ANNEXURE-1 : Clarifications
Name of the Firm: M/s Schneider

	Bid no. :	Chief General Manager/Projects/TGSPDCL/ SCADA: 01/2024-25				
S.No	**Section**	**Clause name**	**Page**	**Subject in the Specification**	**Clarifications sort by Schneider**	**TGSPDCL Remarks**
1	Section -I Notice inviting bids	Notice for inviting the bids	5	And integrate to the existing SCADA system for Integration of all the 112 nos. non-integrated substations and for integration of 103 numbers 11kV feeders in already integrated substations (existing SCADA system in the utility).	Usaully as a bidder / equipment OEM ,we shall provide support for integration to SCADA Sytem for RTU and IED relays. As the Software is not in the scope of tender, request you to kindly confirm the support from software OEM to complete the integration shall be in the scope of TGSPDCL and Integration support from field equipments in the scope of bidder.	No change. The responsibility of integration of existing RTU with new equipments is in the scope of TGSPDCL. However, the extraction of ICD files of IED relays and coordinating for configuration in the existing RTU is in the bidder scope.

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2	Section -I Notice inviting bids	Notice for inviting the bids	5	Facilities management services for malntaining infrastructure, post successful complex on of acceptance tests for a period of five years from the date of completion of acceptance.	Request you to please remove the scope of FMS for the entire system. We shall provide FMS for the field equipments that are connected to the SCADA control centre as the software is not in the scope of bidder.	No change. The scope of work is mentioned in the Page No.5 duly mentioning about FMS work.
3	Section -III Instructions to Bidders (ITB)	3(b).Interchangeability	15	All similar materials and removable parts of similar equipment will be interchangeable with each other. A specific confirmation of this should be furnished in the bid.	Our components are free to make interchangable. However interchangable is in the scope of End user(TGSPDCL). Kindlyconfirm.	No Change. The confirmation from bidder is required, if any equipment is interchanged in future the SCADA operation should not effect.

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S.No	**Section**	**Clause name**	**Page**	**Subject in the Specification**	**Clarifications sort by Schneider**	**TGSPDCL Remarks**
4	Section -VI Qualification Requirements	Qualification Requirements	44	Financial i. The total turnover shall be Rs.20 Crores during the last five years certified by CA. ii. Net Worth for the last three Financial Years should be positive. iii. The bidder should have successfully executed at least two Turnkey contract of SCADA System in last 10 years in INDIA in any power utility/ Government organizations/Limited companies for Electrical distribution system. The Cumulative value of contracts shall not be less than Rs.10 Cr for the total contracts executed during the last 5 years. iv. Liquid assets and credit facilities of not less than 25% of the bid value (credit lines/ letter of credit/ solvency certificates from Banks, etc – usually the equivalent of the estimated cash flow for 3 months in peak work period).	Request you to confirm 20Cr for the cumulative of 5 years.	No Change.

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S.No	Section	Clause name	Page	Subject in the Specification	Clarifications sort by Schneider	TGSPDCL Remarks
5	Section -VI Qualification Requirements	Qualification Requirements	44	Technical v. The bidder should have supplied minimum 2nos. RTUs, TMUs, IEDs and necessary accessories in India directly or through System Integrator (SI). The performance certificate for at least 2nos Distribution Networks Systems working satisfactorily should be enclosed with the bid. vi. The bidder must produce necessary certificates along with type tests along with the bid. vii. The bidder shall only satisfy all the qualifying requirements. No Joint venture/ Consortium are allowed for participating in this tender. viii. Availability for this work of a Project Manager with Graduation in Electrical/Electronics Engineering with experience in SCADA system implementation. ix. A technically qualified bidder must integrate one 33/11KV substation under POC. Only upon successful integration will they qualify for the opening of the price bid.	Request you to please allow consortium or JV.(OR)The bidder should have experience in :The bidder shall be Original Equipment mananufacturer or bidder shall be EPC with OEM as a Authorized TechnologyPartner should meet the following criteria.Supply, testing and commissioning of SCADA-DMS (Supervisory Control and Data Acquisition & Distribution Management System) 3 Nos of control centers solution for electricity sub-stations (11kV or higher voltage rating) andSupply, installation, testing, configuration, commissioning and integration of 25 no. of sub-nation RTUs or field equipment 100 FRTUs installed in 100 Nos of feeders with 11KV or higher voltage class.If EPC participating along with OEM as a Authorized panner participating in the bid should submit the following documents:a) EPC should furnish manufacturers Authorized Technology Planner certificate or agreement copy. b) EPC should be able to furnish valid Type test certificate from OEM.c) Tender specific Authorization letter backed by OEM shall be submitted at the time of tender d) Tfie qualification experience of the principal OEM shall be considered for evaluation .The O£M as a Authorized technical partner shall be Associated with EPC shall severally liable for execution of the contract where there shall be a MoU covering the entire scope of work. The MoU shall have a defined scope matrix along witfi terms and conditions on the duly signed by competent authority with POA and submitted along with the eid. The OEMS/ Authorized Technical partner participating in tfie bids should have service centers Tn lNDiA with su'ff1cient spares as per the contract. The bidder shall furnish Type Test Results. The type tests must have been conducted on the materlei offered as per the relevant iS/International Standards in recognized laboratory {Central Govt. or NABL accredited laboratory or International Labs along with accreditation cenifTcate of the respective accreditation agency).	No Change. EPC agency is fully responsible.

