <td>2</td> </tr> <tr> <td>(d)</td> <td>Workstation Console integrated with dual Monitors for DSA (at RLDC only)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(i)</td> <td>Workstation Console for DSA</td> <td>No.</td> <td>2</td> <td>1</td> </tr> <tr> <td>(ii)</td> <td>dual Monitors for DSA</td> <td>No.</td> <td>2</td> <td>1</td> </tr> </tbody> </table>	Sl. No.	Item Description	Unit	Quantity		Main CC	Backup	A Software					1.6	Dynamic Security Assessment Software (DSA)	Lot	1	1	B Hardware					2.2	Dynamic Security Assessment Server (DSA)	No.	2	2	(d)	Workstation Console integrated with dual Monitors for DSA (at RLDC only)				(i)	Workstation Console for DSA	No.	2	1	(ii)	dual Monitors for DSA	No.	2	1	<p>We shall consider below License requirement:</p> <p>a) one (1) DSA Tools for PSAT/TSAT/VSAT/SSAT/CIM-Importer on-line for the MCC location</p> <p>b) one (1) DSATools for PSAT/TSAT/VSAT/SSAT/CIM-Importer on-line license for BCC location.</p>	<p>DSA is critical function. Please refer Volume II Part-B Introduction of bidding document.</p> <p>Offline/Online study should be limited with number of workstations (operator workstation-19, DSA workstation-3, VPS -2,)</p>
Sl. No.	Item Description	Unit				Quantity																																								
			Main CC	Backup																																										
A Software																																														
1.6	Dynamic Security Assessment Software (DSA)	Lot	1	1																																										
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(i)	Workstation Console for DSA	No.	2	1																																										
(ii)	dual Monitors for DSA	No.	2	1																																										

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
			<p>1. Please correct our understanding. Further is there any redundancy to be followed at each control center (MCC & BCC separately).</p> <p>2. Please clarify how many licenses are required for offline or study licenses and EMT?</p>	supplied in the project and not limited to the licenses.
73.	Volume II, Part-B, 2.5.2, Transient Security Assessment Tool, under Applications	"Generation of PMU signals.	How many PMU/ C37.118 phasors are expected as an output?	10 phasor per PMU are expected as an output.
74.	Volume II, Part-B 2.5.2, Transient Security Assessment Tool, under Applications	Facility shall also be provided to configure vendor specific generic model.	Please clarify & explain about this requirement and the context in which this feature will be used.	Modelling as per a specific vendor e.g. a generator characteristics shall be supported. Model Library shall be provided. Bidders are requested to provide their detail solution for discussion during Stage-I.
75.	Volume II, Part-B, 2.5.2, Transient Security Assessment	Generation of simulated PMU signals in IEEE C37.118 format from near real-time simulations	<p>1. Please clarify how many such signals/phasors are desired.</p> <p>2. Further clarify and explain whether this feature is required in online mode or offline/study mode or both.</p>	<p>1. 10 phasor per PMU are expected as an output.</p> <p>2. It is required in online, offline and study mode.</p>

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
	Tool, under Applications			Bidders are requested to provide their detail solution for discussion during Stage-I.
76.	Volume II, Part-B, 2.5.2, Transient Security Assessment Tool, under Applications	Feature of performing hybrid simulations with an electromagnetic transient simulation engine	<ol style="list-style-type: none"> 1. Please clarify whether the electromagnetic transient simulation engine is running in real-time or offline on a user computer. Both options are possible. Are both options required? 2. How many licenses are required for each. 	<ol style="list-style-type: none"> 1. Both online and offline simulation are required. 2. Offline/Online study should be limited with number of workstations (operator workstation-19, DSA workstation-3, VPS -2,) supplied in the project and not limited to the licenses.
77.	Volume II, Part-B, In sub-section 2.5.3, Small Signal Analysis Tool, under Output Analysis	Different views or graphical such as contour plot for visualization of results	Please explain what is meant by graphical view of output results in contour form and which output results are desired in this format.	Please refer SRAS procedure available at following link: - https://posoco.in/download/detailed-procedure-for-secondary-reserve-ancillary-services-sras-2022/?wpdmdl=49193

