

Tender No. TPCODL/P&S/ 222/20-21 for "SCADA & ADMS System for TPCODL Network"

Replies to Pre-Bid Queries

Sl.no	Clause no	Page no	Description	Bidders query	Suggested Changes	TPCODL Response
1	1.7 Qualification Requirement/Eligibility Criteria	Page no 6 of 60	Having experience and infrastructure to carry-out in-house design, engineering, supply, erection, commissioning, Routine and Acceptance tests, service support during warranty and post warranty duration, training facility of SCADA/ADMS in India as Bidder/Principal/Consortium.		Having experience and infrastructure to carry-out in-house design, engineering, supply, erection, commissioning, Routine and Acceptance tests, service support during warranty and post warranty duration, training facility of SCADA/ADMS in India as Bidder/Principal/Consortium/ Authorized Representative or Channel Partner of OEM	Bidder to adhere to the specification
2	2 Qualification Requirement/Eligibility Criteria	Page no 7 of 60	2. Bidder should have experience of a) At Least two (2) Integrated SCADA & ADMS system for Power Utility Control Centre at Metro / District / Regional level during the last five (5) years, with at least one of the integrated system with more than 500 Primary Substations. Out of the two (2) systems, at-least one (1) system should be in satisfactory service condition for last one year and b) At least five (5) SCADA systems for power utilities each with at least 250 Primary Substations in the last 10 years. Out of the five (5) systems, at-least two (2) systems should be in satisfactory service condition for last two (2) years. (Supply List & Performance Certificates from the Utilities / Clients to be submitted in this regard). In case, bidder uses experience of parent organization based out-side India to meet the QR,		2. Bidder/System Integrator/Authorized representative of OEM/Channel Partner should have experience of a) At Least two (2) Integrated SCADA & ADMS system for Power Utility Control Centre at Metro / District / Regional level during the last five (5) years, with at least one of the integrated system with more than 500 Primary Substations. Out of the two (2) systems, at-least one (1) system should be in satisfactory service condition for last one year and b) At least five (5) SCADA systems for power utilities each with at least 250 Primary Substations in the last 10 years. Out of the five (5) systems, at-least two (2) systems should be in satisfactory service condition for last two (2) years. (Supply List & Performance Certificates from the Utilities / Clients to be submitted in this regard). In case, bidder uses experience of parent organization based out-side India to meet the QR.	Bidder to adhere to the specification
3	1.7 Qualification Requirement /Eligibility Criteria	Page 6	At Least two (2) Integrated SCADA & ADMS system for Power Utility Control Centre at Metro / District / Regional level during the last five (5) years, with at least one of the integrated system with more than 500 Primary Substations. Out of the two (2) systems, at-least one (1) system should be in satisfactory service condition for last one year		Project during last 10 yers to be considered instead of last 5 years. Integration with 500 RTUs and FRTUs shall be acceptable instead of 500 primary substations	Bidder to adhere to the specification
4	1.7 Qualification Requirement /Eligibility Criteria	Page 6	b) At least five (5) SCADA systems for power utilities each with at least 250 Primary Substations in the last 10 years. Out of the five (5) systems, at-least two (2) systems should be in satisfactory service condition for last two (2) years.		Integration with 250 RTUs and FRTUs shall be acceptable instead of 250 primary substations	Bidder to adhere to the specification
5	Technical Solution Score & 1.7 Qualification Requirement /	Pg 128	Technical Score		Minimum qualification mark shall be 70 out of 100.	Bidder to adhere to the specification
6	7.1 Protocol Support	Pg 436	7.1 Protocol Support The proposed solution shall support following Protocol (Client/Server, Master/Slave) for data acquisition and for data exchange with other Purchaser's and third-party systems a. IEC 60870-5-101, IEC 60870-5-104, IEC 61850, MODBUS (Serial & TCP/IP) b. IEC 61970, IEC61968 c. IEEE C37.118.1a-2014 (IEEE 60255-118-1-2018) d. Secured ICCP, OPC-UA & DA, ODBC, SQL, DDE & XML e. Open ADR, MQTT, NB-IoT, LORA f. FTP/FTPS, HTTPS, XMPP, SOAP, REST		Out of all the protocols asked in this clause, below mentioned protocols are not SCADA ADMS system related protocol. Hence you are requested to remove these protocol support from the system: Open ADR, MQTT, NB-IoT, LORA, XMPP, SOAP, REST, IEEE C37.118.1a-2014 (IEEE 60255-118-1-2018),	Bidder to adhere to the specification
7	Section B / 3.15 Intelligent Alarm Processing	Page 65 of 446	Intelligent Alarm Processing - (Single Alarm for multiple events) and option to navigate from main alarm to their cause. Intelligence required rather than only filtering	Kindly define the logic for intellegent Alarm processeing.		System shall support required functionalities without defining the Logics. It shall be taken care during the database built. 2. However if any logic need to be build, the same will be finalized during detailed engineering.
8	Section B/1.0 Hardware Specification	Page 5 of 446	Hardware Configurations		After enquiring to preferred vendors for different items in the BoQ. We found that the some of them are not meeting the compliance and hence we request TPCODL to accept the partially complied products from industry standard competitive OEMs	Bidder to adhere to the specification

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9	Section 12.4/ Project Schedule	Pg 138 of 995	Project Implementation Schedule		We request to consider the schedule to be of 24 months	Bidder to adhere to the specification
10	Clause 9.3 Milestone payment terms	Pg no 133, Pg no 863	Payments terms		We propose the following payment terms: 10% against Mobilisation, 30% against FAT, 40% against material receipt at site, 10% against SAT, 5% against commissioning and 5% against Handover.	Please refer Corrigendum-I
11	Clause 5 Award Decision	Page no 13 of 60	TPCODL will award the contract to the successful bidder whose bid has been determined to be the lowest-evaluated responsive bid as per the Evaluation Criterion mentioned at Clause 2.0. The Cost for the said calculation shall be taken as the all-inclusive cost quoted by bidder in Annexure I (Schedule of Items) subject to any corrections required in line with Clause 4.3 above. The decision to place purchase order/LOI solely depends on TPCODL on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that TPCODL may deem relevant. TPCODL reserves the rights to award contract to one or more bidders so as to meet the delivery requirement or nullify award decision without assigning any reason thereof.	Bidder evaluation process and the order process are in conflict. Kindly clarify/resolve the same		Bidder to adhere to the RFP
12	Clause no 5.3 Safety Performance Evaluation	Page no 27 of 60	During the time of job execution, regular site inspection will be carried out by the Tata Power officials and violations will be dealt as per CSM-F4 Safety Violation Penalty Criteria. Apart from this, monthly safety performance of the contractor will be evaluated based on the predetermined criteria as per CSM-F11 safety Performance Score and monthly score will be maintained by the Order Manager. Certain percentage of each running bill will be retained as Safety Retention amount and will be released on the basis of Safety Performance Score at certain intervals as defined in CSM- F-3- Safety Performance Evaluation Criteria. Please refer Appendix 10: Process Flow Chart for Safety Performance Evaluation. Percentage of retention amount is mentioned in safety terms and conditions.	Please clarify how the safety evaluation results shall be ascribed to consortium members and OEMs		Evaluation shall be done for Prime Bidder only.
13	clause 5.1 Vendor Registration Pg no 26	Page no 26 of 60	General	Request you to kindly clarify the clause for Evaluation. We presume that only the OEM shall be registered as vendor. Please confirm.		Order shall be issued in n/o Prime Bidder only.
14	clause 1.6.2 Multi Master Reporting DCU / RTU	Section-A Page no 19 of 114	Purchaser has multi master reporting IEC60870-5-1-104 DCU/RTU which can report to multiple masters (MCC, NCC, PDS & QAS) through redundant FEP systems.	Since PDS and QAS are co-located at the MCC and NCC, RTUs shall need only two master reporting and not four master reporting. Please confirm.		1. PDS & QAS System is for Engineering and developmental activities and testing of the database alongwith Substation RTUs/Field Devices as applicable. 2. However the RTUs/Field IEDs need to communication with redundant system at MCC, NCC and PDS&QAS.
15	General	-	-	Please provide the RTU wise IO list for Bidders consideration		1. Please Refer Clause 1.5.1, System Sizing of Section A Project Specification, Sheet 100/955. 2. Please Refer Data Sheet System Sizing for MCC and NCC I/O requirement, Sheet 791/955. 3. Distribution of Digital I/O and Analog measurement will be finalized during detailed engineering.
16	Section-A Project Specifications	7	1.7 Qualification Requirement / Eligibility Criteria	a) At Least two (2) Integrated SCADA & ADMS system for Power Utility Control Centre at Metro / District / Regional level during the last five (5) years, with at least one of the integrated system with more than 500 Primary Substations. Out of the two (2) systems, at-least one (1) system should be in satisfactory service condition for last one year	As the SCADA/ADMS is also linked to the no. of consumers, the requirement maybe modified as below: a) At Least two (2) Integrated SCADA & ADMS system for Power Utility Control Centre at Metro / District / Regional level during the last five (5) years, with at least one of the integrated system with more than 500 Primary Substations (or) more than 2 million consumers. Out of the two (2) systems, at-least one (1) system should be in satisfactory service condition for last two years	Bidder to adhere to the RFP document. However under TPCODL Distribution Network details, number of consumers served are already indicated. In addition under Interface requirement integration with MDAS/MDM and GIS are included (Section-B, Chapter #7, Sheet 434/955). OMS application (Section-B Chapter # 4, Clause 4.4, Sheet 389/955 is also part of the RFP. Bidder shall submit the technical proposal with respect all requirement mentioned by TPCODL in the RFP.

