

WESTERN COAL FIELDS LIMITED OFFICE OF THE GENERAL MANAGER
(MATERIALS MANAGEMENT) PUR COAL ESTATE , CIVIL LINES, NAGPUR – 440
001. Ph.No. (0712)-2510501, email:gmmm.wcl@coalindia.in

Notice for PRE-NIT MEETING

A Pre NIT meeting is scheduled for finalization of Technical Specifications / Terms and conditions for the upcoming Tender for Supply & Installation of Network Infrastructure in the Administrative Building of WCL HQ

Qty: 1 set (Detailed quantity and scope of work as per BOQ attached in Draft NIT)

Value: Rs. 4.94 Crore (approx)

Date and Time of Pre NIT Meeting: 11:30 am on 28-07-2026

Venue: Office of General Manager (MM), WCL, Hqrs, Coal Estate, Civil Lines,Nagpur

A draft NIT indicating the Scope of supply, Technical specifications, technical terms and conditions, eligibility, provenness criteria and commercial terms and conditions is available in WCL website (www.westerncoal.gov.in) for reference of prospective bidders.

The interested bidders are requested to send their comments/suggestions via email on abhimane.katoch@coalindia.in by 26/07/2026.

Interested Bidders are requested to send their authorized representative to attend the Pre-NIT meeting on scheduled date / time.

Enclosed: Draft NIT Document

DRAFT Technical and Commercial Terms

Supply & Installation of Network Infrastructure in the Administrative Building of WCL HQ

Technical Specifications for the supply, installation, Testing and commissioning of Network Infrastructure in the Administrative Building of WCL HQ.

Along with 5 Yrs. CAMC of system after one year warranty at its premises, Coal Estate, Civil Lines, Nagpur:

I. The job description is given below:

1. Scope of Work includes Supply, Installation, integration, testing and commissioning of Network Infrastructure at WCL, HQ, Coal Estate, Civil Lines, Nagpur. The scope of work includes one year warranty & five-year comprehensive AMC of installed equipment's after completion of one year warranty period (Total 06 years) for the complete system.
2. The bidder will conduct physical survey & feasibility study in WCL, HQ to make actual study for the proposed setup and appraise themselves fully on the site condition before submitting the offer. The bidder shall carry out site survey at their own cost.
3. The bidder is required to design and supply all the related hardware, software and its installation, integration, testing and commissioning for implementing Network Infrastructure on standalone basis including associate software and supply of all essential accessories required for the successful installation and commissioning of all the goods supplied to be covered under the scope of work.
5. During Warranty and CAMC Period all types of breakdown calls are to be attended within one (01) hour and rectified within another 06 hours.
6. All the associated works i.e. OFC & LAN Cable laying in office and its premises using different size of PVC Capon casing (ISI mark) shall be part of the scope of the work.
7. The bidder must quote for the complete system on turnkey basis as per requirement schedule and for a comprehensive AMC for five years (after completion of one year warranty period).
8. All the other items, hardware & perpetual software/license as required to complete installation, successful commissioning and handover of the system shall be part of the scope of work.
9. Any damage caused to the equipment/ system due to lightning and/or abnormal power supply has to be rectified/ repaired/ corrected by the service provider without any extra cost to the WCL during warranty and CAMC period.

II. CAMC/Warranty Terms and conditions:

The bidder has to enter SLA as mentioned below:

1. Complete comprehensive maintenance of all the equipment's / parts (including repairs and replacement of materials supplied) during CAMC period.

2. CAMC service includes repair, replacement of failure items, servicing of system free of cost to WCL.
3. The payment for the CAMC charges would be made Quarterly after deducting penalty if any, after rendering of the CAMC Services of the relevant CAMC period.
4. Paying authority of CAMC bills: GM(Fin.)-HOD, WCL-HQ,Nagpur
5. All types of breakdown calls are to be attended within **one (1) hour** and rectified within another 06 hours, for which the bidder shall post one service engineer at WCL HQ for repair and maintenance of the complete system for entire contract period of six years including one year warranty & five years of comprehensive AMC on reporting the complaint by Telephone / Fax / Email.
6. However, if the successful bidder fails to restore the breakdown within 7 days, WCL shall have the right to get the failure rectified departmentally or through other agencies. The equipment so restored shall continue to be under existing CAMC of the existing service provider till the end of the contract. In such a case of restoration of the equipment through departmentally or by other agencies, the cost of such restoration along with 10% handling charges shall be recovered from the running bills, performance security or any other dues of the service provider. If such amount is not recoverable from any dues of the service provider, then service provider shall reimburse to WCL for the due amount by any means within 30 days of such claim made by WCL.
7. During the CAMC period, if any equipment is to be taken outside the premises of WCL, the successful bidder should replace the existing equipment with a spare working equipment of the same make and model or higher specification model of the same make, and configure to work in the network seamlessly, so that there should not be less number of equipment or equipment of lesser specifications installed than the equipment ordered, installed and commissioned at any point during the warranty and CAMC period.
8. Period of CAMC services will be for a period of five years after one year warranty.
9. Maintenance holder shall ensure that during tenure of the CAMC period, any spares replaced by the maintenance holder shall be certified by the WCL engineer and to be recorded in the spare register.
10. Complete service/call reports shall be submitted along with the CAMC bills for the period of claim on satisfactory completion of service period.
11. If any parts / spares / components replaced, the old part so removed are the property of the maintenance contractor during CAMC and Warranty period.
12. The maintenance contractor is responsible for the repairing of defects caused on account of the normal wear and tear of equipment's CAMC and Warranty period.
13. Any damage caused to the equipment/ system due to lightning and/or abnormal power supply/rodent has to be rectified/ repaired/ corrected by the service provider without any extra cost to the WCL during warranty and CAMC period.
14. Service exclusions: Service don't cover the repair for damages or service failures caused by remaining force majeure conditions excluding lightning and abnormal power supply. However, the damaged items due to Force majeure conditions shall be replaced with new items by the bidder on chargeable basis at mutually agreed rates on proper justification during CAMC and Warranty period.
15. Providing of all hardware & software, maintenance services, software upgrades, modification in the software as required shall be provided by the bidder free of cost during CAMC period.
16. The prospective bidders have to maintain the sufficient spare for hardware, software and other related equipment along with the required qualified maintenance personnel at HQ, WCL, Nagpur to provide satisfactory maintenance support for the offered system during the contract period to ensure SLA.

17. The bidder should submit all the software used in the system and all manual for maintenance, administration (2 hard copy & 2 soft copy) at the time of supply.

III. SLA Terms & Penalty for 5-Year CAMC period:

Penalty Calculation:

The penalty would be calculated based on availability of the complete LAN Infrastructure at WCL HQ(Core switch,L3 Switch,L2 switch, Firewall &42U Floor Standing Cooling Rack with Fire detection and suppression) in totality (Excluding individual I/O connection) for each month. The availability and penalty shall be calculated on monthly basis.

Overall LAN Infrastructure (as detailed above)for a month shall be calculated as under:

(i) N- Number of total Core Switch/L3 distribution switch/ L2 switch/Firewall/42U Floor Standing Cooling Rack with Fire detection and suppressionat WCL,HQ and its premises

B1 – Breakdown hours of Switch-1 in the month.

B2 – Breakdown hours of Switch-2 in the month.

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B– Breakdown hours of Switch-n in the month..

N- Number of total Core Switch/L3 distribution switch/L2 switch/Firewall/42U Floor Standing Cooling Rack with Fire detection and suppressionatWCL,HQ(N = 28)

Availability of LAN System

$$= \frac{[N \times \text{no. of days in the month} \times 24] - (B1 + B2 + \dots + Bn)}{[N \times \text{no. of days in the month} \times 24]} \times 100\%$$

Overall Availability for any month should be greater than 98%. If the overall availability of mentioned items goes below 98% penalty shall be deducted from the running bills of service provider as under:

Sl.No.	Overall Availability of LAN Infrastructure (A)	Penalty formula
01.	$A \geq 98\%$	Nil
02.	$90\% \leq A < 98\%$	$(100\% - A) \times \text{CAMC monthly rate} \times .01$
03.	$80\% \leq A < 90\%$	$(100\% - A) \times \text{CAMC monthly rate} \times .02$
04.	$A < 80\%$	$100\% \times \text{CAMC monthly rate} \times 0$

- The bidder should enter into an SLA agreement with WCL & must ensure up time of 98 % monthly availability of the LAN System for the CAMC period of 5 Years.
- During payment of quarterly penalty bill, the penalty amount if any, shall be deducted from the billed amount of corresponding billing period.
- If total availability falls below the 80% for a month, WCL reserves the right for termination of contract.

IV. Documentstobesubmitted:

a. Thebiddershouldsubmitthechartspecifyingtheofferedmodelandmakeforfollowing items :

Sl.No.	Required Item Description	Make & Model (to be provided by bidders)
1	48xGigabit RJ45 Ports & 2x10 Gbps SFP/SFP+ slots L3 Distribution Switch	
2	48 Port 10G SFP/SFP+ Managed Core Switch	
3	24xGE RJ45 Port LAN Switch	
4	Single Mode 10G SFP+ Module	
5	Single Mode 1G SFP Module	
6	GPON OLT with 4 PON, 2 RJ45 and 2 SFP / SFP+ Uplink Port	
7	PON Module	
8	XPON ONU	
9	Next Generation Firewall in HA mode	
10	Network Monitoring & Syslog Software (NMS)	
11	Server for Network Monitoring Software	
12	65" Large Format Display for NMS	
13	48 Port Fully Loaded UTP Patch Panel – Rackmount	
14	2M Cat-6 UTP Patch Cord (Factory Crimped)	
15	1M Cat-6 UTP Patch Cord (Factory Crimped)	
16	I/O Box (Face Plate+Keystone Module+ Back Box)	
17	Cat-6 UTP Cable (solid copper) (1 box = 305 meter) (190 Box)	
18	Cat-6 STP Cable (1 Box= 305 meter) (1 Box)	
19	3M OFC Patch Cord (SC-LC) (Factory Crimped)	
20	3M OFC Patch Cord (SC-SC) (Factory Crimped)	
21	3M OFC Patch Cord (LC-LC) (Factory Crimped)	
22	12 Port Fully Loaded LIU	
23	24 Port Fully Loaded LIU	
24	6 Core Single Mode Armoured OFC	
25	6 Core Single Mode Unarmoured OFC	
26	9U Wall Mounted Network Rack with all accessories	
27	12U Wall Mounted Network Rack with all accessories	
28	42U Floor Standing Cooling Rack with Fire detection and suppression; Access Control system.	
29	1KVA UPS (30min Backup on full load)	
30	5KVA UPS (2hr Backup on full load)	

(A)The vendor should submit the bid specific authorization in original from the manufacturer for the following items:**Ethernet Switching, Passive Products,Next Generation Firewall, NMS, 42U Floor Standing Cooling Rack & UPS**.along with provision ofcomprehensive AMC for five years after one year warranty & spares & service support

for total six years from the date of commissioning.

- (B) The bidder must submit an undertaking to provide comprehensive service support with spares for all the tendered items for 5 years after one year warranty.
- (C) Para wise acceptance of all the terms and conditions including specifications of items.
- (D) All the required documents to qualifying the provenness criteria as per NIT.
- (E) OEM of Passive Networking Products must be registered in India for more than 5 years (Undertaking is to be submitted).
- (F) OEM of Passive Networking Products shall have their own ISO 9001:2015, ISO 14001:2015 certified copper and fiber components manufacturing facility in India (Documents is to be submitted with the bid).
- (G) OEM of Passive Networking Product shall have a Customer Support Center with 24x7x365 in India. (Address with Email IDs to be enclosed with bid)
- (H) OEM must not propose any mix of Co-branded equipment. All Products (Cat6/6A and Fiber) shall be of same brand name written on each quoted product (Undertaking is to be submitted).
- (I) All the Passive Products (Cat6/6A and Fiber) Shall be from Single OEM & offered products should have Min. 7 years of performance warranty (Undertaking is to be submitted).
- (J) All the Ethernet Switches (Layer 2 & Layer 3) and Transceivers have to be from the same OEM.
- (K) Existing Hardware (servers) of old 42U racks servers is to be shifted in the new 42U Rack (Undertaking is to be submitted).
- (L) One Man-power (L2 level) shall be posted for managing the NMS, Firewall, trouble shooting in the passive network related problems during the warranty & AMC period. He should have at least five years of experience in handling the similar nature job.
- (M) All the maintenance expenses (Fiber jointing, UTP cable repairing, fine tuning & maintenance, replacement of active & passive components) during the warranty and AMC period is to be borne by the successful bidder (Undertaking is to be submitted).
- (N) After successful installation of the Network and its components, old network switches, cables etc is to be dismantle and to be deposited with the Consignee/Engineer in charge.
- (O) Supporting certification documents for the offered items as per NIT.

V. Unpriced Bill of Material

Sl.No.	Required Item Description	UOM	Quantity
1	48xGigabit RJ45 Ports & 2x10 Gbps SFP/SFP+ slots L3 Distribution Switch	Nos.	21
2	48 Port 10G SFP/SFP+ Managed Core Switch	Nos.	2
3	24xGE RJ45 Port LAN Switch	Nos.	3
4	Single Mode 10G SFP+ Module	Nos.	84
5	Single Mode 1G SFP Module	Nos.	2
6	GPON OLT with 4 PON, 2 RJ45 and 2 SFP / SFP+ Uplink Port	Nos.	1
7	PON Module	Nos.	1
8	XPON ONU	Nos.	3
9	Next Generation Firewall in HA mode	Set	1
10	Network Monitoring & Syslog Software (NMS)	Nos.	1

11	Server for Network Monitoring Software	Nos.	1
12	65" Large Format Display for NMS	Nos.	1
13	48 Port Fully Loaded UTP Patch Panel – Rackmount	Nos.	21
14	2M Cat-6 UTP Patch Cord (Factory Crimped)	Nos.	624
15	1M Cat-6 UTP Patch Cord (Factory Crimped)	Nos.	1024
16	I/O Box (Face Plate+Keystone Module+ Back Box)	Nos.	754
17	Cat-6 UTP Cable (solid copper) (1 box = 305 meter)(190 Box)	Mtr	57950
18	Cat-6 STP Cable (1 Box= 305 meter) (1 Box)	Mtr	305
19	3M OFC Patch Cord (SC-LC) (Factory Crimped)	Nos.	86
20	3M OFC Patch Cord (SC-SC) (Factory Crimped)	Nos.	3
21	3M OFC Patch Cord (LC-LC) (Factory Crimped)	Nos.	1
22	12 Port Fully Loaded LIU	Nos.	24
23	24 Port Fully Loaded LIU	Nos.	4
24	6 Core Single Mode Armoured OFC	Mtr	3530
25	6 Core Single Mode Unarmoured OFC	Mtr	1000
26	9U Wall Mounted Network Rack with all accessories	Nos.	13
27	12U Wall Mounted Network Rack with all accessories	Nos.	4
28	42U Floor Standing Cooling Rack with Fire detection and suppression; Access Control system.	Nos.	1
29	1KVA UPS (30min Backup on full load)	Nos.	17
30	5 KVA UPS (2hr Backup on full load)	Nos.	1
31	Installation & commissioning of complete system	AU	1
32	CAMC on Yr-1 after completion of warranty period	AU	1
33	CAMC on Yr-2	AU	1
34	CAMC on Yr-3	AU	1
35	CAMC on Yr-4	AU	1
36	CAMC on Yr-5	AU	1

VI. Technical Specifications:

42 U Floor Standing Cooling Rack:

Sl.No.	Description of Requirements	Complied(Yes/No)
1	Scope of Work	
1.1	This specification covers intelligent integrated/inbuilt infrastructure, standalone system design, engineering, manufacture, assembly, testing at manufacturer's works, supply, delivery at site, unloading, handling, proper storage at site, erection, testing and commissioning at site of complete infrastructure to be installed at WCL HQ, as detailed in the specification, complete with all accessories required for efficient and trouble-free operations	
1.2	Modular and scalable design for power and cooling: The cooling shall be with N redundancy and in the Events of failure the components can be maintained easily. All the components of the infrastructure should be such that it can be easily Dismantled and Relocated to different location.	
1.3	OEM Must be ISO9001:2015,ISO14001:2015,ISO27001:2013,ISO45001:2018 & OSHAS Certified.	