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78.	Volume II, Part-B, In sub-section 2.5.3, Small Signal Analysis Tool, under Output Analysis	Feature to integrate with EMS for real-time dynamic security assessment	We understand that the specification uses online and real-time interchangeably. Please confirm if our understanding is correct.	Online and real time are used interchangeably. Bidders are requested to provide their detail solution for discussion during Stage-I.																																
79.	Vol. II, Part- B, Appendix - C: SYSTEM DESIGN PARAMETERS, Table 6 (Design Parameters for DSA)	<p>Design Parameters for DSA:</p> <p>TABLE 6 - Design Parameters for DSA (Specification Reference- Section 2)</p> <table border="1"> <thead> <tr> <th>NAME</th> <th>DESIGN CAPACITY</th> <th>EXECUTION RATE</th> <th>RESPONSE TIME</th> </tr> </thead> <tbody> <tr> <td>Voltage Stability Assessment</td> <td></td> <td>15 minutes On Demand</td> <td>30 seconds</td> </tr> <tr> <td>Transient Stability Assessment</td> <td></td> <td>15 minutes On Demand</td> <td>1 minute</td> </tr> <tr> <td>Verification of remedial measures; such as to bring the power system back to operational security such</td> <td></td> <td></td> <td></td> </tr> <tr> <td>i. additional load-generation shedding</td> <td></td> <td>15 minutes On Demand</td> <td>30 seconds</td> </tr> <tr> <td>ii. topology changes</td> <td></td> <td>15 minutes On Demand</td> <td>30 seconds</td> </tr> <tr> <td>Concurrent study cases</td> <td>5 cases</td> <td></td> <td></td> </tr> <tr> <td>Model Time Step</td> <td>As per spec</td> <td></td> <td></td> </tr> </tbody> </table>	NAME	DESIGN CAPACITY	EXECUTION RATE	RESPONSE TIME	Voltage Stability Assessment		15 minutes On Demand	30 seconds	Transient Stability Assessment		15 minutes On Demand	1 minute	Verification of remedial measures; such as to bring the power system back to operational security such				i. additional load-generation shedding		15 minutes On Demand	30 seconds	ii. topology changes		15 minutes On Demand	30 seconds	Concurrent study cases	5 cases			Model Time Step	As per spec			<p>1. EXECUTION RATE and RESPONSE TIME requirements are 15 minutes on demand and 30 seconds respectively.</p> <p>a. Execution rate: By execution rate, we understand it to be assessment cycle: this refers to the maximum time it will take to finish a complete DSA assessment cycle in the real-time mode. The counting of this cycle usually starts when all necessary data is available to the on-line DSA system and ends when the system is ready for the next case. The target for the assessment cycle should be reasonably set; the normal range is between 5 minutes to 30 minutes. The assessment cycle for the study mode is normally not subject to this requirement. It should be noticed that the shorter the assessment cycle time, the higher the hardware specs. Please clarify if that is correct understanding.</p>	<p>Refer Amendment-I</p> <p>Bidders are requested to provide their detail solution for discussion during Stage-I.</p>
NAME	DESIGN CAPACITY	EXECUTION RATE	RESPONSE TIME																																	
Voltage Stability Assessment		15 minutes On Demand	30 seconds																																	
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			<p>b. Response Time: The response time is 30 seconds after the computation of that cycle is completed. Please clarify if that is correct understanding.</p> <p>2. Concurrent study cases: We have included 5-user study mode license for offline use. We can change this to 2 user mode or study mode or offline license. Please clarify how many offline / study licenses are required. Please clarify how many concurrent study mode licenses are required.</p> <p>3. Model Time Step: The specification did not mention the time-step. Please clarify what is the model timestep in seconds. We recommend quarter cycle timestep be used for online-DSA.</p>	
80.	Vol. II, Part- B, Section 2: EMS SYSTEM FUNCTIONS, 2.2.7 Network Reduction Methodology,	c) An example of truncation is given below –While truncating the network at 400kV and above level, all the switching devices at 220kV and below level are opened in Network database and Modelled Loads are connected at the secondary side of 400/220kV ICTs. These modelled loads shall take the Real-time data on associated ICTs	Bidder requests POWERGRID to confirm "whether the modelled load should take the real time measurements automatically during truncation?"	Yes, the modelled load should take the real time measurements automatically during truncation