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17	Section-A Project Specifications	7	1.7 Qualification Requirement / Eligibility Criteria	At least five (5) SCADA systems for power utilities each with at least 250 Primary Substations in the last 10 years. Out of the five (5) systems, at-least two (2) systems should be in satisfactory service condition for last two (2) years.	As the SCADA system is also linked to the no. of data points, the requirement maybe modified as below: At least five (5) SCADA systems for power utilities each with at least 250 Primary Substations (or) at least 1,00,000 Input / Output points in the last 10 years. Out of the five (5) systems, at-least two (2) systems should be in satisfactory service condition for last two (2) years.	Bidder to adhere to the RFP document. Please System Sizing (Section-A, Clause 1.5.1, Sheet 100/955) Please refer Software License required mentioned in Data Sheet (Section-E, Annexures, Sheet 791 for MCC & NCC) Bidder shall submit the technical proposal considering the functional requirement as specified in the RFP.
18		78/770	Service for modification	Services-For modification in existing systems (e.g.Gateway, RTUs, FRTUs etc.) ABB, GE T&D, Schneider.	We understand the respective OEM will quote for their own RTU/Gateway /FRTU and other makes shall be under TPCODL scope , Please confirm ?	Please refer Section-E, Annexures, Item C2, Sheet 770/955), Bidder to consider services of all OEMs as mentioned in the clause.
19	Section-A Project Specifications	94	Section A 1.0	The SCADA and ADMS System will collect field data on IEC 60870-5-104 from Remote Terminal Units (RTUs) / Data Concentrator / FRTUs / Auto reclosers / Sectionalizer / FPIs etc. and will interface to existing system like GIS, SAP-PM, MM, AMR/AMI, PQM, VMS, CIS, IoT based system, Enterprise Historian and future applications like Asset management systems etc. and also with State Load Dispatch Center (Main and Backup) over Secured ICCP/TASE.2.	Please provide the interface/protocol details and the parameters to be transferred from SCADA for GIS, SAP-PM, MM, AMR/AMI, PQM, VMS, CIS, IoT based system,	Please refer Section - B, Chapter # 7, Clause 7.1, Sheet 436/955 for protocols details supported by the proposed system. Details of each system integration are also mentioned in this chapter. All data (e.g. Network Data, Analog and Digital data, Events, Alarms, Asset data, Video Stream) need to be exchanged between the respective systems as mentioned in the RFP.
20	Section-A Project Specifications	98	1.5 Proposed SCADA Systems and Applications	The proposed system is to be installed at Bhubaneswar (New Location) for centralized monitoring and control with a concept of CPSCC and APSCC (for Each Circle) for the entire Distribution Network of TPCODL. In addition, Nodal Control Center at each circle i.e. Bhubaneswar#1, Bhubaneswar#2, Cuttack, Dhenkanal & Paradeep for monitoring and control. Each Nodal Control Centre will take care of the respective circle's distribution network.	We request the TPCODL to take this in TPCODL scope . Integration and modification in other OEM RTU ,FRTU and Gateway should be taken care by TPCODL.	Bidder to adhere to the RFP
21	Section-A Project Specifications	110	v. Advance Distribution Management and Other Applications	iv. Real-Time Network Analysis o Real-Time Network Analysis Function Execution o Real-Time Network Model Builder o Parameter Adaptation o State Estimator o Power Flow Studies o Contingency Analysis o Security constrained Dispatch	The following applications are part of SCADA/EMS system for transmission n/w and are not part of DMS. Accordingly they are to be removed from the specification o Real-Time Network Model Builder o State Estimator o Power Flow Studies o Contingency Analysis o Security constrained Dispatch	Bidder to adhere to the RFP
22	Section-B Detailed Technical Specifications	224	k. Switch over between MCC and NCC	i. MCC and Nodal Control Center system shall always be synchronized, the database shall always be concurrent in all respect. ii. In case, where is a live changeover the system shall switchover with no loss of data/interruption to operator/no manual intervention	1) Please describe the operational philosophy b/w the MCC and NCCs for monitoring and operations including transfer of control etc. 2) Also will the RTUs and FRTUs communicate with MCC and NCCs simultaneously (or) they will communicate with MCC alone and then MCC and NCCs will be on ICCP ? 3) As NCC will be a subset of MCC for respective nodals, the database synchronization will not be possible b/w NCC and MCC as it will call for complete synchronization and hardware sizing at NCC to be in line with MCC.	1) Please Refer Section-A, Clause 1.6 Operation Philosophy, Sheet 101/955 for details. 2) Please Refer Section-E, Annexures, Annexure-2, Communication Architecture with filed devices, Sheet 719/955 3) Bidder to design the system as mentioned in the RFP with respect to Software Tags. TPCODL is not envisaging replication of MCC at NCC. Each NCC shall take care of the substation under that circle.

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23	Section-B Detailed Technical Specifications	344	4.3.4.4 State Estimator	4.3.4.4 State Estimator	These applications are part of SCADA/EMS system for transmission n/w and are not part of DMS. Accordingly they are to be removed from the specification	Bidder to adhere to the RFP
		356	4.3.4.6 Contingency Analysis	4.3.4.6 Contingency Analysis		
		361	4.3.5 Security Constrained Dispatch (SC Dispatch)	4.3.5 Security Constrained Dispatch (SC Dispatch)		
24	Section-B Detailed Technical Specifications	386	4.3.15 System Studies	The Bidder shall provide application/Software to carry out for the following studies:	We understand the TPCODL requires the system study software as a separate network study tool like NEPLAN/ETAP etc. Further in clause 7.16 it is mentioned that TPCODL already has network planning tools. Hence why another planning/study tool is required ? Please clarify.	1) Please refer Section-B, Chapter # 4, Clause 4.3.15, Sheet 386/955, the ADMS application shall support the functional requirement as mentioned under clause 2) However, no separate application is envisaged by TPCODL. The integration with CYMEDIST is already planned under this RFP.
25	Section-B Detailed Technical Specifications	421	5.0 Purchaser's Specific Applications	5.0 Purchaser's Specific Applications	The requirements are not clear and the specification calls for a suite of applications which will be difficult to include with requirements specified in points a to h Request TPCODL to provide specific requirement details and include them as part of specification (or) remove it from the scope of this tender.	Please Refer Section-B, Chapter # 5, Clause 5.0, Sheet 421/955, Bidder shall propose appropriate suite of application for the requirement mentioned under this clause.
26	Section-B Detailed Technical Specifications	422	5.1 Migration of Purchaser's existing Applications and Logic	Bidder to migrate all existing application and logic / calculation package built over a period by the purchaser's personals on the proposed system.	TPCODL to provide the details of the existing application and logic/calculations (besides SCADA/ADMS/OMS applications specified in this tender). Also TPCODL to note that it may not be possible for all bidders to migrate from the existing system. Please clarify	Bidder to adhere to the specification Hence bidder shall accordingly propose the application/interface for the required functionality.
27	Section-B Detailed Technical Specifications	436	7.1 Protocol Support	7.1 Protocol Support	The protocols like IEC61850, MODBUS, IEEE C37.118, Open ADR, MQTT, NB-IoT, LORA are not pertaining to SCADA/ADMS systems and hence request TPCODL to remove them from the specification.	Other OEM systems supports all the protocols mentioned in the RFP, Therefore bidder shall include in his offer the support protocols mentioned, otherwise it will be considered major deviation.
28	Section-B Detailed Technical Specifications	443	7.4 Data Exchange with GIS System	7.4 Data Exchange with GIS System	Request TPCODL to provide 1) The details of the GIS to which SCADA/ADMS and adapter is to be interfaced. 2) Data format in which the GIS data will be shared for importing to ADMS	Please refer Section-B, Chapter # 7, Clause 7.4, Sheet 443/955, for details of GIS integration
29	Section-B Detailed Technical Specifications	448	7.14 SCADA/ADMS from/to IOT	The System shall interface with IOT infrastructure of the Purchaser including EV Charging Portfolio, Home Automation Portfolio etc.	Please provide the interface/protocol details and the parameters to be transferred from the systems mentioned.	Please refer Section-B, Chapter # 7, Clause 7.14, Sheet 448/955. Required protocols details are described in Section-A, Item3.0, Sub-item U, Sheet 110/955 The parameter details shall be finalized during detail engineering.
30	Section-B Detailed Technical Specifications	451	7.16 Data Exchange with Network Planning Tool (CymeDIST)	Bidder shall propose the appropriate bi-directional interface for data exchange between proposed SCADA & ADMS system and Purchaser's existing network planning tools.	The requirement is not clear on the type of integration and the data required to be interfaced. Network Planning tool is a separate system generally interfaced to only GIS. Please clarify.	Please refer Section-B, Chapter # 7, Clause 7.16, Sheet 451/955. Bidder to consider the interface for integration of Purchaser's CymeDIST Network Planning tool. It is proposed to exchange the real-time parameters from SCADA/ADMS to Network Planning Tool. It is also Integrated with Purchaser's existing GIS System (ESRI 10.2.1, upgraded to 10.6)
31	Section-A Project Specifications	132/955	9.1 Delivery Schedule	Delivery of equipment - Within 15 days from Inspection of equipment (FAT)	Request to kindly increase the number of days after Inspection for any punch-point clearance and delivery of equipment at site.	Please refer Delivery Schedule (Section-A, Clause 9.1, Sheet 132/955) Delivery of equipment shall be discussed during the FAT considering FAT reports and compliance.