2	Requirements	
2.1	Intelligent Integrated Infrastructure with inbuilt hot and cold aisle containment of 1 rack should cater IT load upto 3.5 KVA.	
2.2	Intelligent Integrated Infrastructure essentially should include environmental controls (Rack mounted air conditioning, smoke detection, Water leak detection and humidity sensors), and security devices. Environmental monitoring shall be done from IP based PDU. Critical Component's for Integrated Smart Rack DC solution i.e., Rack, rack IPDU, Cooling, and monitoring system along temperature & humidity sensors, the complete integration should be from single OEM for Seamless Integration & better Service Supports	
2.3	The detail specifications of the intelligent integrated/inbuilt infrastructure, Standalone system shall be in adherence to standard Data Centre guidelines	
3	The Intelligent integrated Infrastructure shall have following components:-	
3.1	Rack based closed loop Air-Conditioning	
3.1.1	Data center server rack should be equipped with rack based fixed scroll cooling units to provide closed loop cooling system which should be able to cool the equipment's uniformly right from 1st U to 42 nd U of Rack	
3.1.2	Rack Mount Air conditioner 8U or less with scroll compressor, of capacity 3.5kW (1 Tr.) 01no. to cater IT load approximately 3.5KW for total 1 rack.	
3.1.3	High sensible cooling unit with 100% duty cycle	
3.1.4	Cooling capacity of 3.5 kW and must be fixed scroll compressor	
3.1.5	Split indoor & outdoor unit design	
3.1.6	Cooling Unit integrated in rack, 19" mountable not more than 6U	
3.1.7	Scroll compressor for high reliability	
3.1.8	Air flow suitable to rack equipment from bottom to top discharge in vertical direction	
3.1.9	Thermal insulation on indoor unit	
3.1.10	Expansion Valve for easy service ability as per OEM Design	
3.1.11	Refrigerant R410/ R407 compatible	
3.1.12	Aluminum fins with copper tubes	
3.1.13	Individual breakers at indoor and outdoor unit for protection	
3.1.14	Flexible Cu piping for easy indoor to outdoor connection at rack level	
3.1.15	ON/OFF switch at indoor unit for emergency purpose	
3.2	Power Distribution	
3.2.1	Rack Intelligent PDU (Vertical)-PDU 1 Ph, 230V, 32A, 20xC13, 4xC19, (each rack is having two PDU's).	
3.3	Fire Detection system	
3.3.1	Rack should have the Fire detection and suppression system.	
3.4	Rack & accessories	
3.4.1	Rack is 42U 19" mounting type with 42U (Height) x 800 (Width) x 1200 (Depth)	
3.4.2	Rack frame is, scalable and modular with safe load carrying capacity of 1400 Kg on Enclosure frame and 1000 Kg on 19" mounting angles.	
3.4.3	Color shade of Rack is Black.	
3.4.4	Base plinth with 100 mm height	

3.4.5	Cable entry provision from top & bottom both side of rack	
3.4.6	Cut outs with rubber grommet on top and bottom cover of rack for cable entry	
3.4.7	Vertical Cable manager on both LHS & RHS on rear side	
3.4.8	Front Glass door for complete 42 U height visibility and rear plane door with Stiffener for strength	
3.4.9	Thermally insulated cold aisle chamber	
3.4.10	Blanking panels to prevent air mixing	
3.4.11	LED light with switch to be provided	
3.4.12	Usable space in the rack should not be less than 30U.	
3.4.13	The Intelligent integrated infrastructure would provide much functionality and some of the key functionalities are –Cold Contained Front Aisle & Rear Contained Hot Aisle, insulation, remote management and single point of service.	
3.5	Environmental Controls	
3.5.1	Modbus 485 Communications & SNMP	
3.5.2	Data and logs of historical information of alarms and notification	
3.5.3	Temperature & Humidity Sensor, with LCD display in iPDU and RJ45 connector	
3.5.4	Door opening sensor with RJ45 connector	
3.5.5	Water leak detection sensor with RJ45 connector	
3.5.6	Smoke detection sensor with RJ45connector	
3.5.7	Alarm device with LED flash and sound option	
3.5.8	Motion based Camera for Surveillance	
3.6	Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. The front rack doors will be provided with mechatronic Locks, and will operate on fail-safe principle through one common Biometric access control system. Rear doors will be operated through mechanical lock & key mechanism. The system would be designed and implemented to provide following functionality: • Configurable system for user defined access • Built-in Real Time Clock(RTC), calendar; complete Database stored locally and shall be capable of operating offline on standalone mode • Record, report each and every activity(permission granted and /or rejected) with log formats • Fail safe operation in case of no-power condition and abnormal condition such as fire, theft, intrusion, loss of access control, etc. • At the biometric reader, user presents the finger to the biometric reader which is Unique to each employee. The pattern is read and compared with stored data to grant/deny access.	

Network Monitoring & Syslog Software (NMS)

Sl. No.	Network Monitoring & Syslog Software (NMS)	Compliance (Yes/No)	Remarks
1	For effective operations and management of IT Operations, there is a need for an industry-standard Network Monitoring System (NMS). Given the expanse and scope of the project, NMS becomes very critical for IT Operations and SLA Measurement. Some of the critical aspects that need to be considered for operations of IT setup are: a) Network Fault Management b) Network Performance Management c) Server Performance Monitoring d) Centralized and unified Dashboard and e) Syslog Monitoring		
2	The Monitoring Solution should provide Unified Architectural design offering seamless common functions including but not limited to: Event and Alarm management, Auto-discovery of the Network environment, Correlation and root cause analysis, reporting and analytics		
3	There should be a tight integration between infrastructure metrics and logs to have the single consolidated console of Infrastructure.		
4	The solution must provide discovery & inventory of heterogeneous physical network devices like Layer- 2 & Layer-3 switches, Routers and other IP devices and do mapping of LAN & WAN connectivity with granular visibility up to individual ports level. The operator should be able to build correlation rules in a simple GUI based environment where the Operator should be able to correlate cross domain events		
5	The solution shall provide future scalability of the whole system without major architectural changes.		
6	The monitoring solution should have the ability to retain raw data (without averaging) for more than Six Months.		
7	All the required modules should be from same OEM and should be tightly integrated for single pane of glass view of enterprise monitoring		
8	The platform must provide complete cross-domain visibility of IT infrastructure issues		
9	The platform must consolidate monitoring events from across layers such as Network, Server, Application, Database, Camera, UPS etc.		
10	The solution should support single console for automated discovery of enterprise network components e.g., network device, servers, virtualization, cloud, application, and databases		
11	The solution must support custom query-based widget with multiple visualization methods including Chart, Gauge, Grid, Top N list etc. to visualize and represent collected data with ease.		
12	The solution must support out of the box data widgets for Metric, Log, and network flow data with multiple visualization methods such as gauge, grid, charts, Top N etc.		
13	The solution should provide superior view of infrastructure health across system, networks, application and other IT Infrastructure components into a consolidated, central console		
14	The solution must provide agentless and agent-based method for managing the nodes and have the capability of storing events / data locally if communication to the management server is not possible due to some problem. This capability will help to avoid losing critical events.		
15	The agents should be capable of setting polling interval of 60 Seconds or less with low overhead on target server infrastructure		
16	The Platform must include an event correlation automatically fed with events originating from managed elements, monitoring tools or data sources external to the platform.		
17	The proposed log management solution should include out-of-the-box parsers for various operating systems, databases, applications, network devices, and syslogs. Additionally, if any collected logs cannot be parsed then the console must provide seamless automation to extract fields from collected logs via drag and drop functionality to avoid log parsing complexity of collected logs from various syslog/ windows/ application sources.		
18	The proposed solution should provide alert console with alert summary such as no. of correlated alert, network alert, server alert, virtualization alert, cloud alert, application alert etc.		
19	The system must have provision to overlay alert on reported metric to understand alert triggering behavior across multiple drill down pages		

20	The proposed Monitoring solution must comply with the following standards: CIS certification, ISO 27034-1 for application security, ISO 27001:2022 for information security management, GDPR for data privacy, SOC 1, SOC 2 Type I & II and SOC 3 for service organization controls. This ensures robust security, regulatory compliance, and comprehensive data protection across all managed network operations. Valid supporting documents must be submitted with the bid.		
21	The necessary hardware,software or any other component to run the Network Managment System has to be considered as a part of the entire solution		
22	The OEM of the proposed Network Monitoring Solution should be "Make in India".		

Next Generation Firewall (NGFW)

Description	Compliance Yes/No	Remarks
A.OEM CRITERIA		
This solution should be robust in accordance with the Western Coalfields Limited network environment. The proposed solution equipment should have a minimum life of 72 months (EOS) and an end-of-life (EOL) of 84 months (as of the supply date).The institute is currently requesting a 72-month subscription license for the solution including one year warranty.		
1. Manufacturer Authorization (MAF) is necessary for the proposed solution.		
B.GENERAL FEATURES		
1. The firewall should support CLI and GUI-based access to the firewall modules.		
LDAP (multiple domains), XAUTH/RADIUS, TACACS+, SSO, Radius accounting NTLM, Novell, internal user database, 2FA, Terminal Services, Citrix, Common Access Card (CAC)		
3. Centralized, daily, automatic, manual, or offline updates.		
4. Firewall should have advanced threat protection (detect and block network traffic when attempting to contact command and control servers).		
C.GENERAL REQUIREMENT		
1. It is necessary to have a 64-bit hardware platform built on a Multi-Core Architecture having at least 24 Core and 60GB RAM with Optimization for exceptional throughput for all key processes.		
2. Without affecting performance, the proposed solution should offer an alternative for seeing encrypted traffic flows and supporting TLS 1.3.		
3. The device should have security functions like a Firewall, VPN (IPsec Site to Site & SSL Client VPN), Gateway level antivirus, Category-based web and application filtering, Intrusion prevention system, Traffic shaping, DoS, DDoS, Anti-Spam.		
4. The solution should offer a Central management solution with the option to manage multiple firewalls from day one		
5. The solution should support 3000 SSL VPN bidder should quote any additional license to fulfill the requirement.		
6. The solution must be capable of using multiple WAN links, including auto-link health check, automatic fail over, automatic and weighted balancing, and granular multipath rules. It also needs to be able to support more than two ISPs.		
D.PHYSICAL INTERFACES		
The firewall should meet firewall standards and should have the following Ethernet interfaces. Integrating these ports with a device unit or external integration solution is an option. A combination of flexible or fixed port modules may be used.		

1. 2x100/40-GbE QSFP28, 8x25/10/5/2.5-GbE SFP28		
2. 4x10G/5G/2.5G/1G (SFP+), 4 x 10G/5G/2.5G/1G (Cu);		
3. 12 x 1GbE (Cu) or higher		
5. 2 x USB port, 1 x Console, 1 x Management Port		
6. 19" rack mountable railing kit with screws		
7. 2 x hot-swap redundant power supply units with Indian Power Cord [Full loaded]		
E.LICENSES		
1. 72 months Subscription licenses for Firewall		
2. Advanced Threat Protection		
3. Intrusion Prevention System(IPS)		
4. Anti-malware		
5. Web and App visibility control		
6. 24 x 7 on-site support		
7. Security and Software Updates		
F.USERS		
1. Total Number of internet users:20,000		
2. Total number of concurrent internet users:15,000		
G.SUPPLY, INSTALLATION AND TRAINING		
1. To ensure optimal performance as per the claim documentation, supply the equipment, install it, configure it, tune it, and backup and restore the existing policy configuration.		
3. Complete installation and operational documentation is needed for the equipment.		
H.FIREWALL PERFORMANCE		
1. The firewall should have a maximum latency (64-byteUDP) of 12.9 microseconds or less.		
2. It is essential for the firewall to have a minimum throughput (L2) of 47Gbps.		
3. It is necessary for the firewall to have a minimum NGFW throughput of 37Gbps.		
4. It is necessary for the firewall to have a minimum IPsec VPN throughput of 26.7 Gbps		
I.INTRUSION PREVENTION SYSTEM		
1. Intrusion Prevention System should have an IPS deep packet inspection engine with an option to select IPS patterns that can be applied to firewall rules for better protection. It should have the option to create a custom signature policy.		
2. Advanced threat protection, such as inbound and outbound SSL decryption.		
3. Botnet and malware protection, multiple attack correction, command, and control.		
4. Advanced intrusion prevention includes an allow list, block-list, host quarantine, and IP defragmentation.		
5. DoS and DDoS prevention, threshold, heuristic-based detection, self-learning, and host-based connection limiting.		
6. IPS aggregate performance(threat protection) should be a minimum of 37 Gbps		
7. Throughput with SSL decryption with100% SSL traffic should be a minimum of 11.5Gbps		
J.WEB FILTERING		
1. Should have the flexibility to create a network, user, Web, and app-based traffic shaping (quality of service) policy.		
2. Exceptions based on defined network objects. Notification for custom messages or URL redirections.		

K.APPLICATION CONTROL		
1. The firewall should have a feature that can identify, permit, block, or restrict the use of applications beyond ports and protocols.		
2. The firewall should protect against potentially unwanted applications.		
L.LOGGING & REPORTING		
1. The logging retention period should be 60 months for internal/external /hybrid modes.		
2. Information about the firewall policy rule that triggered the log must be included in firewall logs.		
3. The firewall must provide, at a minimum, basic statistics about the health of the firewall and the amount of traffic traversing it.		
4. The firewall should have support to log all blocked connections or pass through the firewall in detail.		
5. It is important for the firewall to support the generation of performance statistics in real-time.		
6. The firewall must be capable of producing reports that measure usage.		
M. Other		
1. Firewall shall have Management Console port to configure remotely.		
2. Firewall shall be EMI/EMC compliant in Substation environment as per IEC 61850-3.		
4. Client based Encryption/ VPN must support different Operating System platforms e.g. Windows, Linux & Mac.		
5. The solution must have content and comprehensive file detection policies, blocking the files as function of their types, protocols and directions.		
6. Firewall shall have logging facility as per standard logs/events format. Firewall shall have features to export the generated/stored logs/events in csv (Comma Separated Value) and also any other standard formats for offline usage, analysis and compliance. Firewall shall have suitable memory architecture and solution to store and be enable to export all logs/events for a period of last 90 days at any given time.		
7. Firewall shall have the capability to configure sufficient number of VLANs.		
8. Firewall shall have the capability to support sufficient number of sessions.		
9. Firewall shall have provision to configure multiple IP Sec VPNs, at least 100 nos.,(one-to-many or many-to-one).Shall support redundant operation with a similar router after creation of all the IP Sec VPN. IPSec VPN shall support encryption protocols as AES128,AES256 and hashing algorithms as MD5 and SHA1. IPSec VPN throughput shall support at least 26 Gbps		
10. Firewall shall be capable of SNMP v3 for monitoring from Network Management system. It shall also have SNMP v3 encrypted authentication and access security		
11. Firewall shall support in Active/Passive or Active-Active mode with stateful High Availability		
12. Firewall should have integrated traffic shaping (bandwidth, allocation, prioritization , etc.)functionality		
13. Shall support simultaneous operation with both IPv4 and IPv6 traffic		
14. Firewall time shall be kept synchronized to official Indian Time keeping agency, time.nplindia.org.		

Specification of LAN accessories

1. 48xGigabit RJ45 Ports & 2x10 Gbps SFP/SFP+ slots L3 Distribution Switch:

Sr No	Parameter	Specification	Compliance (Yes / No)
1	Hardware Requirement	The switch should be manageable in nature that provides a minimum of 48 x 10/100/1000 with up to additional 6 x 1/10G SFP+ Uplink/Stacking ports.	
2	Management port	1 x RJ45 console port	
3		The switch should have 2 x redundant PSUs	
4		The switch should have 1 x USB 2.0 for connecting external storage device	
5		The switch should be stackable in nature	
6		The switch should have an operating voltage of 100-240VAC 50-60Hz or 240VDC	
7	Performance	Switch should have non-blocking wire-speed architecture with support for both IPv4 & IPv6 from day one having switching fabric of minimum 128 Gbps or more with forwarding rate of minimum 95 Mpps. Switch should be IPv6 Logo Ready Certified.	
8		Switch should have 802, 1Q VLAN on all ports with support for minimum 4K active VLANs & minimum 16k MAC address entries	
9		Switch should have a minimum of 12K Unicast IPv4 Routes & 4K Multicast IPv4 Routes	
10		Switch should have a minimum of 4K Unicast IPv6 Routes & 2K Multicast IPv6 Routes	
11		Switch should have Max. ACL Entries up to 2000	
12	Switching Features	Switch should have Dynamic and static ARP; proxy ARP; free ARP	
13		Switch should support VLAN; 802.3x; 802.1p; 802.1Q; 802.3ad. Should support M-LAG.	
14		Switch should support Q-in-Q and flexible Q-in-Q; VLAN mapping	
15		Switch should support STP, RSTP, MSTP, PVST; GVRP; Super VLAN; PVLAN; Voice VLAN; Monitor link; BPDU TUNNEL; PPPOE+	
16		Switch should support Multi to one port mirroring; multi to multiport mirroring; RSPAN	
17		Switch should support 802.3af; 802.3at; priority; preemptive function; automatic fault monitoring	
18	Security	Switch should support AAA; 802.1X; RADIUS; TACACS+; SSH; port security; user classification; port isolation; UNI/NNI isolation; DHCP snooping; DAI; ARP check; IP source guard; CPU protection. Switch should be Common Criteria certified for EAL2+ level.	
19		Switch should support URPF; LAND attack; SYN Flood attack; Smurf attack; Ping Flood attack; Teardrop attack; Ping of Death attack	
20	Network Protocols	Static router; RIP v1/v2; OSPF; BGP; ISIS; RIPng; OSPFv3; BGP4; ISISv6; ECMP; Network load balancing	
21		Switch should support IGMP PROXY; IGMP filter; MLD v1/v2; IGMP Snooping; MLD v1/v2 Snooping; PIM-DM; PIM-SM; PIM-SDM; PIM-SSM	

22		Switch should support DHCP Server; DHCP Client; DHCP Relay; DHCP Snooping; DHCPv6 Server; DHCPv6 Client; DHCPv6 Relay; DNS; Ping; FTP Server; FTP Client; IP Accounting; UDP Helper; NTP	
23		Switch should support IPv6 basic function: IPv6 ND, IPv6 PMTU, IPv6 ACL, DS-Lite, IPv4/v6 Dual Stack	
24		Switch should support IPv6 manual tunnel; GRE tunnel; Ipv4/Ipv6 compatible automatic tunnel, 6to4 tunnel, ISATAP tunnel	
25	QoS	Switch should support traffic classification on Based on port/MAC address/IP address/IP priority/DSCP priority/TCP or UDP port number/ protocol type	
26		Switch should support traffic policing with CAR	
27		Switch should support congestion management with SP; WRR; SP+WRR	
28		Switch should support congestion avoidance on RED; WRED	
29	Management	Switch should support network management with Console port; HTTP; Telnet; SSH management; SNMP v1/v2/v3; RMON 1/2/3/9; SYSLOG; DDMI	
30		Switch should support sflow for traffic analysis	
31	OAM	Switch should have network delay/network jitter/packet loss rate test	
32	Other Features	Switch should support BFD for OSPF/VRRP etc.; Keepalive Gateway; VRRP/VRRPv6; ERPS (G.8032) ring network protocol	
33		Switch should support VRRP; VBRP; VRRPv3; BFDv6; BFD for VRRP/BGP/IS-IS/RIP/OSPF/static router; support VRRP and TRILL linkage; ULFD; ULPP; Monitor Link	
34	Ambient Conditions	0 to +50 °C - continuous operating temperature range	
35		Storage/transport temperature -40 to +70 °C	
36		Relative humidity 10-90 % ∴ (non-condensing)	
37	Certifications	OEM Should have valid ISO 9001:2015,ISO 14001:2015 certified and certificate must attach along with bid.	
38	Approvals	EAL2+,IEC 62443-4-1,TEC	
39	Local content	60% Min	