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		as its load measurements. A sample illustration for same is shown in Appendix M (1-A).		
81.	Vol. II, Part- B, Section 2: EMS SYSTEM FUNCTIONS, 2.2.8 State Estimation	<p>e) Pseudo measurements for unobservable regulated bus voltages shall be based on either a function of the load of the Region where the bus is located, or a function of time of day. Provision shall be made for a linear function of up to three segments of voltage versus load at each regulated bus.</p> <p>g) When needed, pseudo measurements for regulated bus voltages shall be calculated as the mid-point between the high and low bus voltage limits from Limit Monitoring.</p>	<p>The points (e) and (g) are conflicting with each other.</p> <p>Bidder request POWERGRID to confirm how the different methods of calculating the pseudo measurements for bus voltages will be chosen.</p>	<p>(e) is of high priority and (g) is additional.</p> <p>Bidders are requested to provide their detail solution for discussion during Stage-I</p>
82.	Volume II Part-B Section-2, 2.2.13.1 (d)	Viable islands i.e. the islands in which generation-load mismatch is less than a programmer defined amount must be solved.	Bidder requests PGCIL to confirm "whether the condition for viable island should include a minimum no. of buses in the island or not?"	If it is not mentioned specifically then there is no restrictions. However, bidder are requested to provide their detail solution for discussion during Stage-I.

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83.	Volume II Part-B Section-2, 2.4.2.8	<p>Control performance shall be monitored against the defined Performance Criteria. These standards are based on the combination of the ACE and the frequency deviation averages over the past twelve months. The AGC software shall have a Performance Monitor function and displays the results. It shall be possible to generate periodic reports of the performance parameters. It shall be possible to generate input vs output scatter plots and Correlation numbers. configurable for Daily, Weekly, Monthly, Annual assessments. Statistics shall be maintained as required to complete the defined Performance Criteria. These statistics shall be maintained for presentation on displays and output to a printer.</p> <p>All measurements of secondary control signals from the LDCs to the plant/generator and actual response of plant/generator using SCADA data. Performance of the plant/generator shall be measured by the AGC software by comparing the actual response measured against the</p>	Bidder requests PGCIL to provide details on the AGC performance monitoring standards/criteria that is required.	<p>Please refer Secondary-Reserve Ancillary-Services (SRAS) procedure available at following link: -</p> <p>https://posoco.in/download/tailed-procedure-for-secondary-reserve-ancillary-services-sras-2022/?wpdmdl=49193</p>

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		control signals for Regulation-Up and Down sent every 4 seconds/1 min/5 min to the LDC. Daily/Weekly/Monthly/Annual report for the plants performance evaluation shall made available.		
84.	Volume II Part-B Section-2, 2.4.2.3	6. Declared Energy for the day in million units (MU) 7. Schedule Energy in MU (cumulative for the day) 8. Water gross head (m)	Bidder requests PGCIL to provide details on use-case for the mentioned inputs that will be used in AGC for Hydro units.	Please refer Secondary-Reserve Ancillary-Services (SRAS) procedure available at following link: - https://posoco.in/download/detailed-procedure-for-secondary-reserve-ancillary-services-sras-2022/?wpdmdl=49193
85.	Volume II Part-B Section-2, 2.4.2.3	Additional inputs for Gas power plants 1. Reference exhaust gas temperature 2. Actual exhaust gas temperatutre	Bidder requests PGCIL to provide details on use-case for the mentioned inputs that will be used in AGC for Gas Power Plants	Please refer Secondary-Reserve Ancillary-Services (SRAS) procedure available at following link: - https://posoco.in/download/detailed-procedure-for-secondary-reserve-ancillary-services-sras-2022/?wpdmdl=49193