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32	Section-A Project Specifications	96/955	1.3 Present SCADA Systems and Operation Philosophy	The SCADA/DMS System is implemented in Bhubaneswar and Cuttack Town of TPCODL under R-APDRP (Part-A) Scheme in the year 2016. TPCODL awarded the contract to M/s DongFang Electronics Co. Ltd. (DFE) as the SCADA/DMS Implementation Agency (SIA) for execution and implementation of SCADA/DMS in Bhubaneswar and Cuttack town. (Please Refer Fig -01)	Kindly mention the reliability of the MPLS communication and criticality of the data communicated.	Present SCADA System and Operation Philosophy (Section-A, Clause 1.3. Sheet 96/955) Availability of MPLS/VPN connectivity link is of 99.9% and all required parameters of Substation and Field devices are critical for Remote Monitoring and Control.
33	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	860/955	4.2 Indemnity	Associates shall undertake to fully indemnify TPCODL (also referred to as the Company in the GCC) against all kinds of liabilities or damages, of whatsoever nature, including compensation arising from any accident to the person or property of those in Associate's employment or to any other person or properties including those of TPCODL, arising due to reasons attributable to any, act, omission or negligence of the Associate the Associates, for the entire period of contract including period of guarantee.	We propose to have the below amendment:- Associates shall undertake to fully indemnify TPCODL (also referred to as the Company in the GCC) against all kinds of liabilities or damages, of whatsoever nature, including compensation arising from any accident to the person or property of those in Associate's employment or to any other person or properties including those of TPCODL, arising due to reasons attributable to any, act, omission or negligence of the Associate the Associates, except in the event such personal injury, death, loss or damage is a direct result of TPCODL Gross Negligence for the entire period of contract including period of guarantee. TPCODL, on behalf of itself and its successors, agrees to save, indemnify and hold harmless Associates against any and all losses, claims, expenses, liabilities, damages and costs whatsoever for: (i) personal injury to or death of any employee of TPCODL or any third party; and (ii) loss or damage to any property of TPCODL or any third party, except in the event such personal injury, death, loss or damage is a direct result of Associates Gross Negligence.	Bidder to adhere to the RFP
34	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	862/955	4.8 Company's Right To Use Works	If Taking Over Certificate is delayed for any reason, for which TPCODL's decision shall be final and binding upon the Associate, the Company shall be entitled to use the works or portion thereof without affecting Associate's responsibility and liability to complete the balance works as per company's directives from time to time, though Associate shall be afforded reasonable opportunity by the company to enable Associates to complete all balance works required for issuance of 'Taking Over Certificate' by the company	Should be applicable where the delay is due to reasons solely attributable to Associates and corresponding actions causing delay.	Bidder to adhere to the RFP

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35	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	874/955	14.3 Failure in Guarantee Period (GP)	<p>TPCODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.</p> <p>If during the Warranty/ Guarantee period some parts of the supplies are replaced owing to the defects/ damages under the Warranty, the Warranty period for such replaced parts shall be until the expiry of twelve months from the date of such replacement or renewal or until the end of original Guarantee period, whichever is later.</p>	<p>TPCODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be. If during the Warranty/ Guarantee period some parts of the supplies are replaced owing to the defects/ damages under the Warranty, the Warranty period for such replaced parts shall be until the expiry of twelve months from the date of such replacement or renewal or until the end of original Guarantee period, whichever is later. However, the cumulative guarantee period for such repaired or replaced part shall not exceed 12 months from the date of expiry of initial Defect Liability Period. The warranties provided herein are exclusive remedies and are in lieu of all other warranties, conditions and guarantees and for all claims whether based on contract, negligence, indemnity, strict liability or otherwise. No implied or statutory warranty, or warranty or condition of merchantability or fitness for a particular purpose applies. Further, The word "risk" to be deleted as if the work is performed by someone other than APPSIL, it unreasonable that we should be held responsible for the quality of the work performed by such other party (we have no knowledge of their procedures). You as a Customer should get a warranty direct from that third party for their work.</p>	Bidder to adhere to the RFP
36	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	875/955	14.7 Support beyond the Guarantee Period	The Associate shall ensure availability of spares and necessary support for a period of at least 10 years post completion of guarantee period of equipment supplied against the contract.	We propose to have a maximum of 5years as in new technologies the devices and applications change and get obsolete within 4-5years for latest technologies.	Bidder to adhere to the RFP
37	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	875/955	15.0 LIQUIDATED DAMAGES	Liquidated damages @1% of the total executed contract value per week or part thereof, for the period of delay in integrated completion, subject to maximum 10% of the value of the contract shall become leviable without prejudice to other rights of the TPCODL.	The maximum Liquidated damages cap to be reduced to 5% and shall be the sole and exclusive financial remedy for TPCODL's loss and damage due to Associates delay and shall be applicable only where the delay is solely due to the reasons attributable to the Associates.	Bidder to adhere to the RFP
38	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	875/955	16.0 ASSIGNMENT OR SUBCONTRACTING	Associates shall not assign/subcontract/outsource the schedule of activities of contract TPCODL enters with the associate, in part or full, without TPCODL's prior written approval.	Associates may assign or novate its rights and obligations under the Contract, in whole or in part, to any of its affiliates or may assign any of its accounts receivable under this Contract to any party without TPCODL's consent. Buyer agrees to execute any documents that may be necessary to complete Associates assignment or novation.	Bidder to adhere to the RFP

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39	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	878/955	20.0 INDEMNITY	The Associate shall at all times indemnify, keep indemnified and hold harmless the TPCODL and its officers, directors, employees, affiliates, agents, successors and assigns against all actions, claims, demands, costs, charges and expenses arising from or incurred by reason of any infringement of patent, trade mark, registered design, copy rights and/or industrial property rights by manufacture, sale or use of the equipment supplied by the Associate whether or not the TPCODL is held liable for by any court judgement. In this connection, the TPCODL shall pass on all claims made against him to the Associate for settlement.	Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Associate, pursuant to the Contract and modifications to Associate Goods or Instances where: - Associate Goods have been specially modified, designed to meet TPCODL's specifications or other written instructions, -where the TPCODL's use of Associate Goods does not correspond to Associate published standards or specifications	Bidder to adhere to the RFP
40	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	878/955	21.1 Liability	Except for any specific liability which may be identified in the Contract and which may be payable hereunder, Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the Performance of the Work or supply of Goods unless caused by Associate's negligence, willful misconduct or breach of contract.	Except for any specific liability which may be identified in the Contract and which may be payable hereunder, Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the Performance of the Work or supply of Goods unless caused by Associate's Gross negligence, willful misconduct or breach of contract.-	Bidder to adhere to the RFP
41	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	878/955	21.2 Limitation of Liability	The total liability of Associate against any contract shall be limited to the Total All Inclusive Contract Value.	We propose to limit to the scope of part limited to the associated case.	Bidder to adhere to the RFP
42	General		Suspension of the Contract	Suspension of the Contract	Suspension of the Contract: Associates shall have right to suspend the Contract if TPCODL has failed to pay the Associates any sum due under the Contract within the specified period. In the event of such suspension continuing for more than 30 days, then the Associates may terminate the contract by issuing 15 days written notice. Upon such termination, the Associates shall be entitled to the payment for the works performed until the date of termination in addition to all reasonable additional costs incurred by Associate in lieu of suspension/termination of the Contract.	Bidder to adhere to the RFP
43	General		Change in Laws and Regulations	Change in Laws and Regulations	Change in Laws and Regulations: If, from the Effective Date, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed in India (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract.	Bidder to adhere to the RFP

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Sl .no	Clause no	Page no	Description	Bidders query	Suggested Changes	TPCODL Response
44	General		COVID-19 Clause	COVID-19 Clause	<p>COVID-19 Clause: The Parties are aware of the current worldwide outbreak of a Coronavirus (commonly known as COVID-19) or any mutation of such virus which is or may impact normal business and execution of this Contract. Associates shall be entitled to cost compensation, time extension, or other reasonably required contract adjustments, if any consequences whether directly or indirectly resulting out of, or in connection with the coronavirus outbreak, lead to delays in performance of Works or otherwise affect Associates contractual obligations or duties. Associates hereby reserves the right to amend the delivery, the price, the scope and the other terms and conditions of contract set out in this offer due to the current epidemic of novel coronavirus outbreak.</p> <p>Notwithstanding anything to the contrary, the forgoing paragraph is deemed to be incorporated into any subsequent concluded contract.</p>	Bidder to adhere to the RFP
45	General		Extension of time and Cost Compensation	Extension of time and Cost Compensation	<p>Extension of time and Cost Compensation: Associates shall be entitled to a reasonable extension of time for the performance of its obligations to perform the Works where any of the following causes a delay:</p> <p>a Variations in scope of obligation of the Associates;</p> <p>b. changes in law or any delays of any government or statutory;</p> <p>c. Suspension or delays caused for the reasons not attributable to Associates;</p> <p>d. Any delays caused by TPCODL or other contractor of TPCODL</p> <p>e. Any Unforeseen conditions obstructing progress of works;</p> <p>Upon occurrence of any or all of the above, Associates shall be entitled for the following:</p> <p>(1) extension of time to the extent of period of delay, and</p> <p>(2) the any amount of such additional costs shall be added to the Contract Price.</p>	Bidder to adhere to the RFP
46	1.0/94		"It is Purchaser's intent to replace the existing SCADA/DMS System and deployment of New SCADA & ADMS System at the Purchaser's Main Control Center (MCC) and Nodal Control Centre (NCC) of each circle. The proposed Centralized SCADA and ADMS System should facilitate Purchaser's operations along with new generation technology. The Main & respective Nodal Control Center shall work as hot redundant Control Center"	<p>Please explain the term "Nodal Control Centre" and "The Main & respective Nodal Control Center shall work as hot redundant Control Center." in detail.</p> <p>We understands that Nodal Control Centres will be commissioned at 5 nos. of Area offices with in the license area of TPCODL.NCCs are AREA Control Centres (CC) and will be SECONDARY Control Centres for Monitor and Controlling of their respective area's field devices. They will report to Bhubaneswar Control Centre. The MCC at Bhubaneswar will normally be the PRIMARY CC and in case of Failure of communication link etc. the NCC will took over the Charge transferring the Control to it. The RTUs/FRTU will be operating in Dual Master Reporting Mode. Please Confirm.</p>		<ol style="list-style-type: none"> 1. Main Control Center and Nodal Control Centre will communication with field devices independently. The RTUs in the network supports Multia Master Reporting. 2. MCC and NCC System will communicate with Field RTUs on IEC104 over MPLS network of NBSP. 3. All actions executed by Control Room Engineer (at MCC) shall synchronize with NCC. Enabling seamless switchover and data synchronization between MCC and respective NCC.