2. 48 Port 10G SFP/SFP+ Managed Core Switch:

Sr No	Parameter	Specification	Compliance (Yes / No)
1	Hardware Requirement	The switch should be manageable in nature that provides minimum 48 × 1/10G SFP+ slots, 6 × 40G QSFP+ slots, Uplink/Stacking ports	
2		The switch should have 2 × modular redundant PSUs, hot swappable in nature and modular fans	
3		The switch should have 1 × USB 2.0 for connecting external storage device	
4		The switch should be stackable in nature	

5		The switch should have an operating voltage of 100-240VAC 50-60Hz or 240VDC	
6	Performance	Switch should have non-blocking wire-speed architecture with support for both IPv4 & IPv6 from day one having switching fabric of minimum 1.44Tbps or more with forwarding rate of minimum 1071Mpps.	
7		Switch should have 802.1Q VLAN on all ports with support for minimum 4K active VLANs & up to 160k MAC address entries	
8		Switch should have a minimum of 128K Unicast IPv4 Routes & 8K Multicast IPv4 Routes	
9		Switch should have a minimum of 80K Unicast IPv6 Routes & 4K Multicast IPv6 Routes	
10		Switch should have Max. ACL Entries up to 12K	
11	Switching Features	Switch should have Port isolation; UNI/NNI isolation; UMB storm-control; combo port self-adaption	
12		Switch should support Sticky MAC learning; VLAN and global MAC address; static MAC; MAC address removal alert	
13		Support 4K VLAN; VLAN based on port/MAC/IP/protocol port number; VLAN Mapping N:1; PVLAN; Super-VLAN; GVRP	
14		Switch should support Q-in-Q and flexible Q-in-Q	
15		Switch should support STP/MSTP/RSTP; BPDU Guard; Root Guard; Flap Guard; Loop Guard; port fast test; BPDU message encryption; VIST; LBD; EIPS	
16		Switch should support N:1 port mirroring; data flow mirroring; RSPAN; ERSPAN; VLAN mirroring;	
17		Switch should support Dynamic link aggregation; static link aggregation; cross board/devices link aggregation; flow-based load balance	
18	Network Protocols	Switch should support TCP; UDP; Ping; Traceroute; Telnet; FTP; TFTP; ICMPv4; DNS; UDP Helper; DHCP; DHCP server; DHCP Delay; DHCP Snooping; NTP; SNTP; support ARP and ARP Proxy	
19		Switch should support IPv4/IPv6 dual stack; TCP6; UDP6; RawIP6; Ping v6; TraceRoute6; Telnet6; FTPv6; TFTPv6; DNSv6; ICMPv6; VRRPv3; DHCPv6; ND; PMTUD	
20		Switch should support Static route; RIPv1/v2; RIP; OSPF; IS-IS; BGP; GRE; IP/IP tunnel	
21		Switch should support IPv6 static route; RIPng; OSPFv3; IS-ISv6; BGPv4+; IPV6 transition tunnel; GREv6	
22		Switch should support IGMPv1/v2/v3 Snooping; multicast VLAN; support MLD v1/v2 Snooping	
23		Switch should support IGMPv1/v2/v3; MLD v1/v2; multicast static router; IPv4 intra-domain multicast router; IPv4 inter-domain multicast router; IPv4 multicast "management; support MSDP/PIM-SM/PIM-DM/PIM-SSM/PIM-SDM; IPv6 intra-domain multicast router; IPv6 inter-domain multicast router; IPv6 multicast management; IPv6 multicast forwarding; MSDP for IPv6; support PIM-SMv6 and PIM-SSMv6	
24		Switch should support IPv4/IPv6 standard ACL; IPv4/IPv6 extended ACL; mixed ACL; MAC ACL; ACL based on port; ACL based on layer3 interface; ACL based on VLAN; global ACL; Ingress/Egress ACL; ACL matching log; time-based ACL	

25	QoS	Switch should support Scheduling; 802.1p and DSCP priority mapping; traffic classification; traffic policing; traffic shaping; congestion management; congestion avoidance; speed limitation based on time domain; traffic policing based on time domain	
26	Security	Switch should support Message validity test; URPF; ACL; port isolation; DHCP Snooping; DHCPv6 Snooping; IPSG; IPSGv6; AARF; Dynamic ARP Inspection; ARP Check; Host Guard; BPDU message encryption	
27		Switch should support AAA; SSH v1/v2; USB-Key; log/configuration encryption; password strength check; login protection	
28		Switch should support Portal certification; 802.1X certification; port security	
29	Management & Maintenance	Switch should support Console; Telnet; SSH v1/v2	
30		Switch should support FTP/TFTP upload/download files; formatting files; creating catalog; file management	
31		Switch should support Ping; Traceroute; LSP Ping/Tracert function; interface loop monitoring	
32		Switch should support SNMP v1/v2/v3; RMON; SSH v1/v2; IPFIX/SFLOW; support TR069	
33	OAM	Switch should support 802.3ah OAM; 802.1ag OAM; ITU Y.1731 OAM	
34	Reliability	Switch should support PSU hot-plugging and fan module hot-plugging; support OS backup and recovery; support configuration file backup and recovery	
35		Switch should support VRRP; VBRP; VRRPv3; BFDv6; BFD for VRRP/BGP/IS-IS/RIP/OSPF/static router; support VRRP and TRILL linkage; ULFD; ULPP; Monitor Link	
36	Ambient Conditions	0 to +50 °C - continuous operating temperature range	
37		Storage/transport temperature -40 to +70 °C	
38		Relative humidity 10-90 % ∴ (non-condensing)	
39	Certifications	OEM Should have valid ISO 9001:2015,ISO 14001:2015 certified and certificate must attach along with bid.	
40	Approvals	EAL2+,IEC 62443-4-1,TEC	
41	Local Content	Min 60%	

3. 24xGE RJ45 Port LAN Switch:

Sr No	Parameter	Specification	Compliance (Yes / No)
1	Hardware Requirement	The switch should be manageable in nature that provides a minimum of 24 x 100/1000, with up to additional 4 x 1/10G SFP+ Uplink/Stacking ports.	
2		RJ45 console port	
3		The switch should have Fixed PSU and fixed fan	
4		The switch should have 1 × USB 2.0 for connecting external storage device	
5		The switch should be stackable in nature	
6		The switch should have an operating voltage of 100-240VAC 50-60Hz or 240VDC	

7	Performance	Switch should have non-blocking wire-speed architecture with support for both IPv4 & IPv6 from day one having switching fabric of minimum 64 Gbps or more with forwarding rate of minimum 95 Mpps. Switch should be IPv6 Logo Ready Certified.	
8		Switch should have 802, 1Q VLAN on all ports with support for minimum 4K active VLANs & minimum 16k MAC address entries	
9		Switch should have minimum 512 Unicast IPv4 Routes	
12	Switching Features	Switch should have Dynamic and static ARP; proxy ARP; free ARP	
13		Switch should support VLAN; 802.3x; 802.1p; 802.1Q; 802.3ad. Should support M-LAG.	
14		Switch should support Q-in-Q and flexible Q-in-Q; VLAN mapping	
15		switch should support STP/RSTP/MST; GVRP; Super VLAN; PVLAN; Voice VLAN; Monitor link; BPDU TUNNEL; PPPOE+	
16		Switch should support Multi to one port mirroring; multi to multiport mirroring; RSPAN	
17	Security	Switch should support AAA; 802.1X; RADIUS; TACACS+; SSH; port security; user classification; port isolation; UNI/NNI isolation; DHCP snooping; DAI; ARP check; IP source guard; CPU protection.	
18		Switch should support URPF; LAND attack; SYN Flood attack; Smurf attack; Ping Flood attack; Teardrop attack; Ping of Death attack	
19	Network Protocols	Static router; ECMP; Network load balancing	
20		Switch should support IGMP PROXY; IGMP filter; MLD v1/v2; IGMP Snooping	
21		Switch should support DHCP Client; DNS; Ping; FTP Server; FTP Client; IP Accounting; UDP Helper; NTP	
22		Switch should support IPv6 basic function: IPv6 ND, IPv6 PMTU, IPv6 ACL, DS-Lite, IPv4/v6 Dual Stack	
24	QoS	Switch should support traffic classification on Based on port/MAC address/IP address/IP priority/DSCP priority/TCP or UDP port number/ protocol type	
25		Switch should support traffic policing with CAR	
26		Switch should support congestion management with SP; WRR; SP+WRR	
27		Switch should support congestion avoidance on RED; WRED	
28	Management	Switch should support network management with Console port; HTTP; Telnet; SSH management; SNMP v1/v2/v3; RMON 1/2/3/9; SYSLOG; DDMI	
29		Switch should support sflow for traffic analysis	
33	Ambient Conditions	-10 to +55 °C - continuous operating temperature range	
34		Storage/transport temperature 0 to +70 °C	
35		Relative humidity 10-90 % ∴ (non-condensing)	
38	Certifications	OEM Should have valid ISO 9001:2015,ISO 14001:2015 certified and certificate must attach along with bid.	
39	Local Content	Min 60%	

4. Single Mode 10G SFP+ Module:

SI No	Specification		Compliance (Yes/No)
1	Architecture	10Gig LX SFP + LC Type Transceiver	
2	Connector	It should have duplex LC Connector	

3	Flow control.	Support 802.3e	
4	Mode	9/125 um Single mode Fiber Type up to 10 KM.	
5	Support wavelength	1310nm	
6	Case Operating Temperature:	support up to 0°~70°	
7	Storage Relative Humidity:	support up to 5% to 95%	

5. Single Mode 1G SFP Module:

SI No	Specification		Compliance (Yes/No)
1	Architecture	1000 Base LX Single-mode Fiber Transceiver	
2	Connector	It should have duplex LC Connector	
3	Flow control.	Support 802.3x	
4	Mode	9/125 um Single mode Fiber Type up to 20 KM.	
5	Support wavelength	1310nm	
6	Case Operating Temperature:	support up to 0°~70°	
7	Storage Relative Humidity:	support upto 5% to 95%	

6. 48 Port Fully Loaded UTP Patch Panel – Rackmount:

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Category 6 UTP Patch Panel is a elegant design patch panel. The panel has two-piece structure design combined with both 48-port panel and cable management. The panel has 180-degree punch down design for convenient network terminations. The panels cable management shelf ensures proper routing of cables with proper bend radius compliance to avoid strain relief. Exceeds ANSI/TIA-568-C.2 Standard and supports 1000-Base-T.	
2	Key Features:- • 180 Degree punch down design for network terminations • Ease of cable routing is assured with a rear cable management • 6x4 (2 Layer) module type designed jack configuration • Easily removable module design • 2U standard 19 inch rack mounted • Easy port labelling identification • Compatible with T568A or T568B wiring schemes • Accommodates 22~26 AWG Stranded and Solid Copper Wires	
3	Electrical:-	

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
	Current Rating : 1.5 Amps Insulation Resistance : $\geq 500\text{m}\Omega$ Contact Resistance : $\leq 10\text{m}\Omega$ DC Resistance : $\leq 0.1\Omega$ DC/AC Volt Endurance : DC 1000V/AC 750V 1 Min	
4	Mechanical:- Plug Insertion Life : ≥ 750 Cycles with FCC Compliant RJ-45 Plug Plug & Jack Contact Force : ≥ 100 Grams with FCC Compliant RJ-45 Plug Plug Retention Force : ≥ 11 lbf Durability : 200 Termination Cycles Operating Temperature : -10°C to $+60^\circ\text{C}$ Operating Humidity : 10% to 90% RH Storage Temperature : -40°C to $+68^\circ\text{C}$	
5	Physical:- Panel Frame: SPCC graded Cold Rolled Steel Powder Coated In Black Color. Cable Management: SPCC graded Cold Rolled Steel Powder Coated In Black Color. Housing: High Impact Flame Retardant Plastic, Polycarbonate (UL 94V-0 Rated). PCB: FR4, 1.6mm Thickness. Jack Wire Terminals: 0.40mm Phosphor Bronze (Base Material). 30 μ " gold plating over 40 μ " ~ 80 μ " nickel plating. Jack Configuration: 6x4 Module Special Design (2 Layers). IDC Conductor: 0.5 mm Phosphor Bronze (Base Material), 100 μ " Tin Plating. Panel Size: 483mm x 132mm x 44.3mm (L x W x H). IDC Contact Compatibility: 22~26 AWG Stranded and Solid copper wires. Labelling: Common 6 Port labels housed in plastic covering.	
6	Standard Verification: - • ANSI/TIA-568-C.2 • ISO/IEC 11801:2002/AMMD.2:2010 • ISO/IEC 60603-7 Compliant • RoHS Directive 2002/95/EC/Compliant	

7. Cat-6 UTP Patch Cord (Factory Crimped)

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Category 6 patch cords with four pair twisted stranded copper wire cable terminated with RJ45 modular plugs at both the ends.	
2	Patch Cords 100% factory tested for better quality and suitable for the high speed data transmission.	
3	Complies with the ANSI/TIA/EIA-568-C.2, ISO/IEC 11801, RoHS compliant Standard. Supports Data Networks Speeds Up to 10/100-Base-T and 1000-Base-T.	
4	Patch cord with LSZH jacket to reduced toxic/corrosive gasses emitted during combustion	

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Category 6 patch cords with four pair twisted stranded copper wire cable terminated with RJ45 modular plugs at both the ends.	
5	Transparent modular plugs with transparent slip on boot and cable assemblies	
6	T568B wiring scheme crimped at both connector ends.	
7	Available in different colors and different length on request	
8	Patch cord conductor: 24 AWG, Stranded copper wires, Insulation : HDPE	
9	Connector Plug: 30μ" Gold plated contact, Phosphor Bronze base material	
10	Jacket Diameter : 5.8 ± 0.1mm	
11	Plug Insertion/Extraction Life: 750 Cycles min. using FCC approved plug	
12	Plug & Jack Contact Force : 100 Grams min. using FCC approved plug	
13	Plug Retention Force : 11 lbf min.	
14	Current Rating: 1.5 amps, Voltage Rating: 72 Vdc max.	
14	Insulation Resistance : 500MΩ min, Contact Resistance : 20mΩ max, DC Resistance: 0.1Ω max.	
15	ETL Verified 4-Connector Channel performance certificate	
16	Operating Temperature : -20 °C to +70° C Installation Temperature : -20 °C to +70° C	

8. I/O Box (Face Plate + Keystone Module+ Back Box)

FACE PLATE:

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Single Face Plate Square (86 x 86mm) x 12 mm	
2	Two Piece design : Mounting Frame and Cover Plate	
3	Shutter on Face Plate for closing ports to prevent from dust entry	
4	Elegant : hidden-screw design	
5	Port labeling with paper label and transparent plastic window to hold paper label	
6	Glossy Finish : Suite for all decor	
7	Cover Material : ABS-UL94-V2 Base Material : ABS-UL94-V2 Dust Cover Material : ABS-UL94-V2	
8	Plug Retention Force : 14Kgf (140N)	
9	Supports UTP and STP Jacks Cat5e, Cat6 and Cat6A	
10	Suitable for 86 x 86 mm Square type Back box	

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
11	Installation Temperature: -20°C to +70°C Operating Temperature: -20°C to +70°C	
12	Standards : ANSI/TIA-568-C.2, ISO/IEC 11801:2002 AMMD.2:2010, ISO/IEC 60603-7 Compliant, RoHS Directive 2002/95/EC/Compliant, YD/T 926.3-2009	

KEYSTONE MODULE:

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Category 6 Keystone is Tool less Design 30 Micron Gold Plating Suitable for 23~24 AWG Solid Copper Wire, Easy For Termination and Compliant to T568A and T568B Wiring Schemes, UL Listed.	
2	Efficient rotation design tool free, press with click to terminate wires	
3	Cable holder with strain relief function for better termination and transmission	
4	Fast, Easy, Reliable Termination	
5	Reliable IDC contacts with color coding for better contact resistance and transmission	
6	Removable Shutter Option	
7	Keystone Jack Can Be Easily Terminated by Hand, Optional Termination by Hand Tool	
8	Backward compatible with both RJ11/RJ12 Plug	
9	Physical Specification:	
9.1	Housing : High impact flame retardant plastic, Polycarbonate UL 94V-0 rated	
9.2	PCB : FR4, 1.6mm Thickness	
9.3	Jack Wire Terminals: Phosphor bronze base, gold over nickel plating Gold Plating : 30μ, Nickel Plating Base(Ni) : 40μ~80μ	
9.4	IDC Terminals: Insulation displacement connector: Phosphor bronze base, Tin Plated 100μ	
9.5	(IDC) Accept #23~24 AWG solid copper wire	
10	Electrical Specification:	
10.1	Current Rating : 1.5 Amps	
10.2	Insulation Resistance : 500 MΩ minimum	
10.3	Contact Resistance : 10 mΩ maximum	
10.4	DC Resistance : 0.1 Ω maximum	
11	Mechanical Specification:	
11.1	Plug Insertion Life : 750 Cycles minimum using FCC-approved plug	
11.2	Plug & Jack Contact Force :100 Grams minimum using FCC-approved plug	
11.3	Plug Retention Force : 11.0 lbf minimum	
11.4	Durability: 200 Termination cycles	

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
11.5	Storage Temperature: -40°F to 150°F (-40°C to 68°C) Operating Temperature: -10°C to 60°C	
12	ETL Verified 4 connector channel performance Certificate	
13	Standard Verification:	
13.1	Qualified unscreened Class E/Cat.6. UL Listed	
13.2	Permanent Link & Channel ANSI/TIA-568-C.2	
13.3	IEC 60603-7-4 2 nd Edition	
13.4	ISO/IEC 11801 2.2 Edition	
13.5	CENELEC EN 50173-1:2011	
13.6	RoHS Directive 2002/95/EC/Compliant	

BACK BOX:

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Should have Robust and installer friendly design Surface Mount Boxes for Face Plates for a variety of media including voice and data, Audio, video and CATV distribution to the work area.	
2	Should secure and protect wire with durable wall box	
3	Material: ABS	
4	Shape: Square Size: 86 x 86	
5	Color: White	