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86.	Volume II Part-B Section-2, 2.4.2.7	Start-stop button shall be made available for user which start reducing delta P of all units to zero (0) by following their respective ramp rates	Bidder requests PGCIL to provide more details regarding use-case of start-up button. In addition, bidder requests PGCIL to explain what delta P.	Please refer Secondary-Reserve Ancillary-Services (SRAS) procedure available at following link: - https://posoco.in/download/etailed-procedure-for-secondary-reserve-ancillary-services-sras-2022/?wpdmdl=49193
87.	Volume II Part-B Section-4, 4.8.1 Backup System	The utility shall also take image backup daily automatically on backup appliance. It shall keep minimum two (02) set of image backup of all servers and one image backup of all the workstations on backup appliance (along with other backup details mentioned in Appendix-H, PART-B) and another Two (02) copies shall be maintained, out of which one shall be maintained by Contractor on SAN/NAS and other with Owner on external hard disk	The bidder assumes that 2 image backups would be taken for each server and 1 image backup would be taken for each workstation. The total number of backups for a server and workstation combined would be 3. Kindly confirm.	The 02 set image Back-up of all servers and one back-up of all work stations are to be kept in the Backup Appliance. Another two (02) copies (all servers and workstations), one on SAN/NAS and other on external hard disk
88.	Volume II Part-B Section-5, 5.8.6 Workstation Consoles	Integrated Remote Consoles: The Integrated remote console shall be provided wherein the workstation is part of monitor structure/ frame.	1. Kindly elaborate on the Integrated Remote Consoles that are requested in the RFP and provide a use case.	1. Refer Clause 5.8.6.1 of Vol. II, Part-B, Section 5 of bidding document. 2. Bidder to quote as per Volume-III_Schedule-I

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			2. Kindly provide the count of integrated remote consoles requested in the RFP.	Unpriced BOQ 1st_Stage of bidding document.
89.	Part- B, Section 9: CYBER SECURITY REQUIREMENTS, 9.1.6 Application Whitelisting tool	Tool shall be able to whitelist application builds (groups) and updates the whitelist automatically based on the discovered applications' compliance with organization's selected policies like trusted vendors/product name/folder path.	Bidder wants to make a note to POWERGRID that "Application whitelisting software will not be able to automatically update the application."	The requirement is for tool to update the whitelist automatically and not the application. Bidders are requested to provide their detail solution for discussion during Stage-I.
90.	Part- B, Section 9: CYBER SECURITY REQUIREMENTS, 9.1.1 Cyber Security Policy	Mechanism to detect unauthorized/unusual activity and attempts to compromise system security based on logs of SIEM, NMS and Application logs.	Bidder wants to make a note to POWERGRID that "NMS software shall not perform security operations as system logs are transferred to SIEM applications."	The requirement is to devise mechanism in cyber security policy for detection based on logs from SIEM, NMS and Application logs. Bidders are requested to provide their detail solution for discussion during Stage-I.
91.	Volume II Part-B	Data import	Bidder requests PGCIL to provide information on how many years of historian data to be imported from old system to new system for each state.	Refer Volume II Part-B Appendix-F: System Sizing Notes-2 of bidding document.