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47	1.5.1/100		System Sizing	We request to furnish average IO counts for No. of Analog, Status Points (Single + Double), No. of Control for 33/11 Kv Substation and a FRTU/RMU. The same is stated with respect to number of Substations and No. of RMUs, No of Autoreclosures, No of Sectionalizers, No. of FPIs		1. Please Refer Clause 1.5.1 , System Sizing of Section A Project Specification, Sheet 100/955. 2. Please Refer Data Sheet System Sizing for MCC and NCC I/O requirement, Sheet 791/955. 3. Distribution of Digital I/O and Analog measurement will be finalized during detailed engineering.
48	3.0 Part B hh/113		"Bidder shall provide warranty support for next 3 years over and above as mentioned in clause dd and ee for Software Upgrades, Patch Management and any software subscription of all software supplied under this project including sub-vendor products."	Please differentiate among 2/5/3 years Warranty/Support expectations and start time.		1. Please Refer Clause 3.0, Scope Work, Subitem ff, gg, hh with regard to duration, requirement of support and Start time of the warranty period. 2. Further details with respect to Standard Warranty & Extended Warranty are described in Item 15.0 of Section A, Project Specification Sheet 172/955
49	Page 50 of 114		Payment shall be made as per the finalized payment terms with Purchaser's procurement team as per the milestones mentioned below:			Please refer Corrigendum-I
50	General		Backup or Disaster Recovery Control Centre for MCC	We understand that there is no Backup or Disaster Recovery Control Centre envisaged in the Specification. Please Confirm.		Disaster Recovery Control Centre will be TPCODL, IT Data Centre
51			A MCC SCADA System Hardware	We request TPCODL to provide definition of Sets in BOQ. We understand that bidder need to consider 2 nos. servers as main and standby. Kindly confirm		The attached BOM is indicative, however the bidder shall consider the required quantity meeting all functional requirement as specified in the RFP and the system architecture proposed by the bidder. Minimum qty as mentioned in the attached indicative BOM is 1 Set (i.e. minimum two servers (Main & Standby) of adequate capacity to cater all the Proposed Growth plan mentioned in Clause 1.5.1 i.e. System Sizing on Sheet 100/955.
52			A.6 MCC On-Line Backup Server (Main & Standby) with pool of storage media with REDHAT LINUX / WINDOW OS Set 1	Backup Server should be stand alone only as per design. We request TPCODL to rectify the BOQ by removing standby term from description.		Bidder to adhere to the RFP
53			A.7 MCC Operator Work-Station w 2 x 24" LED Monitors (with RGB/HDMI Provision for LVS and Rack Mountable) with WINDOW OS	Control center workstation are meant for "Tower Type workstation". We request TPCODL to rectify the BOQ by removing rack mountable term from description.		Bidder to adhere to the RFP
54			A.15 MCC External Tape Drive for each Server rack as per database size	We understand that, USB DAT drive is required. Kindly confirm our understanding.		Bidder to consider the Interface/Port of the DAT Drive as per the proposed solution and required functionality
55			A.17 MCC LTO-9 OR better Tape Drive with Auto Loader qty is 2	We understand the 1 Tape Lib. is required with 2 drives, kindly confirm our understanding		Independent Tap library as per the LTO quantity
56			A.21 MCC Alarm Hooter with Controller for all Operator workstations	We understand the Alarm hooter is considered as external usb speaker with workstations. Kindly confirm our understanding.		Bidder to consider the Interface of the Alarm Hooter as per the proposed solution and required functionality

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57	Annexure--Indicative BOM for SCADA & ADMS System - MCC/745-747		A.22 MCC Interface for Video streaming and integration with SCADA Application	We request TPCODL to elaborate the requirement to bring clarity about requirement.		i) Hardware and Software required to meet the functional requirements depends on OEM solutions. ii) The proposed system shall be capable of accepting the feeds from Centralized Visual monitoring system or directly from the Cameras located in each stations. Integration of only Cameras used for Equipment Operation purpose are planned to be integrated with the SCADA System. Details of no. of cameras, interface type and all other information will be discussed during detailed engineering. iii) Control room engineer shall be able to control camera through Scada screen from where it is controlling the equipment iv) Provision is required in system to integrate directly with the Centralized system and also for integrating directly with cameras.
58			A.23 MCC Integrated Fault Analysis & IED Management System (Main & Standby)	We request TPCODL to elaborate the requirement to bring clarity about requirement.		Type of relays are generally for 33/11 kV Network of different OEM, Model, Make, Firmware and Configuration software versions. 2. Bidder to note that the proposed system is required for management of all IEDs (such as RTU, Gateway, Numerical Relays, BCPUs, Condition monitoring devices etc.) 3. The details of equipment, substation shall be considered as per the system design (Refer Section-A, Item 1.5.1, Sheet 100/955)
59			A.24 MCC Centralized Bio-Metric System for User Authentication Set 1	We request TPCODL to elaborate the requirement to bring clarity about requirement.		Shall provide with Bio-Metric authentication system for legitimate login.
60			A.25 MCC Finger Print Identification System	We request TPCODL to elaborate the requirement to bring clarity about requirement.		Shall provide with Finger Print authentication system for legitimate login.
61		Annexure--SCADA System Hardware (at NCC)/755-757		A.6 NCC On-Line Backup Server (Main & Standby) with pool of storage media with REDHAT LINUX / WINDOW OS	Backup Server should be stand alone only as per design. We request TPCODL to rectify the BOQ by removing standby term from description.	
62			A.7 NCC Operator Work-Station w 2 x 24" LED Monitors (with RGB/HDMI Provision for LVW and Rack Mountable) with WINDOW OS	Control center workstation are meant for "Tower Type workstation". We request TPCODL to rectify the BOQ by removing rack mountable term from description.		Bidder to adhere to the RFP
63			C.13 MCC Interface tools, software, sockets for Video Management System (Server & Client as applicable)	We request TPCODL to elaborate the requirement to bring clarity about requirement.		Please refer above
64			A.21 NCC Alarm Hooter with Controller for all Operator workstations Nos. 10 5 50 A.22 NCC Interface for Video streaming and integration with SCADA Application Set 1 5 5 A.23 NCC Integrated Fault Analysis & IED Management System (Main & Standby) Sets 1 5 5 A.24 NCC Centralized Bio-Metric System for User Authentication Set 1 5 5 A.25 NCC Finger Print Identification System Sets 10 5 5	We request TPCODL to elaborate the requirement to bring clarity about requirement.		Please refer above
65	Data Sheet : Server Type # 1, 2, Time Series Historian/801		Server should support 2 Number of 10G Fiber Ethernet Ports with SFP 19 Size and Chassis 19", 2U Rack Chassis w/sliding Rapid/Versa Rails & Cable management Arm	We understands that only slot is required instead of port and SFP and 1U servers will serve the purpose. Kindly clarify		The server shall be with Port, SFP and all other required communication accessories
66	Data Sheet : Time Series Historian/803		8 Additional Data Storage Min 8 X 1.2 TB in RAID 5 Configuration	We understand that external SAN can be used for HIS System instead of inter hard disks.		Bidder to adhere to the specification. However if the proposed solution is better, the same will be evaluated with respect to meeting functional requirement and maintenance.

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67	Data Sheet : Operator Workstation, Engineering Workstation/804		Redundant Power Supply Redundant power supply (230 V AC) with 80 Plus Platinum certification 17 Graphic card 16 GB NVIDIA Quadro, DVI+VGA	We request TPCODL to remove dual power supply option as reputed OEM doesn't supply it. We will recommend to reduce graphic card to 8 GB. Kindly amend the datasheets		1. Bidder to adhere to the specification. 2. With regard to Graphic Card, if the proposed solution is better, the same will be evaluated with respect to meeting functional requirement and maintenance.
68	Detailed Technical Specifications/558		13.8 Security Information and Event Management (SIEM)	Supply of SIEM software is not part price schedule. We request TPCODL to remove it from technical specification.		Currently SIEM is not part of the RFP. However bidder to consider the industry standard interface for any Third Party SIEM solution
69	General		ESRI GIS Version	Please confirm whether bidder has to consider ESRI 10.2.1 or 10.6 for integration purpose.		The proposed solution shall meet the integration requirement of both ESRI version i.e. 10.2.1 & 10.6
70	SCADA System Hardware/68		Interface for Video streaming and integration with SCADA Application	Please clarify the term "Interface to Video Streaming and integration within SCADA Application".Whats is the scope envisaged for the same in the current project. Does Video Streaming system already in existence? If yes, then what is the make and software version?		1. Please Refer Above 2. Video Streaming System details will be shared during detailed engineering
71	General, Section 11.0/793		Existing Systems with which integration is required.	Please specify existing systems , details along with their make & version + data exchange requirement to be elaborated.		Please Refer Chapter # 7, Section-B Technical specification, Sheet 434/955 for interface details. Further details of the existing system will be shared during detailed engineering.
72	SCADA System Software with Licenses,C.14/70		SMS and Email Utility Software	We understands that Email system is available for integration with TPCODL. Please confirm.		Email System is available
73	General		Control Centre Furniture	We understanding TPCODL will be providing furniture at control centre		Supply of Furniture at Control Centre is not part of this RFP
74	General		3rd Party recurring costs (Internet and SMS Cost)	We understand that Internet and SMS charges to be borne by TPCODL. Please confirm.		Recurring Cost for the Communication network is not part of this RFP
75	4.3.4.5, 4.16/353,414		Power Flow Studies	Please clarify, why two Power Flow, one in section 4.3.4.5, page 353 Power Flow Studies and Distribution Power Flow (Sec 4.16, Page 414)?		Bidder to consider Power Flow study for the distribution network
76	4.3.4.4/344		State Estimator	We understands that State Estimator requirement is typically from EMS perspective. Please clarify.		Bidder to adhere to the RFP
77	4.3.4.6/356		Contingency Analysis	We understands that Contingency Analysis requirement is typically from EMS perspective. Please clarify.		Bidder to adhere to the RFP
78	4.3.5/361		Security Constrained Dispatch	We understands that Security Constrained Dispatch requirement is typically from EMS perspective. Please clarify.		Bidder to adhere to the RFP
79	4.3.5.5/363		Security Enhancement	We understands that Security Enhancement requirement is typically from EMS perspective. Please clarify.		Bidder to adhere to the RFP
80	4.3.5.6/364		Future Based Contingency Analysis	We understands that FBCA requirement is typically from EMS perspective. Please clarify.		Bidder to adhere to the RFP
81	General		Applications for Transmission utility system	We understand that Power System Applications to be delivered for distribution system only. Transmission system and applications are not envisaged in the scope.		No Transmission system applications are envisaged in this RFP