9. Cat-6 UTP Cable:

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	The 4 pair Unshielded Twisted Pair cable	
2	This cable well exceeds the requirements of ANSI/TIA-568-C.2 and ISO/IEC 11801 Class E	
3	Nominal Outer Diameter of Cable should be 5.8 ± 0.2 mm and Conductor Diameter 23 AWG	
4	Construction: 4 twisted pairs separated by internal PE Cross Separator. Full separator. Half shall not be accepted. Rip Cord is must.	
5	Conductor: Solid bare Copper, Outer jacket sheath: LSZH CM/CMR rated cable.	
6	Insulation Material: Low smoke zero halogen (LSZH) with Insulation Diameter: 0.89 ± 0.01 mm	
7	Dielectric Strength of cable should be 2.5 KVDC for 2 seconds	

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
8	Bending Radius :< 4X Cable Diameter at -20°C ± 1°C Pulling Force: 25.35 lbs	
9	Electrical Parameters: Insertion loss (Attenuation), NEXT, PSNEXT, ELFEXT (ACRF), PSELFEXT (PSACRF), Return Loss, ACR and PS ACR.	
10	Insertion Loss of 32.8 db/100m at 250 MHz	
11	Cable should support operating temperature from -20° to +70°C	
12	Cable support Conductor Resistance ≤ 9.38 Ω/100m Max.	
13	Mutual Capacitance of cable should be < 5.6 nF/100m Max.	
14	Resistance Unbalance of cable should be 5% Max.	
15	Capacitance Unbalance of cable should Max. 330 pF/100m	
16	Cable support Delay Skew: < 45 ns/100m, Operating Voltage: 72V	
17	Nominal Voltage of Propagation (NVP): 69% and Current Rating: 1.5 A Max.	
18	Impedance: 100 ± 15 Ω @100 MHz. and Propagation Delay @250 MHz : 536 ns/100m	
19	ETL verified and RoHS Compliant	
20	Printed sequential Length Counter of each meter on Outer Jacket	
21	Category 6 UTP cables shall Supports Gigabit Ethernet (1000 base-T) standard and Operates at bandwidth of 600MHz	

10. Cat-6 STP Cable:

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Cat6 4 Pair SFTP Cable has been designed for horizontal cabling networks for transmission of high-speed data, digital and analog, voice and video signals over LANs. Tinned copper screening gives protection against EMI, avoid signal loss and better mechanical properties of cable. Performance verified up to 250MHz.	
2	This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801	
3	Conductor 23 AWG Solid bare Copper and Outer jacket sheath FRPVC and CM rated cable. Cable Type:SF/UTP Insulation: High Density Polyethylene Solid Conductor Diameter: 0.55 mm (23 AWG) Wrapping: Overall Polyester tape HF-Screening: Overall AL-PET (Mylar) tape Braiding: Tinned copper conductor Jacket Average Thickness: 0.44 ± 0.01 mm Jacket Diameter: 7.5 ± 0.5 mm, Rip Cord: 1 no Drain Wire: 1 no (0.39 ± 0.01 mm)	
4	Construction: 4 twisted pairs separated by internal PE Cross Separator. Full separator. Half shall not be accepted. Rip Cord is must.	
5	Dielectric Strength of cable should be 2.5 KVDC for 2 SECS	
6	Bending Radius: < 8X Cable Diameter at -20°C +/- 1°C	

SR. NO.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
	Pulling Force: 25.35 LBS	
7	Electrical Parameters Pair – to – pair and PS NEXT, ELNEXT and PSENEXT, Return Loss, ACR and PS ACR.	
8	Insertion Loss of 32.8 db/100m at 250 MHz	
9	Cable should support operating Temperature from -20° to +70°C	
10	Cable support Conductor Resistance < 9.38 Ω /100m	
11	Mutual Capacitance of cable should be < 5.6nF/100m	
12	Max Resistance Unbalance of cable should be 5% Max	
13	Capacitance Unbalance of cable should max 330pF/100m	
14	Cable support Delay Skew: < 45ns/100m, Operating Voltage: 72V NVP: 69% and Current Rating: MAX 1.5A	
15	Printed sequential Length Counter of each meter on Outer Jacket	
16	Products should comply with RoHS directives.	

11. OFC Patch Cord (Factory Crimped)

SR.NO	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	Fiber optic patch cord with two core (Duplex) fiber cable terminated with SC/LC/ST/FC connector at one end and SC/LC/ST/FC connector at other end.	
2	The terminated connectors in assemblies are designed and are compatible with industry standards (ANSI/TIA-568-C.3, ISO/IEC 11801).	
3	Have good geometrical characteristics of apex offset & radius of curvature & fiber height	
4	100% factory terminated and tested for optical characteristics & fiber end face finish.	
5	Fiber type G. 652D standard. OS2 (9/125 μ m),	
6	Buffer Diameter : 0.9 $\pm$ 0.05 mm, Jacket Thickness : 0.35 $\pm$ 0.05 mm, Strength Member as Aramid yarn	
7	Cable Diameter : 2.0 x 3.8 $\pm$ 0.2 (Duplex)	
8	Jacket colour : Yellow, Jacket Material : LSZH	
9	Connector Ferrule : Ceramic, Apex Offset should be <50 μ m, Fiber height should be $\pm$ 100 μ m	
10	Connector Repeatability $\leq$ 0.2dB with 1,000 times mating cycles.	
11	Connector cable retention : 50 N (11.24 lbs), Crush resistance : 100N/100mm, Bend Radius: 20 x Diameter of cable	
12	Attenuation : $\leq$ 0.36 dB/km (@1310 nm), $\leq$ 0.25 dB/km (@1550 nm)	
13	Chromatic Dispersion : $\leq$ 3.5 ps/nm.km (@1285 - 1330 nm), $\leq$ 18 ps/nm.km (@1550 nm)	
14	Zero Dispersion Wavelength : 1300 - 1324 nm	

SR.NO	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
15	Cut-off Wavelength : ≤ 1260 nm	
16	Mode Field Diameter : 9.2 ± 0.4 μ m (@1310 nm) , 10.4 ± 0.5 μ m (@1550 nm)	
17	Insertion Loss (@1310 &1550nm) : SM (UPC/PC) Type : SC/LC/ST/FC : ≤ 0.3 dB Return Loss (@1310 &1550nm) : SM (UPC/PC) Type : SC/LC/ST/FC : ≥ 50 dB	
18	Insertion Loss (@1310 &1550nm) : SM (APC) Type : SC/LC/ST/FC : ≤ 0.3 dB; Return Loss (@1310 &1550nm) : SM (APC) Type : SC/LC/ST/FC : ≥ 60 dB	
19	Traceability sticker available for product tracking and Interferometry report need to submit	
20	Standards: IEC 60332-1, ANSI/TIA-568-C.3, ISO/IEC 11801 , RoHS Compliant	
21	Installation Temperature : -20 °C to +70° C, Operating Temperature : -20 °C to +70° C	
22	Available in various length in meters	

12. Fully Loaded LIU:

SR.NO	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	The Fiber Rackmount LIU loaded having Adapter panel fixed on drawer base frame, with Adapters and with Pigtails and assembled with splice tray as per the Loaded fiber port requirement and their applicable accessories.	
2	Suitable to mount at different positions (depth wise) on standard 1U 19 inch racks. Drawer type to pull out for easy maintenance when assembled in racks.	
3	Cold Rolled Steel material with black powder coating	
4	Three types of cable entry holes for different size cables through cable glands, covered with rubber cable grommets/covers.	
5	Splicing of 24 fibers in each plastic fiber splicing trays with integrated cable spool design.	
6	Non removable top cover and no rear cover. Drawer type to pull out for better access of interior.	
7	As per the Loaded fiber port requirement , Loaded 12/24 (SC Simplex) adapters with SC SIMPLEX Pigtails on rackmount ports.	
8	As per the Loaded fiber port requirement Accessories kit consists of Cable management rings/Cable saddles, Cable glands (PG13.5, 2 nos), Splice rods, Blanking clips, Velcro ties, Cable ties, Cable inlet/outlet hole covers (2 types, 2 nos each)	
9	Cable management rings/Cable saddles can be mounted inside the rackmount, no provision to mount outside in front of the adapter panel.	
10	Suitable for storing up to 3 meter of 900 μ m tight buffered fiber pigtail per adapter.	
11	Panel Dimensions : 482 x 220 x 44.3 mm (Length x Width x Height)	
12	Splice Tray Dimensions : 220 x 90 x 15 mm (Length x Width x Height)	
13	Port identification numbers printed on the Adapter panel	
14	Standards: Comply as per ANSI/TIA-568-C.3, ISO/IEC 11801, RoHS Compliant.	

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
15	Operating Temperature : -20 °C to +70° C Installation Temperature : -20 °C to +70° C	

13. 6 Core Single Mode Armoured OFC:

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	06-Core, Singlemode 9/125 micron primary coated buffers, 10G Ethernet OS2, Armoured Loose Tube, ECCS (Electrolytic Chrome Coated Steel) Tape, Jelly Filled Loose Tube.	
2	Two Steel Wires/Rods embedded in outer periphery of the jacket as strength members. UV Stabilised jacket and protected from Rodent attacks	
3	Complying to ANSI/TIA-568-C.3, ISO/IEC 11801, Telecordia GR-20 Core, ITU-T REC G.652D, IEC 60793-1/60794-1, EN 50173, RoHS Compliant	
4	Suitable for use in indoor/outdoor ducts, direct burial and backbone cabling	
5	Loose tube material : Polybutylene Terephthalate (PBT) with Natural/White Colour having Inner Diameter/Outer Diameter $1.7/2.5 \pm 0.1$ mm	
6	Peripheral strength member as two steel wires/rods having dimensions as 0.6 ± 0.05 mm	
7	Moisture Barrier as Water Swellable Tape, Armouring ≥ 0.150 mm (ECCS Tape), Number of Ripcords as 01 no polyester based yarns.	
8	Outer sheath material as HDPE with diameter as 7.5 ± 0.5 mm having thickness of 1.5mm nominal	
9	Weight of the cable for 06 core (HDPE): 65.0 ± 10 kg/km	
10	Fiber colour and Loose tube colour as per ANSI/TIA standards.	
11	Tensile Strength : 1000 N, Crush Resistance : 4000 N/100mm	
12	Minimum bend radius : 20 x Diameter (during installation), Minimum bend radius : 10 x Diameter (during full load)	
13	Fiber Type : G. 652D (OS2)	
14	Attenuation : ≤ 0.38 dB/km (@1310 nm), ≤ 0.25 dB/km (@1550 nm)	
15	Chromatic Dispersion : ≤ 3.5 ps/nm.km (@1285 - 1330 nm), ≤ 18 ps/nm.km (@1550 nm)	
16	Zero Dispersion Wavelength : 1300 - 1324 nm	
17	Zero Dispersion Slope : ≤ 0.092 ps/nm ² .km	
18	Polarisation Mode Dispersion : ≤ 0.2 ps/√km	
19	Cut-off Wavelength : ≤ 1260 nm	
20	Mode Field Diameter : 9.2 ± 0.4 μm (@1310 nm) , 10.4 ± 0.4 μm (@1550 nm)	

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
21	Core Cladding Concentricity Error : $\leq 0.8 \mu\text{m}$	
22	Cladding Diameter : $125 \pm 1 \mu\text{m}$, Coating Diameter : $245 \pm 10 \mu\text{m}$	
23	Cladding Non-circularity : $\leq 1 \%$	
24	Installation Temperature : -20°C to $+70^\circ\text{C}$, Operating Temperature : -20°C to $+60^\circ\text{C}$	
25	Cable Size and Standard Length: 6F : $2/4 \text{ kms} \pm 10\%$	

14. 6 Core Single Mode Unarmoured OFC

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
1	06-Core, Singlemode 9/125 micron primary coated buffers, 10G Ethernet OS2, Unarmoured Loose Tube, ECCS (Electrolytic Chrome Coated Steel) Tape, Jelly Filled Loose Tube.	
2	Two Steel Wires/Rods embedded in outer periphery of the jacket as strength members. UV Stabilised jacket and protected from Rodent attacks	
3	Complying to ANSI/TIA-568-C.3, ISO/IEC 11801, Telecordia GR-20 Core, ITU-T REC G.652D, IEC 60793-1/60794-1, EN 50173, RoHS Compliant	
4	Suitable for use in indoor/outdoor ducts, direct burial and backbone cabling	
5	Loose tube material : Polybutylene Terephthalate (PBT) with Natural/White Colour having Inner Diameter/Outer Diameter $1.7/2.5 \pm 0.1 \text{ mm}$	
6	Peripheral strength member as two steel wires/rods having dimensions as $0.6 \pm 0.05 \text{ mm}$	
7	Moisture Barrier as Water Swellable Tape, Number of Ripcords as 01 no polyester based yarns.	
8	Outer sheath material as HDPE with diameter as $7.5 \pm 0.5 \text{ mm}$ having thickness of 1.5 mm nominal	
9	Weight of the cable for 06 core (HDPE): $65.0 \pm 10 \text{ kg/km}$	
10	Fiber colour and Loose tube colour as per ANSI/TIA standards.	
11	Tensile Strength : 1000 N, Crush Resistance : 4000 N/100mm	
12	Minimum bend radius : 20 x Diameter (during installation), Minimum bend radius : 10 x Diameter (during full load)	
13	Fiber Type : G. 652D (OS2)	
14	Attenuation : $\leq 0.38 \text{ dB/km}$ (@1310 nm), $\leq 0.25 \text{ dB/km}$ (@1550 nm)	
15	Chromatic Dispersion : $\leq 3.5 \text{ ps/nm.km}$ (@1285 - 1330 nm), $\leq 18 \text{ ps/nm.km}$ (@1550 nm)	
16	Zero Dispersion Wavelength : 1300 - 1324 nm	
17	Zero Dispersion Slope : $\leq 0.092 \text{ ps/nm}^2.\text{km}$	
18	Polarisation Mode Dispersion : $\leq 0.2 \text{ ps}/\sqrt{\text{km}}$	
19	Cut-off Wavelength : $\leq 1260 \text{ nm}$	
20	Mode Field Diameter : $9.2 \pm 0.4 \mu\text{m}$ (@1310 nm) , $10.4 \pm 0.4 \mu\text{m}$ (@1550 nm)	
21	Core Cladding Concentricity Error : $\leq 0.8 \mu\text{m}$	

SR.N O.	SPECIFICATION / QUALITATIVE REQUIREMENT	COMPLIANCE (YES/NO)
22	Cladding Diameter : 125 ± 1 µm , Coating Diameter : 245 ± 10 µm	
23	Cladding Non-circularity : ≤ 1 %	
24	Installation Temperature : -20 °C to +70° C, Operating Temperature : -20 °C to +60° C	
25	Cable Size and Standard Length: 6F : 2/4 kms ± 10%	

15. 9U Wall Mounted Network Rack with all accessories:

Sl. No.	Description	Compliance (Yes/No)
1	TECHNICAL SPECIFICATION FOR 9U Wall Mount RACK:	
	Racks manufactured out of steel sheet punched, formed, welded and Powder coated	
	Rack should be from ISO 14001 ,27000 Certified Company & UL Listed	
	Standard for Racks configuration will be welded frame with Integrated side panel and vented top cover	
	Rack should have Front tinted Glass door	
	Rack should have provision to mount racks on Wall	
	Rack should be 9U(1U = 44.45 mm) in Height.	
	It should be minimum 550MM Wide & 600MM Deep	
	Rack should Conform to DIN 41494 or Equivalent EIA /ISO / EN/CEA Standard	
	Rack should have Adjustable mounting depth,	
	Rack 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space.	
	Rack should have Numbered U positions,	
	Rack should have 100% assured compatibility with all equipment conforming to DIN 41494 (General industrial standard for equipment)	
	Powder coated finish with seven Tanks pre-treatment process meeting IS	
	Rack should have one Hoz. Cable Manager Loop 1U.	
	Rack should have one Cantilever shelf.	
	Rack should have Fan module Mount Provision on top Cover with minimum 1 no. 90 CFM Fan	
	Rack should have one Server /IT Rack mount power distribution unit, 1Ph, 230V, 8A, 50/60Hz, 2U standard with 6 X Indian Round Pin 5A, Inlet Plug type 6A Indian Round Pin, 8A Fuse - PDU Rating 1.8KVA/Side feed-1.5Mt/ Black	
	Rack should have provision for cable entry Exit from Both top & Bottom.	
	Rack should have 1 Packet of mounting hardware, Pack of 20.	

16. 12U Wall Mounted Network Rack with all accessories:

Sl. No.	Description	Compliance
1	TECHNICAL SPECIFICATION FOR 12U Wall Mount RACK:	
	Racks manufactured out of steel sheet punched, formed, welded and Powder coated	
	Rack should be from ISO 14001 ,27000 Certified Company & UL Listed	
	Standard for Racks configuration will be welded frame with Integrated side panel and vented top cover	
	Rack should have Front tinted Glass door	
	Rack should have provision to mount racks on Wall	
	Rack should be 12U(1U = 44.45 mm) in Height.	
	It should be minimum 550MM Wide & 600MM Deep	
	Rack should Conform to DIN 41494 or Equivalent EIA /ISO / EN/CEA Standard	
	Rack should have Adjustable mounting depth,	
	Rack 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space.	
	Rack should have Numbered U positions,	
	Rack should have 100% assured compatibility with all equipment conforming to DIN 41494 (General industrial standard for equipment)	
	Powder coated finish with seven Tanks pre-treatment process meeting IS	
	Rack should have one Hoz. Cable Manager Loop 1U.	
	Rack should have one Cantilever shelf.	
	Rack should have Fan module Mount Provision on top Cover with minimum 1 no. 90 CFM Fan	
	Rack should have one Server /IT Rack mount power distribution unit, 1Ph, 230V, 8A, 50/60Hz, 2U standard with 6 X Indian Round Pin 5A, Inlet Plug type 6A Indian Round Pin, 8A Fuse - PDU Rating 1.8KVA/Side feed-1.5Mt/ Black	
	Rack should have provision for cable entry Exit from Both top & Bottom.	
	Rack should have 1 Packet of mounting hardware, Pack of 20.	