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92.	General	Storage	Bidder assumes the historical data can be stored either on SAN/Cluster storage. Please confirm.	The requirement is for storage on SAN. Bidders are requested to provide their detail solution for discussion during Stage-I
93.	Volume II Part-B Section-1, 1.5	The SOE data is time tagged with one millisecond resolution and there shall not be any discrepancy in the SOE timing in millisecond resolution, from any RTU to the control centers.	Bidder requests POWERGRID to explain, how handle errors due to wrong remote end / RTU end time stamping.	The error in time stamp from RTU shall be based on quality code received along with data from the RTU. In addition, the Control Center shall time tagged the events received from the RTU.
94.	Volume II Part-B Section-2, 2.4 / AGC		Bidder assumes that since Automatic Generation Control application will be deployed at ERLDC and each SLDC, total MW generation will be calculated at ERLDC and each SLDC. Please confirm.	Confirmed
95.	Volume II Part-B Section-2, 2.4 / AGC		Bidder assumes that since Automatic Generation Control functionality will be deployed at ERLDC and each state SLDC, Area Control Error will be calculated with respect to control area(s) defined for ERLDC and each state SLDC. As part of Area Control Error (ACE) calculation, interchange error will be computed by considering the difference between scheduled interchange and net	Bidders are requested to provide their detail solution for discussion during Stage-I.

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			interchange values at ERLDC and each state SLDC, whereas frequency error will be calculated based on difference between actual frequency and scheduled frequency values.	
96.	General		Bidder requests PowerGrid to confirm the no of OPC interfaces required in each control center.	Refer Vol. II, Part-B, Appendix-G & Volume-III_Schedule-I Unpriced BOQ 1st_Stage of bidding document. Please also refer Amendment-I
97.	General		Bidder requests PowerGrid to confirm the following parameters for each SLDC & ERLDC separately: - No of generation units - Total MW of generation - Control Area	The details shall be provided during detail engineering. Bidders to comply TS.
98.	Volume II Part-B Section-2, 2.2.13.1 (l)	The user shall be able to disable generator reactive power limiting on user-selectable sets of units, e.g., on a Control Centre basis.	Bidder requests PowerGrid to elaborate and explain the interface between PMU and EMS system and also share the count of PMUs to be interfaced with SCADA/EMS for each SLDC & ERLDC separately.	Please refer Vol. II, Part B, section 2, 2.2, d), of bidding document. Some PMUs are installed and more are being installed/ planned. One PMU for each Power system element upto 220kV voltage level shall be integrated.

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99.	Volume II Part-A Section-1 General Requirements of the Project, 1.10	1.10 Scope of Work f) Integration of Main and Back up Control Centers on ICCP protocol with Distribution Companies.	Please specify the control centers which needs to be integrated with distribution companies via ICCP.	All SLDC main and Backup Control Centre are to be integrated with Distribution companies.
100.	Volume II Part-A Section-1 General Requirements of the Project, 1.10	1.10 Scope of Work ff) During entire contract period (including extension of contract, if any), if OEM discontinues/ ends support to any item supplied (software/hardware/security solution) under the contract, contractor has to replace such hardware, software (or both, depending on software or hardware dependency) without any additional cost to Owner. Replacement shall be of either same or higher configuration and from same OEMs.	All OEMs have a short product refresh cycle and new products are introduced on ongoing basis to keep up with changing technology landscape. While we appreciate POWERGRID's intent, this criteria is strenuous and complicating considering the mix of technologies and vendors required at ULDC. We recommend the following: Omit the clause OR Otherwise employer should explicitly ask for mandatory hardware/software replacement within AMC phase & extended AMC and include in BOM for fair estimation and evaluation by all bidders. Considering the above, we request to clarify this as we may not be in position to bid if this clause remains as it is.	Bidders to comply Technical Specification.
101.	Volume II, Part-A Section-1 General Requirements of the Project	The contractor has to ensure during the entire contract period, if any supplied item (software and hardware including third party solutions/services) under the contract is discontinued / ends support/ is end-of-life, for all such items the contractor has to replace and provide the software/hardware/solution/service as		Bidders to comply Technical Specification.

