NEPAL ELECTRICITY AUTHORITY
(Government of Nepal Undertaking)
Project Management Directorate
Project Management Department
Distribution System Control and Data Centre Project
Kharipati, Bhaktapur

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Letter Ref. No.077/78 /Ch:-113

Date:- 7th October, 2020

To
All prospective bidders;

Subject:- Issusance of Clarification – 2

Ref:- Design, Supply, Installation and Commissioning of Distribution Command and Control Centre (OCB:- PMD/EGMP/DCC -077/78 -01)

Dear Sirs/Madams;

In reference to the bid published on date 10th Aug 2020, We would like to inform all the prospective bidders with clarification -2 according to the ITB clause 7.1 of the bidding document.

We also would like to request you to acknowledge the receipt in project office.

With Warm Regards

Rabindra Shrestha
(Project Manager)

1	Content of RFP requiring clarification	Points of clarification required	Clarification/Response
2	The recommendation dimension of pre-fab module is 3600mm×2438mm×12192mm (H*W*D), 3600mm×3495mm×12192mm (H*W*D) . For the convenience of transportation and installation, the width and length of the prefabricated modules should be 2438mm×12192mm, 3495mm×12192mm.	These two part is the specification requirement about floor height is different,which part should the bidder to follow which part?	To be discussed during DDE(details design and engineering)
3	Travel stops: 3 (3 floors with 4.15m height per floor)		To be discussed during DDE
4	Gas used: Novec 1230 or equivalent	These two part is the specification requirement about gas is different,which part should the bidder to follow which part	Novec 1230 fluid is a fluoroketone, while chemical clean agents like FM-200™ and ECARO-25® are HFCs (HFC-227ea, HFC-125). Novec 1230 fluid has a global warming potential (GWP) of less than one while these HFCs have a GWP of more than 3000. Novec 1230 fluid has the highest margin of safety for human occupancy among clean agents, including inert gas. Ans:- Novec 1230 or equivalent
5	HFC-227ea Gas		
6	The enclosures shall be designed to take care of normal stress as well as abnormal electro-mechanical stress due to short circuit conditions. All covers and doors provided shall offer adequate safety to operating persons and provide ingress protection of IP 42 unless otherwise stated. Ventilating openings and vent outlets, if provided, shall be arranged such that same ingress protection of IP 42 is retained. Suitable pressure relief devices shall be provided to minimize danger to operator during internal fault conditions.	These two part is the specification requirement about PDC IPXX is different,which part should the bidder to follow which part?	The bidder should propose the indoor switchboard IP 20 and Outdoor IP 55(Corrected clarification-1)
7	Design, fabrication, assembly, wiring, supplying, installation, testing and commissioning of front operated cubicle type compartmentalised front access free standing, dust and vermin proof (IP 20 ingress protection) switchboards suitable for use at 400 volts +/- 10%,		The bidder should propose the indoor switchboard IP 20 and Outdoor IP 55 (Corrected clarification-1)
8	For operator safety IP2 X (touch proof) protection to be available even after opening the feeder compartment door. The compartmentalization to be achieved by using metal separators, use of PVC sheet / Hylem sheets shall not be allowed		The bidder should propose the indoor switchboard IP 20 and Outdoor IP 55(Corrected clarification-1)
9	All three phases of the three-phase parameters will be displayed simultaneously. All voltage and current parameters will be monitored using true RMS measurements for accurate representation of non-sinusoidal waveforms typical of computers and other sensitive loads.	In actual application, not all circuits are three-phase power supply loops. Are the circuit parameters designed and configured based on actual circuits parameters?	Yes , Wherever Applicable (Corrected clarification-1)
10	Batteries cabinet: The lithium battery or lead acid battery can provide 30 minutes system backup time		Li-ion batteries with minimum of 30 minutes backup time(Corrected clarification-1)
11	Public address system not mentioned in BOM(BILL OF MATERIAL)		As per RFP
12	DIESEL GENERATOR AND ALLIED SYSTEM - DG Set should be 625 KVA. DG should be suitable to supply power continuously to a constant or varying electrical load for unlimited hours in a data centre application.	Those decriptions about generator capcity contradict, what specification should the bidder to follow?	DIESEL GENERATOR AND ALLIED SYSTEM - DG Set should be 625 KVA. DG should be suitable to supply power continuously to a constant or varying electrical load for unlimited hours in a data centre application. With 700 HP (at 1500 rpm)(Corrected clarification-1)
13	Supply of Data Center Continuous Rating 625 kW SILENT DG comprising of developing min700 BHP		DIESEL GENERATOR AND ALLIED SYSTEM - DG Set should be 625 KVA. DG should be suitable to supply power continuously to a constant or varying electrical load for unlimited hours in a data centre application. With 700 HP (at 1500 rpm)(Corrected clarification-1)
14	Part B – SCADA System FRTU	the item of each table in Volume II and Volume III is different ,which items are right ?	Please detail your clarification sought as this is complete list of materials for DCC software
15	SCADA DMS System FRTU		Please detail your clarification sought as this is complete list of materials for DCC software
16	Part C – Building civil work and Conveyance System/IT infrastructure/DC facility	the item of each table in Volume II and Volume III is different ,which items are right ?	Bidder to propose as per the financial BoQ.
17	**DC Area and Other Area**		
18	Testing		
19		Before Go Live, there are many testing i.e type testing, factory Acceptance test, hardware integration test, system built test, functional performance test, Continuation operation test, Site Acceptance test, Field installation test, End to end test. Is it follow for DCC as well? Can we simplify acceptance test? also stabilization period is including in the acceptance	Yes ,it is valid for DCC . NEA reserve the right of testing and right to reject untill completion to the desired satisfaction level mentioned in RFP. Yes ,Stabilization is including in the acceptance
20	Historian based on Microsoft SQL Server RDBMS;	SQL server database is mainly installed on windows OS, and this SCADA/DMS/OMS system is a complicated system, so we suggest the server OS is Linux, and the database is Oracle.	Historical data storage for anslytics based on SQL program and database RDBMS
21	The DR function is a repository of system build up software of all areas where SCADA/DMS is going to be installed. One-year online backup shall be available at this location with data pertaining to each area i.e. system build ups shall be available of each town separately so that the same can be utilized upon setting up newer system after disaster. The data related to network model of SCADA/DMS control center of each area shall be sent to DR center periodically once a day & upon user request. The data shall be configured to be sent globally & incremental. All logs, data model etc & necessary interfaces that are essential for complete system build up shall be stored at DR center. All requisite data which is build the system from scratch shall be transferred to DR. An alarm shall be generated & send to SCADA/DMS control center upon attaining user defined threshold e.g. 80% for storage at DR center	In the BOQ, there is no DR hardware, so DR center is already existed? Or DR certer is not inluded in the work scope?	This is system bulid up data for System recovery in case of Disasater.(Corrected clarification-1)

22	9.7 If the Contractor is a joint venture or consortium of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfillment of the provisions of the Contract and shall designate one of such persons to act as a leader with authority to bind the joint venture or consortium. The composition or the constitution of the joint venture or consortium shall not be altered without the prior consent of the Employer.	Does NEA accept two or more parties work as consortium bidder? If yes, Is it acceptable for one party of the consortium (generally the lead party) to submit a guarantee to the owner on behalf of the entire consortium?	Only JV are accepted as per the terms mentioned in the RFP.
23	9.7 If the Contractor is a joint venture or consortium of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfillment of the provisions of the Contract and shall designate one of such persons to act as a leader with authority to bind the joint venture or consortium. The composition or the constitution of the joint venture or consortium shall not be altered without the prior consent of the Employer.	Does NEA accept two or more parties work as consortium bidder? If yes, Is it acceptable for one party of the consortium (generally the lead party) to submit a guarantee to the owner on behalf of the entire consortium?	Only JV are accepted as per the terms mentioned in the RFP. All the prevalent term and conditions in RFP and contarct will be in the name of JV.
24	h) RTU shall have dual redundant CPU and Power Supply unit.	Is this a dual device or 2 CPUs in the same device?	As per RFP,Dual redundant CPUs and Power Supply unit
25	System Integrator shall engage with a certified agency appointed by NEA and SI will cooperate fully with the auditor. The auditors shall be responsible to conduct the following activities: o Security Audit that include (but not limited to) vulnerability assessment, penetration testing, application security assessment API testing and Mobile application assessment biannually (once in six months) for entire infrastructure. o Implementation of information security controls and perform periodic (once in a year) assessment. o Propose ways to enhance the protection of SCADA DMS system & Supporting IT Infrastructure. o Ensure the applications are free from OWASP Top 10/SANS and CERT- Nep web/mobile application vulnerabilities as released from time to time. □ SI is responsible for mitigating all security risks found and continuous monitoring Activities. All high-risk vulnerabilities must be mitigated within 15 days from the date vulnerabilities are formally identified. Source Code Review: Third party agency shall review the source code of web and mobile applications for hidden vulnerabilities and design flaws. It shall also verify whether security controls are implemented appropriately. Secure Configuration Review: Third Party Agency shall review the security configuration SCADA DMS system and provide the detailed report that include the recommendations for remedial actions and submit the results to NEA.	What organization is NEA accredited? What standards are for the Source Code Review and Secure Configuration Review ? Does Chinese audit institutions be accepted?	Audit Institution with global standards and accreditions are accepted. Source code review shall be done on the basis of global standard by third party agency. Globally certified all labs shall be accepted.
26	4 External Intrusion Prevention System 5 Internal Intrusion Prevention System	There is no quantity of IPS, is it not necessary to supply it? Please clarify	AS per RFP
27	The period following completion of plant and services in accordance with provisions of the contract shall be 10 Years	This clause is not described in detail in the contract. Please clarify What standard is the completion of plant and services?when the warranty period starts and ends?How long is the warranty period?	10 years is only for plants and services pls refer (ITB16.1(b))
28	4.1 A Bidder may be a natural person, private entity, or government-owned enterprise subject to ITB 4.5 - or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture.	We understand that Consortium of two comapanies qualifies under this category. Request to confirm our understanding.	NO, Only JV are accepted not consortium.
29	All the equipment including communication system, required for the successful operation of the automation system is in the scope.	Please provide followining information along with quantity . 1.Communication scheme (with/without redundancy) planned from MCC to the following locations along with names of locations. - RTUs -FRTUs (if any for RMUs/Distribution Transformers/ Sectionalizers/ Autoreclosures etc.) - Sub-Station Automation System with/without Gateways(if any) - DC - Remote VDUs/Workstations (if any) - Other System -BCC 2. Please inform if there is a BCC also in the project as the same has been shown in the system architecuture at page no,. 95 of Volume.. 3. Quantity of the communication equipments should remain mapped with Bill of Quantity & Price Schedule for the items under Sl. no. 1. We request you to amend the quantity of modem/router etc. if needed to meet the technical requirements.	14 SUBSTATIONS, 10 Switching Stations and SCADA enabled RMUs= 794, , GO Switches =220 , DRT=133 , an amendment regarding communication sstem will be published soon.No BCC is in scope of this bid.
30	Refer above	1. We understand that defination of minor work is limited to SCADA/DMS system and not communication/fiber n/w system as the same is understood to be under NEA scope. Request to confirm. 2. C class items are considered under minor items. Electrical or communication equipments cannot be categorized under minor items. Please eloborate the scope of supply under this category with examples of such minor items envisaged by NEA as the same may have major commercial implications on a bidder.	Only OPFC is in NEA scope to all SS and rest all in bidder's scope with installation and troubleshooting if required, Minor items are those missing items in RFP that must be included and have no big impact in price quoted.
31	Note: : The employer will decide the service provider the for GSM/GPRS connectivity if required 'and will manage the availability of the sim cards for connectivity from DCU to DC. The 'responsibility of complete network development shall be with the contractor.	1. Request to clarify the commmunication requirements w.r.t. clause no. 1.1.2.4,7, 2.a. 2. We request you to keep Bandwidth charges under NEA scope.	As per RFP , Yes NEA pays GPRS BW charge if required.
32	Currently, areas under 2 DCs are in advance state of implementation while other 11 DCs are under initial state of implementation and thus, needs to be integrated with the DCC.The distribution system automation proposed for reinforcement works include SCADA enabled RMUs, GO switches which requires to be integrated with the DCC SCADA DMS.The distribution transformer proposed to be installed also has to be integrated with the new DCC. The Contractor shall propose the system compatible to integrate with above system and shall provide the all required equipment and provision for integration with the field equipment.	1. As per Sl. 1 of Part B2, there are 30 RTUs under scope of supply. As per item no. 14 of Schedule 1 of Price Schedule there are 13 nos. of GPRS based Modem for data connectivity from RTU to DCC to integrate with SCADA/DMS system. As per our understanding there will be RTU at these DC locations which is under scope of suply. Request to confirm our understanding.. 2. As per clause no. 7 at page no, 7, fiber optic n/w shall be provided by NEA. We understand that out of 30 RTUs, 13 RTUs shall remain on GPRS communication and balance shall remain on fiber network. Request to confirm our understanding.	1.As per RFP, 30 RTU are envisaged As per RFP and its amendment.

