Clarification No-II to the bidding documents for Implementation of Unified Load Dispatch and Communication (ULDC) Phase-III (SCADA/EMS Upgradation Project –Northern Region SLDCs and RLDC); Specification No: CC/NT/W-SCADA/DOM/A04/23/00902

S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
1.	Volume II, Part-B, Section-1, Clause-1.1	l) Visualization application	Please explain this requirement with some use cases.	The visualization application refers to SCADA/EMS system including data historian display. Bidders are requested to provide their detail solution for discussion during Stage-I.
2.	Volume II, Part-B, Section-2, Clause-2.3	b) A Hydro System Model (HSM) that simulates each hydro system in a realistic manner including reservoirs, rivers, flow control devices, and hydro power stations.	Please specify the use case for the Hydro system model for training the operators.	Bidders are requested to provide their detail solution for discussion during Stage-I.
3.	Volume II, Part-B, Section-3, Clause-3.9.2	And aas per the operator's requirement etc.	Please elaborate the requirement "aas per the operator's requirement etc."	Feature to configure audible tone to alarm as per user requirement on occurrence of any events.
4.	Volume II, Part-B, Section-8, Clause-8.2.3	The access to Web server/site shall be controlled through two-factor authentication i.e. User ID and password to be maintained /granted by a system administrator and token generated through MFA application software.	MFA devices are not mentioned in BOQ, Could you please elaborate the MFA details that you are looking for, is it Bio metric or PKI etc, also request you to add it under BOQ as well.	Bidders may propose MFA solution with email interface & SMS interface etc. envisaged under the project for discussion during Stage-I.
5.	Volume II Part B, Appendix E: Questionnaire	How Multi Factor Authentication for internal user can be achieved?	Please elaborate what do you meant by Internal User What type of MFA is expected (Card reader/Fingerprinting) and devices required for MFA is not mentioned on the BOQ, Could please add the details in the BOQ?	The internal user referred as operators and users of RLDC/SLDCs. 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
6.	Volume II, Part-B, Appendix-H, Table no. – 15, Centralized Management of Firewalls	Sl. No. | Minimum Required Specifications | Bidder's proposed specifications - Centralized Management of Firewalls	Do we have to consider only single Firewall management software for MCC and BCC ?	Refer Amendment-II dated 03.05.2023
7.	Volume II, Part-B, Appendix-H, Table no. – 15, Centralized Management of Firewalls	1. | The Firewall management Solution must provide dedicated centralized management for central configuration, provisioning, real-time monitoring, fault management, logging and customized reporting with the capability to create scheduled reports. The management platform must be accessible via a web-based interface / client-based GUI (without any limitation in number of client) for all the management facility. Same OEM FWs must be managed centrally through single software. |	In specification of centralized management of Firewall it is mentioned common for main and backup control centre but in BOQ, centralized management and log analyzer for all FW is separately mentioned for both main and backup control centre, Please clarify	Refer Amendment-II dated 03.05.2023
8.	Volume II, Part-B, Section-2, Clause-2.3.3, DTS Model	It shall consist of an exact replica of a Owner designated subset of the hardware used in the SCADA/EMS Control Centre computer system and the same software used in the Control Centre computer system with modifications necessary to interface with PSM and HSM.	Shall the DTS also include replica of DSA Hardware and software?	DTS functionalities are specified in Part- B, Section 2: 2.3 and replica of DSA Hardware and Software are not considered to be included in DTS. DSA functionalities specified in Part-B, Section 2: 2.5 have the provision of offline/study mode. Bidders are requested to provide their detail solution for discussion during Stage-I.