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Name of the Firm: M/s Schneider

	Bid no. :	Chief General Manager/Projects/TGSPDCL/ SCADA: 01/2024-25				
S.No	**Section**	**Clause name**	**Page**	**Subject in the Specification**	**Clarifications sort by Schneider**	**TGSPDCL Remarks**
6	Details of Notice Inviting the Bid	Details of Notice Inviting the Bid	6	Project compleuon Scbedule 3 months from the date of LoA (letter of award)	Project completion schedule shall be 6 to 8 m onths from the date of clear drawings approval and also based on schedule of sh utdown only. the substations to be charged	No Change

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Name of the Firm: M/s Schneider

	Bid no. :	Chief General Manager/Projects/TGSPDCL/ SCADA: 01/2024-25				
S.No	**Section**	**Clause name**	**Page**	**Subject in the Specification**	**Clarifications sort by Schneider**	**TGSPDCL Remarks**
7	INSTRUCTIONS TO BIDOE PM (ITB)	Penatly Clause	33	Penalty Clause: I) The agency is responsible for attending, rectification/replacement of defective /burnt SCADA Equipment even in the event of high voltages if any within 24 hrs. In case of major failure such as total failure of Server, the agency has to rectify the same within 12 hours. The penalties are applicable as defined in service level agreement. The agency is liable to the purchaser (TGSPDCL) for payment penalty as specified in the SLA. II) If the agency fails to deliver any or all of the goods of perform the related services within the period specified in the contract, the purchaser (TGSPDCL) may without prejudice to all its other remedies under the contract, deduct from the contract price, as liquidated damages, as sum equivalent to 1% of the value of the goods or related service, supplied beyond stipulated delivery schedule for each week or part thereof of delay until actual delivery or performance subject to a maximum of 15% value of such goods and services. III) In case of a delay in the integration of all 33/11kv substations and 11kV feeders within the scheduled time, TGSPDCL, without prejudice to its rights under the law, including the right to cancel the contract, forfeit the bank guarantee, and/or recover damages for breach of contract, reserves the right to take appropriate action	Kindly accept for 0.5% of the value of the goods or related service, supplied beyond stipulated delivery schedule for each week or part thereof of delay until actual delivery or performance subject to a maximum of 5% of value of such goods and services.	No Change.

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S.No	**Section**	**Clause name**	**Page**	**Subject in the Specification**	**Clarifications sort by Schneider**	**TGSPDCL Remarks**
8	Section-III Instructions to bidders (ITB)	44). Payment Terms	32	SCADA Equipment Delivery of all materials mentioned as per bill of quantities. Installation, Testing and Commissioning, Configuration all equipments. After successful completion of end-to end integration of all substations and feeders After successful Site acceptance test with availability of 95% above After Successful completion of training After Successful submission of reports Final Payment after acceptance and proof of submission of the required number of reproducible, O&M manual and user manual etc.. FMS Charges for 1st year FMS Charges for 2nd year FMS Charges for 3nd year FMS Charges for 4nd year FMS Charges for 5nd year	Please accept the following payment terms. For Supply : 10% shall be paid as an advance against submission of 10% ABG, 80% shall be paid against delivery of the materials and the remaining 10% shall be paid after completion of commissioning. FMS : Payment shall be paid on monthly basis for all 5 years.	No Change.