33	The NEA intends to establish the main DCC with facility of control and monitoring through the Distribution centre level also.	1. As per the system architecture provide at page no. 95 of 413, there is a connectivit shown to BCC (Backup control center). Request to clarify the intent of showing BCC i.e. is it a future BCC or existing BCC. 2. Please clarify, whether facility of control and monitoring through the Distribution centre level (DC) also is under the present scope or not. - If yes, please provide the quantity of requied equipments under Bill of Quantity and under Price Schedule e,g, nodal SCADA equipements for these DCs (other than RTU). -If the same is not under the present scope of work then we understand that NEA is looking additional Router ports at MCC . Please clarify and provide the quantity of additional router ports	1. BCC is not in scope. 2. Yes, monitoring from DCs level through web application is in scope(Bidder has to manage in supplied web servers/hardwares/softwares and apps)
34	All the equipment including communication system, required for the successful operation of the automation system is in the scope. The cost for such supply and installation shall be included in the respective cost in the BPS.	1. Which communication system (other than GPRS modem for GPRS communication) is in scope of supply ?	Communication system which are not in BOQ but if proposed by the bidder will be in scope of bidder
35	The items required to be quoted separately includes the communication switches, modules, FoDPs etc.	We request to quantify such items under price schedule for a better understanding of your requirements.	As per RFP and its subsequent amendment
36	End to end integration with existing legacy systems, AMR,AMI Solution stack (Phase 1st : for KTM Valley 2 DCS is already under implementation and other AMI implementation that might take place during the duration of this project (Planned is for another 8 DCS of KTM Valley and 2 DCS each for other 6 provinces) and upcoming utility systems including Metering, Billing & Collection Systems (Both existing Distributed MBC System and Upcoming Centralized MBC System), ERP Solution, GIS System, DTMS, APFC, substation automation system(SAS), Transmission, Generation SCADA, Load Dispatch Center(LDC), other Smart initiatives by NEA etc. The integration isexpected to be Industry Standards Based on IEC 61968-1 Bus (SOA Enabled on enterprise Bus) using CIM/XML, OPC, ICCP etc. which is, on-line, real time or offline where appropriate and shall operate in an automated fashion without manual intervention ,which is which is documented for future maintenance. SI shall make necessary provisions/software linkages in the proposed solution so that the IT system or any legacy SCADA/DMS system may be integrated seamlessly. Integration is also envisaged with the LDC and Master Control Centre of NEA. With respect to the integration with SAS, the bidder shall be able to fetch the data through the gateways procured under SAS project of NEA. The bidder is also required to provide end to end integration with the RTUs procured as part of this project.	For integration with third party system, quantity & type of communication link alongwith bandwidth size is required to be quantified in the bill of quantity. Corrosponding Modems/Routers is also required to be quantified. We request you to amend the Price schedule for the same accordingly as the same could not be found under Price Schedule.	It is supposed all the third party systems will be in DC and can be connected through LAN only if necessary but if those systems lie far from dc communication link will be provided by NEA
37	The SI shall do the necessary study of existing system, equipment and submit the detail network diagram and report to NEA.	Networking planning has to decided by NEA and provide network diagram of the project to the bidders. 1. Please provide a clarity on communication scope from DCC to all the equipments e.g. RTU, FRTU, SAS, AMI/AMR,GIS, Billing etc. 2. Please provide quantity of communication equipments under Price Schedule for Sl. no. 1 as the same has been found missing.	As per RFP unless amended
38	1. Provide Annual Technical Support (ATS) for a period of 3 years after the date of Go-live declaration and acceptance of the project for SCADA DMS Software. 2. Provide Annual Maintenance Contract (AMC) including spares etc. for a period of 3 years after the date of Go-live declaration and acceptance of the project for SCADA DMS system hardware at DC and at field. 3. Provide Operation and Maintenance (O&M) Services to the NEA including Facility Management Services with helpdesk and IT support services to the NEA for a period of 3 years after the date of Go-live and acceptance of the project for SCADA DMS system. 4. O&M including supply of Manpower for DC, DCC, NOC and SOC Civil Build and Non IT Infrastructure Setup for 4 years from Go Live. 5. Annual Maintenance Contract services for DC, DCC, NOC and SOC Civil Build and Non IT Infrastructure Setup for 4 years from Go- Live.	1. The scope of Annual Technical support/Annual Maintenance/Operation & Maintenance is only for the items under scope of supply of this project. Request to clarify & confirm. 2. We understand that Annual maintenance is of three years for SCADA/DMS Hardware and Software however terminolgy used for Software is Annual Techncal support. Please confirm our understanding. 3. As ther services provided under Annual Maintenance/Annual Support/ Facility Management is same, we request you to club it as a single line item under price schedule including civil part for three / four years as per NEA's requirement. 4. Maintenance of SCADA/DMS & other items under scope of supply/service can be covered by a bidder round the clock with required manpower but operation of the same especially which is linked to Power Network should be the responsibility of End Users only as SCADA/DMS bidders are not Power System Operators. They can provide maintenance support only for the supplied system. Operation by end user team develops capabilities to handle the system indepemdtly also. We request for removal of manpower requirement for operation purpose, however NEA may define the minimum manpower required manpower for maintenance purpose for each activity like hardware,software, building maintenance etc. This will not only reduce the cost to NEA but also develop the capability of NEA engineers to handle the Power network through SCADA/DMS system indepedently through the trainning programs of tender and on the job technical support from maintenance team of bidder during 3/4 year of maintenance.	As per RFP unless amended
39	SI shall update the existing licenses and version SCADA DMS to the latest commercially available version during the currency of the contact.	Please clarify the meaning of existing license of SCADA/DMS i.e. is there any SCADA/DMS system already existing.	As per RFP unless amended
40	SI shall be responsible for supply, installation, and commissioning of RTUs, CMRs, MFTS, etc. For field installations at Substations.	FRTU scope has been not found mentioned. We understand that FRTUs are not under scope of supply and only integration of 300 FRTUs is under scope of work. Request to confirm.	As per RFP unless amended
41	Establishment of Last Mile Communication - The supplied smart field devices shall have a provision for GPRS/GSM communication technology,as per the specifications. Bidder will ensure communication/connectivity with centralized Data Center by establishing the connectivity over suitable/available communication network like optical fibre / RF / GSM, after approval from the employer. - The required data from the field devices shall reach the DCU/Access Points etc. (which are to be installed at NEA's fiber optic nodes) through the networking elements such as Routers, Repeaters,and Extender Bridges etc as required. All equipment and accessories required shall be included,in the bid price in the respective items. -Bidder shall use the GSM/GPRS connectivity to connect the DCU/Access Points to the data center where optical fiber connectivity is unavailable. All above requirement shall be realized using minimum numbers of fiber pairs (which will be provided by employer), using active networks if required for data acquisition and control.	1. We understand that field devices having GPRS/GSM compatible are under purchaser's scope of supply . Please confirm our understanding and also please provide the break up of such field devices. 2. Please provide the communication network diagram of the project which has been not provided in the tender specifications due to which there is a lack of understanding in the communication scheme and quantity of the same. 3. Please include the quantity of communication equipments in the price schedule. 4. Please clarify the scope of fiber optic cable which shall be supplied by NEA and the scope of work of bidder w.r.t. fiber cable. 5. We recommend 2 Mbps leased line for all RTUs & 5 Mbps for third party system like billing,AMI/AMR etc, GPRS communication for FRTUs.	As per RFP unless amended
42	The SI needs to carry out the integration of SCADA DMS system with existing decentralized MBC system and with the upcoming Centralized MBC system of NEA. (if required)	1. We understand MBC as billing system. Please clarify our understanding. 2. What is the quantity of decentralized system and upcoming centralized system i.e. it is for Kathmandu town or for other towns also.	1. MBC stands for metring , Billing , collection Systems 2. In MBC there are 175 decentralised systems all over Nepal and 18 in kathmandu valley