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<table>
<tr><th>S. No.</th><th>Clause</th><th>Provision of Bidding Documents</th><th>Bidder's Query</th><th>POWERGRID's Reply</th></tr>
<tr><td>9.</td><td>Volume II, Part-B, Appendix-F: System Sizing</td><td>The requirement "Contractor shall consider hardware sizing considering 7 years of proposed system and 10 years old data, which shall be migrated to new historian. Old data for duration of 10 years needs to be migrated to new system."</td><td>It is not clear regarding the required / resulting total sizing. "The new historian will be sized for storing 7 years of data. After system installation, it will be filled with 7 years of old data migrated to the new historian. Historian data older than 7 years will be deleted. Please confirm this understanding. Otherwise, please provide your understanding."</td><td>The Historian system should be sized considering:
a) 7 year of proposed system data -(new data)
AND
b) The old data of 10-year duration is to be migrated in new Historian -(old data)
The proposed historian should be sized considering both a) and b) above.</td></tr>
<tr><td>10.</td><td>Volume II, Part-B, Appendix-G</td><td>Software Part
1.12 Commercial Off-The-Shelf (COTS) Softwares
<table>
<tr><td></td><td></td><td>Main</td><td>Backup</td></tr>
<tr><td>Software Part</td><td></td><td></td><td></td></tr>
<tr><td>(b) Document Management System</td><td>Lot</td><td>1</td><td>0</td></tr>
<tr><td>Hardware Part</td><td></td><td></td><td></td></tr>
<tr><td>DRS DMZ Servers as per technical specification</td><td>No.</td><td>2</td><td>2</td></tr>
<tr><td colspan="4">(d) Document Management System</td></tr>
</table></td><td>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 DMS in backup also or not. And same is the issues in SLDC level.</td><td>The document management application is to be supplied as mentioned in software part of BoQ. The DMS server (Virtual machine) should be provisioned in DRS DMZ hardware server at the locations as identified in software part.</td></tr>
</table>

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
11.	Volume II, Part-B Appendix-H, Table no.-12	Link Load Balancer (LLB) 9. The proposed appliance shall have capability to run in standalone as well as virtualized mode (in case.	In the specifications point no. 1 asked for LLB shall be appliance-based both points are contradictory. It is suggested to amend the clause as "The proposed appliance shall have capability to run in standalone as well as in HA Mode." We would like to request the honorable tendering committee to amend this clause for wider participation and to get the best technocommercial solution available in the market.	Refer Amendment-II dated 03.05.2023
12.	Volume II, Part-B Appendix-H, Table no.-12	Link Load Balancer (LLB) 17. LLB shall be designed to run both IPv4 & IPv6 simultaneously (Dual Stack) from day one.	The IPv6 Ready Logo program is an international testing program to increase user confidence by its certification. So for ensure the proposed product has all required IPV6 features. It is suggested to amend the clause as "LLB shall be designed to run both IPv4 & IPv6 simultaneously (Dual Stack) from day one and Appliance should be IPV6 Ready logo certified from day one". We would like to request the honorable tendering committee to amend this clause for wider participation and to get the best technocommercial solution available in the market.	Refer Amendment-II dated 03.05.2023

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
13.	Volume II, Part-B, Section-2, 2.4.1.1 Operations Monitor	3. Total for each company/part of company, power stations, regional/state entity and the users' share breakdown.	Bidder requests Powergrid to explain "User's Share Breakdown"	User's Share breakdown refers to breakdown of Generation MW for the user/constituents in the specified plant/powerstation as mentioned in technical specification
14.	Volume II, Part-B, Section-2, 2.4.1.1 Operations Monitor	Generation shall be mentioned fuel-wise also	Bidder requests Powergrid to give the available fuel types which have to be considered for the Generation.	The fuel type refers to available generation mix in Indian Power System such as Coal, Gas, Biomass, Hydro, Solar, Wind, etc.
15.	Volume II, Part-B, Section-2, 2.4.1.1 Operations Monitor	I. With CB Status only II. With both CB Status and Local/Remote Status	Please define "With CB and Without CB"	AGC calculations needed to be performed with various signal (such as CB status of Plant/Unit, Local/Remote Status of Plant/Unit etc.) as mentioned in technical specification
16.	Volume II, Part-B, Section-2, 2.4.1.1 Operations Monitor	(e) Actual Drawl MW (including transmission losses)	Bidder understands that "actual drawl MW" means the total Loading on the network. Please confirm.	'Actual drawal' defined in Deviation Settlement Mechanism and Related Matters Regulations, 2022 and other regulations by CERC and SERCs regulations.
17.	Volume II, Part-B, Section-2, 2.4.1.1 Operations Monitor	"The RLDC/SLDC shall retain the operational characteristics of each power station's generating unit within its jurisdiction. The RLDCs/SLDCs shall report changes to unit characteristics to the RLDCs/SLDCs as they occur. Each RLDC/SLDCs shall maintain its own unit information."	Bidder requests definition of "Unit Charcterisctics" and a use case for better understanding.	The operational characteristics of each power station's generating unit (such as Unit Load Set Point MW, Ramp Limited Unit Load Set Point , Cap_Max & Min in MW etc.) within its jurisdiction is