17. GPON OLT with 4 PON, 2 RJ45 and 2 SFP / SFP+ Uplink Port:

SI No	Technical Specification		Compliance (Yes/No)
1	Uplink Port		
	Copper 10/100/1000M auto-negotiation	2	
	SFP/ SFP+ is 10GE Duplex (independent)	2	
2	GPON port		
	QTY	4 Nos and PON module Loaded with OLT from Day 1	
	Physical Interface	SFP slot	

	Connector type	Class B+/C+	
	Max Splitting Ratio	1:128	
3	Management Ports		
	1* 10/100 Base-T out-band port	YES	
	1* Console port	YES	
4	PON port Specs		
	Transmission Distance	20Km	
	GPON port speed	Downstream : 2.488 Gbps	
	Wavelength	Upstream : 1.244 Gbps	
		Tx: 1490nm , Rx: 1310 nm	
	Connector	SC/PC	
	Fiber type	9/125μm SMF	
	Tx power	3dBm - 7dBm	
	Rx sensitivity	-30dBm	
	Saturation Optical Power	-12dBm	
5	Management mode		
		SNMP, Telnet, CLI, WEB	
6	Management Function		
	Fan group control	YES	
	Port Status Monitoring	YES	
	Configuration management	YES	
	Online ONU configuration & management	YES	
	User management	YES	
	Alarm Management	YES	
	SNMP	YES	
	Telnet	YES	
	CLI	YES	
	WEB	YES	
	SSHv1/v2	YES	
7	Layer 2 Functions		
	MAC address	16K MAC support	
	VLAN	4096 VLAN support	
	Port VLAN	YES	
	Protocol VLAN	YES	
	VLAN tag mode	YES	
	VLAN untag mode	YES	
	VLAN transparent mode	YES	
	VLAN translation mode	YES	
	QinQ	YES	
	Storm control based on port	YES	
	Port isolation	YES	
	Port Rate Limitation	YES	
	Support 802.1D and 802.1W	YES	

	Static LACP and Dynamic LACP	YES	
	QOS based on port ,VID , TOS and MAC address	YES	
	Access control list	YES	
	Flow control	YES	
	Port stability statistic and monitoring	YES	
8	DHCP		
	DHCP server	YES	
	DHCP relay	YES	
	DHCP snooping	YES	
	DHCP option 82	YES	
9	Layer 3 Route		
	ARP Proxy	YES	
	Static Route	YES	
	Hardware host routes	1024	
	Hardware subnet routes	512	
	Support 802.1x	YES	
	Radius and TACACS	YES	
	IP source guard	YES	
	Optional Support : RIPv1/v2 , OSPFv2/v3 ,RIPng , Dynamic Route	YES	
10	GPON function		
	TCONT DBA	YES	
	Gemport Traffic	YES	
	ITU-T984.x standard support	YES	
	Transmission distance	Upto 20Km	
	Data encryption	YES	
	Multi cast port VLAN	YES	
	RSTP	YES	
	Support ONT auto discovery / link detection / remote upgrade of software	YES	
	Support VLAN division and user separation to avoid broadcast storm	YES	
	Support power off alarm function for link problem detection	YES	
	Support broadcasting storm resistance function	YES	
	Support ACL and SNMP	YES	
	IPv6		
11	IPv6	YES	
	NDP	YES	
	IPv6 Ping	YES	
	IPv6 routing	YES	

	IPv6 Telnet	YES	
	Support MLD v1/v2	YES	
12	Dimensions	442mm*200mm*43.6mm	
14	Power supply	220VAC	
		AC:90~264V, 47/63Hz	
15	Power Consumption	35W	
16	Working Temperature	0 to 50 degcelsius	
17	Storage Temperature	-40~+85°C	
18	Relative Humidity	5~90% (non-conditioning)	
19	Certification	The switch must be TEC-certified under the Mandatory Testing and Certification of Telecom Equipment (MTCTE) program.	
20	Regulatory compliance	All OLT and ONU should be from same make for better compatibility and management.	
21	Certifications	OEM Should have valid ISO 9001:2015,ISO 14001:2015 certified and certificate must attach along with bid.	

XPON ONU

SI No	Technical Features		Compliance (Yes/No)
1	PON	SC single-mode / single-fiber symmetric 1.25 Gbps	
		SC single-mode / single-fiber Downstream : 2.5 Gbps ,Upstream : 1.25 Gbps	
		GPON support	
		EPON Support	
2	Wavelength	Tx: 1310 nm, Rx :1490 nm	
3	Sensitivity	< - 27 dBm (PX20+)	
4	Overload	> - 8dBm (PX20+)	
5	Transmitting Optical Power	Optical Power : 0 to 4dBm and Transmitting Distance : 20 Km	
6	Optical type	SC/PC type	
7	Interface type	1 * 10/100/1000 Mbps auto adaptive Ethernet interface	
		Full /Half duplex RJ45 Connector	
8	VLAN	Support VLAN tag mode	
		Support VLAN trunk mode	
		Support VLAN transparent mode	
		Support VLAN 1:1 translation mode (max 8 VLANs)	
9	Alarm	Support Dying Gasp	
		Support Port Loop Detect	
		Support Eth Port Los	

10	Basic	Support MPCP discover and register	
		Support Authentication MAC/LOID/MAC+LOID	
		Support DBA bandwidth	
		Support auto-detecting, auto-configuration, and auto firmware upgrade.	
		Support authentication SN/Psw/Loid/Loid+Psw	
11	LED indicators	Support SYS, LINK/ACT, REG	
12	Multicast	Support IGMP v1/v2	
		Support IGMP Snooping	
		Support Max Multicast vlan 8 and Max Multicast Group 64	
13	Management	Support CTC OAM	
		Support WEB	
		Support TELNET	
		Support CLI	
		Support SP and WRR	
		Support 802.1P	
15	DC power supply	12V external AC-DC adapter	
16	Power Consumption	<=4W	
17	Operating temperature	-30 to +70°C	
18	Operating Humidity	10 to 90 % (non-condensed)	
19	Storing temperature	-30 to +70°C	
20	Storing Humidity	10 to 90 % (non-condensed)	
21	Certification	The switch must be TEC-certified under the Mandatory Testing and Certification of Telecom Equipment (MTCTE) program.	
22	Regulatory compliance	All OLT and ONU should be from same make for better compatibility and management.	
23	Certifications	OEM Should have valid ISO 9001:2015,ISO14001:2015 certified and certificate must attach along with bid.	

18. 1 KVA UPS

Technical Specification		
Item-UPS 1 KVA offline UPS		
Sl.No.	Parameter	Value
1	Category	Line Interactive UPS with AVR (V2)
2	BIS	Only BIS Marked Catelogs
3	Rating in KVA	1.0
4	Technology	MOSFET-PWM
5	Type of battery	SMF-VRLA confirming to JISC-8702Pt1,2&3
6	Rated Output(volt)	Any

7	Degree of protection	IP20 or higher
8	Inverter efficiency (%)	>/=90% or higher
9	Warranty for the battery from date of installation	05 years or higher
10	Warranty for line interactive UPS	05 years or higher
11	AC output for printer(not through inverter)	Yes
12	Inverter output socket AC output for printer(not through inverter)	03 Pin or higher
13	Minimum Guaranteed Battery Backup time(Minutes) on Full Load	15 or More
14	Load power factor	>/=0.6
15	Variation in ARV output	230 volts+/-9%
16	Battery will not be treated as consumable item. Replacement of Battery will be covered in Onsite OEM warranty.	Yes
17	OEM authorization certificate.	Yes (Copy of the certificates to be submitted along with the offer)
18	Any Other Requirements	As per Meity (Government of India) guidelines UPS shall have valid IS16242-Part 1 CRS certification
19	Location of Battery	Inside the Enclosure of UPS

19. 5 KVA UPS (2hr Backup on full load)

TECHNICAL SPECIFICATION		
CAPACITY		5KVA
Input	Voltage Range	160 to 295V (It may be changed as per customer)
	Frequency	45 to 55Hz
	Power Factor	0.99 to unity
Output	Voltage	230VAC
	Regulation	±1%
	Frequency	50Hz ± 0.05% in free running mode
	Waveform	Pure sine wave
	Harmonic Distortion	< 3% at full load (non linear load) < 2% (linear load)
	Crest Factor	03:01
	Overload Capacity	110% - for 10 min 150% - for 5 cycles
	Output Power Factor	0.8
Battery	DC Bus Voltage	192V
	Charger Type	Built-in solid state float-cum-boost charger with automatic boost/trickle charge modes.
	Transfer Time	0 ms

	Battery Type	VRLA-SMF batteries (For 120 min BackUp : 12V /42AH-80AH)
	Charging current	10% of Battrey AH
Indicator	Multi function LED display/LCD Display	Battery Level, Load Level, AC Mode, Battery Mode By Pass Mode, fault indicator
Metering	LCD Display	Input Voltage, Input Frequency, Output Voltage, Output Frequency, Output Current, Percentage Load. DC Voltage
Audible Alarm	AC failure Battery low UPS fault	Every 4 seconds Every seconds when approaches to low level Continuous alarm
Protection	Electronic protection	Output overload, short circuit, Over temp, Battery low, Over charge, Input Voltage high/low
Efficiency	Overall	87%
	Inverter	> 92%
Ambient Condition	Temperature	0-40 degree centigrade
	Humidity	0-95% at non condensing
	Audible Noise	< 60 db at 1 metre

20. 65" Large Format Display:

Technical Specification		Compliance (Yes/ No)
Diagonal Size	65"or higher	
Panel Type	VA	
Resolution	3840x2160(16:9)	
Brightness	500 Nit or higher	
Contrast Ratio	`4000:1or higher	
Viewing Angle(H/V)	178:178	
Bezel Width(mm)	13.4mm(even) or less	
Panel Depth	28.5mm or less	
Response Time	8 ms	
Display Colors	16.7 M	
Color Gamut	92%	
Audio	Built in Speaker(10W + 10W)	
Input Type	DP 1.2 (1),HDMI 2.0 (3)	
	HDCP2.2	
	USB 2.0 x 2 , RJ45	
BT/Wifi	Wi-Fi(2.4/5.0GHz dual) & BT	
Output Type	Stereo Mini Jack	
Duty Cycle	24x7	

Special features	H/W : HAZE 25%Symmetric Design, Center IR, Temperature Sensor, Ambient Sensor Auto Level Wi-Fi(2.4/5.0GHz dual) & BT S/W : Workspace (Microsoft365/VMWare/RDP) Custom Home Auto Source Switching & Recovery, Dicom Simulation Mode, Director Mode, SmartView+(PC), Upgradable Web-Engine, Enterprise Platform Smart Calibration, SmartView+ feature to wirelessly show 6 participants from different devices(mobile, PC, laptop, tablets, etc), Video Conference Solution.	
Internal Player Feature	1.6Hz Quad Core CA73 or better CPU, 16GB Storage	
Logo	Should have customized Logo when no signal is active	
File Support	Direct viewing of PPT, Word ,PDF, Images and Video from pen drive	
Remote Controlling of Device	Laptop / Desktop should be controlled remotely by external Keyboard and mouse through display	
External Control	RS232C(in/out), RJ45	
Power Consumption Max	215.0 W/H OR LESS	
Standby Mode Power	less than 0.5W	
Vesa Mount	400*400mm	
Operating Temperature	0 °C ~ 40 °C	
Humidity	10 % ~ 80.0 %	
Safety	CE, UL & BIS	
	EMC-Class B	

21. RJ 45 Connector

Technical Specification	Compliance(Yes/No)	Remarks
RJ45 modular plug should supports 4 twisted pairs, 8 positions, 8 connectors		
Contact Terminal: Copper Alloy		
Finished: 03MU micro-inch gold plating		
Operating temperature:-40°C to 80°C		

Installation and commission components of the LAN infrastructure

Sl.No.	Services/Item	Quantity	UOM	Remark
1	Laying of PVC Capon casing(ISI mark) 1/2 Inch and other accessories required for laying of UTP cable	3000	Mtr	PVC Capon casing, PVC Box casing, PVC Conduit and accessories is to be arranged by the successful bidder.
2	Laying of PVC Capon casing(ISI mark) 1.5 Inch and other accessories required for laying of UTP cable	5000	Mtr	
3	Laying of 50X100 PVC Box casing (ISI Make)	2000	Mtr	
4	Laying of PVC Conduit (ISI make) 1 inch and accessories for laying of OFC & STP cable	3000	Mtr	
Passive Infrastructure Services				
1	Laying of UTP Cable through PVC Capon Casing	57950	Mtr	

2	Laying of Fiber Cable through PVC Conduit	3530	Mtr	
3	Laying of STP Cable through PVC Conduit	305	Mtr	
4	Termination & Fixing of Patch Panel	21	Nos	
5	Fixing & Termination of I/O along with Face Plate & Back box	754	Nos	
6	Fixing & Installation of 42U Floor Standing Cooling Rack with Fire detection and suppression; Access Control system.	1	Nos	
7	Fixing & Installation of 9U Wall Mounted Network Rack with all accessories	13	Nos	
8	Fixing & Installation of 12U Wall Mounted Network Rack with all accessories	4	Nos	
9	Fixing & Termination of 12 Port Fully Loaded LIU	24	Nos	
10	Fixing & Termination of 24 Port Fully Loaded LIU	4	Nos	
11	Penta Scanner Testing for the UTP infrastructure	1	Lot	
12	OTDR testing for OFC Infrastructure	1	Lot	
13	Documentation & Project Management charges	1	Lot	
Active Infrastructure Services				
1	Installation, Commissioning & Configuration of Switching Infrastructure.	1	Lot	
2	Installation, Commissioning & Configuration of GPON Infrastructure.	1	Lot	
3	Installation, Commissioning & Configuration of Next Generation Firewall in HA mode	1	Set	
4	Installation, Commissioning & Configuration of Network Monitoring & Syslog Software (NMS)	1	No	

All the necessary tools for the successful installation & completion for LAN infrastructure is to be arranged by the successful bidder.

VIII) Consignee : General Manager (System)/HOD,WCL,HQ or his representative.

IX) Payment Terms:

- i.) 80% value of the equipment and 100% taxes and duties and other charges excluding installation & commissioning charges shall be made within 21 days after receipt and acceptance of materials at site at the consignee's end and submission and Acceptance of Performance Bank Guarantee.
- ii.
- iii. ii)Balance 20% payment including installation& commissioning charges shall be made after successful completion of installation, testing, commissioning and final acceptance of the equipment by the G.M.(System)/HOD.
- iv. iii For CAMC charges: CAMC charges will be released on quarterly basis after completion of each quarter.

X) Delivery

The delivery schedule would be as follows:

(a) Delivery period at consignee store = within 45 **days** from the date of issue of supply order.

(b) Installation & Commissioning at WCL HQ within 45 days from the date of site handover or 90 days from the date of issue of supply order whichever is later. (Site handover will be communicated to vendor via email/letter)

(c) However, it is bidder's responsibility to deliver material at consignee store within 45 days from the date of issue of supply order.

XI) ProvennessCriteria:

PROVENNESS CRITERIA:
1.1. The LAN INFRASTRUCTURE offered by the tenderer shall be considered proven provided the (i) One number Managed Core Switch(ii) One number of L3 Distribution Switch (iii) One number of Next Generation Firewall in HA Mode (iv) One number of Network Monitoring&SyslogSoftware(NMS)(iv) One number of 42U Floor Standing Cooling Rack with Fire detection and suppression of quoted model or similar equipment, must have been supplied by the bidder (or Manufacturer in case bidder is not the manufacturer) in India to mining industry and/or to the other Industries (Private or Government/ Public Sector Undertaking) and all of them performed satisfactorily for a minimum period of one year from the date of commissioning (window period). The performance of only those equipment would be considered for assessing provenness which have been commissioned 1 year prior to the date of opening of tender but not prior to 5 years from the date of opening of tender(window period). (2) Bidder shall be OEM or OEM authorised Indian agent or System Integrator. If the bidder claims provenness of the quoted model based on similar item, acceptance criteria of similar item shall be as per sub-clause 1.8 below.
1.2-Not Applicable.
1.3- Not Applicable.
1.4-Not Applicable.
1.5- Not Applicable
1.6-“Satisfactory Performance” means the supplied equipment must have achieved the guaranteed annual availability, if any, as per the performance guarantee clause of the supply orders/ contracts for a minimum period of oneyear from the date of commissioning. In case supply orders/ contracts do not have provision for guaranteed annual availability, the bidder will submit satisfactory performance report issued by end users as per benchmark regarding performance of equipment, if any, incorporated in the supply orders/ contracts against which these equipment were supplied. In case, the Performance Report(s) of the End-User(s) is not available, the bidder shall submit self-certification claiming satisfactory performance of the equipment supplied and as per Amendment to Clause-13.11.3 of Pur-manual, dated-26.10.2021 :- Considering the practical difficulties in obtaining the performance in cases where provenness of the offered product is being ascertained on the basis of supply made in other subsidiaries of CIL or other PSUs / Govt. departments / Private Organisations, the bidder will be asked to submit a Self-certificate in the following format, along with Proof of Payment against the Purchase Order(s) / Rate Contract(s) and Commissioning Certificate(s) (in case of equipment, P&M, etc. where installation & commissioning is required):

“ The items covered in the Purchase Order(s)/ Rate Contract(s) copies enclosed with our offer have been fully executed and have performed satisfactorily as per the provisions of respective Purchase Order(s)/ Rate contract(s) and all the complaints/ claim (s) lodged by the purchaser, if any, have been attended to and no complaints/ claims(s) are pending ”

In case, any specific Purchase Order(s) has/ have not been fully executed and any complaint/ claim is pending, then details of such cases to be categorically mentioned with the reasons thereof so that decision making is in clear perspective without any hidden facts in the subject matter.