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		<p>per scope of technical specification without any additional cost to Employer/Owner. The Contractor shall be responsible for meeting the overall response times and availability requirements specified in the Specification. Contractor shall also be responsible for hardware/software replacement/upgradation without any additional cost in case OEM declares end of life/end of support/ obsolescence for the product.</p>		
102.	Volume II Part A Section-4, 4.2 Maintenance support	Contractor shall also be responsible for hardware/software replacement/upgradation without any additional cost in case OEM declares end of life/end of support/ obsolescence for the product.		Bidders to comply Technical Specification.
103.	Volume II Part-B Appendix-G, Note	2. During entire contract period, if OEM discontinues/ ends support to any item supplied (software/hardware/security solution) under the contract, contractor has to replace such hardware, software (or both, depending on software or hardware dependency) without any additional cost to Owner. Replacement shall be of either same		Bidders to comply Technical Specification.

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		or higher configuration keeping required performance specified under the contract and from same OEMs.		
104.	Volume II Part-B Section-1, Real time data interface	it shall have interfaces compatible with DAS (1.0a and 2.0) compliant servers, SOAP, REST, SQL, ODBC, OLEDB, Modbus, ASCII, and text.	We request owner to specify the equipment that require DAS (1.0a and 2.0) interfaces. DAS (1.0a and 2.0) were used in earlier times hence bidder propose to remove it from the specifications.	Bidders to comply Technical Specification.
105.	Volume II Part-B Section-4, 4.2.2 Operating System	Contractor has to provide latest version of SCADA/EMS Application software before the start of Site Acceptance Test (SAT) without any cost implication.	This shall be amend as Latest Version at the time of FAT shall be provided. Please confirm.	Bidders to comply Technical Specification.
106.	Volume II Part-B Section-4, 4.1.3 Commercial Off-The-Shelf (COTS) product	For all such products bidder has to provide at least three references in Govt/Public Listed companies at the time of bid submission and same shall have been sold as an independent product and solution shall be in successful operation for at least three years at the time of bid submission	COTS products are industry/customer agnostic, hence there is no reason to ask for specific industry or customer segments (Govt. customer/PSU). Further, to allow for sufficient competition, and to reduce monopoly in specific products, we recommend to amend the clause as per following: The COTS application to be offered under this project shall be operational in production environment for at least One (1) year.	Bidders to comply Technical Specification.

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			In addition, recommendation letters/work orders/Letter of Award or other relevant supporting documents from at least Three customers shall be provided. Please confirm.	
107.	Volume II Part-B Appendix E: Questionnaire	134. Describe the features and functioning of (a) Application whitelisting tool (b) End point security (c) Intrusion detection and prevention system (d) SIEM (e) Patch management tool (f) Asset management tool (g) VAPT tool	We understand that all specification need to comply with mentioned spec in TS. We understand that all 3rd party software solutions are independent for their respective sites, no dependencies for any other control centre	Confirmed.
108.	Volume II, Part B, General		We request POWERGRID to share the following: a. Network Architecture for each location b. IDM setup / architecture c. Active directory setup / architecture d. SIEM architecture f. NMS Architecture g. White Listing Tool h. Backup solution count and philosophy of number of backups i. Number of devices for 1. NMS 2. SIEM 3. Backup with no. of copies	Refer Typical network architecture Part-A Appendix-D and Technical Specification of respective section. Bidders are requested to provide their detail solution for discussion during Stage-I.