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
				required to be maintained which shall be needed to operationalise AGC calculations as mentioned in technical specifications.
18.	Volume II, Part-B, Section-2, 2.4.1.2 Automatic Generation Control Functions	"Spinning reserve (both Up and Down reserves) and operating reserve requirement of the respective area"	Please elaborate the requirement since this varies project to project.	Refer Part- B, Section 2: 2.4.1.1 Operations Monitor -(b) (5) Spinning Reserve MW and Part-B, Section 2: 2.4.2.12
19.	Volume II, Part-B, Section-2, 2.4.1.2 Automatic Generation Control Functions	The AGC algorithm shall reduce governor action due to ACE noise and still respond to fast real changes of ACE by using digitally filtered adaptive and predictive controls.	Please define the term "adaptive and predictive control" and use case for better understanding.	Bidders are requested to provide their detail solution for discussion during Stage-I.
20.	Volume II, Part-B, Section-2, 2.4.2.3 Generating Unit Limits	"Additional inputs for Gas power plants 1. Reference exhaust gas temperature 2. Actual exhaust gas temperature "	bidder requests the need of additional inputs.	Additional inputs for Gas power plants are required for AGC calculations as mentioned in TS.
21.	Volume II, Part-B, Section-2, 2.4.2.13 Entering Operating Area	"The system operator shall be able to specify/ modify the operating area response rate requirement to be used by AGC. This value defines the minimum short-term rate in both the upward and downward direction for the entire operating area."	what is meant by response rate for the area and how is it different from unit response rate. Please elaborate the requiremnt.	The operating area response rate is to be specified/ modified by system operator (LDCs) whereas unit response rate to be assigned by plant/unit operator.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
	Response Rate Requirement			
22.	Volume II, Part-B, Section-2, 2.4.3 Real-Time Dispatch	"The RLDC/SLDCs shall calculate the generation requirements for the participating ISGS based on ACE/PACE."	Bidder understands that PACE means Filtered area control error. Please confirm.	Refer 2.4.2.4 Turbine Control Logic, PACE refers to Processed Area Control Error.
23.	Volume II, Part-B, Section-2, 2.4.4 Reserve Monitoring	"Its sizing and data interfaces shall be coordinated with OM and Interchange Scheduling & RLDC/SLDCs scheduling. "	Bidder requests the meaning of sizing and data interfaces in this case. Please explain in detail.	Bidders are requested to provide their detail solution for discussion during Stage-I.
24.	Volume II, Part-B, Section-2, 2.4.1.1 Operations Monitor	Cold Reserve Calculation	does this calculation mean "No spinning reserve". Please confirm.	Spinning reserve refers to the total on-line synchronized generation reserve (Up and Down)
25.	Volume II Part-D Section 8 MAINTENANCE	8.4.1 Scope of Maintenance of Batteries & UPS 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.	Bidder to comply technical specification.