43	Besides the above applications NEA will be implementing ERP and Revenue Management System, Substation Automation System, Distribution Automation System, GIS etc during the currency of the project which needs to be integrated with the SCADA DMS system, as required.	1. We request you to quantify all third party integrations under Price schedule along with communication equipment of DCC end so that port requirements of Routers can be calculated. 2. Also please provide the communication system envisaged for such integration and it;s scope under NEA/bidder.Availability of other end Router needs to be considered under NEA scope for any existing/upcoming system during the currency of the project. 3. We understand that in case of non-readiness of such system during the currency of project, the scope of integration shall stand deleted. Please confirm as team cannot remain deployed till	As per RFP unless amended
44		1. We could not find any scope of supply of UPS or DC Power Supply system under Price schedule. If the same is not under scope of supply then training on the same should not come under scope of work. 2. Please clarify whether UPS and DC power supply for Control Center hardware equipments, RTU, FRTU, LDMS system etc. is under scope of supply or not. If the same is under scope of suppy, we request you to provide the quantity of the same under price schedule . Also please provide the specification of the same.	refer 6.2.10 - clause no 15 and related clauses
45	Auxiliary Power Supply Training : The training shall cover various aspects covering installation, testing & commissioning of DC power supply, & UPS system. Proper emphasis of the training shall be for effective operation & maintenance of Auxiliary Power Supply System on routine/emergency basis by the owner's personnel.	1. FRTU supply has been not found under Price schedule so why it's installation (comissioning+integration as per previous clause) has been kept under bidder's scope. It should be done by the concerned FRTU supplier. 2. What is the make of FRTUs. 3. The scope of work is related to RTU/FRTU installation then why meter installation on high voltage/low voltage experience has been asked from RTU team. RTU/FRTU team has experiece of MFT/Energy meter Transducers installations which are part of RTU	As per RFP unless amended, MFT asked in BOQ is to be installed in ss and sw stations.
46	Phase B: Installation of FRTUs and IEDs shall be carried out by the certified installer with the consent of NEA only. The field team deployed for RTU installation shall have a prior knowledge and experience of meter installation on the high and low voltage 'network topology and should be able to carry out the required installation process	1. 2.a. & 2.b is clubbed with execution and O&M. Please clarify whether 48 persons are required during execution also or it is for O&M period only. 2. No. of required persons for execution or for maintenance of the system round the clock with availability should be left with bidder however for O&M , NEA may freeze the minimum requirement. 3. We request you to delink execution team from 2a. and 2.b if incliuded and define O&M team requirement only. Also, please clarify the deputation period of 48 persons i..e 3 years or more. 4. Operation of the system should be under NEA scope and only maintenance of the system should be under bidder's scope.	No change, 48 persons and persons for maintenance…etc requirement is as per RFP,
47	Note: For O&M, for each 5 stations a maintenance crew comprising of 1 Site Engineer and 1 Site Technician is required. There will be 6 teams for 30 Substations and switching stations. These will be in 3 'shifts and 1 additional team as reliever for each team. So, a total of 48 persons minimum are required for O&M comprising of category 2a and 2b.	The quantity of GPS required for RTU could not be found in the price schedule, We request you to amend the price schedule accordingly to bring a visibility of requirement to all bidders which is not quantity in price schedule. The specification of the same is also requested to be provided.	GPS Required for RTU is only for time sync to master clock in DCC , shall be submitted by the the bidder
48	The RTUs 'communicating over IEC-60870-5-104 shall be supplied with a GPS receiver for synchronization of RTU clock.	1. Please confirm the requirement of weather sensors at all RTU locations. 2. Please provide the type of weather sensor required at RTU location i.e.temperture, wind speed, wind direction, humidity, wind presssure etc. 3. We suggest only one weather sensor to be deployed for Kathmandu town i.e. at control center location and a local RTU for control center for acquisition of paramenters from UPS, DCPS, weather data etc. 4. Please clarify the requirement of Modem at RTU location if protocol of communication is IEC 104 and communication is on leased line/fiber optic/GPRS/Radio etc. 5. Please quantify the requirements of Modems and weather sensors and local RTU(if required) under Price schedule to make the requirement visible to all bidders .	As per RFP until amendment and also some parts shall be decided during DDE. Communication system will be either on OPFC(DCC to SS) or GPRS(SS to Switching stations)
49	This document describes the specifications for the Remote Terminal Unit (RTU). Contractor shall supply RTU, associated equipment such as transducers, relays, weather sensors, modems, cabling etc. and required number of panels for housing of all the hardware envisaged for the RTU.	1. Please clarify whether the new RTUs of distribution system under scope of supply has to be integarted with new SCADA/DMS system or existing SCADA/EMS system (under upgradation by Siemens) or with both. Scope of work already covers integration of new SCADA/DMS system with SCADA/EMS System (under upgradation). 2. If distribution RTUs under scope of supply has to be directly integarted with SCADA/EMS system also then under price schedule no. of communication link requirements should modified accordingly. We recommend this new control center to be integrated platform of SCADA/EMS/DMS system instead of separate platform for DMS/OMS and EMS. All the RTUs of SCADA/EMS system can be reported to this control center i.e vice versa also and there will be an integrated platform of SCADA/DMS/OMS with EMS.	As per RFP unless amendment
50	The contractor shall also be responsible for integration of supplied RTUs with the existing SCADA/EMS System of the owner as per the specified protocols and interoperability profile.Necessary additions/modifications in SCADA System databases and displays for integration of RTU with SCADA/EMS System shall be in the owner's scope.	We request you to reconfirm the redundancy requirements.	Self expalanatory. Pls refer above.
51	h) RTU shall have dual redundant CPU and Power Supply unit.	We understand that this requirement is for communication network from RTU to control center . Please confirm.	AS per RFP
52	h) SSL/VPN ,NERC/CIP complaint	1. We understand that protocol of communication is IEC 104 and IEC 101 is a typographical error. Request to confirm. 2. Please provide the breakup of IEC101 and IEC 104 communication if both are present. 3. Please mention the quantity of GPS for RTU under Price schedule. 4. If these RTUs are required to report to SCADA/EMS system of Siemens then what will be the protocol of communication.	GPS is installed at all RTU location and its clock synchronized., which in turn is synchronized with Master station clock periodically.
53	The RTU shall be synchronized through synchronization message from master station at every 10 minutes using IEC 60870-5-101 protocol. The RTUs communicating over IEC-60870-5-104 shall be supplied with a GPS receiver for synchronization of RTU clock.	1. We understand that NEA shall provide the DC power supply for RTUs. Please confirm. 2.If it is under bidder's scope, please provide the quantity under price schedule and also provide the specifications of same.	1. All required arrangement for RTU shall be provided by the bidder. Generally 110v DC supply is available @ the switchng stations. 2.As per RFP untill amended
54	Input DC Power Supply The RTU will be powered from a 48 V DC (+ve earthed) system. The RTU shall not place additional ground on the input power source. The characteristics of the input DC power supply shall be ----------	1. Type of signals has been mentioned under Appendix A but not the signal counts of each RTU location including MFT,Transducers, CMR,Interposing Relays, GPS,modems, communication equipment, UPS/DCPS (if any) etc. The same is mandatory for RTU cost calculation. 2. Also, please provide the same if FRTU is also under scope of supply, including it;s Power supply and communication equipment requirements like GPRS modems etc.	1. As per RFP and subsequent amendment, 2. for FRTU pls refer RFP

55	11.1.1 Appendix – A : List of IO Points	We understand that Power system operations shall be managed by NEA team. Opearte and maintain hardware is limited to its funcational operation and related maintenance. Please clarify	As specified in RFP for instalaltion , commisioning , FMS & O&M period
56	The project scope of work is to design, supply, erect, install, testing, commissioning, operate and maintain hardware, software, civil infrastructure, IT and Non- IT infrastructure housed in the Data Centre (including NOC, SOC, DCC) and SCADA-DMS- OMS across the Kathmandu Valley	Scope of project includes OMS. Hence, addition server should be considered for OMS and updatation of architecture shall be done accordingly. Four additional Servers may be added in BOQ/price schedule for various other technical requirements. During detailed engineering, for any reduced quantity price will also get reduced accordingly.	Architecture is indicative , Bidder require to take approval for any changes
57	Indicative Utility Architecture with Integrated Application and Services	what is the make and Version of existing GIS ?	GIS is also in bidding phase, so details will be provided later, a compatible version with latest technology hardware and software will be purchased
58	SCADA – DMS-OMS Software shall be based on the Service-oriented Architecture (SOA) and shall enable very simple integration with other standard software and hardware equipment applied in the environment of electricity distribution (GIS, MDM/AMI, equipment automation, etc.).	OMS server has been considered as stand alone system. We recommend NEA to consider the redunant system for better performance & system avaialbility . We request you amend the Bill of quantity/Price schedule accordingly.	No change
59	Part B Hardware SCADA DMS System	Integration of AMI with SCADA DMS system shall be considered for smart meters for outage messages. Please cofirm our understanding.	Yes , As mentioned for intergration in RFP
60	SCADA DMS Solution Integration Bidder should submit an End-to-End Integrated SCADA DMS solution and architecture clearly depicting integration between AMI and other Distribution, Transmission and Generation applications	Need More Clarity	This is general integration as required and SCADA DMS solution shall have such scalability and adoptability with those applications.
61	4.5.1 Security during Development & Integration Phase:: This should be done by taking into consideration the SANS Top 25 Most Dangerous Programming Errors and the OWASP Top 10 Project.	we understand that IR tool is required, kinldy confirm.	Bidder may deploy IR tool for desired expectation without any additional charges .
62	Incident Response: SI shall do the analysis of application and network, do post-incident reporting, and implement practices to ensure a rapid response to attacks.	This can be achive through firewall feature , we understand that no seaprate tool is required. Pls confirm	Bidder need to ensure desired performance level mentioned in RFP
63	Distributed Denial of Service (DDOS) Protection:SI shall secure SCADA DMS system against DDoS attacks such as network and application level attacks with minimal business disruption.	Is there any existing email system, where we neet to integrated with Email as this software is not a part of SW bow. Kindly confirm.	None
64	Malware Analysis: Perform dynamic real-time analysis of advanced malware identified and prevent true zero-day and target attacks which can aggressively evade signature-based defenses through various channels such as Web, Email & Files.	one factor will be achived via "Active Directory server" and 2nd one will be via BIO Matric or RSA, pls clarify our understanding.	AS per RFP
65	User Authentication and Control: SI shall define and implement highest level of access governance. The proposed of this solution is to have an enhanced user role security where access should be restricted to only authorized users with multi-factor or two-factor authentication. * Application user authentication and authorization related transactions should be encrypted and used a wide array of authentication schemes, standards or token types to ensure that only valid users and applications get access	Cyber Security Audit will be in the scope of NEA , pls confirm.	System Integrator shall engage with a certified agency appointed by NEA and SI will cooperate fully with the auditor(Page no 224 Vol II)
66	Security Audit:System Integrator shall engage with a certified agency appointed by NEA and SI will cooperate fully with the auditor. The auditors shall be responsible to conduct the following activities: o Security Audit that include (but not limited to) vulnerability assessment, penetration testing, application security assessment API testing and Mobile application assessment biannually (once in six months) for entire infrastructure. o Implementation of information security controls and perform periodic (once in a year) assessment. o Propose ways to enhance the protection of SCADA DMS system & Supporting IT Infrastructure. o Ensure the applications are free from OWASP Top 10/SANS and CERT- Nep web/mobile application vulnerabilities as released from time to time. SI is responsible for mitigating all security risks found and continuous monitoring Activities. All high-risk vulnerabilities must be mitigated within 15 days from the date vulnerabilities are formally identified		
67	File management utilities shall be provided that allocate, create, modify, copy, search, list, compress, expand, sort, merge, and delete program files, display files, and data files on auxiliary memory and archive storage. These facilities shall include: a) Memory segmentation facilities to separate files into directories and logical paths b) Capability to protect and unprotect files and directories c) Logical file names to manipulate and access files	This is Document MGMT System, pls clarify and update BOQ accordingly.	As per RFP
68	Failure analysis Utility shall be provided to produce operating system and application program status data for analyzing the cause of a fatal program failure.		
69	Intrusion Prevention System (Network Based)Forge a TCP FIN packet to force intruder connection to terminate. • 100 Mbps Ethernet Interface shall be provided.	Forge a TCP FIN Packet to force a intruder connection to terminate. is not avilable and it is very old attack scenario, with new solution any malicious Network activity within endpoints will be stopped., need more clarity	As per RFP, Bidder to refer Section 6.3 Technical Specifictions, clause 10.1.13 Internal and External Firewall
70	The remote console shall be connected to web server through WAN routers.	WAN Router and comm/MPLS Link will be in NEA scope. Pls confirm our understanding.	No,WAN router and all other requirements like public IP…….. on the scope of the bidder
71	The data center structures shall meet the local building standards and codes the building structure report b or similar structural calculation report by SAP2000 is required to prove its performance	We propose to use STAAD PRO software for Structural Calculation. Kindly confirm	Bidder may provide similar structural calculation report to prove its performnace
72	Auxiliary Transformer/LT Transformer	Requirement of auxiliary transformer for auxiliary power to the DCC building is not envisaged in TS. Hence; It is understood that input power to main LT Panel of DCC building shall be provided by Owner (NEA) and further distribution shall be in scope of bidder. Please confirm our understanding.	yes, As specified in the RFP
73	VRV/VRF Configuration Requirements (Other than Data hall and Power room)	We understand that VRV/VRF type air conditioning system (Other than Data hall and Power room) to be provided without any redundancy (no standby). Please confirm our understanding.	Please refer auxilliary and back up supply derired for DCC