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109.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	Power System Analysis The PSA shall include the following functions: J: Power Flow based on SE solution (Real time Power flow solution and State Estimation solution both should be available simultaneously with the associated element and their values to be exchanged with the SCADA measurements)	Understanding: Real time Power flow solution > SE data fetch into power flow and run power flow.	Requirement is to retain the output of SE and power flow simultaneously in the database. Bidders are requested to provide their detail solution for discussion during Stage-I.
110.	Volume II, Part-B, Section 2: EMS SYSTEM FUNCTIONS	The principal PSA activities of Control Centre are summarized as follows: e. Listing all Circuit Breaker and Isolator which can be filtered voltage level/ station/area-wise in case the telemetered value is more than the threshold limit. On click, the user shall be able to navigate to corresponding single line diagram of sub-station containing the Circuit Breaker/Isolator.	Listing all Circuit Breaker and Isolator which can be filtered station/area wise Not Clear " in case the telemetered value is more than the threshold limit." Please confirm.	Bidder to comply Technical Specification.
111.	Volume II, Part-B, Section 2: EMS SYSTEM FUNCTIONSstation diagram (SD) features	Explain SD?	Station Diagram is created by user using EMS software based on demand of user based on the network model. Refer Amendment-I

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112.	Volume II, Part-B, Section 2: EMS SYSTEM FUNCTIONS	j) RVO mode operation.	What is RVO Mode Operation?	In the reduced voltage operating mode (RVO) the HVDC terminal voltages are reduced below rated values and power flow continuous.
113.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	2.2.8.2 State Estimation Characteristics f) It shall be possible for the programmer to disable and enable the setting of the quality code in the real-time data base on a global basis.....	If quality code is disabled in real-time, then what quality code should be considered in SE?	Bidder to comply Technical Specification.
114.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	2.2.9 Bus Load Forecast Change the filter parameters used by the smoothing process	What would be the filter parameters in the smoothing process?	Bidders are requested to provide their detail solution for discussion during Stage-I.
115.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	2.2.12.1 Contingency Cases c) The user shall be able to enable or inhibit the modelling of closed-loop control of transformer (voltage and phase-shifter) tap changers, reactor/capacitor switching and generating unit reactive power limiting.	Explain closed-loop Scenario in transformer tap changers?	Bidders are requested to provide their detail solution for discussion during Stage-I.
116.	Volume II Part-B Section-2, EMS	d) In the event of generating unit outages or outages that cause a loss of load the change in generation/load shall be assigned to all remaining	Understanding: Generation will be assigned to other units, but load cannot be assigned to other loads.	Bidders are requested to provide their detail solution for discussion during Stage-I.

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	SYSTEM FUNCTIONS	generating units/loads in proportion to its maximum capacity in the affected electrical island.		
117.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	calculated net interchange, Total losses, generation, load, tie-line flows, bus mismatch , maximum bus mismatch, and spinning reserve.	Understanding: Calculation of Spinning reserve is not a part of the network applications. It will be calculated under AGC functions. Please confirm.	Bidders are requested to provide their detail solution for discussion during Stage-I.
118.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	Employer/Owner intends to implement Automatic Generation Control (AGC). Pan India AGC with all 5 regions and constituents within it could be considered as one control area with user flexibility to split/merge control areas. Each regional/state/constituents entity power station within its jurisdiction is a control area by itself. Split/Merging of control area should be user dependent without any limitation on creation of number of new control areas.	<ol style="list-style-type: none"> 1. The unit cannot control from multiple operating area while it can be access from multiple operating area. 2. Split/Merging of control area can be done at a time database modelling. Please confirm 	Bidders are requested to provide their detail solution for discussion during Stage-I.
119.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	a) Actual Generation MW: (1) Total for all India b) Spining Reserve MW: (1) Total for all India	Understanding: All India parameters will update at RLDC from NLDC through ICCP.	Confirmed

