BSES Yamuna Power Limited

NOTICE INVITING TENDER (NIT)

FOR

SUPPLY, INSTALLATION, TESTING, CONFIGURATION AND MAINTENANCE OF SOFTWARE-DEFINED WIDE AREA NETWORK (SD-WAN) CONNECTIONS ACROSS VARIOUS OFFICES OF BYPL

NIT NO: CMC/BY/25-26/RS/SkS/APT/34
[RFx Number: 2200000161]

Due date for bid submission: 03.01.2026, 15:00 HRS

BSES YAMUNA POWER LIMITED (BYPL)
CONTRACTS & MATERIALS DEPT.,
SHAKTI KIRAN BUILDING, KARKARDOOMA,
DELHI-110032
CIN: U40109DL2001PLC111525
WEBSITE: www.bsesdelhi.com

This document is a property of BYPL. This document is meant for the exclusive purpose of bidding against this NIT Number/Specification and shall not be transferred, reproduced, or otherwise used for purposes other than that for which it is specifically issued.

BSES Yamuna Power Limited

NIT INDEX

S No.	DOCUMENT DESCRIPTION	PAGE NO
VOLUME – I		
1	**INFORMATION TO BIDDER (ITB)**	1 To 18
1.00	**APPENDIX I**	1 To 22
1.01	BID INDEX FOR PART-A (TECHNICAL BID)	
1.02	BID FORM	
1.03	TENDER FEE DETAILS	
1.04	EMD DETAILS	
1.05	FORMAT FOR EMD BANK GUARANTEE	
1.06	COMMUNICATION DETAILS OF THE BIDDER	
1.07	MANUFACTURER AUTHORIZATION FORM	
1.08	QUALIFYING CRITERIA COMPLIANCE INDEX - TECHNICAL CRITERIA	
1.09	LIST OF PURCHASE ORDERS EXECUTED & DELIVERY DETAILS IN SUPPORT OF QUALIFYING REQUIREMENT	
1.10	LIST OF PERFORMANCE CERTIFICATES IN SUPPORT OF QUALIFYING REQUIREMENT	
1.11	SCHEDULE OF DEVIATIONS - TECHNICAL	
1.12	TYPE TEST REPORTS (SEQUENCE OF TESTS SHALL BE STRICTLY IN ACCORDANCE WITH RELEVANT IS/IEC)	
1.13	SAMPLE SUBMISSION DETAILS (IF APPLICABLE AS PER SPECIFICATION)	
1.14	QUALIFYING CRITERIA COMPLIANCE INDEX - COMMERCIAL CRITERIA	
1.15	UNDERTAKINGS	
1.16	SCHEDULE OF DEVIATIONS - COMMERCIAL	
1.17	ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT	
1.18	VENDOR CODE OF CONDUCT	
2	**GENERAL CONDITION OF CONTRACT – SUPPLY & SERVICES**	1 To 22
2.00	**APPENDIX II**	1 To 6
2.01	FORMAT FOR PERFORMANCE BANK GUARANTEE	
2.02	BENEFICIARY'S BANK DETAILS WITH IFSC CODE	
2.03	FORMAT OF WARRANTY/GUARANTEE CERTIFICATE	
2.04	FORMAT OF UNDERTAKING GST	
2.05	SUMMARY OF COMMERCIAL TERMS AND CONDITIONS	
VOLUME – II - PRICE BID FORMAT		1 To 4
VOLUME – III - TECHNICAL SPECIFICATIONS & SCOPE OF WORK		1 To 38

BSES Yamuna Power Limited

VOLUME – I: INFORMATION TO BIDDER (ITB)

BSES

BSES Yamuna Power Limited

SECTION – I: REQUEST FOR QUOTATION

1.00 EVENT INFORMATION

1.01 BSES Yamuna Power Ltd (hereinafter referred to as **"BYPL"**) invites **Open Tender** in the E-Tender Bidding Process on a "Single Stage: Two Parts" from interested Bidders to enter into the contract as detailed below:

Tender Description	Package	Package Name	Tender Fee (₹)	Estimated Cost (₹)	EMD Amount (₹)	Delivery at
Supply, Installation, Testing, Configuration and Maintenance of Software Defined Wide Area Network (SD-WAN) connections across various offices of BYPL	1	SITC & Implementation of SD-WAN for Router & Firewalls	1,180	10.87 Crore	15.72 Lakhs	Delhi Office(s)/ Site(s)
	2	SITC & Implementation of L2 Switches for IT & OT		4.85 Crore		
Total (A+B) - ₹			**1,180**	**15.72 Crore**	**15.72 Lakh**	

The bidder must qualify the requirements as specified in clause 2.0 stated below.