The authenticity of the self-certificate as well as other documents submitted/ uploaded by the bidder will solely be their responsibility and appropriate action will be taken by WCL if it is subsequently found to be misleading/ false / forged.

In case the bidder has submitted any contracts/supply order copies of quoted models issued to any other firm, as per clause 1.1 of provenness criteria, the respective contracts/supply order copies shall be authenticated by concerned OEM.

(i) In the above case the Indian office / Indian subsidiary of foreign manufacturer can issue a tender specific authorization in favour of an agent in India, provided the Indian Office / Subsidiary itself is authorized by the foreign manufacturer to issue such kind of authorization on their behalf.

1.7 “Similar Item” shall be such item, which fulfills the following:

- a) Performs almost identical operations as the quoted model.
- b) Should be equal to or higher than the tendered capacity.

1.8. Acceptance Criteria for Similar Equipment

If the bidder claims provenness of the quoted model based on similar item as per sub clause-1.7 above, then the similar item should have performed satisfactorily for a minimum period of one (01) years from the date of commissioning.

The original 10% PBG for the total contract value will be retained for the warranty period as per PBG clause of NIT.

Beyond warranty period if CAMC is involved the additional PBG @5% of the value of equipment for the entire CAMC period shall be applicable as per clause 8.18.9 of purchase manual.

1.9-Start ups and MSEs are exempted from prior experience criteria and should submit proof of establishing the quality assurance & technical capability for tendered item issued by any statutory authority in line with Relaxation of Norms for Startups & MSEs in Public Procurement regarding prior experience - prior turnover criteria as per NIT.

XII)

Experience Criteria for bidder

The experience of only those orders/ contracts issued to the bidder would be considered for assessing experience criteria which have been commissioned during 05 years period prior to the
--

date of opening of tender as per the following criteria:

- a. Single order of at least **35%** of estimated bid value,
or
- b. Two orders of at least **20%** each of estimated bid value,
or
- (b) Three orders of at least **15%** each of estimated bid value.

Similar nature of work includes (a) Supply, Installation & Commissioning of LAN INFRASTRUCTURE SYSTEM.

Against the above, the bidder needs to submit the order copies and commissioning/ work completion certificates by the buyer organization.

In respect to the above experience criteria, the bidder is required to furnish the following information certified by the end user:

1. Description of qualifying experience.
2. Order Number / Contract Agreement Number of each experience.
3. Name & address of Employer/ Order Issuing authority of each experience.
4. Start date & end date of each qualifying experience.

Note(1) :The experience of only those orders would be considered for assessing experience criteria which have been commissioned during 05 years period prior to the date of opening of tender even though the supply order, delivery and acceptance of material is prior to 05 years prior to the date of opening of tender with the following scenarios:

1. If the order is for supply, installation and commissioning then the total cost of the order will be considered for evaluation of experience criteria.
2. If the order is for supply, installation and commissioning with maintenance of one or more years and its maintenance services is completed prior to the date of opening of tender, then the total cost of the order including supply, installation, commissioning along with the maintenance service charges will considered for evaluation of experience criteria.
3. If the order is for supply, installation and commissioning with maintenance of one or more years and its maintenance services are still ongoing and not completed prior to the date of opening of tender, then the total cost of the order including supply, installation, commissioning along with the portion of maintenance charges executed prior to the date of opening of tender will be considered for evaluation of experience criteria.
4. If the order is for establishment of Similar category of work on rental basis, then the rental charges of the services executed and corresponding value during 05 years period prior to the opening of the tender will be considered for evaluation of experience criteria.

Note (1): The documents submitted against Provenness may also be considered for Experience Criteria, provided the same documents qualifies the conditions of experience criteria and the

documents submitted against Experience Criteria may also be considered for Provenness , provided the same documents qualifies the conditions of Provenness criteria

Note (2): Bidders have to comply both the criteria's i.e. A. Provenness Criteria and B. Experience Criteria for the Bidder.

(XIII) **Other General Terms**:-In case of tenders invited from system integrators for products / solutions involving hardware, software and their integration solutions of a number of manufacturer / vendors, insistence on “one manufacture can authorize one agent” shall be relaxed.

(XIV) **Minimum local content % of following telecom items:**

Minimum local content % of following telecom items:

- (i) L2&L3 Switch(BOQsl no:1 &3): 60%
- (ii) GPON/XGPON equipment (BOQ sl no: 6):60%
- (iii) Optical Fiber Cable (BOQ sl no:24 & 25)):55%
- (iv) 5 KVA UPS (BOQ sl no): Shall be class-I local supplier.
- (v) 1 KVA UPS (BOQ sl no): Shall be class-I local supplier.

ANNEXURE - 1

PROFORMA FOR EQUIPMENT AND QUALITY CONTROL

(To be submitted by the Startups / MSE firms who claim the relaxation of the prior turnover and prior experience criteria)

Reference: Western Coalfields Ltd Hqrs____ TenderNo._____
Date_____ for

supply of_____

1. Name and Address of the Firm
2. (a) Telephone No. office/factory/works
(b) Fax No. / E-mail ID

3. Location of manufacturing works/factories owned by the firm (documentary evidence of ownership must be produced).

4. Brief description of the factory (i.e. area covered accommodation, Department into which it is divided, laboratory etc.)
5. Details of plant and machinery erected and functioning in each department (monographs and description pamphlets) be supplied if available.
6. Whether the process of manufacture in the factory is carried out with the aid of power or without it.
7. Process Flow Chart for the whole manufacturing process of the tendered item
8. Details and stocks of raw materials held.
9. Production capacity of items quoted for with the existing plants and machinery
 - (a) Normal
 - (b) Maximum
10. Details of Quality Assurance Plan and Quality Control Infrastructure such as laboratories etc.
11.
 - (a) Details of technical supervisory staff in-charge of production and quality control.
 - (b) Skilled labour employed.
 - (c) Unskilled labour employed
 - (d) Maximum number of workers (skilled and unskilled) employed on any day during 18 months preceding the date of application.
12. Whether stores were tested to any standard specification, if so, copies of original test certificate should be submitted in duplicate.

(Signature of Tenderer)

NB: Details against sl nos. 5 to 12 inclusive need be restricted to the extent they pertain to the items under reference.

ANNEXURE - 2

RELAXATION OF NORMS FOR STARTUPS & MSEs in Public procurement regarding prior experience criteria as per CI 2.8.3.7 of Purchase Manual:

Further, vide Policy Circular No. 1(2)(1)/2016-MA dated 10.03.2016 of MoMSME, it has been clarified that all Central Ministries/ Departments/ Central Public Sector Undertakings may relax the condition of prior turnover and prior experience with respect to Micro and Small Enterprises in all public procurements subject to meeting of quality and technical specifications, i.e. these MSEs must have the technical capability to deliver the goods and services as per prescribed technical and quality specifications. Further, as per Department of Expenditure, Ministry of Finance OM No. F.20/2/2014/PPD-(Pt) dated 25.07.2016 circulated vide note F. No. 24/2/2013/Fin-I dated 02.08.2016, relaxation of the condition of prior turnover and prior experience in public procurement has been extended to all Startups (whether MSE or not) subject to meeting of quality and technical specifications in accordance with the relevant provisions [Rule 173(i)(b) of GFR, 2017]. It has subsequently been clarified by the Department of Expenditure, MoF vide OM No. F.20/2/2014/PPD- (Pt) dated 20.09.2016 that there may be circumstances (like procurement of items related to public safety, health, critical security

operations and equipment, etc.) where procuring entities may prefer the vendors to have prior experience rather than giving orders to new entities. For such procurements, wherever adequate justification exists, the procuring entities may not relax the criteria of prior experience/ turnover for Startups. In view of the above instructions, wherever, it is decided not to relax prior experience/ turnover criteria, adequate justification has to be given.

Tender Inviting Authority (TIA) in CIL and its Subsidiaries shall make a provision in the tender documents that prior experience and prior turnover criteria are not applicable for Startups and MSEs in the tender.

However, if bidders have submitted documents to prove the Startup/MSE status for the tendered item without certificate towards quality, assurance and capability from some authority like MSME, NSIC, etc., the TIA, if needed, may assess the techno-commercial capability of the vendors to manufacture and deliver goods as per the prescribed quality and technical specification before awarding contract to them. For this purpose, a 'Proforma for Equipment and Quality Control' (as per Annexure-1) has to be enclosed in the tender documents and such MSEs/ Startups should be asked to submit the details of plant & machinery, quality control arrangements, etc., in the above proforma along with their bids for verification of their technical capability. After opening of bids, the verification of technical capability may be done by the concerned Technical Department immediately without any undue delay so that it is available for consideration at the time of evaluation/ processing of offers.

It should be ensured that the designated technical authority from whom the technical capability report is being called, is furnished with copy of the enquiry, the details of equipment, quality control, man-power availability, compliance/deviation statements and any other relevant particulars related to manufacturing/supply of the item as furnished by the firm(s) along with their tender.

If required, a techno-commercial team of the organization may visit the manufacturing unit of the vendor without any undue delay for quick finalization of tenders.

In case there is deficiency in technical capability of the firm, the same is to be communicated to them by TIA for improvement in the quality of their product for future tenders and clearly indicate that their offer cannot be considered for relaxation against the tender in question in order to avoid any future complications. The issues relating to Technical capability may be decided by the Head of the Technical Department.

If favorable technical capability reports obtained earlier on such firms for supply of the item in question as per the required specification is available, these may be considered for granting relaxation to the criteria of prior experience and prior turnover provided date of such reports are not more than one year from the date of opening of bids.

If bidders have submitted documents to prove the Startup/MSE status for the tendered item and their products are ISI marked/DGMS approved/Proven in CIL or its Subsidiary companies/Proven product of the ancillary unit of a Subsidiary Company of CIL, they will be required to submit the following applicable related documents, digitally signed copy (for documents submitted on e-procurement portal)/ self-certified copy (for documents submitted in modes other than e-procurement portal), for relaxation from the criteria of prior experience and prior turnover:

- a valid BIS Marking License for the quoted items
- or
- Rate contract issued by CIL/its Subsidiary Companies for the quoted items

- or
- a valid DGMS Approval certificate for the quoted items
- or
- Proven Ancillary certificate issued by the Subsidiary Companies for the quoted items.

The document(s)/certificate(s) furnished by the bidders for ISI markings or DGMS approval for any relaxation should be valid on the date of tender opening and a copy of such document(s) / certificate (s) valid on the date of supply, self-certified, must accompany their bill(s).

If the documents are related to the OEM or principal, the self-certification of OEM or principal shall also be required.

ANNEXURE - 3

FORMAT FOR SELF-CERTIFICATION OF PERFORMANCE

(On the Letter Head of Bidder)

Format for self-certification of Performance

(On the Letter Head of Bidder)

Tender No.

We certify that the items covered in the Purchase order(s)/ Rate contract(s) copies enclosed with our offer have been fully executed and have performed satisfactorily as per the provisions of respective Purchase Order(s)/ Rate Contract (s) and all the complaint(s)/Claims lodged by the purchaser, if any, have been attended to and no complaints/claim(s) are pending.

Sl no	NIT Item Description	Offered product	Supply order issuing authority	Supply Order No.	Date of Supply Order (in DD/MM/YYYY format)	Rate Contract No with Date, if any	Qty	Date of Commissioning (in DD/MM/YYYY format)

[Note: In case, any specific Purchase Order(s) has/ have not been fully executed and any complaint/ claim is pending, then details of such cases are to be categorically mentioned with the reasons thereof so that decision making is in clear perspective without any hidden facts in the subject matter.

The authenticity of the self-certificate as well as other documents submitted/uploaded by the bidder will solely be the responsibility of bidder and appropriate action will be taken by CIL/ subsidiary company if it is subsequently found to be misleading/ false/ forged.

However, WCL reserves the right to obtain the performance directly from the end user of the item/product.]

Name & Signature of bidder :
Designation :
(Seal of the Bidder) :

Commercial Terms and conditions

Bidders should read the following terms and conditions and accept while participating in tender/bid for respective items (those are applicable to them):

1. Eligibility Criteria for Bidders:

(Documents related to Eligibility Criteria should be submitted by the bidders, along with offer)

Purchase Preference : Purchase Preference will be given to eligible bidders as per Public Procurement (Preference to Make in India), Order 2017 issued vide order No. P-45021/2/2017-B.E.-II dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019, 04.06.2020 and 16.09.2020, clarified vide OM dated 04.03.2021 and latest revision dated 19.07.2024 and latest directives of GOI if any) of Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry

a) Only the Local Suppliers i.e. Class – I Local supplier (a supplier or service provider, whose goods, services or works offered for procurement has local content of minimum of 50%) and Class – II Local Supplier (a supplier or service provider, whose goods, services or works offered for procurement has local content of minimum of 20% but less than 50%) are only eligible to Quote.

Note : Along with the bid for the offered model minimum local content % of following items should be as under:

Minimum local content % of following telecom items:

- (i) L2&L3 Switch(BOQsl no:1 &3): 60%
- (ii) GPON/XGPON equipment (BOQ sl no: 6):60%
- (iii) Optical Fiber Cable (BOQ sl no:24 & 25):55%
- (iv) 5 KVA UPS (BOQ sl no 30): Class 1 local supplier
- (v) 1 KVA UPS (BOQ sl no 29): Class 1 local supplier

Class-I local content certificate with the above mentioned minimum local content shall be submitted from the local supplier/bidder of above items , as per requirement of MII policy

The Local suppliers (Class I / Class II) shall have to submit the certificate regarding the quantum (Percentage) of the local content and shall also give details of the location(s) at which the local value addition is made as per the **Annexure "A" of NIT.**

Non-Local Supplier means a supplier or service provider, whose goods or services offered for procurement have local content less than 20%. Non-Local Suppliers are not eligible to participate in this Domestic Tenders which meant only for Indigenous Manufacturers / Local Suppliers.

Local content means the amount of value added in India, which is the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all custom duties) as a proportion of the total value, in percent.

Explanatory notes for calculation of local content given above:

- a. Imported items sourced locally from resellers/distributors shall be excluded from calculation of local content.**
- b. The license fees/royalties paid/technical charges paid out of India shall be excluded from local content calculation.**
- c. Procurement/Supply of repackaged/refurbished/rebranded imported products as understood commonly shall be treated as reselling of imported products and shall be excluded from calculation of local content. The definition of repackaged/refurbished/rebranded imported products is as follows:**

'Refurbishing' means repair or reconditioning of an imported product does not amount to manufacture because no new goods come into existence.

'Repackaging' means repacking of imported goods from bulk packs to smaller packs would not ordinarily amount to manufacture of a new item.

'Rebranding' means relabeling or renaming or change in symbol or logo/makes or corporate image of a company/organization/firm for an imported product would amount to rebranding.

- d. To ensure items sourced locally from resellers/distributors are excluded from calculation of local content, bidders shall submit, the cost of such locally sourced imported items (inclusive of taxes) along with breakup on license/royalties paid/technical expertise cost etc. sourced from outside India. For items sold by bidder as reseller, OEM certificate for country of origin to be submitted.**

For contracts involving supply of multiple items, weighted average of all items to be taken while calculating local content.

The definitions of 'Local Supplier', 'Local Content and 'Margin of Purchase Preference' are as follows:

(i) 'Class - I Local Supplier' means a supplier or service provider, whose goods or services offered for procurement, meets the minimum local content of 50%.

(ii) 'Class - II Local Supplier' means a supplier or service provider, whose goods or services offered for procurement, meets the minimum local content of 20% but less than 50%.

iii) Non – Local Supplier means a supplier or service provider, whose goods or services offered for procurement, have local content less than that prescribed for Class-II Local Supplier.

iv) "Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

(v) "Margin of Purchase Preference" means the maximum extent to which the price quoted by a local supplier may be above the L I for the purpose of purchase preference. The margin of purchase preference is 20%.

Special Treatment of items covered under PLI scheme

The manufacturers manufacturing an item under PLI scheme shall be treated as deemed class II local supplier for that item unless they have minimum local content equal to or higher than that notified for Class- I local supplier for that item, provided the manufacturer has received incentive from the concerned PLI ministry for the item. The above shall be applicable for the specific time period only as notified by concerned PLI ministry.

Verification of local content: (i) The 'Class - I Local Supplier' / 'Class - II Local Supplier' at the time of tender, bidding or solicitation shall be required to indicate **percentage of local content** and provide self-certification that the item offered meets the minimum local content requirement for 'Class - I Local Supplier' / 'Class - II Local Supplier' as the case may be. They shall also give details of the location(s) at which the local value addition is made.

(ii) In cases of procurement for a value in excess of Rs. 10 crores, the 'Class - I Local Supplier' / 'Class - II Local Supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the **percentage of local content**.

The certificate issued from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) **should have valid UDIN number**.

(iii) The bidder shall give self-certification for local content in the quoted item (goods/works/services) at the time of tendering. However, at the time of execution of the project, for all contracts above INR 10 Crore, the contractor/ supplier shall be required to give local content certification duly certified by cost/ chartered accountant in practice. For cases where it is not possible to provide certification by Cost/Chartered Accountant at the time of execution of project, the supplier shall be permitted to provide the certificate for local content from Cost Chartered Accountant after completion of the contract, within time limit acceptable to the procuring entity. In case the contractor/ supplier does not meet the stipulated local content requirement and the category of the supplier changes from Class-I to Class-II/ Non-local or from Class-II to Non-local, a penalty upto 10% of the contract value may be imposed. However, contract once awarded shall not be terminated on this account.

(iv) CIL/ Subsidiary Companies may constitute committees with internal and external experts for independent verification of auditor's/ complaints.

A fee of Rs 2 Lakh or 1 % of the value of the locally supplied products, services or works being procured (subject to a maximum of Rs. 5 Lakh), whichever is higher, is to be submitted along with the complaint by the complainant. In case, the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld in part or full, deposited fee of the complainant will be refunded without any interest.

(v) False declarations will attract banning of business of the bidder or its successor(s) as per provisions of CIL Purchase Manual 2020 along with such other actions as may be permissible under law.