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120.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	<p>2.4.1.1 Operations Monitor</p> <p>Up Reserves - $Up_Reserve = \text{Min of} \{ (In_effect_Regulating_limit_{high} - Actual_{plant/unit}), Ramp_Rate \}$</p> <p>Down Reserves - $Down_Reserve = \text{Min of} \{ (Actual_{plan/unit} - In_effect_Regulating_limit_{low}), Ramp_Rate \}$</p>	<p>Please revalidate formula. Ramp_Rate = MW/Min while Regulating Limit is in MW. How both values will be compared? Please clarify</p>	<p>Ramp for time block (5mins / 15mins) is required to be considered for comparing regulating limit in MW and Ramp based MW limit. Formula is correct. Bidder to comply TS</p>
121.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	<p>2.4.1.1 Operations Monitor</p> <p>(6) Cold Reserve Calculation</p> $Cold_Reserve = Installed_Capacity_{without_considering_CB} - Installed_Capacity_{with_considering_CB}$	<p>Will only the online unit be considered, or will both (online and offline) units be considered in the calculation? How will the installed capacity of the unit change when CB is considered versus when CB is not considered?</p>	<p>Bidders are requested to provide their detail solution for discussion during Stage-I.</p>
122.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	<p>2.4.1.1 Operations Monitor</p> <p>(d) Net Interchange MW (actual, scheduled, and deviation from schedule): Net Interchange definitions and calculations shall be userdefinable:</p>	<p>Understanding: All India parameters will be updated at RLDC from NLDC through ICCP. Please confirm</p>	<p>Confirmed</p>

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		(1) Net for all India and breakdown per region and control area.		
123.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	2.4.1.1 Operations Monitor (e) Actual Drawl MW (including transmission losses): (1) Total for all India	Understanding: All India parameters will be updated at RLDC from NLDC through ICCP. Please confirm	Confirmed.
124.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	2.4.1.1 Operations Monitor (f) Area Control Error (ACE): ACE for operating (5-Five Regions and constituents within each Regions) and processed ACE values shall be calculated based on actual frequency, actual net interchange (regional/state and constituents), scheduled frequency, and scheduled net interchange.	Since other regions' data will not be available at ERLDC. How will ACE calculate for another region?	Refer Amendment-I
125.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	".....(a) Tie-Line Bias Control, where ACE is calculated from the following formula: $ACE = (I_a - I_s) - 10 B_f (f_a - f_s) + \text{Offset}$"	Please revalidate formula.	Formula is correct. Bidder to comply Technical Specification.

Clarification No-I dated 01/09/2023 to Bidding Documents for Package I Replacement Upgradation of existing SCADA EMS at ERLDC and SLDCs in Eastern Region under Implementation of Unified Load Despatch and Communication (ULDC) Phase III (SCADA EMS upgradation project) Eastern Region; Specification no.: CC/NT/W-SCADA/DOM/ A06/23/05954

S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
126.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	<p>2.4.4.2 Reserve Monitoring Output</p> <p>Up Reserves - $Up_Reserve = \text{Min of} \{ (In_effect_Regulating_limit_{high} - Actual_{plant/unit}), Ramp_Rate \}$</p> <p>Down Reserves - $Down_Reserve = \text{Min of} \{ (Actual_{plan/unit} - In_effect_Regulating_limit_{low}), Ramp_Rate \}$</p>	<p>Please revalidate formula. Ramp_Rate = MW/Min while Regulating Limit is in MW. How both values will be compared? Please clarify</p>	<p>Ramp for time block (5mins / 15mins) is required to be considered for comparing regulating limit in MW and Ramp based MW limit. Formula is correct. Bidder to comply TS</p>
127.	Volume II Part-B Section-2, EMS SYSTEM FUNCTIONS	<p>2.4.4.2 Reserve Monitoring Output</p> <p>(6) Cold Reserve Calculation</p> <p>$Cold_Reserve = Installed_Capacity_{without_considering_CB} - Installed_Capacity_{with_considering_CB}$</p>	<p>Will only the online unit be considered, or will both (online and offline) units be considered in the calculation? How will the installed capacity of the unit change when CB is considered versus when CB is not considered?</p>	<p>Bidders are requested to provide their detail solution for discussion during Stage-I.</p>