ANNEXURE-2 : Clarifications
Name of the Firm: M/sPower Engineering Associates

	Bid no. :	Chief General Manager/Projects/TGSPDCL/ SCADA: 01/2024-25				
Sl.no	**Section**	**Clause name**	**Page**	**Subject in the Specification**	**Clarifications sort by Power Engineering Associates**	**TGSPDCL Remarks**
1	Section -VI Qualification Requirements	Financial- Clause No.iii	44	iii. The bidder should have successfully executed at least two Turnkey contract of SCADA System in last 10 years in INDIA in any power utility/ Government organizations/Limited companies for Electrical distribution system. The Cumulative value of contracts shall not be less than Rs.10 Cr for the total contracts executed during the last 5 years.	For this Clause, we feel that doing 1 work or 2 or 3 works will make no difference and request you to consider making it one similar work since some bidder would have done one work in toto and other similar works with little difference.	No Change.
2	Section -VI Qualification Requirements	Financial- Clause No.iii	44	v. The bidder should have supplied minimum 2nos. RTUs, TMUs, IEDs and necessary accessories in India directly or through System Integrator (SI). The performance certificate for at least 2nos Distribution Networks Systems working satisfactorily should be enclosed with the bid.	For this clause, in general many of the tenderers put the condition as RTU or OFC switch (As finally the system will be connected through OFC switch and RTU). So we request you to make this as RTU/OFC. Once again we wish to bring to your notice that comissioning of single distribution networks/several distribution networks succesfully means finally the work involved is same in all. Under the above circumstances, we request you to make this as one distribution network system working satisfactory to make many bidders to participate and make the offer more competitive and not becoming propreitary for someone.	No Change.

ANNEXURE-3 : Clarifications Name of the Firm: M/s Phoenix					
	Bid no. :	**Chief General Manager/Projects/TGSPDCL/ SCADA: 01/2024-25**			
Sl. No	**Clause No**	**Subject in the Specification**	**Clause, can be modified, read and incorporate in Technical Specifications**	**Clarifications sort by Power Engineering Associates**	**TGSPDCL Remarks**
1	Page 2 of 68, Technical Requirements of RTU and Sub Clause Design Standard	Technical Requirement of RTU, Design Standard The RTUs shall be designed in accordance with applicable International Electro-technical Commission (IEC), Institute of Electrical and Electronics Engineer (IEEE), American National Standards Institute (ANSI), and National Equipment Manufacturers association (NEMA) standards, unless otherwise specified in this technical specification. In all cases the provisions of the latest edition or revision of the applicable standards in effect shall apply.	Technical Requirement of RTU, Design Standard The RTUs shall be designed in accordance with applicable International Electro-technical Commission (IEC), Institute of Electrical and Electronics Engineer (IEEE), American National Standards Institute (ANSI), and National Equipment Manufacturers association (NEMA) standards, unless otherwise specified in this technical specification. In all cases the provisions of the latest edition or revision of the applicable standards in effect shall apply. The RTU shall comply to IEC62351-3 for cyber security in communication between RTU and master station and IEC62443-4-2 for cyber security for product testing. RTU Cyber security shall be in complaint & tested with 3rd party agency such as TUV etc.	As per IEC , IEC62351-3 focuses on communication line between RTU and master station (SCADA and DMS) while IEC62443-4-2 focuses on product cyber security . To achive comprehensive protection against all possible cyber threats/attacks RTU shall comply to IEC 62351-3 and IEC 62443-4-2 standard for cyber security. Refer attached Technical specifiaction of RTU Annexure A	It is already mentioned that in all the cases of the latest addition or revision of the applicable standards in effect shall apply. However, change in the clause is accepted. Change: Technical Requirement of RTU, Design Standard The RTUs shall be designed in accordance with applicable International Electro-technical Commission (IEC), Institute of Electrical and Electronics Engineer (IEEE), American National Standards Institute (ANSI), and National Equipment Manufacturers association (NEMA) standards, unless otherwise specified in this technical specification. In all cases the provisions of the latest edition or revision of the applicable standards in effect shall apply. The RTU shall comply to IEC62351-3 for cyber security in communication between RTU and master station and IEC62443-4-2 for cyber security for product testing. RTU Cyber security shall be in complaint & tested with 3rd party agency.