(vi) A local supplier who has been debarred by any procuring entity for violation of above order shall not be eligible for preference under this Order for procurement by any other procuring

entity for the duration of debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities.

b) Indian Agent of Local Supplier: (Broadly includes Distributor, Dealer, Channel Partner etc.) (Applicable for tenders of value **more than Rs.50.00 lakhs**) Procurement should generally be made from manufacturers only.

However, if the manufacturer does not quote directly to any organisation in India as a matter of its corporate policy (except in situations like supplies to OEM /OES/ OPM, supplies of spares and consumables bundled with supply of equipment, supplies to customers not covered by dealer network due to geographical/ logistics constraints), the procurement shall be made from its authorised Indian Agent based on the tender specific authorisation issued by the manufacturer mentioning tender reference number and date and validity of such authorisation for

LAN Infrastructure	Managed Core Switch
	L3 Distribution Switch
	Next Generation Firewall in HA Mode
	Network Monitoring&SyslogSoftware(NMS)
	42U Floor Standing Cooling Rack with Fire detection and suppression

c) The estimated tender value includes cost of the equipment and CAMC Period. As the CAMC value is more than 10% of the total estimated value of the complete package of goods and services, hence the average Annual Financial Turnover of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the total estimated value of the tender. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid

The list of documents to be submitted by the bidder:

i) Local Suppliers (Class-I Local Supplier and Class – II Local Supplier): In case the bidder is a Local supplier (Class-I Local Supplier), they have to submit certificate regarding the quantum (Percentage) of the local content and details of the location(s) at which the local value addition is made as per the Annexure A of NIT.

Note : Along with the bid for the offered model minimum local content % of following items should be as under:

Minimum local content % of following telecom items:

- (i) L2&L3 Switch(BOQsl no:1 &3): 60%
- (ii) GPON/XGPON equipment (BOQ sl no: 6):60%
- (iii) Optical Fiber Cable (BOQ sl no:24 & 25)):55%
- (iv) 5 KVA UPS (BOQ sl no 30): Class 1 local supplier
- (v) 1 KVA UPS (BOQ sl no 29): Class 1 local supplier

Class-I local content certificate with the above mentioned minimum local content shall be submitted from the local supplier/bidder of above items , as per requirement of MII policy

ii) **In case of Indian Agent of Local Supplier** (Applicable for tenders of value of more than Rs.5.00 lakhs) (Class-I Local Supplier and Class – II Local Supplier):

1. Self attested copies of the Local Supplier certificate (to be issued by Local supplier) indicating the quantum (Percentage) of the local content and details of the location(s) at which the local value addition is made as per the Annexure "A" of NIT.
2. A tender specific authorization issued by the manufacturer mentioning tender reference number and date and validity of such authorization (Format as per **Annexure "B & C" NIT**). Authorization should be pre-dated (from the tender opening) and should be properly signed and its validity should correspond to the delivery period stipulated in the Tender Enquiry for following items

LAN Infrastructure	Managed Core Switch
	L3 Distribution Switch
	Next Generation Firewall in HA Mode
	Network Monitoring & Syslog Software (NMS)
	42U Floor Standing Cooling Rack with Fire detection and suppression

3. Undertaking from the manufacturer that, as a matter of its corporate policy, it does not quote directly to any organization in India (except in situations like supplies to OEM / OES/OPM, supplies of spares and consumables bundled with supply of equipment, supplies to customers not covered by dealer network due to geographical / logistics constraints). If, subsequently, at any stage, it is found that it has quoted directly to any organization in India excepting the situations mentioned above, it shall be liable for penal action as per provisions of the NIT and the CIL Purchase Manual 2020, if the justification provided by the bidder has not been considered adequate and satisfactory by the procuring entity. Further, if at any stage, it is found that agency commission has been paid by the manufacturer/ principal without declaring the agent, the commission will be recovered with interest

4. Undertaking from the manufacturer that it will accept the responsibility for the satisfactory execution of orders placed on the authorized agents including warranty/ guarantee obligations.

5. Undertaking from the manufacturer that, wherever necessary, it will provide requisite inspection and testing facilities at its works in respect of orders placed on authorized agent.

6. Undertaking from the manufacturer that the authorized agent's price will not exceed that which the manufacturer would have quoted.

7. Undertaking from the manufacturer that in the event of placement of order on their authorized dealer, the goods supplied / goods offered for inspection would be accompanied by a certificate stating that the goods have been manufactured by them.

8. Undertaking from the manufacturer that No agent / Middle man / Liaisoning agent or any entity in any name other than the disclosed authorized Indian Agent is involved in the process of procurement of goods and services.

(if subsequently at any stage, it is found that it has given a false certificate, it shall be liable for penal action as per the provisions of CIL Purchase Manual 2020).

9. Undertaking from the bidder (authorized dealer) that he will be responsible for all the contractual obligations including quality aspects, replacement of part/items and warranty/ guarantee obligations, and also will be responsible for providing the required after sale service.

10. The business entity of the Indian Agent should be in existence for 3 years on the date of tender opening, irrespective of date of appointment as Indian Agent. The relevant self attested document in this regard is to be submitted along with the offer.

11. In cases where value of service component is more than 10% of the total estimated value of the complete package of goods and services, the average Annual Financial Turnover of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the total estimated value of the tender (as specified against each item). Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid.

Note:

1. If both the Local Supplier (Class – I Local Supplier and Class – II Local Supplier) and the Indian Agent participates in this tender, then the offer of the Indian Agent will be rejected.

~~2. One manufacturer can authorize only one Indian agent and an agent should not represent or quote on behalf of more than one Principal for same tendered item.~~

3. If Indian Agents submits bid on behalf of a manufacturer, the same agent shall not submit a bid on behalf of another manufacturer in the same tender for the same item / product.

2) BANNED OR DELISTED OR DEBARRED OR PUT ON HOLIDAY SUPPLIERS:

The manufacturer as well as the bidder (if bidder is not the manufacturer) will give a declaration (As per Annexure D) that they have not been banned or de-listed or debarred or 'Put on Holiday' by any Government or quasi-Government agencies or PSUs. If a bidder and/or manufacturer has been banned or delisted or debarred or 'Put on Holiday' by any Government or quasi-Government agencies or PSU, this fact must be clearly stated and it may not necessarily be a cause for disqualifying them.

Bidder must declare any previous transgressions of such a code of integrity with any entity, in any country, during the last three years, or of being debarred by any other procuring entity.

However, if the manufacturer/bidder is banned or delisted or debarred or 'Put on Holiday' by DoE/MoC/WCL/CIL, the offer shall be **not be considered for further evaluation.**

3. Pre-contract Integrity Pact: (Applicable for tenders for value of Rs.2.00 cr and above)

IEM details: Names, Full Address, Phone no and email Id of both the Independent External Monitors are as under:

Sl no	Name of IEM	Address	e-mail ID	Mobile No
1	Dr. AtanuPurkayastha, IAS(Retd)	D/5, Sector-27, NOIDA, PIN:201301,	Dratanu2011@gmail.com	9899772227
2	ShriVed Prakash Yajurvedi, IoFS (Retd)	E-33, AyudhVihar, Plot no-3, Sector – 13, Dwarka, New Delhi - 110075	vpyajurvedi@gmail.com	9473763645

4. Clarification of Bids/ Shortfall/ Confirmatory Documents:

After evaluation of the uploaded documents, shortfall documents, if required, shall be sought from the bidder. For this purpose, **maximum 1 chance** shall be given. The time period for the clarification will be 7x24 hrs given to the bidders to upload these clarifications / shortfall documents. The bidder will upload the requested documents within the specified period and no additional time will be allowed in this regard for on-line submission of documents after the maximum 1 chance, of 7x24 hours duration. If the bidder does not comply or respond by the specified date & time, his tender will be liable to be rejected. The shortfall information/documents shall be sought only in case of historical documents as per GeM provision/rules.

5. Payment terms:-

- 80% value of the equipment and 100% taxes and duties and other charges excluding installation & commissioning charges shall be made within 21 days after receipt and acceptance of materials at site at the consignee's end and submission and Acceptance of Performance Bank Guarantee.
- Balance 20% payment including installation& commissioning charges shall be made after successful completion of installation, testing, commissioning and final acceptance of the equipment by the G.M.(System)/HOD.
- For CAMC charges: CAMC charges will be released on quarterly basis after completion of each quarter.

Note: All MSME vendors/suppliers are **advised to get themselves registered** on TReDS platform (www.treds.in) or on www.rxil.in and avail the facility of the TReDS.

6. Submission of Bills: The supplier will submit the following documents along with bills to the paying authority:

- Four copies of the Supplier's invoice, Pre-Receipted and Stamped showing Contract Number, Goods description, quantity, unit price, total amount and GST No. of Ultimate Consignee.
- Receipted Challan/ Consignment Note of all the consignments/E-way Bill.
- Manufacturer's Test / Inspection Certificate.
- Manufacturer's Warranty /Guarantee Certificate.
- Lowest Price Certificate
- Price fall clause certificate
- Any other document(s) required as per contract / Technical specifications of the bid / contract.

7.Performance Bank Guarantee:- APPLICABLE (Submission of Performance Bank Guarantee is exempted for the contracts having value up to Rs. 5.00 lakhs):-

Successful tenderer will have to submit performance bank guarantee for 10% of equipment landed value along with maximum annual landed value of CAMC (landed cost of items ordered inclusive GST) valid for a period of 3 months beyond Guarantee / Warranty and the same shall be released on receipt of satisfactory performance throughout the guarantee period. Performance Bank Guarantee has to be submitted for the order value of items along with maximum annual landed value of CAMC (landed cost of items ordered inclusive GST), which will be arrived at by adding all the Taxes applicable, such as GST to the FOR-Destination Price of the materials on order. The Performance Bank Guarantee shall be released after receipt of satisfactory performance and no claim certificate from the user department.

Performance Bank Guarantee applicable for CAMC is to be submitted at the start of the CAMC and shall be applicable at a rate of 5 % of the order value of equipment only (landed cost of equipment ordered inclusive GST) which shall be given by supplier after completion of warranty period. The PBG submitted after award of contract shall be released only after new PBG for the CAMC period is submitted and accepted by buyer/consignee after due verification. Bank guarantee for CAMC is to remain valid till completion of CAMC period plus 3 months. The bank guarantee for CAMC shall be submitted to buyer directly. In case, seller fails to submit the PBG or does not provide services for the CAMC contract after expiry of warranty period then PBG of equipment shall be forfeited.

The release of the Performance Bank guarantee(s) after above indicated period, shall be subject to satisfactory performance of the equipment/ items during the warranty period and fulfillment of contractual obligations failing which, action for further extension or encashment of PBG, as deemed suitable shall be taken. The Performance Bank Guarantee shall be released with the approval of concerned HOD (MM) / Area GM after obtaining the following:

1. 'No Claim Certificate' from the concerned HOD (User Dept.) indicating that there is no claim pending.
2. 'No Claim Certificate' from the contractor indicating that there is no claim pending and that there is no dispute pending as per Annexure H.

In the event of breach of a contract / failure of fulfilment of contractual obligations by the supplier, the Performance Bank Guarantee shall be forfeited and encashed / credited to the procuring entity's account.

In cases where the supplier does not submit the PBG in time or as per the prescribed format in line with the contract stipulations, the PBG amount may be deducted from the first bill or in case of insufficient amount, from subsequent bill(s) of the supplier till the full PBG amount is deducted. This amount shall be refunded to the supplier upon acceptance of PBG submitted by them.

The PBG must be submitted along with the supply. No payment shall be made without submission of PBG. (Format of PBG is enclosed as Annexure - "G" which is to be submitted physically and through SFMS platform)

(This is in addition to the Security Deposit to be submitted @5% of order value)

Note

1: The PBG can be submitted by the OEM or their authorized dealer for the supply of Equipment and for CAMC.

2: Bidders submitting Bank Guarantee are encouraged to submit e-BG through NeSL platform (refer Annexure "I").

8. Security Deposit- APPLICABLE (Submission of Security Deposit is exempted for the contracts having value upto Rs. 5.00 lakhs): -

The Successful bidder who has been awarded the contract/ Supply order is required to submit the Security Deposit.

Case i) Security Deposit shall be for an amount of **Five per cent** of the total landed value of the contract including all taxes, duties and other costs and charges without considering the Input Tax Credit.

Case ii) In case of Rate / Running Contracts the Security Deposit shall be for an amount of 5% of annual offtake contractual value; and in case RC period is longer than 1 year, SD amount shall be 5% of average annual offtake.

Case iii) In case of Contracts for procurement of Capital Goods along with Warranty Spares & Consumables (if applicable) and additional Spares & Consumables / AMC / CMC for more than one year, the Security Deposit shall be for 5% of equipment landed value along with maximum annual landed value of Spares & Consumables / AMC / CAMC.

The Security Deposit shall be deposited through RTGS / NEFT / IMPS / e-BG/ other digital modes or in the form of a Bank Guarantee as per format given in GeM from an RBI Scheduled Bank in India (on a non-judicial stamp paper) within 15 days from date of notification of award or placement of order.

(Bidders submitting Bank Guarantee are encouraged to submit e-BG through NeSL platform (refer Annexure "I"))

i) The Security Deposit shall be in the same currency in which contract is to be signed / Supply order issued. In case of Multi Currency contract separate SDBG in respective currency for required value as above shall be submitted and must conform to the Uniform Rules for Demand Guarantees (URDG 758) – an international convention regulating international securities.

ii) In case of equipment, SDBG shall not be individual equipment wise. However, multiple Bank Guarantees for Security Deposit shall be permissible provided value of all the SDBGs totals to 5% of the contract value, and all are submitted simultaneously within the specified time schedule and all of them are in the same prescribed format of SDBG without linking to any particular equipment.

iii) The SDBG shall remain valid up to 60 Days beyond the scheduled delivery period after completion of supplies and acceptance of materials by the consignee in case of supply Contracts / Rate / Running Contracts and in case of contracts for equipment involving installation and commissioning, 60 days after the supply and commissioning of all the equipment covered in the contract.

iv) Security Deposit will be released within 30 days after completion of supplies and acceptance of material by the consignee in case of supply contract /rate/running contracts or after successful commissioning and on receipt of confirmation of Performance Bank Guarantee (s) for all the equipment covered in the contract in case of contracts for equipment and all those items/ goods involving installation and commissioning on part of the supplier and PBG. However, in case of contracts for equipment and all those items/ goods involving installation and commissioning (installation & commissioning in supplier's scope), where there is a delay in commissioning due to reasons not attributable to the supplier (e.g., Non-availability of Site by the purchaser), the SD shall be released after receipt of PBG.

v) Security Deposit may be converted into Performance Bank Guarantee (PBG) wherever PBG is required at the option of the supplier. At the time of conversion of security money into PBG, it should be ensured that the amount of PBG should not be less than 10% of landed value of order. Wherever Security Deposit is converted into PBG, the operation of such SDBG/ Performance BG shall be guided by the Performance Bank Guarantee clause.

vi) If the successful tenderer fails to deposit the security deposit within 15 (fifteen) days from date of notification of award/ placement of order, another opportunity shall be given to them for submission of Security Deposit within next 15 days. If the successful tenderer still fails to deposit the security deposit within the extended period but executes the supplies within the security deposit submission period i.e. within 30 days from date of Notification of Award / placement of Order, the submission of Security Deposit shall be waived, as the purpose of submission of SD is fulfilled.

vii) In cases where the supplier does not submit the Security Deposit (SD) in time, the SD amount will be deducted from the first bill or in case of insufficient amount, from subsequent bill(s) of the supplier till the full SD amount is deducted.

viii) **In cases where the successful tenderer did not submit the security deposit** even within the extended period for SD submission but has supplied the materials either in full or in part after the extended period for SD submission, **a penalty equivalent to 0.5% (half percent) of SD amount for delay** of each week or part thereof (period of delay is to be calculated from the 31st day from the date of notification of award/placement of order to the date of receipt of full SD/deduction of full SD) shall be levied subject to a maximum of 5% of the contract value.

Note:

1. E-PBG for 5%, as indicated in bid document is towards security deposit and to be deposited as per GeM provision. Security Deposit (E-PBG-5%) will be released after successful completion of supplies and acceptance of the material as per contractual terms and conditions.
2. **For unsatisfactory performance and / or contractual failure, the security Deposit money shall be forfeited. GST at an applicable rate shall not be applicable on Security deposit forfeiture.**

8a. EXEMPTION OF SECURITY DEPOSIT:

1. Submission of Security Deposit is exempted for the contracts having value upto Rs. 5.00 lakhs.
2. All Central/State Government Organization/PSUs shall be exempted from submission of Security Deposit.
3. OEM/OES shall also be exempted from submission of Security Deposit in case of procurement of Spare Parts for equipment against Single Tender Enquiry/Open/Limited Tenders. However, dealers of the OEM / OES are not allowed the exemption.
4. Government Ministries, Departments, attached and subordinate offices, autonomous bodies formed by the Government

Note: No exemption from Security Deposit shall be allowed for Ancillaries of WCL/MSE/ Startups.

In addition to Security deposit the successful bidder has to submit PBG for 10% of contract value as per **Format of PBG Attached at Annexure-'G'**.

09. CONSIGNEE AND ALLOCATION: As indicated in the bid document.

10. Delivery Period:-

The delivery schedule would be as follows:

- (a) Delivery period at consignee store = within 45 **days** from the date of issue of supply order.
- (b) Installation & Commissioning at WCL HQ within 45 days from the date of site handover or 90 days from the date of issue of supply order whichever is later. (Site handover will be communicated to vendor via email/letter)

(c) However, it is bidder's responsibility to deliver material at consignee store within 45 days from the date of issue of supply order.

11. The bidder/contractor must disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents concerning the selection process or execution of the Contract. The information disclosed must include the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee in the Tender Document. Failure to do so would amount to violation of this code of integrity.

12. Bidder to submit the following commercial documents along with their offer / bid documents in addition to documents sought in technical specification:

1. Pre-Contract Integrity Pact (if applicable)
2. Local content certificate (as per Annexure "A")
3. Documents in support of Eligibility (documents as applicable for Manufacturer / Indian Agent including Annexure "B" and Annexure "C", as the case may be)
4. Non-Banning Certificate/Declaration as per **Annexure "D"**
5. Lowest Price Certificate-Annexure "E"
6. Undertaking of Price Fall Clause as per **Annexure "F"**
7. **The average Annual Financial Turnover of the bidder** during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the total estimated value of the tender. Documentary evidence in the form of a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid.