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82	Breakup of Prices of SCADA ADMS System for MCC	68/955	A.22 Interface for Video streaming and integration with SCADA Application	Requesting Purchaser to clarify regarding why this interface is listed as a Hardware ? It is also requested to provide detailed philosophy for the mentioned interface expectations. In case if cameras are suppose to be integrated directly with SCADA, then please provide related details such as nos. of cameras, their interface, type etc.		i) Hardware and Software required to meet the functional requirements depends on OEM solutions. ii) The proposed system shall be capable of accepting the feeds from Centralized Visual monitoring system or directly from the Cameras located in each stations. Integration of only Cameras used for Equipment Operation purpose are planned to be integrated with the SCADA System. Details of no. of cameras, interface type and all other information will be discussed during detailed engineering. iii) Control room engineer shall be able to control camera through Scada screen from where it is controlling the equipment iv) Provision is required in system to integrate directly with the Centralized system and also for integrating directly with cameras.
83	Breakup of Prices of SCADA ADMS System for MCC	68/955	A.15 External Tape Drive for each Server rack as per database size	Since LTO-9 has been specified in the BoQ, kindly delete the requirement for external tape drives.		Bidder to adhere to the specification
84	Breakup of Prices of SCADA ADMS System for MCC	69/955	C.9 Web server with unlimited client license	Please define the number of concurrent web users		Please Refer Section-A, Clause 14.2.2 & 14.2.3 Sheet 164/955. Bidder shall propose slab wise cost of concurrent user license
85	Breakup of Prices of SCADA ADMS System for MCC	70/955	C.23 Data Explorer (Server and Client) (Enterprise)	Kindly confirm that this is a database engineering tool for SCADA/ADMS system and we can propose the equivalent application for the same as per our software solution.		Bidder shall include application meeting the functional requirement mentioned in the RFP
86	Breakup of Prices for Cyber Security	81/955	B.5 Automated Asset Management Tools	Please provide technical specification for this tool		The Tool shall capture the details of assets installed in the Purchaser's distribution network from the cyber security perspective i.e. endpoint protection, vulnerability management, incident response etc.
87	Breakup of Prices for Cyber Security	81/955	A.5 RSA Security Appliance (AAA) B.14 RSA Security appliance - SecurID B.15 RSA Token authenticator	Since Centralized Bio-Metric System for User Authentication is asked for in line item A.24 and A.25, kindly delete this RSA security appliance requirement.		Bidder to adhere to the specification
88	Breakup of Prices for Cyber Security	82/955	B.16 Security Profiler	Please provide technical specification for this line item. Is this a proprietary software?		Security profiler module shall manage Users, Roles and access permissions. It is not a proprietary software.
89	Breakup of Total Lump Sum Contract Price for SCADA, ADMS Other Systems	67/955	Optional System : Cyber Security Management System	Kindly confirm if Cyber security management system is optional (since it has been listed twice in the BoQ) will the optional prices be considered for bid evaluation?		Cyber Security Management System is not an optional item. As per Indicative BOM for Cyber Security Management System, Section-E, Annexures, Sheet 774/955, bidder to consider services for Incident Response Service as an optional item
90	Information to Bidder	61/955	6. All the servers / work stations are with Operating System and shall be of latest version at the time of order placement 7. All Systems and Operator Workstations shall be kept current with latest OS version	Kindly confirm that bidder can propose the latest operating system versions which are tested and certified by the OEM of SCADA/ADMS solution offering		Bidder to adhere to the specification
91	Section-A	106/955	3.0 scope of work Integration with various OT/IT systems mentioned below on existing interfaces and provisioning of ESB interface over SOA	kindly confirm if ESB will be provided by purchaser or it is to be provided by the bidder?		It is in the scope of the bidder for proposed solution.
92	Section-A	99/955	The proposed system shall take the power system network data from the existing GIS System of the Purchaser. The current version of GIS is ESRI 10.2.1 and it is CIM compliant. The same will upgrade to CIM compliant version of ESRI 10.6 platform.	Kindly define the timeline for GIS version upgrade. Will this be done before, after or during the 12 month project implementation window?		GIS version upgrade is in line with execution plan of Phase A and Phase B described in the RFP. 1. However the proposed solution shall be capable of integrating with both existing and upgraded version of GIS. Since the current version is CIM compliant

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93	Section-A	138/955	The project implementation schedule shall be not exceeding 12 months from the date of award.	Since the commissioning is to be carried out in two phases i.e Phase-A and Phase-B kindly confirm that 12 months of implementation time is only for Phase-A. Also inform the time frame for Phase-B implementation. Total project duration should be 24 months.		Please refer Section-A, Clause 9.1, Delivery Schedule Sheet 132/955.
94	Section-A	114/955	Providing complete source code, including customization	Source code is the intellectual property of the OEM/Bidder. We request the purchaser to delete this requirement.		Source code is limited to all customized/developed applications along with all such items which are not considered as part of standard package of suppliers system, any special developments made for this project. After completion of the acceptance test, the developed software will be the property of the Purchaser. If bidder would like to use this developed Software elsewhere for any other user/utility, than bidder need to seek permission from the Purchaser.
95	Section-A	99/955	The proposed system network model shall be built on configured GIS network. The data, which are not available on GIS, will be arranged by the Purchaser for network modelling.	Kindly confirm that GIS data will be available in PGDB file format. Please provide a sample data of GIS for further evaluation.		Please refer Section-B, Chapter#7, Clause 7.4, Sheet 443/955 for integration with Purchaser's GIS System File format and further details will be shared during Demo/Detailed engineering
96	Section-A	108/955	k. Free Format Reports, Dashboards and Analytics	What kind of Analytics is required ? Requesting purchaser to specify exact scope with deliverables. Please provide use cases for our understanding.		i) Brief Details of Analytics is given in Section - B Chapter # 5, Clause 5.0, Sheet 421/955. Add on analytics/latest tools related to same are envisaged ii) The data is collected from the various systems, stations, how these data can be converted into a meaningful analyzed data for faster decision, enhancing the reliability and availability of the Purchaser's distribution network. Bidder's to consider the appropriate solution of own or third party to meet the functional requirement. iii) The proposed solution shall also support predictive analysis based on the data collected with advance pattern recognition or any other advanced technology available today.
97	Breakup of Prices of SCADA ADMS System for MCC	71/955	E.1.6 Interactive Voice Response	as per breakup prices, IVR is to supplied by Bidder however as per section 7.6 and at multiple sections in the tender document it is mentioned that purchaser has an existing IVR which is to be integrated with SCADA/ADMS system. Kindly clarify the scope.		Bidder to consider necessary interface software and services for integration of IVR system
98	Section A	110/955	Other OPC, ODBC, SFTP, SAP interface, BI interface	What all things are included in 'other' ? What are the remote systems considered for these interfaces.bidders will need details about each interface required.		The specific interfaces mentioned in the RFP, Section-B Chapter # 7 Sheet 434/955. The proposed solution shall support all the required standard protocols, interfaces. It is envisaged that proposed system shall be capable of interfacing with ESB. Details of each interfaces will be discussed during detailed engineering.
99	Section A	110/955	x. Integration of IoT devices on protocol such as LORA, NB-IoT etc.	is it expected to receive data from IoT devices into Unified SCADA system directly ? In general IoT devices shall send its data to cloud. Post that SCADA/PSA can be interfaced with cloud.		System shall support both type of interfaces 1) It shall be capable to interface with cloud server of IOT service provider 2) It shall be capable to directly interfacing with IOT device on field. The preferred technologies are LoRA and NB-IOT. Bidder has to clearly mention in his offer, all capability built in for using IOT technology
100	Section A	147/955	13.3.5 Parallel Activities for Commissioning / applications. Immediately on order placement, Bidder shall depute his specialist team to site for engineering activities.	Requesting Purchaser to clarify meaning of 'site' In this clause.		Details of Parallel activities for engineering and commissioning are already described in Section A, Item 13.3.5 Sheet 147/955, which are self explanatory, Activities related to MCC, NCC and filed equipment are planned simultaneously.

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101	Section A	166/955	Control / information request is initiated on all CRTs.	Requesting Purchaser to provide meaning of CRTs		Control / information request is initiated from any of Operator Work Stations
102	Section A	171/955	System Utilization - Local Area Networks: Uncontrolled Access and Controlled Access	Requesting Purchaser to provide use case for both terminologies - controlled and uncontrolled.		Controlled Access: Prevention of collision or deal with it and ensures smooth flow of traffic on the network, limits connections to computer networks, system files and data, Access control by Discretionary Access Control (DAC), Mandatory Access Control (MAC), and Role Based Access Control (RBAC) Uncontrolled Access : the system proposed shall restrict any uncontrolled access, data exposure, file sharing etc.
103	Section B	444/955	d) The GIS interface with SCADA / PSA need to be bidirectional for data migration	For bi-directional exchange, what data is expected to flow from SCADA to GIS ?		Example of data exchange between proposed system and GIS: Equipment status, MW, MVAR, Max/Min values etc.
104	Section B	447/955	SCADA/ADMS shall interface with Purchaser's AMR/AMI/ Meter Data Management System.	Requesting Purchaser to share details about existing AMI systems such as - (a) Make and Model of existing System (b) Interfacing capabilities in terms of support for protocols / web services (c) No. of meters and its datapoints under consideration		Details will be shared during detailed engineering, Bidder's proposed solution shall meet all the protocol and interfaces mentioned in the RFP
105	Section B	447/955	The System shall interface with Business Intelligence application of Purchaser, such as Power BI etc. for analytics and dash board.	Requesting Purchaser to provide interfacing capabilities of existing Power BI system.		i) Proposed system shall interface with PowerBI through ESB. ii) Parameters can be any Analog/Digital information, required for any Business Application/Analysis/MIS. Frequency of Data exchange : Shall be user configurable from real-time to any specific interval.
106	General	NA	Specs for firewalls and NMS	the specifications for firewalls and NMS are inclined towards one of the OEMs and other vendors are not able to provide compliant products. Request the purchase to re-evaluate the specification or allow bidders to quote for partially compliant models from other OEMs which can be further discussed during post bid technical evaluation phase		Bidder to note that the specification for Firewall and NMS are not inclined to any of the OEM. Bidder may consider the following makes of firewall : Juniper, Checkpoint, Cisco, FortiGate, Paloalto NMS: Shall be meeting all the functional requirement mentioned in the RFP
107	Section B	627/955	15.12.7 Battery- Lead Acid Plante	Plante batteries are only supplied by one OEM with price monopoly. Please allow bidders to propose other equivalent batteries		Bidder to adhere to the specification
108	Tender_Doc/ITB/Annexure I_Price Schedule	63/955		Request TPCODL to freeze the quantity of minimum hardware to be provided.		Quantity of the hardware will depend on the OEM's solution meeting all the functional requirement mentioned in the RFP.
109	Tender_Doc/ITB/Annexure I_Price Schedule	78/955	Services for modification in existing system	Request TPCODL to keep the Gateway, RTU/RTU modification scope away from this tender. This is a priority scope and Tata Power can deal with it separately.		Please refer Section-E, Annexures, Item C2, Sheet 770/955), Bidder to consider services of all OEMs as mentioned in the clause.
110	Project Specifications	107/955	Scope of Work/ Part A and Part B	Requesting TP to group scope such as to complete full scope of a Control Center in one Part A. i.e. SCADA/ADMS/OMS completion in one Part.		Bidder to adhere to the specification
111	Project Specifications	108/955	i. Automatic On-line Backup System	Please provide the frequency of backup. Also, provide the detailing if complete images are to be backed up or only ISR server's data or Incremental data is to be backed up.		All activities are to be considered, as per the Section-B, Chapter # 11, Sheet 517/955. Frequency of backup shall be at least once a day