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
26.	Volume III_Schedule-I-Unpriced BOQ 1st Stage	11.12 Relocation and Commissioning at New Location Relocation and Commissioning at New Location	Kindly specifiy the address/ distance of Temporary Location and New Permanent Location	Refer Volume II Part-A Section-1 1.13. Bidder to comply technical specification.
27.	Volume II Part B, Appendix-H: Hardware Specifications Table 20. Video Projection System - LASER (VPS)	LASER based rear projection	Request you to mention RGB Laser without any Moving part like color wheel & Phosphor wheels Reason: If laser is only mentioned then outdated technology like color wheels based systems will be provided Which has moving parts & which are prone to failures .Hence request you to mention RGB Laser which does not have any moving parts	Bidders are requested to provide their detail solution for discussion during Stage-I.
28.	Volume II Part B, Appendix-H: Hardware Specifications Table 20. Video Projection System - LASER (VPS)	Minimum 80,000 Hours	Request you to mention Minimum 1,25,000 Hrs in Eco & Normal Mode Reason: As this is available with both the OEM request you to consider the same as this will allow you to get a product which can be supported upto 10 years lifetime	Bidders are requested to provide their detail solution for discussion during Stage-I.
29.	Volume II Part B, Appendix-H: Hardware Specifications	"As per the base runtime requirements of SPEC CPU 2017 Benchmarking Standards"	Request you to remove the same Reason: As these benchmarks are no more available request you to make it optional	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
	Table 20. Video Projection System - LASER (VPS)			
30.	Volume II Part B, Appendix-H: Hardware Specifications Table 20. Video Projection System - LASER (VPS)	"Audio video signal input module with 2 video inputs, 2 audio inputs, 2 audio outputs for connecting speakers, 2 RGB inputs, 1 DVI input."	Please consider 2 HDMI & 2 DP Inputs Reason: As DVI & RGB Inputs are end of life request you to consider latest inputs which is HDMI & DP Which is better	Bidders are requested to provide their detail solution for discussion during Stage-I.
31.	Volume II Part B, Appendix-H: Hardware Specifications Table 20. Video Projection System - LASER (VPS)	"1. RGB Analog up to 1920x1200 (up to 165 MHz pixel clock) 2. DVI up to 1920x1200 (up to 165 MHz pixel clock)."	Please consider 2 HDMI & 2 DP Inputs Reason: As DVI & RGB Inputs are end of life request you to consider latest inputs which is HDMI & DP Which is better	Bidders are requested to provide their detail solution for discussion during Stage-I.
32.	Volume II Part B, Appendix-H: Hardware Specifications Table 22	Minimum 5000:1	Request you to consider 1500:1 or better Static contrast ratio Reason: 5000:1 Static contrast ratio is available in VA Panels which are end of life. As nowdays only IPS Panels are available they have maximum static contrast ratio 1500:1 or better	Bidders are requested to provide their detail solution for discussion during Stage-I.

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33.	Volume II Part B, Appendix-H: Hardware Specifications Table 22	Speakers Inbuilt	Request you to allow External Speakers also Reason: As inbuilt speakers are no more coming request you to consider external speakers option too	Bidders are requested to provide their detail solution for discussion during Stage-I.
34.	Volume II Part B, Appendix-H: Hardware Specifications Table 22	Screen Gap Not mentioned	Request you to mention screen to screen gap less than 0.88 mm Reason: In case of 55" the minimum screen to screen gap is 0.88 mm request you to consider the same	Bidders are requested to provide their detail solution for discussion during Stage-I.
35.	Volume II Part B, Appendix-H: Hardware Specifications Table 20	500 GB SSD in RAID-1 configuration	Request you to consider 480 GB SSD RAID 1 Reason: SAS HDD Comes in 480 & 960 GB SSD Only	Bidders are requested to provide their detail solution for discussion during Stage-I.
36.	1.2(b), Annexure-A (BDS), Vol-I of bidding documents	Minimum Average Annual Turnover*(MAAT) of the bidder for the best three years i.e. 36 months out of last five financial years as annualised …	Business in general and specifically for an Indian SME like us has been affected negatively for two years due to the COVID pandemic. We request you to relax the requirements to "best three years i.e. 36 months out of last seven financial years" instead of "best three years i.e. 36 months out of last five financial years".	Provisions of Bidding documents remain unchanged

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S. No.	Clause	Provision of Bidding Documents	Bidder's Query	POWERGRID's Reply
37.	ITB 35.3 (b), Vol-I of bidding documents	Duration in Months from the date of Notification of Award: 18 Months	Project Region is widely distributed across Various states. Scope of work is Huge. 18 Months (including parallel operation) is not feasible. Kindly amend the Duration as 30 months	Provisions of Bidding documents remain unchanged