2	Page 25 of 68 DC Power Supply System	DC Power Supply SystemSurge protection devices shall be installed in the DCPS panel to provide adequate protection against current and voltage transients introduced on input AC due to load switching and low energy lightning surges. These protection devices shall be in compliance with IEC- 61312, IEC- 61024 and VDE 0100-534 for following surges:a)Lightning Electromagnetic impulse and other High Surges (Class B):Between RequirementPh & N Iimp≥ 50 kA, 10/350 µS for each phaseN & PE Iimp≥ 100 kA, 10/350 µSIimp = Value of Lightning Impulse Currentb) Low Voltage Surges (Class C)Between RequirementPh & N In ≥ 10 kA, 8/20 µS for each phaseN & PE In≥ 20 kA, 8/20 µSIn= Value of Nominal Discharge Current.	DC Power Supply SystemSurge protection devices shall be installed in the DCPS panel to provide adequate protection against current and voltage transients introduced on input AC due to load switching and low energy lightning surges. These protection devices shall be in compliance with IEC 61643-11 and proper selection and application of SPD the standard is IEC 61643-12. a)Lightning Electromagnetic impulse and other High Surges (Class B):Between RequirementPh & N Iimp≥ 50 kA, 10/350 µS for each phaseN & PE Iimp≥ 100 kA, 10/350 µSIimp = Value of Lightning Impulse Currentb) Low Voltage Surges (Class C)Between RequirementPh & N In ≥ 10 kA, 8/20 µS for each phaseN & PE In≥ 20 kA, 8/20 µSIn= Value of Nominal Discharge Current.	IEC-61312 and IEC-61024 is withdrwan by IEC, now there is no valid product available as per IEC-61312 and IEC-61024. Refer Annexure B.Latest applicable standards for SPDs is in power and communication line must be accordance to IEC 62035-4:2006 . The standard is for electrical and electronic systems within structures which includes external and internal protection. In addition to above , all powerline SPD must be tested as per IEC61643-11:2011 and certified by KEMA and UL.It shall be read as Equipment/Panel Earthing & Surge protection: Protection devices shall be in compliance with IEC-62305-4:2006, IEC-62305-1:2006 Refer clause- IS/IEC Standard 61643-11 Clause 6.1-Preferred values of impulse discharge current limp class I tests as Annexure D, PowerGrid Specifications of SPDs.	It is already mentioned that in all the cases of the latest addition or revision of the applicable standards in effect shall apply. However, change in the clause is accepted.Change:DC Power Supply SystemSurge protection devices shall be installed in the DCPS panel to provide adequate protection against current and voltage transients introduced on input AC due to load switching and low energy lightning surges. These protection devices shall be in compliance with IEC 61643-11 and proper selection and application of SPD the standard is IEC 61643-12.a)Lightning Electromagnetic impulse and other High Surges (Class B):Between RequirementPh & N Iimp≥ 50 kA, 10/350 µS for each phaseN & PE Iimp≥ 100 kA, 10/350 µSIimp = Value of Lightning Impulse Currentb) Low Voltage Surges (Class C)Between RequirementPh & N In ≥ 10 kA, 8/20 µS for each phaseN & PE In≥ 20 kA, 8/20 µSIn= Value of Nominal Discharge Current.

3	Page 45 & 46 of 68 2KVA UPS System	2KVA UPS shall be equipped with Surge protection devices to provide adequate protection against current and voltage transients introduced on input AC due to load switching and low energy lightning surges. These protection devices shall be in compliance with IEC-61312, IEC- 61024 and VDE 0100-534.	2KVA UPS shall be equipped with Surge protection devices to provide adequate protection against current and voltage transients introduced on input AC due to load switching and low energy lightning surges. These protection devices shall be in compliance with IEC 62305-4:2016 and VDE0100-534.	IEC-61312 and IEC-61024 is withdrwan by IEC, now there is no valid product available as per IEC-61312 and IEC-61024. Latest applicable standards for SPDs in power and communication line must be in accordance to IEC-62305-4:2006. This standard is for Electrical and electronic systems within structues which includes external and internal protection . In addition to above , all powerline SPD must be tested as per IEC61643-11:2011 and certified by KEMA and UL. It shall be read as Equipment/Panel Earthing & Surge protection: Protection devices shall be in compliance with IEC-62305-4:2006, IEC-62305-1:2006	Change: 2KVA UPS shall be equipped with Surge protection devices to provide adequate protection against current and voltage transients introduced on input AC due to load switching and low energy lightning surges. These protection devices shall be in compliance with IEC 62305-4:2016 and VDE0100-534. Third party certification is necessary.