74	Technical Specifications (Precision air conditioner system) The cooling system adapts air-cooled in-room A/C, N+2 redundancy for data hall and N+1 redundancy for power room.	Please clarify that PAC for data hall shall be 100% standby or 200% standby as under clause 10.2 (Annexure – 2: Data Center /DCC facility, Pg 6.3-228) it is mentioned to provide In-room cooling air conditioner with N+1 redundancy. Please confirm.	N+1, As per RFP
75	Technical Specifications (UPS system for Non-Critical Load) UPS (non-Modular) of 80 KVA @ 0.9 pf for the non-critical load such as Airconditioning equipment, lighting, and other IBMS systems must have following features. The UPS must be in N+N (2N) configuration with 30 minutes back up on each UPS at full resistive load.	80kVA rating of UPS is on very high side, we understand that non-critical load UPS to cater the system like; IBMS, CCTV, Access Control, Public address, water leak detection, rodent repellent etc. The back power for Fire alarm and gas Suppression panel shall be provided from inbuilt battery backup, HVAC and Illumination system will not required UPS backup. Please clarify that bidder can optimize the UPS rating based on requirement. Please confirm our understanding.	AS per RFP
76	Technical Specifications (Diesel Generator and Allied System)	2nos 625kVA DG for back up power for DCC building envisaged in TS. Kindly clarify the rating of DG is minimum or bidder can optimize the DG rating based requirement. Also confirm the that 2 nos. qty is for 1duty + 1standby. Please confirm our understanding.	Diesel GENERATOR AND ALLIED SYSTEM - DG Set should be 625 KVA. DG should be suitable to supply power(corrected clarification-1) continuously to a constant or varying electrical load for unlimited hours in a data centre application. With 700 HP (at 1500 rpm). The qty as specified in the RFP
77	Participation in at least two (2) System Integration Contract for design, supply and commissioning of Distribution Command and Control Centre (DCC) And /OR Data Centre (DC) and/or Disaster Recovery Centre (DRC) with all required hardware and software that have been successfully completed within the last 10 (Ten) Years and that are similar to the proposed contract, where the value of the Bidder's participation exceeds US$ 9.4 Million.	Please confirm whether Experience in either Distribution Command and Control Centre (DCC) OR Data Centre (DC) or Disaster Recovery Centre (DRC) is also acceptable	Self expalanatory. Specific doubt if any. For communicatipon, NEA will provide further details(corrected clarification-1)
78	Part -B SCADA DMS System FRTU 1. RTU base equipment comprising panels, racks, sub-racks, Power Supplymodules, Communication Modules, interfacing equipment, required converters & all other required items/accessories including complete wiring for all modules -30No. 15. GPRS based Modem for data connectivity from RTU to DCC 16. Communication equipment, switchs etc as required for data and control connectivity from FRTU to DCC to integrate with the SCADA DMS. Breakown list shall be provided with details with rate of items to be furnished	Kindly specify the exact quantity of these item. The quantity mentioned in Vol-III is not matching with Vol-II	As per RFP unless amended
79	Further, system shall be able to interface with IEC61850 (GOOSE & GSSE Models) & provide an Independent 3rd Party modeling tool that can support multiple vendor IEC 61850 IED's and create IEC 61850 SCD files. To enable to Migrate to Smart Grid, the SCADA/DMS Systems shall support the following: a) Security – The SCADA/RTU/FRTU Network must be secure over SSL secure layer, and should be implemented as a VPN. Secure adapters between end nodes on public networks should be considered with IPSec or VPN. b) Interface to AMI/AMR System where-by DSM can be implemented over CIM/XML Interfaces c) The SCADA CFE should be able to integrate with Smart Grid gateway that supports ICCP / IEC 61850 / IEC 60870-5-101/104// DNP3, DLMS & ANSI C12.18/21 & IEEE C37.118	SCADA Server will not commucicate with IEDs or Phasor Management Units directly. nor Tariff meters will directly communicate with SCADA CFE. Request to remove IEC 61850, DNP3, ANSI C12.18/21, DLMS & IEEE C37.118 protocols from the CFE communication requirement.	Self explanatory. Specific doubt if any.
80	8.1 SCADA/DMS-OMS 8.1.1 Operation 24*7 Operation of Distribution Control Centre	Please clarify if Operation of SCADA DMS OMS is in scope. If so, there is no specific line item for this in BoQ & No. of Operators will be present in each shift.	This is based on SCADA- OMS- GIS Integartion and analytics of historical data for formulating loss reduction schermes
81		Please specify if IMAC applies to addition of new substation or software functionality or new IT node Integration in the system.	As per RFP , if any specific doubt , Please explain Install: Installation of desktop machines/workstations, servers, peripheral equipment, and network-attached peripheral equipment, which form part of the existing SCADA/DMS System (new equipment needs to be procured by the Utility).
82	To improve its distribution network management, the NEA intends to award work to a suitable System Integrator who shall carry out Complete, installation , configuration , commissioning , operation and maintenance of Data Center(DC) including Network Operating Centre (NOC) and Security Operating Centre (SOC) and a Master Distribution Control and Command Centre Center(DCC) along with all requisite SCADA/DMS-OMS hardware (including field equipment) and software etc.	Our understanding is that Data Center is refferred as a control room building wherein multiple systems like DCC, NOC, SOC, BMS, AMI, GIS, ERP etc will reside. Among above mentioned IT systems only DCC (SCADA ADMS) is in scope of supply and Installation in this tender. Please clarify. Also Clarify, DCC pertains to scope of SCADA ADMS OMS of Electrical Distribution only.	As Specified in RFP , Data center is part of SCOPE of DCC
83	Support for System Expansion	Request NEA to quantify the number of RTU/fRTU to added in system later on during execution or O&M period. We understand that the integration of all new SS/ RMU RTU/fRTU with DCC should be included in quoted prices. Also, the said clause specifies that cost of hardware for system expansion can be claimed. Please specify the expansion capability of original scope of hardware in terms to capability of integration of RTU/fRTU.	NEA to review the expansion philosophy as this can't be envisaged and hence cost can't be included for each future field equipments. However, MCC capacity can be increased based on envisaged expansion.
84			
85	e) SOA architecture: Software shall conform to SOA. f) Enterprise service bus (ESB): ESB based architecture is essential to enable interaction of applications from different product manufacturer, platforms etc.	We understand that scope shall be limited to provide compliance to CIM. Any software modification in 3rd party software is not in scope. Supply of ESB is not in scope of this tender as the same is not specified in BoQ. Please confirm.	No changes , As per RFP and its subsequent amendment
86	SCADA DMS control centre & SLDC SCADA/DMS control center shall also exchange data using ICCP with National Load Dispatch Centre (NLDC) of the country.	Please specify whose scope is to integrate in NLDC	Bidder Scope , AS per RFP

87	Dispatcher Training simulator (DTS) CHK BOQ	We recommend that DTS without any redendancy.	This is required for training pupose - network simulation and optimal decision making training to operators/shift engineers
88	SCADA/DMS Vendors shall provide CIM/XML Adapters for ICCP, OPC or ODBC for their System and CIM/XML Model repository for data and model exchange with IT Systems. Further, system shall be able to interface with IEC61850 (GOOSE & GSSE Models) & provide an Independent 3rd Party modeling tool that can support multiple vendor IEC 61850 IED's and create IEC 61850 SCD files. To enable to Migrate to Smart Grid, the SCADA/DMS Systems shall support the following: a) Security – The SCADA/RTU/FRTU Network must be secure over SSL secure layer, and should be implemented as a VPN. Secure adapters between end nodes on public networks should be considered with IPSec or VPN. b) Interface to AMI/AMR System where-by DSM can be implemented over CIM/XML Interfaces c) The SCADA CFE should be able to integrate with Smart Grid gateway that supports ICCP / IEC 61850 / IEC 60870-5-101/104// DNP3, DLMS & ANSI C12.18/21 & IEEE C37.118	SCADA software will communicate with RTU/fRTU on IEC 60870-5-104 protocol. For communication with NLDC, ICCP link shall be established. Request NEA/E&Y to remove IEC 61850, DNP3, DLMS IEEE c37.118 and ANSI C12.18/21 from the clause. These protocols are not meant for Control Center communication.	No changes , As per RFP unless amended
89	Operation and Maintenance Services (O&M)	Our understanding is O&M is required for both RTU and DCC. Please specify the number of operators in each shift and administrative requirement for operation in OEM scope.	This is based on SCADA- OMS- GIS Integartion and analytics of historical data for formulating loss reduction schermes
90		Please specify the number of Web clients required for SCADA.	For now users shall be not more than 250, but it should be scalable in both hardware and software.
91		We understand all the RTU and fRTU shall be new and will be communicable on IEC 60870-5-104.	Yes, As per RFP
92	Communication Infrastructure between RTU/fRTU to DCC	As no line item is specified in the Vol-III for the communication infrastructure for communication between Substation RTU or fRTU to Distribution Control Center, We understand NEA will provide the complete communication network including last mile connectivity. Any communication interface related equipment	As per RFP and its subsequent amendment
93	Devices to be integrated in SCADA	Request NEA to list out the quantities of devices (RTU/fRTU) to be integrated in DCC.	As per RFP and its subsequent amendment
94	Makes of third party systems	Please specify the make GIS system, ERP system, NOC, SOC, MBC.	GIS/ERP …….. Are in bidding phase so shall be discussed during DDE
95	Communication front end (CFE) FRTU communication with AMR over DLMS (Device Language Message specification): The CFE shall have sufficient number of V.24/V.28 interface boards for communicating with the FRTUs on DLMS protocol. The number of V.24/V.28 ports in each CFE shall be adequate to integrate the specified no. of FRTUs.	We understand AMR will communicate with Metering on DLMS and AMR will inteface with DCC on SOA. FEP will communicate with RTU/fRTU on IEC 104. FEPs aren't meant to communicate with individual meters. Please confirm.	NEA to review this part as AMR communication may be with DT or consumer level. FEP(Front end processor) is to be designed by the bidder
96	Annual Maintenance Contract services for DC, DCC, NOC and SOC Civil Build and Non IT Infrastructure Setup for 4 years from Go- Live.	BoQ specifies O&M of 3 years for DCC. While the clause specifies DCC, NOC,SOC etc. Please keep DCC vendor scope restricted to DCC scope only.	As per RFP
97	Support for System Expansion New RTUs, RMUs & FPIs etc per year are likely to be added to match the growing Power system. The services to be provided by the SI will include the Communication Front End (CFE) port/card addition/expansion, database resizing, interface addition in CFE and support for integration confirming to the IEC standards / existing application. This would not include the cost of equipments/card required for expansion.	Please define clearly the number of RTU/fRTU to be integrated in system by the end of O&M period. OEM need to consider the cost of efforts for the same. Also, please specify the capability of FEP in terms of integrating IEC 104 slaves.	Please refer above
98	EHS	Please provide the EHS guideline for the project.	Please refer RFP
99	The SI will be responsible for integration and successful operation of the FRTU, GO and other communication equipment installed …...	Please inform if all fRTU supply in scope. Please explain what is GO & FODP.	FRTU and Gos are not in scope, FODP if required shall be provided by the bidder
100	O&M including supply of Manpower for DC, DCC, NOC and SOC Civil Build and Non IT Infrastructure Setup for 4 years from Go Live.	Please consider that if DCC work get completed, the Operational Acceptance should not be delayed due to pendency of any field work.	Shall be discussed during DDE
101	There are also other decentralized applications for system planning viz. PSSE, Valoragua/WASP which the SI needs to carry out a study and finalize input parameters.	We understand that these apps are already existing. We request NEA to keep the proprietory scope in respective OEM scope. If any integration is required then the same can facilitated or discussed.	NEA shall facilitate in management if any
102	i) Carry out call center support activities from the control room.	Please elaborate the DCC vendors scope against this clause.	As per RFP
103	Operator Training Course	Please elaborate the DCC vendors scope against this clause.	As Specified in RFP for training requirement
104	SCADA DMS control centre & SLDC □ real-time telemetered data of the interconnected network as per mutually agreed. □ Event /alarm lists	Please review, Alarm/Event list can't be exchanged over ICCP. Please elaborate the requirement.	This is based on ICCP.
105	2.1.17.3 Calculated Data Processing Sys call in database should be able to calculate online.	"Sys call in database should be able to calculate online." Please elaborate the requirement in the statement.	system call(calls logged in system) in database
106	CIM & IEC 61850, Smart Grid Interface Requirements	Please refer to the complete clause, At most places "to be removed" statement is used. Please inform the revised clause.	General meaning