1.02 The tender document is available for downloading from our website www.bsesdelhi.com **--> BSES YAMUNA POWER LTD --> Tender --> Open Tenders** or through our E-Tendering portal link (https://srmprdportal.bsesdelhi.com:50001/irj/portal).

1.03 **Tender Fee**: The bidder has to compulsorily submit the non-refundable tender fee of **₹ 1,180/-** as demand draft or online transfer of the requisite amount through IMPS/NEFT/RTGS covering the cost of bid documents. Any such bid submitted without this Fee shall be rejected.

1.04 **Earnest Money Deposit (EMD)** of ₹ 15,72,000/- (Rupees Fifteen Lakh and Seventy-two Thousand only) valid for 120 days from the due date of bid submission in the form of BG/FD/online transfer of the requisite amount through IMPS/NEFT/RTGS. Any such bid submitted without EMD shall be rejected.

1.05 **TIME SCHEDULE**

The bidders should complete the following events within the dates specified as under:

S. No.	Events	Due date & Time
1	Date of availability of tender documents from BYPL Website & SRM	03.01.2026 up to 14:00 Hrs
2	Date & Time of Pre-Bid Meeting Pre-Bid Meeting will be done online via MS team on below meeting link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_ODUwMGJmM2MtYmRhMC00ZDQzLWE3NTctZmIzNWFmZjQ1YmY0%40thread.v2/0?context=%7b%22Tid%22%3a%22fa1a577f-3ac1-41e0-90d9-1b19c394aaf8%22%2c%22Oid%22%3a%226225bf6f-f382-428e-a886-405df8a3e003%22%7d After clicking on this, you will continue with browser for joining the meeting.	23.12.2025, 11:00 Hrs
3	Last date of receipt of pre-bid queries, if any (Queries to be submitted via e-mail)	24.12.2026 up to 18:00 Hrs
4	Last Date of replies to all the pre-bid queries as received	27.12.2025 up to

		17:00 Hrs
5	Last date and time of receipt of Complete Bids (Tender Fees, EMD, Part A & Part B)	03.01.2026 up to 15:00 Hrs
6	Date & Time of Opening of PART A – EMD and Technical Bid	03.01.2026 up to 15:30 Hrs
7	Date & Time of opening of Price/RA of qualified bids	Will be notified to the qualified bidders through our website/ e-mail

Note: In the event of the last date specified for submission of bids and the date of opening of bids is declared as a closed holiday for the BSES office, the last date of submission of bids and date of opening of bids will be the following working day at the appointed times.

1.06 The Bid shall be submitted online in two (02) parts. Details of the parts are as follows:
Part A – Techno Commercial Bid
Part B – Price Bid
Bids will be submitted online and received up to **03.01.2026, 15:00 Hrs.** at the address given below.
Part A of the Bid shall be opened online on **03.01.2026, 15:30 Hrs.**
Part B of the Bid will be opened in case of Techno-Commercially Qualified Bidders and the date of opening of same shall be intimated in due course. It is the sole responsibility of the bidder to ensure that the bid documents are submitted online and reach this office on or before the last date.