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112	Project Specifications	108/955	o. Bidder to note that, the communication backbone for the entire system is on MPLS/VPN cloud, currently there is no secondary communication link available.	Between the MCC and NCC, desired bandwidth is 1Gbps. TPCODL to inform the Bandwidth can be available to OEM for database synchronization between MCC and NCC.		Bidder to note that the required bandwidth is exorbitantly seems to be very high. However TPCODL will revert back after confirmation from various NBSP.
113	Project Specifications	109/955	u. i. ESB interface over SOA	Please clarify if bidder has to provide the ESB or the same is already available.		It is in the scope of the bidder for proposed solution.
114	Project Specifications	110/955	U.iii. Secured ICCP interface with SLDC, other utilities and third-party systems (Main & Backup)	Please inform the number of remote Control Center with which MCC will communicate. We assume NCC will communicate with only MCC.		1. Integration on Secured ICCP will be with Main and Backup of SLDC system and other neighboring utilities 2. Communication between MCC and NCC is not envisaged over ICCP. Bidder to note: Purchaser will facilitate to introduce to the authority /respective representatives of the Utilities. All other required activities related to commissioning of the hardware/software, establishing communication within the premises, necessary configuration, modification etc. are the responsibilities of the bidder. It shall be the responsibility of the Bidder to successfully establish the bi-directional connectivity of the offered Secured ICCP system with the existing systems of utilities. This includes interaction with their representatives and bidders.
115	Project Specifications	110/955	u.x Cyber Security Management System with Purchaser's Enterprise SOC/SIEM System	Please inform the make of SIEM.		The proposed solution shall have the provision of interfacing of any make of SIEM on open platform/protocol.
116	Project Specifications	110/955	u.xi Integration of IoT devices on protocol such as LORA, NB-IoT etc.	Please define the IoT devices in the system which are to be integrated in system. Also, provide the tentative quantity circlewise.		1. lot devices such as condition monitoring, smart sensors, receivers, smart meters etc. 2. IoT devices are planned to be commissioned in the phased manner. The system shall have provision of integrating the same in phased manner.
117	Section A Project Specifications 3 Scope of Work	113/955	ff. Standard warranty period of 2 Years from the date of system handover after SAT, resolution of all punch point of SAT and trouble-free operation of the entire system for a period of one month.	This one month is not mentioned in schedule. Is this PG test?		One month period is self explanatory, this is after the SAT, resolving all punch points, fixing all the third party Cyber security auditor identified gaps, the system will be observed for one month before the start of standard warranty as mentioned in the RFP
118	9.0 Project Schedule / Calendar of Events / Milestones	132/955	c. Following is the expected delivery schedule. Bidders may propose separate delivery schedule; however, the total time for project completion shall not exceed 580 days from the date of placement of firm purchase order by Purchaser.	Project schedule mentions 580 days, it is not matching with 12 months mentioned in clause 'Project Schedule' 12.4 Page 138		Bidder to consider 580 days schedule mentioned for both Phase A and Phase B
119	9.1 Delivery Schedule	132/955	Delivery Schedule Table	Please clarify how testing of existing 300+ RTU to be carried out to adhere project scheduled dates. Please clarify what will be the duration and testing philosophy of testing to be considered.		Bidder shall propose duration and testing philosophy for complete monitoring and control of the distribution network as specified in the RFP from proposed SCADA/ADMS System
120	9.1 Delivery Schedule	132/955	Delivery Schedule Table	What is PG test?		Bidder to demonstrate the performance guarantee test for each Phase. Expected performance parameters are as described in Section-A, Clause 14.0, Sheet 163/955
121	Annexures Sr No. P	740/955	Training	Training mentioned total mandays. However the 9.1 Delivery Schedule did not mentioned about training.		Training schedule and content will be finalized during detailed engineering.
122	Annexures Sr No. P	740/955	Training	Total 100/200/50 Man days are mentioned in the annexure, however Duration of Training and occurrence of training is not mentioned. At which stage of the roject and the total duration to conduct training at Bidder's workplace and Onsite shall be clearly mentioned		Training schedule and content will be finalized during detailed engineering.

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123	Detailed Technical Specifications 13.13.2.12 a) and Annexures Sr No C.10	574, 749	Protocols : IEC 60870-5-101, IEC 60870-5-104, IEC 61850, MODBUS (TCP/IP) IEC 61970, IEC61968 IEEE C37.118.1a-2014 (IEEE 60255-118-1-2018) Secured ICCP, OPC-UA & DA, ODBC, SQL, DDE & XML Open ADR, MQTT, NB-IoT, LORA SFTP/FTPS, HTTPS, XMPP, SOAP, REST	Please specify master and (or) slave mode for each protocol. Also need clarification on application and equipment using these protocols.		All protocol shall be with Master and Slave license as applicable and as per the functional requirement mentioned in the RFP. Bidder to confirm the proposed solution supports all the mentioned protocol, not meeting the proposed protocols, may lead to rejection of technical evaluation. Integration of the systems will be shared during detailed engineering.
124	Project Specifications Clause t and Detailed Technical Specifications 1.5	109, 212	Centralized Time Synchronization System with GPS at MCC and at each NCC. Centralized System at MCC and at each NCC shall ensure the time synchronization of all OT components of the proposed solution including Sub-Station Automation System of all primary sub-stations and field automation equipment of the Purchaser's.	What are OT components Does GPS at MCC/NCC to synchronise substation compinents?		1. OT systems are offered by the bidder under this RFP. 2. The Proposed GPS system at MCC and NCC will also synchronize the substation IEDs
125	Annexures A.10	746, 756	Centralized Time Synchronization Utility (Main & Standby) including GPS Software - SNTP, Pulse, IRIG-B	Please clarify functionality of main and Standby		Two redundant GPS system are envisaged at MCC and NCC.
126	Detailed Technical Specifications Clause 3.27.3	110/955	Electronic Mail (E-Mail) & SMS Notification system:	Please clarify number of mobile numbers to be defined in the system. License for sending bulk SMS shall not be in bidder scope.		1. All details will be provided during detail engineering. 2. License for sending bulk SMS need to be arranged by Bidder.
127	Annexures Sl no. C2, C2.1, C2.2, C2.3, C2.4	769/955	Services - For modification in existing systems (e.g. Gateway, RTUs, FRTUs etc.)	No modification will be done in existing system. Owner has to take care of modification in the existing system. Please provide Distribution of GW/RTU/FRTU as per OEM. FRTU communication shall be in Owner scope. Any issues related to GPRS shall not be in bidder scope in any condition.		1. Any modification required in the substation and field equipment is in the bidder's scope 2. Details of existing substation will be provided during detailed engineering. 3. Communication from Substation to control center is not part of this RFP
128	Project Specifications 1.6.2	102/955	b. Redundant System in MCC/NCC	In case of MCC failure control of 33kV will not be available to any NCC. Please confirm.		All Monitoring and Control of respective circle distribution network shall be available at MCC and NCC irrespective of voltage level
129	Project Specifications Part B Clause a,b,.....	107/955	a. Installation & commissioning of DMS System at MCC and NCC and integration with respective SCADA and other systems installed under this RFP and other Purchaser's Applications/Systems. b. Installation & commissioning of OMS System at MCC and NCC and integration with respective SCADA and other systems installed under this RFP and other Purchaser's Applications/Systems.	For integration with respective SCADA, configuration and getting configuration in existing system, coordination with existing SCADA supplier is not in bidder scope		1. Query is not Clear. However entire scope of Phase A and Phase B is in bidder's scope 2. Any coordination required for integration of existing System/Utility System/Purchaser Specification application/Purchaser's enterprise application is the bidder's responsibility.
130	Project Specifications Part B Clause n	108/955	n. The proposed system shall use the existing IP scheme of the sub-stations to follow its connection profile, specifically the inclusion of a custom Originator Address (OA) in the ASDU header. Basically, each domain (PDS & QAS, MCC and NCC) shall use its own Originator address for the RTU/DCU to identify who is connecting. This parameter shall be configurable via a user interface within the system.	It is understood that the IP address and CASU shall be configured as existing system, in this case parallel operation will no be possible.		Bidder to adhere to specification. The existing field equipment are capable of multi master reporting.
131	Project Specifications Section A 13.3.5	147/955	Parallel Activities for Commissioning Bidder to note that the existing system will continue to work as is, till the new system is commissioned, configured in all respect, tested with respect to field, all points closed and approved by the Purchaser, training provided to Purchaser's personals and system is ready to hand over to Operational team.	As mentioned in other clause regarding Single master reporting devices and use of same IP scheme in new system, please clarify running existing and new system in parallel.		Bidder to propose the solution.
132	Project Specifications Section A 15.4.3 c	175/955	15.4.3 Maintenance Under Warranty Failed equipment shall be replaced or repaired, and spares inventories replenished to their delivered level throughout this period.	Failure of equipment due to external faults like overvoltage, surge lightning etc shall not be relaced free of cost.		It will be considered deviation. Bidder to consider appropriate measures to overcome the external faults mentioned.
133	15.42	662/955	The battery shall be capable of giving more than 1200 charge/discharge cycles at 80% Depth	VRLA Maint free battery does not comply 1200 charge/discharge cycles and life of 5 years		Queries is not relevant to the RFP
134	A.27	69/955	UPS System with Battery in Parallel Redundant Mode (40 KVA) with all accessories with Minimum 4 Hours Backup	Individual backup of 4 hrs or backup with both UPS in load sharing mode?		Individual Backup of 4 Hours
135	A.28	69/955	48 V DC System, Battery, Battery Charger in Redundant Mode with all accessories	Details are incomplete. Load on 48V DC backup, resistive or inductive, Battery backup time, Type of battery		Load on 48 V DC will be based on the system supplied by bidder with 50 % additional load of Purchaser. Backup time will be minimum 4 Hours.
136	A.29	69/955	Details of ACDB and DCDB	It is assumed that no atomatic changeover requirement in Inout ACDB. Please confirm.		Automatic changeover will be required