107	System Availability Test	There is ambiguity in requirement as two clauses are specifying different parameters.	Please specify the ambiguity
108	2.1.23.6 Power Flow Check Before Control A "select power flow" option shall be available to the user prior to the requested supervisory control execution. When this option is selected by the user, a system-wide power flow shall be executed based on the latest state estimate and desired supervisory control action. The purpose is to advise the user of any potential problem due to the desired control action. The following features shall be included: (a) Check-Before-Closing: The following shall be displayed: (1) Initial voltage across open device (2) Initial angle across open device (3) Initial power system frequency difference across open device (4) Load and generation pickup due to device closure (5) Voltage violations due to device closure (6) Overloads due to device closure. (b) Check-Before-Opening: The following shall be displayed due to device opening: (1) Load and/or generation drop (2) Voltage violations (3) Overloads (4) Electrical islanding (5) Bus splitting (6) Power system frequency.	Many of the features like Electrical islanding, Bus splitting etc are generally requirement of Transmission system and not distribution system. Kindly elaborate the purpose / requirement in detail.	These are internal features of SCADA system applications.
109	SCADA/DMS Power Functions Systems in DMS □ Loss Minimization via Feeder Reconfiguration(LMFR) □ Load Balancing via feeder Reconfiguration. (LBFR) □ Under Load Switching	Under Load Switching is separately mentioned whereas other two function like LMFR and LBFR are achieveing the objective as required. It is assumed LMFR & LBFR are sufficient and ULS is required separately. Kindly clarify.	These are internal features of SCADA system applications.
110	SCADA/DMS Power Functions Systems in DMS Relay Protection Energy Losses Network Planning	Relay Protection, Energy Losess, Network Planning are basically offline applications and proposed DMS is system is an online system. These requirement can be deleted or may be requested as separate offline application packages. Kindly clarify.	These are internal features of SCADA system applications.
111	2.3.16 Switching Order Management The function shall be designed as multi objective and the user could choose from following criteria: a) minimum network de-energized time, b) minimum non-delivered energy, c) minimum number of switching operations and d) minimum cost of operations.	Kindly clarify and elaborate d) minimum cost of operations.	Its simply a time/latency
112	OMS shall include: □ Crew management, tracking the mobile crews and providing workflows around their dispatching, integrating with job/incident management and 3rd party mobile workforce and GPS navigation system in DMS;	Realtime mobile crew management is a part of 3rd party mobile workforce management and GPS navigation system. It is not included in scope of work for this tender. Kindly provide information of existing mobile workforce management and GPS navigation system if such available with customer.	Bidder shall develop feature of integration with Mobile workforce management system for future purposes . NEA doesn't have existing Mobile work force management system
113	□ Customer Data Management – Customer data shall be the main set of input data to any OMS, since it presents the main information for connection to trouble call and identification of affected part of network. In DMS-OMS environment customer data shall be stored in the Customer database. This data will be initially migrated from CIS and after initial migration only incrementally updated via appropriate interface. Customer database shall contain	Please claify if Customer Information System is existing, if yes, kindly provide the detail information and the interface requirement.	SI need to asses the requirement as per their prior experience
114	Source Code	There are multiple clauses reffering to Source code. Request NEA to clarify that Source code of system software is not to be submitted.	Source code shall be provided for security check and future customization, as per RFP,
115	g) Provide MIS to utility regarding tenure of completion of warranty/AMC with outside vendors for software, hardware & networks maintenance in order that utility may take necessary action forrenewal of warranty/AMC. SI shall also	Please specify the clear warranty term for all the IT and non-IT items	As per RFP and Subsequent Amendment
116	Part -B SCADA DMS System FRTU	As per the title it is mentioned SCADA DMS SYSTEM FRTU , but in the description it is mentioned RTU Kindly clarify if the BOQ is applicable for RTU or FRTU	As per RFP and Subsequent Amendment
117	Part -B SCADA DMS System FRTU	Can we propose Digital Input Module (16 channels/card) instead of Digital Input Module (32 channels/card) We will match the overall quantity	As per RFP and Subsequent Amendment
118	Part -B SCADA DMS System FRTU	Can we propose Digital Output Module (8 channels/card) instead of Digital Output Module (16 channels/card) We will match the overall quantity	As per RFP and Subsequent Amendment
119	Part -B SCADA DMS System FRTU	Requirement is only limited to RTU , as no OWS/EWS is mentioned in BOQ for viewing and controlling from substation. Kindly confirm	As per RFP and Subsequent Amendment
120	Part -B SCADA DMS System FRTU	If the point no. 1 is applicable for RTU, in that case kindly provide us the details of the devices that needs to be integrated with the RTU and on which protocol/ports	As per RFP and Subsequent Amendment
121	Part -B SCADA DMS System FRTU	"GPRS based Modem for data connectivity from RTU to DCC to integrate with SCADADMS " Same has been asked 13 Nos. , kindly confirm the requirement as sites are 30 in nos.	13 No. are considered for Switching Stations
122	Part -B SCADA DMS System FRTU	"Communication equipment, switchs etc as required for data and control connectivity from FRTU to DCC to integrate with the SCADA DMS. Breakown list shall be provided with details with rate of items to be furnished" Same has been asked 300 nos. , kindly confirm if the same is required for FRTU Locations	As per RFP and Subsequent Amendment
123	Part -B SCADA DMS System FRTU	As per the mentioned clause total RTU/FRTU required are 35 whereas as per the BOQ in 1597390379_DCC Volume III.pdf, same is mentioned as 30 nos. Kinldy confirm	As per RFP and Subsequent Amendment
124		Kindly share the approved vendor list for all the IT and non-IT items.	Vendor list can be approved Post Bidder on -boarding
125	RTU shall be compatible with protocol 61850 for communication with IEDs	Kindly confirm the no. of IEDs over IEC 61850 each substation which will be communicating with RTUs.	As per RFP and Subsequent Amendment

126	Minimum 2 Nos Serial ports for communication on IEC 60870-5-101 in dual standby mode (with single master) or active/active mode (with dual master).	We understand that RTU already communicating with Control Centre over IEC 60870-5-104 protocol hence the old & slow communicating protocol like IEC 60870-5-101 are not required. Kindly confirm the same.	As per RFP and Subsequent Amendment
127	Port(s) required for Cellular Data Communication.	Is this 4G modem onbaord RTU or through External Modem ? Kindly clarify.	As per RFP and Subsequent Amendment
128	The RTUs communicating over IEC-60870-5-104 shall be supplied with a GPS receiver for synchronization of RTU clock.	Kindly confirm whether it will be required at RTU location or not ? If yes, will it be in RTU vendor scope ? Please confirm.	This is required for time synchronization with DCC which is also having GPS.
129	The RTU will be powered from a 48 V DC (+ve earthed) system.	In case RTU powered up by any different voltage level then can we use DC-DC convertor to power up the RTUs. Please confirm.	Bidder meet the requirement of Power Supply specified in the RFP
130	Peripheral device includes Workstation consoles, WAN router, LAN, printer, Time & Frequency system, External Cartridge LTO drive etc.	We request NEA/E&Y to share WAN router technical specification and add its quantity in BoQ/price schedule.	WAN router shall handle at lease 250 consurrent users and scalable upto 500 user , support OPFC ,Ethernet, Console
131	Workstation Consoles	Minimum Technical Specs for Workstation Consoles are missing from Annexure-1	Any globally reknowned branded company TFT Monitors shall be accepted.
132	TFT Color Monitors	Minimum Technical Specs for TFT Color monitors are missing from Annexure-1	
133	WAN Routers	Minimum Technical Specs for Remote Consoles are missing from Annexure-1. We need to understand the location of its placement & Connectivity of Remote consoles	Location shall be in DCC room
134	Panels	We understand that provided specifications are meant for Substation Panel and not for DCC Server Panel. Please provide spefications for DCC Server Rack Panel. Also provide quantity for Server and Network Panel in BOQ	This is required if servers and other systems are panel mounted. Panel specifications are as per standard.
135	System Performance Monitoring Software	We request NEA/E&Y specify the vendor for this application. Also provide Hardware technical specification and add software in BOQ.	As per RFP , Vendor list will be approved post bidder on-boarding .
136	Performance statistics on individual programs in each server and on their associated operating system overhead shall be calculated by the system when requested. The user shall be able to specify the programs for which statistics are to be gathered, the period over which statistics are to be accumulated, and the statistics to be collected. A complete summary shall be included with all the accumulated statistics for each program over the specified time. The values shall include: Server time used by the program in percent a) I/O wait time in percent b) Device usage statistics c) Page fault rate d) Time spent waiting for page faults in percent e) Average number of pages in use in main memory f) Average number of pages in use in the modified page file.	We request NEA/E&Y to provide more clarity on the requirement. Kindly specify the vendor for this application as most of the vendors do not comply to the given requirement	As per RFP , Vendor list will be approved post bidder on-boarding .
137	Fault Detection and Notification: The SI shall diagnose problems that could arise as part of the LAN/WAN network. These include connectivity problems due to failures in communication transport links, routing configuration points, or from software bugs etc. l) Fault Isolation and Resolution: All faults that have been identified need to be isolated and rectified appropriately. The resolution measures undertaken by the SI and results produced accordingly shall be documented in the report. m) Carrier Coordination: Carrier Coordination implies providing a single point of contact to resolve network related problems involving carrier circuits, whether equipment or circuit related. When a problem is diagnosed because of a WAN circuit, the SI must coordinate with the corresponding carrier to test and restore the circuit. The SI must take the responsibility and ensure that the problem is resolved. n) Hardware/Software Maintenance and Monitoring: This would include problem determination, configuration issues, and hardware and software fault reporting and resolution. All such issues would need to be recorded and rectified. 24x7 Network Monitoring and reporting: The SI shall monitor the network on a continuous basis using the NMS and	Kindly specify the vendor for this application as most of the vendors do not comply to the given requirement	Self explanatory. Specific doubt if any.
138	Patch Management for OS and Application Software	We request NEA/E&Y to add Patch Management software and hardware in BoQ and to provide technical specs. Please elaborate the requirement of Patch Management.	Bidder is responsible for complete SoW, whether that item is mentioned in BoQ or not.
139		Please share the Single Line Diagram & any other drawings prepared with this tender for better clarity	will be provided to the successful bidders
140	Two utility power supply path A & B for data center, including RMU and transformer.	Do we need to consider the HT panels & Transformers also ? If yes pls share the SLD & Transformer rating.	As per RFP, DTR /RMU rating shall be provided to fulfill the complete requirement of DCC/DC and shall not be less than 625KVA (corrected calrification-1) DTR shall be of 750 KVA and DY11
141	DG Set should be 625 KVA	Please clarify the DG rating required, can we consider 625kVA	Diesel GENERATOR AND ALLIED SYSTEM - DG Set should be 625 KVA. DG should be suitable to supply power continuously to a constant or varying electrical load for unlimited hours in a data centre application.With 700 HP (at 1500 rpm).
142	Supply of Data Center Continuous Rating 625 kW	Please clarify the DG rating required, can we consider 625kVA	Diesel GENERATOR AND ALLIED SYSTEM - DG Set should be 625 KVA. DG should be suitable to supply power continuously to a constant or varying electrical load for unlimited hours in a data centre application.With 700 HP (at 1500 rpm). (corrected calrification-1)
143		For PAC, please confirm the make. if Vertiv/Stulz/Climaveneta/Equivalent.acceptable	As per RFP

