



Ref: SRTS-II/C&M/WC-4354/ Clarification-III

Date: 28.07.2025

Package Name: Substation related works at Kudankulam Nuclear Power Plant (KKNPP) 1,2 end with respect to new 400kV interconnection line between (KKNPP) 1,2 & KKNPP 3,4 under consultancy

SPECIFICATION NO : SR2/NT/S-INTL/DOM/C00/25/06261

RFX No : 5002004450

Subject: Clarification-III to Bidding Document -Reg

Sl.No.	Source	Bidder Queries	POWERGRID Reply
1	(c) SUBSTATION AUTOMATION SYSTEM	Can you share the present SICAM SAS and Model? Is it A8000?	Details are as available in Section – Projects, Clause 3.0.
2	(c) SUBSTATION AUTOMATION SYSTEM	Are there specific technical guidelines or formats required for updating displays (HMI's or SCADA Screens), alarms, and event reporting during SAS enhancement?	Please refer Section-Substation Automation System : Rev 04, Cl. 3
3	(c) SUBSTATION AUTOMATION SYSTEM	For any hardware upgrades (Routers, Firewall, Ethernet switches,), shall we go with new integration equipment if necessary?	To be executed in line with requirements given under Cl. 3 (C) and 3.9 of section project.
4	(c) SUBSTATION AUTOMATION SYSTEM	How is user access managed for newly integrated IEDs and BCUs within the existing SICAM SAS?	Please refer Section-Substation Automation System: Rev 04
5	(c) SUBSTATION AUTOMATION SYSTEM	We require the specification/ Drawing/ Architecture of present SAS at KNPP 1 & 2 site. Please share this.	Please refer to Bid Documents VOL 2, Part 1,5 and 7 for existing and indicative drawings.
6	PHASOR MEASUREMENT UNIT Clause (ii)	Please confirm if there are any site-specific customization requirements or deviations anticipated in implementing the IEC/IS 60255-118-1-2018 and IEEE C37.118.2 protocols, especially with respect to existing legacy systems or proprietary RLDC/SLDC architecture.	PMU integration to be done as per standard RLDC requirements.





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7	PHASOR MEASUREMENT UNIT Clause (iii)	Are there defined coordination protocols or timelines for support during PDC-PMU integration?	PMU integration to be done as per standard RLDC requirement.
8	PHASOR MEASUREMENT UNIT Clause (vi)	Is there any standardized scheme available for the digital input mapping from the Control and Relay Panels (CRPs) to the PMU panel, or is this expected to be developed during engineering based on site-specific CRP logic diagrams?	For one line bay, the following inputs are to be considered one line bay:- <ul style="list-style-type: none"> • Line Current • Line Voltage • Line CB status
9	PHASOR MEASUREMENT UNIT Clause (vi)	Please confirm if there are any predefined cable tray routes or space restrictions between Line Bays, ICT/STATCOM Bays, and the PMU panel that should be factored into cable length estimations and interconnection planning.	Vendors are advised to visit the site, take a note of the available facilities and assess the requirement.
10	(B) CONTROL AND PROTECTION SYSTEM CVT Panel	Can you please clarify, what is CVT Panel, whether it is a separate panel or CVT device alone?	Is as brought out in Cl. 3(b) of section project.
11	(B) CONTROL AND PROTECTION SYSTEM New CT Cable	Can you please clarify, what cable is to be mentioned?	Please refer Section - Switchgear-INST Rev 12
12	2.0 SCOPE 2.1 Clause (e)	Could you provide the approved sample circuit diagram for modifying the existing marshalling panel to marshalling cum Tie (RLC) panel for 00ACL12 bay?	Please refer to Bid Documents VOL 2, Part 1,5 and 7 for existing and indicative drawings
13	2.0 SCOPE 2.1 Clause (d)	(i) Please provide GA drawings, photos of the existing protection panels in which the Siemens make 7SL87 & GE make L90 relays are to be retrofitted. Kindly share photos of the existing protection panel (front side, rear side & inside view). (ii) Please provide the location of the above existing	Please refer to Bid Documents VOL 2, Part 1,5 and 7 for existing and indicative drawings