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137	1.7 Qualification Requirement / Eligibility Criteria	6/955	At Least two (2) Integrated SCADA & ADMS system for Power Utility Control Centre at Metro / District / Regional level during the last five (5) years, with at least one of the integrated system with more than 500 Primary Substations. Out of the two (2) systems, at-least one (1) system should be in satisfactory service condition for last one year	We request you to revise the clause as below At Least two (2) Integrated SCADA & ADMS system for Power Utility Control Centre at Metro / District / Regional level during the last seven (7) years , with at least one of the integrated system with more than 500 Primary & secondary (FRTUs) Substations. Out of the two (2) systems, at-least one (1) system should be in satisfactory service condition for last one year		Bidder to adhere to specification/PQR
138	1.7 Qualification Requirement / Eligibility Criteria	6/955	b) At least five (5) SCADA systems for power utilities each with at least 250 Primary Substations in the last 10 years. Out of the five (5) systems, at-least two (2) systems should be in satisfactory service condition for last two (2) years.	We request you to revise the clause as below b) At least five (5) SCADA systems for power utilities each with at least 250 Primary & secondary (FRTUs) Substations in the last 10 years. Out of the five (5) systems, at-least two (2) systems should be in satisfactory service condition for last two (2) years.		Bidder to adhere to specification/PQR
139	Technical Solution Score	128/955	Number of SCADA and ADMS Application projects successfully completed in last 5 years. Similar Technical Requirements as per the specification	We request you to revise the clause as below Number of SCADA and ADMS Application projects successfully completed in last 10 years. Similar Technical Requirements as per the specification		Bidder to adhere to specification
140	Technical Solution Score	129/955	The distribution of marks for experience in implementation of interface is as follows: <input type="checkbox"/> ESB over SOA – 2 marks <input type="checkbox"/> Secured ICCP – 2 marks <input type="checkbox"/> CIM (IEC-61968) - 3 marks	Tata Power is requested to also accept "Web Services or ESB over SOA " interface to get the marks.		Bidder to adhere to specification
141	Technical Solution Score	NA	Project Experience in RTU / Gateway / DC Integration <input type="checkbox"/> IEC60870-5-104 – 1 mark <input type="checkbox"/> IEC 61850 (ED1 & ED2) – 1 mark <input type="checkbox"/> OPC (UA/DA) - 1 mark <input type="checkbox"/> MODBUS (RTU, TCP/IP) – 1 mark	For Modbus (RTU, TCP/IP) integration, the experience of RTU integration with MFT shall be acceptable.		Bidder to adhere to specification
142	1.7 Qualification Requirement / Eligibility Criteria	7/955	In case, bidder uses experience of parent organization based out-side India to meet the QR, then bidder shall submit concurrence from the parent organization to support the supply and experience criteria. (Both Parent Company and Subsidiary Company shall provide a Deed of Joint Undertaking (DJU) and will be jointly and severally responsible for the execution of contract (If applicable). The Bidder shall share responsibility matrix, division of works etc. between Parent Company and Bidder.)	In case the parent company is not responsible for any scope of work, responsibility for the execution of the contract, it should not be held jointly and severally responsible. Hence DJU in such case shall not be applicable. Bidder's local Entity shall be solely responsible for execution.		Bidder to adhere to specification
143	15.0 LIQUIDATED DAMAGES	875/955	Liquidated damages @1% of the total executed contract value per week or part thereof, for the period of delay in integrated completion, subject to maximum 10% of the value of the contract shall become leviable without prejudice to other rights of the TPCODL	We request you to limit the LD % maximum to 5% of the undelivered portion of the contract.		Bidder to adhere to specification
144	Technical Solution Score & 1.7 Qualification Requirement / Eligibility Criteria	128/955	Technical Score	Minimum qualification mark for technical score shall be 80 out of 100.		Bidder to adhere to specification

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145	7.1 Protocol Support	436/955	<p>7.1 Protocol Support The proposed solution shall support following Protocol (Client/Server, Master/Slave) for data acquisition and for data exchange with other Purchaser's and third-party systems</p> <p>a. IEC 60870-5-101, IEC 60870-5-104, IEC 61850, MODBUS (Serial & TCP/IP) b. IEC 61970, IEC61968 c. IEEE C37.118.1a-2014 (IEEE 60255-118-1-2018) d. Secured IEC, OPC-UA & DA, ODBC, SQL, DDE & XML e. Open ADR, MQTT, NB-IoT, LORA f. FTP/FTPS, HTTPS, XMPP, SOAP, REST</p>	<p>At present, no information available regarding nos. of IoT devices, type of data and relevant use cases. In such scenario it is difficult to design expected solution and interface.</p> <ul style="list-style-type: none"> • By industry standard practices, Data Acquisition from IoT devices is achieved through cloud systems. Further, from cloud it is exchanged with other systems. • All the required data relevant to SCADA operations shall be available through Gateways/RTUs/FRTUs. • For any supplementary data required from IoT devices, it can be made available from cloud setup/gateways. <p>Considering above points, it is requested to provide following –</p> <p>(i) All the basic information should be available like nos. of devices, type of data, I/O count.</p> <p>(ii) If any cloud setup exists at present, its interfacing capability should be made available.</p> <p>(iii) Bidder should be allowed to interface SCADA system to cloud setup through standard protocols like OPC / Web Services.</p> <p>(iv) Please also provide us details on the typical use cases for the data from IOT</p>		<p>Please refer above.</p> <p>The required details will be finalized during detailed engineering.</p> <ol style="list-style-type: none"> 1. No. of devices type of data and I/O count, during detail engineering 2. Currently no cloud setup exists 3. Bidder solution shall support all the protocols mentioned in the RFP. With regard to interfacing, IoT devices through cloud or directly will be finalized during detailed engineering. 4. Interfacing with IoT devices proposed for Monitoring, Control, Analysis, Monitoring of equipment health etc.
146	Section B / 3.15 Intelligent Alarm Processing	NA	<p>Intelligent Alarm Processing - (Single Alarm for multiple events) and option to navigate from main alarm to their cause. Intelligence required rather than only filtering</p>	<p>To show single alarm for multiple events it is essential to define the rules and logics required to reach the expected outcome. The information available in the present tender specifications is not enough to design/develop the required feature. It is also not supported by any information related to rules, logics, use case and hence requirements remain wide open. It is recommended to either keep the requirement restricted to handling of alarms at priority level or provide detailed specs with use cases</p>		<p>System shall support required functionalities without defining the Logics. It shall be taken care during the database built.</p> <ol style="list-style-type: none"> 2. However if any logic need to be build, the same will be finalized during detailed engineering. 3. Bidder to note that alarm handling based on priority level are the very basic way of handling the alarm
147	Section B / 3.26.2 Display Generation and Editing / Scripting tool for display modifications	NA		<p>From the available specifications it is not clear regarding which changes are required in displays from scripting tool. Since the important information is missing, exact design of solution is not possible before submission. In this regard, it is also requested to restrict the requirement of bulk changes to data modeling. We request to accept the standard tools available in our system.</p>		<p>Bidder to adhere to the specification, and shall propose the solution as per the RFP</p>
148	4.3.7 Load Shedding	NA		<p>The required load shed functionality from control center will not be able to operate fast enough as it will be depending on process time at field and control center, Communication delays etc. It is recommended to operate manual and/or rotational load shed from the control center and perform under-frequency load shed at the local substation level.</p>		<p>Bidder to adhere to the specification, and shall propose the solution as per the RFP</p>

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149	Section A	94/955	Intent of Specification	Please provide voltage levels considered under Sub transmission network.		
150	Section A	98/955	Proposed SCADA Systems and Applications	Please confirm if SCADA/ADMS system will be integrated with GIS system over CIM-XML format only.		SCADA / ADMS system shall be integrated over CIM compliant GIS. The data not available from GIS system shall be manually configured
151	Section B	339/955	4.3.4.2 Real-Time Network Model Builder	We understand "Real-Time Network Model Builder" and "Parameter Adaptation" is relevant for transmission network and hence requested to remove from ADMS scope.		Bidder to adhere to the specification, and shall propose the solution as per the RFP
152	Section B	385/955	4.3.14 Network Automation	We understand "Network Automation " application is part of planning tool and hence requested to remove from SCADA/ADMS scope.		Bidder to adhere to the specification, and shall propose the solution as per the RFP
153			PRICE BID FORMAT_ANNEXURE-1	Request you to share the price bid format in EXCEL FORMAT		
154	Breakup of Prices of SCADA ADMS System for MCC	68/955		For SCADA servers,QTY is only mentioned One, but it mentioned main & standby. Kindly please clarify what is the exact QTY as required. The QTY of Other servers in MCC/NCC, Kindly please clarify also.		The attached BOM is indicative, however the bidder shall consider the required quantity meeting all functional requirement as specified in the RFP and the system architecture proposed by the bidder. Minimum qty as mentioned in the attached indicative BOM is 1 Set (i.e. minimum two servers (Main & Standby) of adequate capacity to cater all the Proposed Growth plan mentioned in Clause 1.5.1 i.e. System Sizing on Sheet 100/955.
155	Section-B Chapter # 2 Software Requirements 2.0 General Requirements 2.1 System Software requirements	224/955	Speech Recognition Services The proposed Applications and System software shall support speech recognition services for data extraction and restoration	Kindly Please share more details		System shall recognize the instruction of the Administrator / Operator for any action. The same shall be executed against instruction passed through voice communication.
156	Section-B Chapter # 1 Hardware Specification 1.0 Hardware Specification 1.1 System Hardware Requirements	202/955	Hardware specification	There are no router, firewall, switch detail specification in "1.0 Hardware Specification of Section – B Detailed Technical Specification", please clarify or share more details		Router: Please Refer Codes and Standard mentioned under Clause 6.4 on Sheet 428/955 in addition further details can be obtained in Chapter # 6, Chapter # 12 and Chapter # 13 of Section B, Detailed Technical specification. Firewall: Please find the details of High availability Firewall on sheet 840/955 Switch: Please find the details of Layer#3 Stack Switch on sheet 834/955, Layer#3 Switch on Sheet 837/955
157	Page NO 113 of 955 Clause ff & Annexure – 6: Indicative Bill of Material for Proposed SCADA and ADMS System	Information to Bidder	Post Warranty Services - Resident Engineer Support shall be Common for all the supplied equipment (Bidder's Own and bought out items)	Please define the time period of Post Warranty services, Please clarify that how many resident engineer will be require and type of assignement he will handle ? Also clarify warranty anf FMS period ?		Please Refer Section-A, Clause 15.3 - 15.8 Sheet 173-181/955 for details. Bidder to finalize the number of resources to be deployed with respect to requirement mentioned in the RFP and SLA.
158		BOQ	Cyber Security Management System Applications, Simulation Tools and Interface Software Licenses with OS	Please provide more details on Simulation Tools		Off the shelf Simulation tools to simulate the real attacks on SCADA/ADMS system and review the result and implement corrective actions to protect from the cyber vulnerabilities.
159		BOQ	Time Series Historian Server (Main & Standby) with REDHAT LINUX /WINDOW OS	Please provide the option for RDBMS also ?		Bidder to adhere to the specification
160		BOQ	External Tape Drive for each Server rack as per database size	Please provide the capacity of External Tape drive		Capacity of the external tape drive will be based on the Bidder's database size.
161		BOQ	Tapes for Server (Pack of 10)	Please provide the capacity of Tapes for server		Please refer above