144		As per the Pre-Bid meeting, all participants requested for deletion of Data Center (DC) and Civil Works scope. All major Power Utilities consider DC and Civil works as a separate package as there is no techincal dependency/Integration. It will not be feasible to work as Joint Venture for SCADA/ADMS OEM and share the liability for the DC and Civil works. This will be enable all SCADA/ADMS OEM to prime the Bid as most of the Pre-Bid	No Changes , Civil works can be done by subcontractor. As per RFP
146	Latest generation x86 Server with 4* Xeon Gold (2.4GHz) / equivalent AMD Processor or higher. Bidder to Submit documentary proofs for equivalence 2. Maximum cache available with the processor	As per Intel Offical Website and link provided below, the specified processor is not available. So we request you to consider the below Processors with Core and Clock Frequency to meet the requirements as per Clause No. 7. Design Parameters and Performance Tables, https://ark.intel.com/content/www/us/en/ark.html Dual Intel Xeon Silver 4210R 2.4 GHz 10 Cores OR Dual Intel Xeon Gold 5215R 2.5 GHz 10 Cores	As per RFP
147	Workstation Console with 26 inch Dual TFT Monitors	We request to consider 32 GB RAM and 8 GB Graphics card for each Workstation for enhanced Graphical User Interface, Situational awareness and also to meet the requirements as per Clause No. 7. Design Parameters and Performance Tables.	As per RFP
148	Unmanaged cabling system	***As highlighted during the prebid meeting and as per the latest technology trends; it is important to have managed cabling infrastructure for this project because of following reasons. The same is defined as AIM (Automated Infrastructure Management) in*** **ISO/IEC 18598** ***standard.***	Datacenters and "Command and control centers" should have AIM/ managed cabling system for following reasons. Kindly include detailed AIM specifications in RFP corrigendum for Passive network system. • Latest technology trend for Datacenters across the globe. • Reduced network downtime. • Improvise network output. • Reduced maintenance time. • Eliminates errors
149	Fiber interface Unit	Same Panel is mentioned with "Unloaded panels should be of high density to accommodate at least 32 no's of 10G copper ports or 144 cores of 10G fibre" in page 302.	In Ultra High Density panel, Copper cable should be avoided due to management issues; Please remove this clause of have copper ports in 144F panel; as the same requirement is already addressed by copport panels.
150	Feature Compatibility	Multimedia ports are not required in current application and project. Not part of the requirement. And will restrict participation.	if not required, durind DDE we will delete
151	Feature	For the Patch cord at Ultra High Density panel side. Pull feature not required if construction of patch cord is suitable. It is required at Switch side	RiT offers Ultra High Density Panel with standard dimension of the LC Duplex adapter, hence normal patch cord is preferred. And with the regular patch cord assembly the Latch clip is self sufficient to perform the best removal / plug in actions. It is only
152	Jacket	In the Data Center with high standard BMS system, The copper Cat6A cable with IEC 60332-3-22/25 standards.	In the Data Center with high standard BMS system, The cable with LSZH and IEC 60332-1 is sufficient. Please remove such standards and mentioned IEC 60332-1 for LSZH jacket
153	Port Angled unloaded Jack Panel	On the Copper Patch panel; angled construction will not allow mounting in closed server racks.	In any standard computer room, the panel must be straight type, unless we use Open Rack. Please mention Straight panel as well.
154	Layout Diagram	There is no Mention of Hub Room	There should be near by Hub room with Access Switch to serve the IP devices. Please consider one Hub room in each floor
155	RTU/FRTU Supplier	Please specify whether there is a min. number of projects a subcontractor must have successfully completed In the last 5 years.	As per RFP and Subsequent Amendment
156	DC DR vendor	Please specify whether there is a min. number of projects a subcontractor must have successfully completed In the last 5 years.	As per RFP and Subsequent Amendment
157	IT system provider	Please specify whether there is a min. number of projects a subcontractor must have successfully completed In the last 5 years.	As per RFP and Subsequent Amendment
158	General	Please specify whether preparation of future capacity augmentation, strengthening and up gradation plan (for instance to ADMS) shall be included in the scope of work.	As per RFP and Subsequent Amendment
159	Baseline Parameters/KPIs proposed for improvement and monitoring.	Please clarify whether NEA will be establishing baseline parameters for improvement and monitoring purposes.	As per RFP and Subsequent Amendment
160	Any item though not specifically mentioned, but is required to complete the project works in all respects for its safe, reliable, efficient and trouble-free operation & to meet performance, availability & functional requirements as envisaged in the RFP shall also be taken to be included, and the same shall be supplied and installed by the SI without any extra cost.	We would request the client to please recondider this clause and reimburse the extra items essential for operations but not mentioned in the RFP.	As per RFP
161	The Bidders are advised to visit sites (at their own expense), prior to the submission of the proposal, and make surveys and assessments as deemed necessary for proposal submission.	We would request the client to please consider providing NEA personnel to assist the bidders during site visit.	Project office will arrange visit, pls contact PO
162	SI should carry out a detailed requirement gathering exercise with stakeholders and management of NEA for roll out of SCADA DMS System.	Please specify whether data gathering will include desktop survey involving GIS analysis along with field visit and engagemetn with stakeholder.	As per RFP and Subsequent Amendment
163	There are also other decentralized applications for system planning viz. PSSE, Valoragua/WASP which the SI needs to carry out a study and finalize input parameters.	Please specify the decentralized applications for system planning for carrying out study and finalising input parameters.	As per RFP and Subsequent Amendment

164	NEA will also implement other components & technologies pertaining to the smart grid solution in coming future.	Please clarify whether client will be required to prepare a smart grid roadmap for NEA.	As per RFP and Subsequent Amendment
165	The optical fibre network currently implemented and planned, shall be suitably reinforced such as to achieve the ring system network, to facilitate trouble free operation of the DCC.	We understand that all 14 substations & 10 Switching stations are already connected via Optical fibre Network to form Ring system and any new OFC network creation between substations & Switching stations & DCC also will be done by NEA s part of integration, pls confirm.	As per RFP and Subsequent Amendment
166	End to end integration with existing legacy systems	As bidder need to do the end to end integration of systems like AMR, AMI,MBC, ERP, GIS, DTMS, APFC, SAS etc.., please provide the details of existing Hardware & Software along with Make &	As per RFP
167	End to end integration with existing legacy systems	We understand that during integration stage with the systems like AMR, AMI,MBC, ERP, GIS, DTMS, APFC, SAS etc.. required API's and standard interfaces (Open/Licensed) will be provided by NEA from respective OEMs without any cost implication to bidder,pls confirm.	shall be discussed during DDE
168	Should be possible to configure the switches with alerts.	Kindly provide some more specific information for the types of alerts to be configured	shall be discussed during DDE
169	Should support RADIUS authentication or SSH.	Kindly provide the version of SSH required	As per RFP
170	6. Centralized Management workstation for console	Here, the quantity of Centralized Management workstation for console has been mentioned as 2 whereas the quantity in commercial format seems to be 26. This creates a discrepancy. Kindly specify the exact quantity.	As per Minimum BOM, VIL III, Quote as per BPH
171	1.7.1 General Requirements and Conditions	Request authorities to confirm the shift requirements of manpower except than 2a and 2b, i.e. are they required for all 4 shifts i.e. General, 1st, 2nd and 3rd.	As per RFP
172	10.1.11 24 Port L2 Managed Access Switch for NoC, SoC and DCC. And 10.1.12 48 Port Managed Access Switch for NoC, SoC and DCC.	Request authorities to confirm if both of these are required or any one type. If both, kindly specify the usage for the same. (e.g. for connecting endpoints, etc)	24 port is our minimum bill of material
173		Also the 48 port managed access switch is not mentioned in the commercial format. Kindly clarify.	24 port is our minimum bill of material
174	General - SIEM Solution	SIEM Solution seems to be missing from current requirement. Kindly confirm if the bidder is expected to procure it or would it be under Authority's scope.	Bidder should provide complete solution as this is a green field project
175	General - Load Balancer and Routers	Load Balancer and Routers Seems to be missing from current sizing and description of requirements, kindly confirm if bidder is expected to procure it or would it be taken care by the authority.	As per RFP
176	General - Connectivity	The network connectivity required for the data center is to be provisioned by the bidder or is it under authority's scope.	As per RFP
177	General - Disaster Recovery Site	Disaster Recovery Site BOM is not mentioned in any of the RFP documents. Is Disaster Recovery Expected? If yes, kindly clarify the following queries. 1) How is DR sizing to be considered (50%/100% of DC site Infrastructure) 2) What are the expected RPO RTO parameters? 3) Or just the storage needs to be maintained at the DR site?	DR site not in scope
178	General	RFP Document does not provide configuration and specifications for following servers 1) ICCP Communication Server 2) ISR (Historical) Server 3) Interface Server (for integration with external applications/ domain) 4) OMS Server (for Standalone System) 5) Communication Front End Server for Communication with field RTU, IEDs etc.	Its to design and propose by the bidder, min requirments is as in RFP
179	General	Or else, please confirm, are these server expected to be virtualized on Web/App/DB servers of which compliances/config has been provided in RFP or has to be considered as dedicated host seperately additional to the Web/App/DB servers	As per RFP
180	General	Kindly confirm where can the IT AMC charges are to be added or are they to be included in supply charges for 4 years from Go-Live	As per RFP
181	Schedule No.2: Plant and Equipment including Mandatory Spares Parts to be supplied from within Nepal	Can we consider local subcontractor for supplying the hardware/sofwtare and mention the details in this section and this case we dont have to include those component in Schedule 1, Kindly confirm.	For DCC and DC , Hardware and Sotware shall be supplied as in RFP
182	General	Kindly specify the existing Database size and estimated daily data generation so as to facilitate appropriate replication setup.	As per RFP
183	General	Kindly confirm the total number of users who will access the infrastructure and also the total concurrent users at any point of time.	<250 to 500>
184	General	Also, please confirm how users would be accessing applications, MPLS or Internet? And what would be the expected bandwidth and number of Links required ?	Both MPLS and Internet as required
185	General	Requesting authority to confirm if any standard virtualization solution would be fine or are there any constraints/priority for the same.	Only ,As per RFP
186	Schedule No. 4 : Installation and Other Services (Common for all)	The AMC period after go-live for hardware and software needed in this project is mentioned as 4 years in the RFP and 3 years in the commercial format. This creates a contradiction, Kindly specify the period to be considered.	AMC is 3 years after golive and final acceptance
187	Schedule No. 6: Recommended Availability/Optional Spares Parts and recommended Test Equipment in line with technical Specifications	Please confirm what precisely we have to consider here, do we have to consider the spare parts/AMC commercial or the hardware which would be required for testing.	Confirmed
188	General - Thin Client Requirement	Kindly specify the total Number of users for thin client along with their location and is Browser base model required or any other is expected.	<250 min>
189	NEA is in process of designing, installing, and commissioning a separate MDM system along with the AMR/RMR capability for approx. 10,000 Industrial metering points, the SI shall carry out the integration of SCADA DMS system along with the proposed AMR/RMR system to generate any outputs as sought by the utility.	Please clarify the system model, manufacturer and interface type of the MDM system and AMR/RMR system.	MDM is in development phase
190	There are also other decentralized applications for system planning viz. PSSE, Valoragua /WASP which the SI needs to carry out a study and finalize input parameters.	Please clarify the full name, function, manufacturer and interface type of the PSSE, Valoragua /WASP system	As speciifed in RFP