13. Important instructions for submission of Price breakup sheet in the Financial Document:

Bidders to fill the Price Breakup excel sheet(- 1769681330.xlsx) and convert the excel where prices are indicated to arrive at the final landed price to be quoted in the GeM custom Bid into a pdf format file and upload the same under the file **"Financial Documents"** at the time of submission of the bid documents. However, this pdf format Financial document will be revealed only after the opening of the Price bid and it will act as the reference document

14. All disputes shall be under the jurisdiction of Nagpur court only.

15. CHECKLIST OF "DOCUMENTS TO BE SUBMITTED" (This is for **information ONLY and will **not be considered** for commercial evaluation):**

Sl. No	Description	Submitted (Yes/No/NA)
1	EMD Exemption claimed.	
2	If EMD exemption is claimed, requisite documents submitted as per NIT	
3	If EMD is submitted, EMD Submission Document (Online transaction, BG with SFMS from issuing bank, etc.) submitted	
4	Make in India Certificate for bids with estimated value <u>less than ₹10 crores</u> : Local Content certificate as per Annexure -A	

5	Make in India Certificate for bids with estimated value <u>more than ₹10 crores</u> If tender value is Rs. 10.00 Crores and above, the certificate needs to be issued through statutory auditor or cost auditor if the bidder is a company and from a practicing Cost Accountant or practicing Chartered Accountant for bidders other than company as per provision of MII policy.	
6	Integrity Pact (For bids above ₹2 Cr estimated value) to be submitted with seal and sign of bidder.	
7	"Banned or Delisted or Debarred or Put on Holiday" declaration as per Annexure D of ATC from OEM/bidder in case OEM is the bidder of offered product. In case the bidder is an authorized dealer/distributor, BOTH manufacturer as well as authorized dealer/distributor has to submit the "Banned or Delisted or Debarred or Put on Holiday" declaration as per Annexure "D" of ATC	
8	Lowest Price Certificate (as per Annexure "E" of ATC) Submitted	
9	Price Fall Certificate (as per Annexure "F" of ATC) Submitted	
10	In cases where value of service component is <u>more than 10%</u> of the total estimated value of the <u>complete package of goods and services</u>: Turnover of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the total estimated value of the tender (as specified against each item). Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid	
11	In case bidder is participating as Indian Agent of Local Supplier/Manufacturer, A tender specific authorization issued by the manufacturer (as per the Annexure "B" of ATC) submitted	
12	In case bidder is participating as Indian Agent of Local Supplier/Manufacturer, Undertaking to be Submitted by the Indian Agents of Local Suppliers as per Annexure C of ATC, submitted	
13	GST certificate for Vendor code creation	
14	PAN Card for Vendor code creation	
15	Bank mandate for Vendor code creation	

CERTIFICATE TOWARDS LOCAL CONTENT

Bid No.....Date:

We do hereby certify that the **product/products** offered against the tender are manufactured at our factory situated at & that the items offered have a local content of% of the total value as prescribed by the competent Ministries/Departments in pursuance to the Public Procurement (Preference to Make in India) Order OM No. P-45021/2/2017-PP (BE-II)-Part(4)Vol.II issued by DPIIT, dated 19.07.2024 and subsequent amendments.

Address of Location where local value is added _____

Authorized Signatory

Name & designation

Date:

Seal of the firm and signature

Also submit following certification from statutory auditor or cost auditor (in case of tender value is Rs. 10.00 Crores and bidder is a company)

I/We _____ (Name of the auditor) _____ are statutory/cost auditor of _____ (Name of the bidder) _____ and are authorized to submit the above certification as per MII Policy.

Signature & Stamp of statutory auditor or cost auditor of the firm

UDIN No. _____

NOTE:

1. The Local content declaration has to be submitted by the bidder as a complete set of the offered items as per the above format
2. **If tender value is Rs. 10.00 Crores and above**, the certificate needs to be issued through statutory auditor or cost auditor if the bidder is a company and from a practicing Cost Accountant or practicing Chartered Accountant for bidders other than company as per provision of MII policy.
3. **Along with the bid for the offered model minimum local content % of following items should be as under:**

Minimum local content % of following items:

- (i) L2&L3 Switch(BOQsl no:1 &3): 60%
- (ii) GPON/XGPON equipment (BOQ sl no: 6):60%
- (iii) Optical Fiber Cable (BOQ sl no:24 & 25):55%
- (iv) 5 KVA UPS (BOQ sl no 30): Class 1 local supplier
- (v) 1 KVA UPS (BOQ sl no 29): Class 1 local supplier

Class-I local content certificate with the above mentioned minimum local content shall be submitted from the local supplier/bidder of above items , as per requirement of MII policy

ANNEXURE – “B”

FORMAT FOR AUTHORIZATION TO BE SUBMITTED BY THE INDIAN AGENTS :(to be typed on the Principals letter head and should be pre dated(prior to tender opening date and properly signed)

Tender no: _____

To
General Manager (MM)
Western Coalfields Ltd

Dear Sir,

We, M/s. (..... name of the Principal firm.....) represented by the undersigned, Mr/Ms..... Director/ Partner /Legal Attorney / Proprietor /Employee / Accredited Representative hereby authorize M/s. _____ (Name of the Bidder firm) to participate in the tender and submit the offer and enter into contract / Supply order, on our behalf against this tender. This authorization is valid till the successful execution and completion of contract period against this tender. We further confirm that:

1. As a matter of our corporate policy, we do not quote directly to any organization in India (except in situations like supplies to OEM / OES / OPM, supplies of spares and consumables bundled with supply of equipment, supplies to customers not covered by dealer network due to geographical/ logistics constraints). If, subsequently, at any stage, it is found that we have quoted directly to any organization in India (except in situations like supplies to OEM / OES / OPM, supplies of spares and consumables bundled with supply of equipment, supplies to customers not covered by dealer network due to geographical/ logistics constraints), we shall be liable for penal action as per provisions of the NIT and the CIL Purchase Manual 2020. Further, if at any stage, it is found that agency commission has been paid by us without declaring the agent, the commission may be recovered with interest.

2. We will accept the responsibility for the satisfactory execution of orders placed on the authorized agent including warranty/ guarantee obligations.

3. Wherever necessary, we will provide requisite inspection and testing facilities at our works in respect of orders placed on authorized agent.

4. The price quoted by our authorized agent will not exceed the price which we would have quoted.

a) In the event of placement of order on our authorized dealer, the goods supplied / goods offered for inspection would be accompanied by a certificate stating that the goods have been manufactured by us.

b) We further confirm that No agent / Middle man / Liasoning agent or any entity in any name other than our authorized Indian Agent is involved in the process of procurement of goods and services against this tender. If subsequently at any stage, it is found that false certificate is given, we shall be liable for penal action.

c) We have never been banned or de-listed or debarred or 'Put on Holiday' by any Government or quasi-Government agencies or PSUs.

OR

d) We were banned/de-listed/debarred/'Put on Holiday' by the organization named "-----
-----" for a period of ----- year/s, effective from -----
----- to -----for ----- (the reasons to be mentioned).

Signature of Authorized signatory of Principal

Date &Seal of the firm

ANNEXURE – “C”

UNDERTAKING TO BE SUBMITTED BY THE INDIAN AGENTS
(To be typed on the Indian agent letter head)

To
General Manager (MM)
Western Coalfields Ltd

Dear Sir.

Against the Tender no: _____, we have quoted as the authorized dealer /Indian agent of M/s. _____ who is the manufacturer of the offered products. We confirm that we will be responsible for all the contractual obligations including the quality aspects, replacement of parts / items, warranty / guarantee obligations and also provide the after sales and services.

We have submitted the following documents.

- 1.** Tender specific authorization from the Principal including the specific confirmations as required as per the terms of the NIT.
- 2.** The certificate for Local content issued by the Local Supplier / Principal.
- 3.** The self-attested copy of the documents to prove that our business entity is existence for 3years on the date of tender opening.

Signature of Authorized Dealer / Indian Agent
Date:
Seal of the firm

Annexure – “D”

**BANNED OR DELISTED OR DEBARRED OR PUT ON HOLIDAY SUPPLIERS
DECLARATION**

This is to certify that we have not been banned or de-listed or debarred or 'Put on Holiday' by any Government or quasi-Government agencies or PSUs.

Signature of Bidder

Date:

Seal of the firm

OR

If bidder has been banned/Delisted/Debarred/ Put on Holiday, by any Government or quasi-Government agencies or PSU, then bidder has to indicate the details below:

- (1) Name of the Organisation which has banned the bidder:
- (2) Ban Period:
- (3) Reasons for BANNING OR DELISTING OR DEBARRING OR PUT ON HOLIDAY:

Signature of Bidder

Date

Seal of the firm

Note 1: In case the bidder is an authorized dealer/distributor, BOTH manufacturer as well as authorized dealer/distributor has to submit the "Banned or Delisted or Debarred or Put on Holiday" declaration as per format above

Note 2: Bidder must declare any previous transgressions of such a code of integrity with any entity, in any country, during the last three years, or of being debarred by any other procuring entity.

Annexure- "E"

LOWEST PRICE CERTIFICATE

This is to certify that the prices quoted/charged by us for the offered/supplied items are the lowest prices as applicable to any other Organization / Ministry / Department of the Govt, of India or Coal India Ltd. and /or its Subsidiaries or other PSU or any other private organization.

Signature of Bidder

Seal of the firm

PRICE FALL CLAUSE

If the contract holder reduces its price or sells or even offers to sell the contracted goods or services following conditions of sale similar to those of the contract, at a price lower than the contract price, to any person or organization during the currency of the contract, the contract price will be automatically reduced with effect from that date for all the subsequent supplies under the contract and the contract be amended accordingly.

The provisions of price fall clause will however not apply to the following:

- i) Export/Deemed Export by the supplier.
- ii) Sale of goods or services as original equipment prices lower than the price charged for normal replacement.
- iii) Sale of goods such as drugs, which have expiry date.
- iv) Sale of goods or services at lower price
 - a) on or after the date of completion of sale/placement of order of goods or services by the authority concerned, under the existing or previous Rate Contracts
 - b) under any previous contracts entered into with the Central or State Government Departments including new undertakings (excluding joint sector companies and or private parties) and bodies.

Note:

- a. The currency of contract will mean the period till completion of supply.
- b. The bidder will be asked to submit a copy of the latest purchase order for the tendered / similar item(s) received by them from any Organization/ Ministry/ Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization, along with the offer.

“In case the bidder has not received any purchase order for the tendered / similar item(s) from any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization, they need to submit a self-certificate as under:

“It is hereby certify that, We.....(Name of the Firm), have not received any order for the tendered / similar item(s) from any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and / or its Subsidiaries or other PSU or any other Private Organization.”

c. It shall be responsibility of the supplier to inform the purchaser of offer to supply / supply of the ordered /similar item(s) at a lower rate to any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization during the currency of the contract.

d. The supplier shall submit a certificate along with the bill(s) as under: -

“I/We certify that there has been no reduction in the sale price of the offered / supplied goods under this contract or similar item(s) and such goods have not been offered/sold by me/ us to any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization, as the case may be, during the currency of the contract at a price lower than the price charged under the contract.”

e. The provisions of fall clause will however not apply for purchase value up to Rs. 2.00 lakh.

Signature of Bidder

Seal of the firm

ANNEXURE – “G”

Performance Bank Guarantee Format

Re : Bank Guarantee in respect of Agreement / Contract / Purchase Order vide no dated..... between Western Coalfields Limited and (Name of Supplier Company)

Messers a Company / Firm having its office at No. (hereinafter called 'the Contractor') has entered into the Agreement / Contract / Purchase Order vide no dated (hereinafter called 'the said agreement') with Coal India Limited, Kolkata on behalf of Western Coalfields Limited (Name of the Purchaser Company) hereinafter called ('the Company') to supply..... stores / materials amounting to Rs..... on the terms and conditions contained in the said agreement.

The(name of the bank) (hereinafter called 'the bank') having its Office at has at the request of the Contractor agreed to give the guarantee as hereinafter contained.

We (name of the bank) do hereby unconditionally agree with the Company that if the Contractor shall in any way fail to observe or perform the terms and condition of the said agreement or shall commit any breach of its obligations thereunder, the bank shall on demand and without any objection or demur pay to the Company the said sum of Rs..... or any portion thereof without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the same, or calling on the company to compel such payment by the contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the company and as regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold, payment on the ground that the contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between the Company and the contractor regarding the claim.

We, the Bank - further agree that the guarantee shall come into force from the date hereof and shall remain in full force and effect till the period that will be taken for the performance of the said agreement which is likely to be the day of but if the period of agreement is extended either pursuant to the provisions in the said agreement or by mutual agreement between the contractor and the Company the Bank shall renew the period of the guarantee failing which it shall pay to the Company the said sum of Rs.....or such lesser amount out of the said sum of Rs.....as may be due to the Company and as the Company may demand. This guarantee shall remain in force until the dues of the Company in respect of the said sum of Rs.....and interest are fully satisfied and the company certifies that the agreement regarding re-payment of the said sum of Rs..... has been fully carried out by the contractor and discharges the guarantee.

The Bank further agrees with the Company that the Company shall have the fullest liberty without the consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said agreement or to extend the time for performance of the said agreement from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the contractor and to forbear to enforce any of the terms and conditions relating to the said agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the contractor or through any forbearance, act or omission on the part of the

Company or any indulgence by the Company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above the Bank shall pay to the Company the said sum of Rs..... or such lesser sum as may then be due to the Company and as the Company may require.

Notwithstanding anything herein contained the liability of the Bank under this guarantee is restricted to Rs.....only. The guarantee shall remain in force till theday of..... 20.. and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and / of the claim period from the said date, all rights of the company under this guarantee shall cease and the Bank shall be released and discharged from all liability hereunder except as provided in the preceding clause.

The Bank has under its constitution power to give this guarantee and (Name of the person) who has signed it on behalf of the Bank has authority to do so.

The Bank Guarantee is operational for all purposes at Nagpur Branch, Maharashtra (Address & Branch Code -----)

The details of beneficiary bank for sending details of BG under SFMS Platform is furnished below

Name of beneficiary and details	
Name	Western Coalfields Ltd
Area	Head Quarter
Bank A/c No: / Cust ID of beneficiary	Current Account no: 005905018053; Customer Id: 556096497 ; ICICI Bank Ltd, Commercial Banking, 9C/A& 9C/B, Ground Floor, Shriram Towers, LIC Square, Nagpur - 440001, Maharashtra
IFSC code	ICIC0000059
Bank Manager Name & Ph no:	UJJWAL KITE: Ph n: 0712-6627389
BG ADVISING MESSAGE - 760COV / 767COV via SFMS	
Field Number	Particulars
7035	ICICI0000059
7037	WCL556096497

Controlling Officer of the Bank:

Name -

Address -

.....

.....

Telephone No. -

Branch of the Bank issuing BG -

Dated this.....day of 20.....

Place.....Signature of the authorized person

For and on behalf of the Bank

Additional Information required: (Optional)

If Bank Guarantee is submitted towards EMD/ Security Deposit / Performance the bidder is requested to submit following details:

The original Bank Guarantee (if submitted) in paper form should be sent to the beneficiary and following details to be submitted separately.

FIRM's NAME	
FIRM's ADDRESS	
FIRM's EMAIL & MOBILE NO	

ISSUING BANK DETAILS				
IFSC CODE	PIN CODE	EMAIL ID	MOBILE NO	BANK ADDRESS

OPERATING BANK DETAILS				
IFSC CODE	PIN CODE	EMAIL ID	MOBILE NO	BANK ADDRESS

ANNEXURE – “H”

No Claim Certificate
(On company letterhead)

To,
(Contract Executing Officer)

Procuring Entity _____

NO CLAIM CERTIFICATE

Sub: **Contract Agreement no. ----- dated -----for the supply of -----**

We have received the sum of Rs. (Rupees _____ only) in full and final settlement of all the payments due to us for the supply of _____ under the above mentioned contract agreement, between us and _____ (CIL or Subsidiary). We hereby unconditionally and without any reservation whatsoever, certify that we have no claim whatsoever, of any description, on any account, against Procuring Entity, against aforesaid contract agreement executed by us. We further declare unequivocally, that we have received all the amounts payable to us, and have no dispute of any description whatsoever, regarding the amounts worked out as payable to us and received by us, and that we shall continue to be bound by the terms and conditions of the contract agreement, as regards performance of the contract.

Yours faithfully,

officer authorized to sign the contract documents

Date: _____

Place: _____

Signatures of contractor or
on behalf of the contractor
(company stamp)

Annexure – “I”

Following details are provided to enable bidders to generate and submit an e-Bank Guarantee (e-BG) against Earnest Money Deposit (EMD)/Security Deposit (SD) /Performance bank Guarantee (PBG) in the NeSL portal via issuing bank.

S.No	Field	Description Of Field	Value
1	UIN/PAN	UIN/PAN of the legal entity	NCTGC2517P
2	Name	Name of the legal entity	Materials Management Department Under Western Coalfields Limited
3	Email ID	Email ID of the legal entity	gmmm.wcl@coalindia.in
4	Name of the representative	Representative of the legal entity	VENKATA RAMANA YELAMANCHILI
5	Email ID	Email ID of the representative	gmmm.wcl@coalindia.in
6	Mobile Number	Mobile Number of the representative	8275970180
7	Business Unit Code	Identifier of the department /zones/office	WCL9001700
8	Contract Reference Number	PO reference, Tender Id,Bid No etc	PO Ref/GEMC No/Tender Ref/Bid No /.... etc
9	Relation to Contract	Options are:	Beneficiary
		Debtor/Beneficiary/Creditor	

It is requested to avail the facility of e-Bank Guarantee. This facility is alternate to the paper based Bank Guarantee as financial coverage.