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162		BOQ	Interface for Video streaming and integration with SCADA Application	Provide more details the objective of streaming and number of camera and scope of integration with SCADA application		<p>i) Hardware and Software required to meet the functional requirements depends on OEM solutions.</p> <p>ii) The proposed system shall be capable of accepting the feeds from Centralized Visual monitoring system or directly from the Cameras located in each stations. Integration of only Cameras used for Equipment Operation purpose are planned to be integrated with the SCADA System. Details of no. of cameras, interface type and all other information will be discussed during detailed engineering.</p> <p>iii) Control room engineer shall be able to control camera through Scada screen from where it is controlling the equipment</p> <p>iv) Provision is required in system to integrate directly with the Centralized system and also for integrating directly with cameras.</p>
163		BOQ	Integrated Fault Analysis & IED Management System (Main & Standby)	Provide the details of all the relays ,Bays number of substations		<p>Type of relays are generally for 33/11 kV Network of different OEM, Model, Make, Firmware and Configuration software versions.</p> <p>2. Bidder to note that the proposed system is required for management of all IEDs (such as RTU, Gateway, Numerical Relays, BCPUs, Condition monitoring devices etc.)</p> <p>3. The details of equipment, substation shall be considered as per the system design (Refer Section-A, Item 1.5.1, Sheet 100/955)</p>
164		BOQ	C++ and FORTRAN Compiler and Development Tools	Python has equal importance like C++ and FORTAN compiled and development tools. So please include the same.		The requirement of compiler shall be based on the Bidder's solution. Bidder shall include all mentioned compiler and required by the proposed applications
165		Advance Distribution Management and Other Applications	Integrate DG and DERs	Kindly provide complete details of DERS ,Protocol support		The specific interfaces are mentioned in the specification, Chapter # 7 i.e. System Integration & Data Exchange Requirements and standard protocols supported by the proposed solution. The proposed solution shall support all the required standard protocols, interfaces for integration of DG and DER System. It is envisaged that proposed system shall be capable of interfacing with SOA, ESBs. Further details of each interfaces will be discussed during detailed engineering.
166		BOQ	Advance Analytics – Online / Offline	Please provide more details		Advance Analytics – Online / Offline, supported by the bidder's proposed solution.
167	3	Scope of Work	Weather Monitoring through Web sites	What are the Weather parameter Utility is looking to monitor . Please provide complete scope of Weather Monitoring system through web sites		Bidder to note that the geographical area of Purchaser's distribution network spread over 30,000 sq. km, and covering cyclone prone areas. The proposed solution shall pickup applicable weather parameters for accurately forecasting and further used by ADMS applications.
168	4.3	ADMS Applications	Security constrained Dispatch	Please provide more details on Security Constrained Dispatch		Please refer Section-B, Chapter # 4, Item 4.3.5 Sheet 361/955 for details
169	5	Purchaser's Specific Applications	Provide resiliency to natural disasters and other threats	Please provide more details		Please refer above
170	5	Purchaser's Specific Applications	Online analytics/ intelligence to diagnose and predict incipient faults / developing faults within the equipment & SCADA	Is utility looking for RAMS (Reliability, Availability, Maintenance & Safety)Please provide the complete scope		Bidder shall include application meeting the functional requirement mentioned in the RFP
171	5	Purchaser's Specific Applications	Multi-site Network Management	Please provide more details		Multi-site network management is applicable to power network.
172	5	Purchaser's Specific Applications	Capability of building artificial intelligence in the system so as to guide operation Engineers during emergencies interactively.	Please provide more details with respect of scope of work of AI		Bidder shall include application meeting the functional requirement mentioned in the RFP

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173	8.2	Project Experience	The offered product shall comply to all open protocols such as CIM, IEC60870-5-xxx, IEC61850, C37.118, Secured ICCP etc. and compatible with all other OEMs product. Any interoperability issues arising during commissioning and during guarantee period, bidder shall undertake to resolve them within maximum 2 months period.	we understand that C37.118 is required for PMU . Please provide the number of PMU and it's integration scope		Currently there are no PMUs installed in the network, However the proposed system shall have provision of integrating PMUs over C37.118.
174	8.2	Project Experience	Bidder shall have experience of integrating Enterprise Systems such as SAP, MDM, Big Data, Enterprise Historian, LORA IoT system etc.	Since LORA IoT and Big data are new requirement in Power utility are new you to relax the norm		Bidder to adhere to the specification
175	3.1	Data Exchange	Integration of SCADA & ADMS computer system to other Purchaser's systems as specified in this specification (e.g. GIS, Enterprise Historian & AMR, CYMEDist etc.)	Kindly provide the integration platform that Cymedist support and what are the information is required to exchange ?		Please refer Section-B, Chapter # 7, Clause 7.16, Sheet 451/955. Bidder to consider the interface for integration of Purchaser's CymeDIST Network Planning tool. It is proposed to exchange the real-time parameters from SCADA/ADMS to Network Planning Tool.
176	3.1	Data Exchange	Secure ICCP shall be provided with Linux OS for enhanced security	For ICCP Please consider Windows OS also		Please Refer Section-B, Chapter # 7, Clause 7.2 Sheet 436/955 for details.
177	3.1	Data Exchange	SCADA/ADMS from/to VMS Interface	Please provide more details of VMS		Please refer above
178	3.1	Data Exchange	SCADA/ADMS from/to Business Intelligence Interface	Please provide all the BI required for integration		The specific interfaces are mentioned in the specification, Chapter # 7 i.e. System Integration & Data Exchange Requirements and standard protocols supported by the proposed solution. The proposed solution shall support all the required standard protocols, interfaces for integration of BI System. It is envisaged that proposed system shall be capable of interfacing with SOA, ESBs. Further details of each interfaces will be discussed during detailed engineering.
179	3.1	Data Exchange	SCADA/ADMS from/to Renewable Portfolio	Provide the details of Renewable Portfolio ? How big is the system and number of renewable sources		Details will be discussed during detailed engineering post award of order
180	3.1	Data Exchange	SCADA/ADMS from/to IOT	Provide the scope of Integration of IOT		System shall support both type of interfaces 1) It shall be capable to interface with cloud server of IOT service provider 2) It shall be capable to directly interfacing with IOT device on field. The preferred technologies are LoRA and NB-IOT. Bidder has to clearly mention all capability built in for using IOT technology
181	7.15.4.3	Data Exchange between SCADA & ADMS & GIS	Since the present GIS is not CIM compliant, the proposed interface should be capable of converting the data from GE Small World (Electric Office) to the Bidder's format. Facility for automatic incremental updation of GIS data into ADMS to be provided. The data should go through a validation and testing process prior to being implemented	Please share the sample file of GIS files and let us know the file format of Cim files if it is not CIM compliant		Please refer Section-B, Chapter#7, Clause 7.4, Sheet 443/955 for integration with Purchaser's GIS System File format and further details will be shared during Demo/Detailed engineering
182	7.16		Data Exchange with Network Planning Tool (CymeDIST)	Please provide what are the information is required to exchange from planning tool and what integration platform Cyme DIST support		Please Refer above
183	7.12		Data Exchange with IMD and equivalent agency Weather monitoring system	What are the data to be exchanges and platform required for integration		Please Refer above
184	Page No 451 of 955 Clause No 7.15.4.3	Data Exchange between SCADA & ADMS & GIS	Since the present GIS is not CIM compliant, the proposed interface should be capable of converting the data from GE Small World (Electric Office) to the Bidder's format.	Please let's know the details of the GIS present ?		Please refer Section-B, Chapter#7, Clause 7.4, Sheet 443/955 for integration with Purchaser's GIS System File format and further details will be shared during Demo/Detailed engineering
185	Page No 95 of 955 Clause No 1.1	Introduction to Tata Power Central Odisha Distribution Limited	In view of Centralized monitoring and control of the entire distribution network It is proposed to replace the existing SCADA/DMS system (Existing SCADA systems covering only some part of the Bhubaneswar Circle # 1, Cuttack and Puri town network	Can we use the existing Control centre present at Puri town ? Like Software liscese / hardwares etc		Bidder to note that currently no control Centre is envisaged in Puri. However bidder can consider the software licenses used for Puri System as a option. Bidder shall note that the proposed solution shall be considered with latest version / system with respect to Hardware, OS and Application Software