191	Besides the above applications NEA will be implementing ERP and Revenue Management System, Substation Automation System, Distribution Automation System, GIS etc. during the currency of the project which needs to be integrated with the SCADA DMS system, as required.	1. Please clarify whether the ERP and Revenue Management System, Substation Automation System, Distribution Automation System, GIS and other systems mentioned in the bidding documents need to be integrated with SCADA/DMS systems in this project. 2. If need to integrate, please clarify the system model, manufacturer and interface type of the above system.	As per RFP and subsequent amendment
192	The DCC should be seamlessly connected with the National Load Dispatch center and other dispatch centers constructed by NEA during the currency of the project at no extra cost to NEA.	1. Please clarify the System Model, manufacturer and interface type of the National Load Dispatch Center. 2. Please clarify the number and interface type of other control centers that need to be	As per RFP and subsequent amendment
193	System Build test After completion of hardware integration test, the SCADA/DMS system shall be built from the backup software on electronic media (CDs/Magnetic Tapes) to check the completeness of backup media for restoration of system in case of its crashing/failure.	Please clarify whether the electronic media (CDs / Magnetic Tapes) used for System Build test is included in the hardware list of this project	As per RFP and subsequent amendment
194	Project manager MBA/PGDCA/PGDBA with MTech/BTech / B.E. with relevant Project Management certifications and minimum 10 years of experience with 4 years or more as a project manager for a large-scale IT projects in power sector and power distribution automation projects	Please clarify whether our understanding of the above abbreviations is correct: 1. MBA refers to Master of Business Administration, 2. PGDCA refers to Post Graduate Diploma in Computer Application 3. PGDBA refers to Postgraduate Diploma in Business Administration 4. M Tech refers to Master Technician 5. B Tech refers to Bachelor Technician 6. B.E. refers to Bachelor of Engineering	B.tech - Bachelors of Technology M.tech- Master of Technology
195		The requirements for modeling, analysis, and application of unbalanced networks are mentioned in the bidding documents. Based on our experience, single-phase modeling can meet the requirements of advanced application analysis. We kindly recommended to cancel the requirement of unbalanced modeling.	No chnages , As per RFP
196			
197	Load Flow Application (LFA) f) Unbalanced & balanced loads …… General Characteristics of LF application: b) Unbalanced & balanced three phase loads connected in radial and non-radial modes. …… Load Flow Output: • Total three phases and per phase KW and KVAR losses in each feeder, section, transformer …… Display and Reports Tabular displays shall consist of voltages, currents (including phase angles), real and reactive powers, real and reactive losses as well as accumulated total and per phase losses for each substation, feeder and project area	For the O & M of this project requires 48 people to be on site in stations for 3 years and other 3 Engineers including Site Manager along with one on-site support personnel for Hardware and one on-site personnel for Software shall be deployed at DCC. A total of 51 people performs operation and maintenance work on site 24/7. Please confirm our understanding.	As per RFP
198	The SI's on-site support standard hours of service, the timings for Emergency Software Support would be 24 hours a day, 7 days a week throughout the year (i.e. 24x365). At least three Engineers including Site Manager along with one on-site support personnel for Hardware and one on-site personnel for Software shall be deployed at DCC.		
199	The system shall have inbuilt self-diagnostics features to determine the RTU statistics for the time such as current/previous hour, current/previous day and other configurable time periods. The error display shall have following statistics such as percentage RTU error, RTU logs, bandwidth, good scan, bad scan etc. and copy the error report to MS excel for data sharing.	Please clarify the specific meaning of 'good scan' and 'bad scan'.	
200	2.4.1 Incident management 2.4.2 Call management 2.4.3 Crew management 2.4.4 Customer data management	For each business management in the OMS system, could you provide detailed business process description document?	As speciifed in RFP
201	The OMS shall be designed to support operators at all stages of the outage life cycle and should be capable of integrating with AMR, AMI, No Light, GIS, DMS and other relevant systems to provide required functionalities.	Could you provide detailed interface documents and technical solutions for No Light, GIS and other relevant systems? Does the contract amount of this project include the development and debugging costs of the other party's system?	As per RFP unless amended
202	End to end integration with existing legacy systems, AMR,AMI Solution stack (Phase 1st : for KTM Valley 2 DCS is already under implementation and other AMI implementation that might take place during the duration of this project	For AMR, AMI, Metering, Billing & Collection Systems, ERP Solution, GIS System, DTMS, APFC, substation automation system(SAS), Transmission, Generation SCADA,	As per RFP unless amended
203	The TCP/IP Communication for RTU, FRTU, FPI on public network shall be encrypted over SSL Security / VPN & the equipment should take control command from designated Master IP address only and no other IP.	Please clarify whether the SSL layer uses one-way authentication or two-way authentication, and whether RTU, FRTU, FPI on public network uses a fixed IP address or a floating IP address.	multi-factor or two-factor authentication.
204	The error display shall have following statistics such as percentage RTU error, RTU logs, bandwidth, good scan, bad scan etc and copy the error report to MS excel for data sharing.	Please clarify the detailed meaning of the "RTU logs error", "bandwidth error", "good scan error" and "bad scan error"	As per RFP unless amended
205	It shall be possible to collect pulse accumulator data on the hour and every quarter hour. A freeze command shall be issued at the time of collection to ensure consistency of all FRTU accumulator readings.	Please clarify the protocol type which is used to collect pulse accumulator data.	As per RFP unless amended
206	The SCADA/DMS system shall be able to download database run diagnostics & create/modify /delete configuration/ parameterization from centralized control center locations to RTU/FRTU/FPI etc using ASDU/ messages of respective protocols or file transfer	Please clarify what information needs to be diagnosed.	As per RFP unless amended

207	d） Load (balanced as well as unbalanced) n） Line segments, which can be single-phase, two-phase or three-phase and make up a distribution circuit； All three phases of the three-phase parameters will be displayed simultaneously. All voltage and current parameters will be monitored using true RMS measurements for accurate representation of non-sinusoidal waveforms typical of computers and other sensitive loads.	Please clarify： Graphics related： 1. We have found a sample figure of the three-phase equipment with similar requirements. Please make sure whether the connection structure of the three-phase equipment in the figure meets the requirements. At the same time, in order to avoid deviation, please kindly provide an example figure of the connection structure of the three-phase equipment for our reference. 2. Please explain in detail the characteristics of the three-phase equipment connection structure, the topological connection relationship between the three-phase equipment and the connected equipment, the measurement type and the characteristics of the voltage level in the above figure, and whether there is any particularity； 3. Please explain in detail the characteristics of this three-phase equipment structure during real-time display browsing, equipment status changing, topology coloring, status quality flags coloring, voltage level coloring, etc., whether there is any particularity. Model related： 1. For equipment that requires three-phase modeling, should an overall equivalent model be built? For example, for a bus, should there be 4 records in the system: X bus A phase, X bus B phase, X bus C phase, X bus equivalent equipment? If there are both single-phase equipment and equivalent equipment, is there a topological connection between the equivalent equipment? Data processing related： 1. Please explain the monitoring requirements of the three-phase circuit, and whether it is necessary to perform monitoring and topology coloring in a three-phase manner in the judgment of connectivity.	As per RFP unless amended
208	The primary function is to determine network state where SCADA system monitoring is directly envisaged. The State Estimation (SE) shall be used for assessing (estimating) the distribution network state. It shall assess loads of all network nodes, and, consequently, assessment of all other state variables (voltage and current phasors of all buses, sections and transformers, active and reactive power losses in all sections and transformers, etc.). Firstly, the symmetrical (per phase) and asymmetrical (three-phase) load of all nodes in the radial or weakly meshed MV	Please clarify： 1, Whether the network segment parameters (resistance, reactance, length, model etc.) are available? If not, how to obtain and maintain it in the future? 2, Whether the distribution transformer parameters (capacity, model, rated voltage, etc.) are available? If not, how to obtain and maintain it in the future?	As speciifed in RFP
209	The historical data of the network consists of: a) Daily load profiles – current magnitudes and power factors, or active and reactive powers for all load classes (types, for example: industrial, commercial, residential), for all seasons (for example: winter, spring, summer, autumn), for e.g. four types of days (for example: weekday, Saturday, Sunday and holiday). b) Peak-loads for all distribution transformers and/or consumers (peak-currents and/or peak powers) and/or monthly electric energy transfers across all distribution transformers (consumers). c) SE function shall run in all cases from the range of networks where all historical data are known, but also in networks with no historical data available (based on parameters of the network elements). Also, according to users setting, the SE function shall be able to run: d) With or without verification of telemetered measurements. e) With manual or automatically processing unobservable parts of network. f) With or without fixed measurements.	1. Please clarify the load (distribution transformer) measurement (voltage, current, power) type and acquisition coverage rate. 2. How long is the load history data currently stored? 3. What historical data (such as electricity data and electricity bill data) can be provided by a load without power collection?	As speciifed in RFP
210	The function shall propose the operator solution up on change in the topology of the network switching. The function shall consider the planned & unplanned outages, equipment operating limits, tags placed in the SCADA system while recommending the switching operations. The functions shall be based on user configurable objectives i.e. minimal loss, optimal reactive flow, voltage limits, load balancing. These objectives shall be selectable based on feeder, substation & group of substations or entire network. The despatcher shall have the option to simulate switching operations and visualize the effect on the distribution network by comparisons based on line loadings, voltage profiles, load restored, system losses, number of affected customers. The solution shall identify /sort the different type of switches that are required for operation i.e. remote /manual etc.	Please clarify： 1, What is the control scope of distribution network dispatching? 2, What are the controllable equipment for voltage and reactive power control of distribution network dispatching?	shall be provided to the successful bidder later
211	c) By number of consumers affected The consumer with equal priority and similar past load shed history shall be considered by the application in such a way that minimum number of consumers are affected during the proposed load shed. The data for number of consumers connected to a feeder /device shall be taken from computerized billing system.	Please clarify： Are there parameters (such as the number of users, user types, user priorities, and user power loss) in the distribution transformer?	As speciifed in RFP
212	In the first step, training module is executed using load data series from the historical database and weather conditions. After appropriate training, forecast module is executed for up to next 7 days including weather forecast. Results are available in tabular and graphical form. The user shall be able to adjust the active forecast. The adjustments can also be done through weather conditional data parameters i.e. temperature, humidity, precipitation level, wind speed, wind direction acquired through telemetered sensors or manually. STLF will be used for forecasting of loads for the next short-term period (up to 7 days), to provide planning of the (optimal) network operation at the daily level. in periodic time (15 min to 1hr) The user shall be able to save forecasts in save cases, one of which shall contain the active forecast that shall be available for study functions.	Weather data (such as temperature, wind) will be provided by other existing systems of NEA. The establishment of weather stations and the collection of weather data are not included in the scope of this project	As speciifed in RFP
213	2.3.8 State Estimation 2.3.10 Load Flow Application (LFA) 2.3.13 Loss Minimization via Feeder Reconfiguration (LMFR) 2.3.14 Load Balancing via Feeder Reconfiguration (LBFR) 2.3.23 Optimal Network Reconfiguration	When line parameters and load measurement data cannot be provided and do not meet the basic data requirements of state estimation, power flow calculation, and feeder reconstruction functions, we kindly request that the state estimation, power flow calculation, and reconstruction functions be tested using IEEE standard examples during acceptance.	As per RFP unless amended
214	2.3.9 Volt –VAR control (VVC)	If there is no voltage and reactive power control equipment at the site, the voltage and reactive power control strategy cannot be given, We kindly request that controllable equipment be added on the basis of the IEEE standard calculation example to give an optimization strategy during acceptance.	As per RFP unless amended
215	Call management, tracking customer trouble calls and utility customer service representative call backs, integrating with a variety of call sources and using calls to predict the outage cause;	Please clarify whether the call management system is already in place or needs to be built? Please clarify whether the construction of the call management system is included in the scope of this project	As per RFP
216	The OMS shall be designed to support operators at all stages of the outage life cycle	Please provide the key node information and work content of the maintenance cycle, and the roles of all personnel involved in the maintenance cycle	As per RFP