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		protection panels (Control room or Switchyard AC kiosk). (iii) Please provide the distance between the above existing protection panels and the existing Substation Automation System.	
14	Communication Equipment	Does scope include supply of Ethernet switch, LIU, FO cables (Armoured, Unarmoured type), Ethernet/Copper/CAT6 cables (Armoured, Unarmoured), Serial cables (for metering purpose) for SAS system LAN connectivity purpose? Please clarify with quantities and length of cables	To be done in line with the requirements given under Cl.3(b) of Section Project. Vendors are advised to visit the site, take a note of the available facilities and assess the requirement.
15	Communication Equipment	Does the scope include supply of any communication Protocol converters, Media converters (Serial port to Ethernet port to FO port, etc.), Contact Multiplication Relays, etc. Please clarify	Vendors are advised to visit the site, take a note of the available facilities and assess the requirement.
16	2.0 SCOPE	Does the scope include supply of any Master Trip relays, LBB/Bus bar port. Trip relays, Supervision relay for Master trip relay/LBB/Bus bar port. Trip relays, Trip circuit supervision relays, PT selection relays, Single phase trip relays, DC supervision relays, other auxiliary relays, etc. Please clarify.	Please refer to Cl 3 (b) of section project.
17	(C) Substation Automation System	In the document 'Section-Project' it is mentioned that Existing KKNPP 1&2 substation is equipped with Substation Automation system based on Profibus FMS of M/s Siemens make, SICAM SAS in plus tool environment. a) Please provide the existing SAS system architecture/configuration drawing. b) Please provide the existing SAS system software information like model, version and firmware details(this is required for all the existing softwares like SAS HMI, Gateways, engineering workstation, Relay	Please refer to Bid Documents VOL 2, Part 1,5 and 7 for existing and indicative drawings. For additional details, if required, Vendor are advised to visit the site and assess the requirement.





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		configuration/parameterisation softwares, Disturbance records extraction/analysis softwares, metering system softwares, etc.).	
18	(C) Substation Automation System	In the document 'Section-Project' it is mentioned that the necessary interface equipment (Router, Firewall, Ethernet Switches etc.) and integration work for transferring data to RLDC (RSCC)/NLDC through optical fiber based SDH communication link is also under present scope. a) Please provide the quantities of requirement for Router, Firewall, Ethernet Switches along with Technical specification and also approved make & model details	These are standard communication equipment's. Technical team of the vendor may please assess the same after site visit. TS are available in Section SAS and Section Tele Communication System.
19	(B) CRP	Please provide the remote end Relay ordering code information for SIEMENS make 7SL87 relay.	Relay is 7SL87 type. Order code shall be provided to successful bidder during execution.
20	(B) CRP	Please provide the remote end Relay ordering code information for GE make L90 relay	L90GEMULTILIN. Order code shall be provided to successful bidder during execution.
21	(B) CRP	Please provide the 'Technical Specification' and 'ordering code information for the existing Special Energy Meter - Main & Check meters (existing make is L&T make ER300P)'	Energy meter supplied shall be 0.2s accuracy class with telemetry functions (RS232/485 and ethernet port). Meter shall be of reputed make.
22	(B) CRP	In the document 'Section-Project' it is mentioned that the 'scope includes providing PMU with GPS clock and WAMS hardware along with integration of PMU with PDC (Phasor data concentrator) of RLDC and respective SLDC as Required'. a) Please provide details of the existing PDC (Phasor data concentrator) of RLDC and respective SLDC (like Make & Model	Full PMU system to be setup for integration with RLDC as per Section Project Cl. 3(b). Section Section-Technical Specification Telecommunication System-





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		details). b) Please provide the approved make & model details of PMU system. c) Please provide the Technical specification and also approved make & model details of GPS system. d) Please provide the Technical specification and also approved make & model details of WAMS system. e) Does the present scope of supply of PMU along with WAMS hardware is required only for the present 1no. 400 KV Tie line bay? Please clarify. f) Is there any existing PMU and WAMS System installed already? Please provide the existing make & model details of the same. g) Please provide the existing PMU and WAMS system design configuration/architecture/philosophy details (along with technical specification). h) Does the above PMU system should also be interfaced with the existing Substation Automation System. Please clarify. i) Please provide the distance between the above PMU/WAMS system and the existing Substation Automation system.	Rev 05 may be referred to for further details.
23	(B) CONTROL AND PROTECTION SYSTEM New CT Cable	Can you please clarify, what cable is to be mentioned, cable length and sizes? From where and where to be connected?	Please refer Section - Switchgear-INST Rev 12
24	(B) CONTROL AND PROTECTION SYSTEM CVT Panel	Since this is a retrofitting job involving the replacement of the existing CVT with new, we presume existing cables shall be used as there is no mention of removal of cables in SOW. In case new cables to be used, Please let us know the exact length to be considered from CVT to existing CRP / SAS and revise price by including removal of cables.	Please refer Section Project, Page no. 9





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25	(D) CABLES	Please share the cable length, sizes and from where and where to be considered	Cable size shall be as per Section -Switchgear-INST Rev 12. For length and other additional details, Vendor are advised to visit the site and assess the requirement.

The above clarification forms integral part of the bidding document. All other terms and conditions of the bidding document remains unchanged.