217	The successful bidder shall study in detail the functionalities of current system and incorporate the same in OMS.	Please provide more information of current OMS: 1. Please kindly provide the manufacturer, system model and detailed function description of the OMS system 2. Please provide some information or research methods of OMS system.	As per RFP
218	GPS device is broken, AVL service is down, integration adapter is down etc., and see the symbol as stale.	1. Please provide more information of GIS system. 2. Please clarify whether it is necessary to realize positioning based on GIS system.	Pls refer above
219	Alarms generated by SCADA shall be classic limit violations, rate of change, uncommanded status change and alarms related to system health.	Please clarify whether the alarm are generated by SCADA system? The maintenance will start based on OMS after SCADA alarm, please confirm our understanding.	Specific doubt, please clarify.
220	DNS/ LDAP Server	Which server of Volume III Schedule No.1 corresponds to DNS/LDAP Server? Please clarify the specific functions of DNS/LDAP server	As per RFP
221	B. Hardware 6.Associated Hardwares and add ons for OMS	Please clarify the detailed equipment list of Associated Hardwares and add ons for OMS	Pls Refer Clause 10.3 minimum bill of material
222	C. LAN Switches 4. L2 Access Switch for NoC, SoC and DCC 1 Nos	Please clarify: 1. The equipment "L2 Access Switch for NoC, SoC and DCC" listed in Schedule refers to the "24 Port L2 Managed Access Switch for NoC, SoC and DCC". of Volume II 10.1.11 or the "48 Port Managed Access Switch for Volume II 10.1.12 NoC, SoC and DCC" 2. If it is one of the equipment, please clarify the other equipment is listed in which table and in which item of the Schedule quotation?	Clause 10.3, Annexture 4 is our required minimum bill of material in vol II
223			
224	Section 6.3–Technical Specification 6.3-219 10.1.12 48 Port Managed Access Switch for NoC, SoC and DCC.		As per RFP
225	For enough indoor space of equipment the recommendation height of each floor should not less than 3.6m.	How exterior height of unit 3.6m match the elevator height which is 4.15m per floor? 5.Is there any requirement for the interior height?	shall be discussed during DDE
226	➢The recommendation dimension of pre-fab module is 3600mm×2438mm×12192mm (H*W*D), 3600mm×3495mm×12192mm (H*W*D). For the convenience of transportation and installation, the width and length of the prefabricated modules should be 2438mm×12192mm, 3495mm× 12192mm.	Suggest to change module size to 11'6" for convenience of production as most of the factories does not have 12' module production line and will be in-efficient to produce off the main production line.	No changes ,As per RFP unless amended
227	The vendor should provide 90min fire-proof third party test report.	please specify referred to which fire code as different code has different requirement for fire proofing. Fire proofing design is a concept of assembly design. In UL approved fire assembly, there is no similar design using steel floor/sandwich board/steel base board and/or suspended ceiling. Generally speaking, steel when exposed to fire will destroy the fire proof envelop and will not have fire proof value. Suspended ceiling, as it is not fully concealed, is not fire proofing. We are not able to assure fire proofing requirements as the floor/wall/ceiling structure assemblies are pre-designed. We can only assure fire proofing when the design is tested/listed in the first place.	As per RFP
228	➢The buildings and facilities should be protected from dust and water ingress to [IP55] rating with 3rd party test report.	Please specify in 3.1.2 the IP55 test its methodology and the needed assembly.	As per IEC standard defined for degree of protection
229		The typical minimum roof slope is 2%. Thus, the height drop is 122mm minimum. The top side beam thus shall be 135mm+ wide to allow welding space. Also end top beam thus shall drop the same height to allow water to go through. The impact on structural strength is to be assessed. And the waterproof of the seam between two modules are also an issue. We suggest making exterior roof instead.	Bidder shall design during DDE and take approval from NEA
230	3.1.4VRV/VRF Configuration Requirements	Where will the air conditioning system outdoor unit be placed? Need an equipment room for compressor and condensing unit. In 2F, the cabin room has a different illustration of air conditioning system. What does that represent?	Bidder shall design during DDE and take approval from NEA
231	Pre-action fire sprinkler system (single interlock) shall be provided to protect the areas other than Datahall, power room, and DCC equipment room.	Need an Pre－action system equipment room for sprinkler system. Does the VRF system connected to a local sprinkler system?	NO
232	For the building water supply system, Gi pipes and fittings for water connections (internal & external water supply) shall be used.	Where is GI pipe used? Does it go into the building and then we will use PPR pipe in the building?	As per RFP
233	Building interior decoration requirement	Need a civil electrical equipment room each floor and shafts to run electrical and plumbing. Are the cables run in the wall or out of the wall with a conduit?	As per RFP
234	Building interior decoration requirement	We will add shaft to optimize the drainage design	As Per RFP , Any specific addition beyond the desired specification in RFP has to be approved by NEA
235	Ground	Does the raised floor (400mm) requirement refer to equipment room only or to all the DCC/NOC/SOC area? Is there any requirement for other area on top of the steel floor?	The floor of the equipment container is an antistatic raised floor with the dimensions of 600 x 600 and the height of more than 400 mm.- refers to height of container

SL. No.	Minimum Requirement Description	Compliance (Yes / No)	Deviations / Remarks
Make			
Model			
1.	Switch should have 48 Nos. 10/100/1000 Base-TX auto-sensing plus with minimum 2x10G SFP+ uplinks.		
2.	Should support stacking using dedicated stacking ports		
3.	Switch should support link aggregation across multiple switches in a stack.		
4.	Switch should have non-blocking wire-speed architecture.		
5.	Switch should support IPv4 and IPv6 from day One		

236	The equipment container uses light steel keel filled with 50-inch thick thermal insulation rock wool, color steel composite gypsum board veneer, 3000 mm high, and stainless steel baseboard. Office rooms use latex paint walls and stainless steel baseboards.	Wall assembly to be confirmed: The equipment container uses light steel keel filled with 50-inch (guess should be mm?) thick thermal insulation rock wool, color steel composite gypsum (is it a sandwich panel with veneer or is it a gypsum board?)board veneer, 3000 mm high, and stainless steel baseboard.	The clause shall be read as : The equipment container uses light steel keel filled with 50-mm thick thermal insulation rock wool, color steel composite gypsum board veneer, 3000 mm high, and stainless steel baseboard. Office rooms use latex paint walls and stainless steel baseboards.
237	35.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 15. Unless permitted in the BDS, the determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialist Subcontractors if permitted in the bidding document), or any other firm(s) different from the Bidder. ITB 35.2 The qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors shall not be permitted.	We wish to request your approval that the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors shall be permitted. Please confirm.	As per ITB 35.2, No change
238	Restoration of army barrack	Can we exclude this part of work from the current proejct scope.	No change
239	Construction of store building	Can we exclude this part of work from the current proejct scope.	No change
240	Prefabricated building qualification	in Volume I the prefabricated DC qualification is different with Volume II DC requirement, which spec should follow	Yes , only pre-fabricated container type DCC building as in RFP is required, No any traditional DCC building
241	Building Architecture Requirement		Design shall be done by the bidder
242	CIVIL AND INTERIOR PACKAGE 1.0 NOS of Container: ISO 40ft (or as required) container, 12192mm * 2438mm / 3495mm*3600mm（D*W*H) is 24+. Note: Quantities mentioned in the BoQ are tentative, bidder should include the required quantities to complete the work successfully without any additional cost to the department.	As the quantities are tentive, we request that our price is strictly based on our proposed quantity, standard and specification, If any increase in quantity or request for higher standard from NEA, additional cost shall be beared by NEA. Please confirm.	BOQ is tentative and bidders are free to propose the items and quote accordingly, No additional cost will be paid as per RFP
243	"Origin" means the place where the plant and component parts thereof are mined, grown, produced, or manufactured, and from which the services are provided. Plant components are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that is substantially in its basic characteristics or in purpose or utility from its components.	Can the sucessful bidder require to sign contract in this way: One Contact between bidder and NEA on Foreign Equipment and Plant purchase; another Contract between bidder's 100% own subsidiary in Nepal and NEA regarding local equipment and plant purchase, and Services. Please confirm.	As per RFP ,No change
244	Historian based on Microsoft SQL Server RDBMS;	SQL server database is mainly installed on windows OS, and this SCADA/DMS/OMS system is a complicated system, so we suggest the server OS is Linux, and the database is PostgreSQL.	For OMS, SQL Server & RDBMS is expected(Historical data storage for anslytics based on SQL program and database RDBMS
245	Type Testing Type test reports of tests conducted in third party accredited Labs or internationally accredited labs with in last 5 years from the date of bid opening may be submitted.	Does Chinese Labs be accepted?	As per RFP, Audit Institution with global standards and accreditions are accepted.
246	OMS shall process AMI last gasp events created and published from smart meters, and shall act upon the new AMI last gasp events in the configured way (known as stewing), by starting a workflow which may consist of creating a new incident or triggering prediction. It shall also interface with the AMR system of NEA as well as No Light. The successful bidder shall study in detail the functionalities of current system and incorporate the same in OMS.	The current system is No Light, or AMR & No Light? Can we get the detail functionalities of AMR and No Light? We need to evaluate the interface workload	Only web interface shall be necessary for No light and AMR system will also be in the same data centre which can be connected through ethernet.
247	h) RTU shall have dual redundant CPU and Power Supply unit.	Is this a dual device or 2 CPUs in the same device?	As per RFP
248	DC Area and Other Area	The unit of "Per Sqft" in this schedule applies to prefabricated module building or traditional DCC building? Please confirm.	Yes , only pre-fabricated container type DCC building as in RFP is required,
249	Audio Format	Please check whether the recording function needs to be configured for the camera.	G.711, G.726 Audio format in NVR means recordable with video
250	The enclosures shall be designed to take care of normal stress as well as abnormal electro-mechanical stress due to short circuit conditions. All covers and doors provided shall offer adequate safety to operating persons and provide ingress protection of IP 42 unless otherwise stated. Ventilating openings and vent outlets, if provided, shall be arranged such that same ingress protection of IP 42 is retained. Suitable pressure relief devices shall be provided to minimize danger to operator during internal fault conditions.	these two part is the specification requirement about PDC IPXX is different,which part should the bidder to follow which part	The bidder should propose the indoor switch board IP 20 and Outdoor IP 55, as per RFP
251	Main switchboard shall be form 4b, for form of separation only metallic covers shall be used, Hylem / PVC sheets shall not be allowed, rest of the panels shall be minimum conform to form 3b design.	The form 3A meets the TIA-942 and UPTIME requirements. The recommended minimum is form 3A.Check whether form 3A can be used.	As per RFP, form 4b and form 3b or higher
252	The Aluminium conductor used shall be of H-4 grade (Tensile strength above 150 N/mm2). High conductive aluminium, stranded (Class-II, stranded circular shaped), uniform in quality and free from scale, inequalities, spills, splits and other defects. The aluminium used shall have purity meeting the criteria for maximum resistance allowed. Two sample conductors randomly selected from finished lot of cables, shall be tested for its purity at any 3rd party NABL accredited lab.	Can certification from other organizations be provided?	Yes (As per RFP. Certifcation can be provided from international accredated agency (like DNV-GL , NABL, KEMA,CE etc) Yes,Data center should meet the Uptime Tier III design and TIA942-B
253	Other Items - Uptime Tier III certification	Is the Uptime Tier III certification service in the scope of the bid?	
254	Uptime Tier III certification not mentioned in BOM(BILL OF MATERIAL)	Can 75 dB(A) accepted for outdoor type generator outside of building? It's very difficult for outdoor type generator to reach 50db and cost is extremely high.	Yes
255	Acoustic Noise Level Noise level inside the data center is not exceeding 60 db and outside of data center 50db measurements at three feet from the enclosure	it is mentioned that present IT load per rack to be considered as 7KW and 10KW per Rack where as general requirement of IT load desity for IT rack 4kW and 2 KW for Network Rack	Bidder to consider Server rack Power: 7 KW and network rack power : 4 KW
256	Air Condition system(PAC)		
257	Prefabricated building qualification	in Volume I the prefabricated DC qualification is different with Volume II DC requirement，which spec should follow	Yes, vol II RFP
258	Construction of store building. The contractor shall design Store Building for the floor area 150 sqm	Kindly specify the height to be cosidered for the store building.	Bidder may visit location , may conduct site visit to asses the requirement . NEA Project office will assist the bidder to visit the site before submission of bid (Min. height shouldnot be less than 7m)
259	Fire Extinguishing System Pre-action fire sprinkler system (single interlock) shall be provided to protect the areas other than Data hall, power room, and DCC equipment room.	Considering the electrical and IT equipment inside the DCC building, we propose to provide portable (ceiling mounted) automatic modular fire extinguisher & manual portable fire extinguisher instead of water based sprinkler system against fire protection system. Kindly confirm our proposal.	As per RFP

260	The Present IT load per rack to be considered as 7 kW and 10 KW per Rack. Minimum 80-90 CFM per kW as per server requirement to be considered while proposing/designing the Cooling unit. Total 60racks, 55IT racks, 5 network racks, each IT racks power design for 4kW, network rack 2kW;	For IT load, at multiple place different figures are mentioned. Please clarify.	Please refer above
261	Diesel Generator Fuel charges	We understand that the fuel charges for DG in AMC/O&M is in NEA's scope, pls confirm	NO, its in bidder's scope