Head of Department
Contracts & Materials Deptt.
BSES Yamuna Power Ltd
Reception, Ground Floor
Shaktikiran Building, Karkardooma
Delhi 110032

All documents shall be duly superscripted as **bid for "Supply, Installation, Testing, Configuration and Maintenance of Software Defined Wide Area Network (SD-WAN) connections across various offices of BYPL" "NIT NO: CMC/BY/25-26/RS/SkS/APT/34 [RFx Number: 2200000161] due on 03.01.2026, 15:00 Hrs."**

1.07 BSES Yamuna Power Ltd reserves the right to accept/reject any or all tenders without assigning any reason thereof in the event of the following:

a) Tender is received after the due date and time.
b) Tender fee of requisite value is not submitted.
c) Earnest Money Deposit (EMD) of requisite value & validity is not submitted in the shape of a Bank Guarantee drawn in favour of BSES Yamuna Power Ltd, payable at Delhi or Online transfer of requisite amount through IMPS/NEFT/RTGS.
d) Price Bid as per the Price Schedule is not submitted.
e) Incomplete Bids.
f) Necessary documents against compliance to Qualification Requirements mentioned in Section 1 Clause 2.0 of this Tender Document.
g) Complete documents/details are not enclosed as per the Bid Index for Part-A (Technical Bid) at APPENDIX I ANNEXURE – 1.01.
h) Filled in Schedule of Deviations as per Annexure is not submitted.

2.00 QUALIFICATION CRITERIA

The prospective bidder must qualify for all of the following requirements and shall be eligible to participate in the bidding who meets the following requirements and management has a right to disqualify those bidders who do not meet these requirements.

2.01 **Technical Criteria:**

S. No.	Criterion	Documents to be submitted by bidder along with Bid in support of Qualification Criteria
1	The Bidder should be OEM or Authorized channel Partner of the OEM as on the date of tender with an authority to sell, upgrade, supply, service and maintain the proposed products	In case bidder is an authorized partner of OEM, Manufacturer Authorization Form (MAF) from OEM stating that bidder is an authorized partner of OEM and authorized to participate in this tender and in case the bidder is not able to perform obligations as per contract during the contract period, contracted services will be provided by OEM within the stipulated time.
2	The bidder's company should have been in existence for more than **5** years and bidder/ OEM must have experience of project execution of similar work as per tender requirement in Govt sector/ PSU/ Large Corporates/ BFSI/Utility Companies in last 4 years.	**Bidder shall provide:** a. Certificate of Incorporation. b. Self-declaration by Authorized bidder or OEM along with Client name and project details. If bidder is an authorized partner of OEM, credentials of OEM shall be considered for similar project execution experience.
3	The bidder must have experience in execution of at least two (2) SD-WAN project of supply and implementation of at least **50** numbers of devices in each order in Govt sector/ PSU/ Large Corporates/ BFSI/Utility Companies in last three (**3**) years from date of bid submission	**Bidder shall provide:** a. Purchase Order copies b. Performance Certificate/Completion certificate/ Invoice Copies If bidder is an authorized partner of OEM, **credentials of OEM and Bidder**, both are certification required.
4	The bidder and OEM shall have valid certifications as on the date of submission of bid: **a)** ISO 9001:2015 **b)** ISO 27001	Bidder shall furnish the copies of valid certificates
5	OEM and Authorized channel partner's country shall not share land border with India as per MoP Order no. No.25- 11/6/2018-PG dated 2July, 2020 and Order No.25-4.1.2019-PG dt.11Aug, 2020	Self-undertaking on bidder's letter head
5	The bidder shall have office in NCR.	Valid Address proof for presence in NCR

2.02 Commercial Criteria:

S. No.	Criteria	Documents to be submitted by the bidder
6	Bidder should have Average Annual Sales Turnover of Rupees Fifty (**50**) Crores or more in last three (3) Financial Years (i.e. FY 2022-23, 2023-24 & 2024-25).	Balance Sheet / Copy of Audited P&L Account / Duly certified CA certificate having UDIN to be submitted
7	Bidder should have positive Net Worth for the last three financial years (i.e. FY 2022-23, 2023-24 & 2024-25).	Bidder should furnish a Certificate from the Chartered Accountant (CA) for Net Worth
8	The bidder should be a public/private limited company/ partnership/ limited liability partnership, corporation registered under Indian Companies Act, 1956/ 2013/ Indian Partnership Act, 1932.	The bidder must submit the copy of registration
9	The bidder should have valid Registration of GST and PAN No. with the appropriate authorities in addition to other statutory compliance	The bidder must submit documents: i) Copy of PAN and GST registration certificate. ii) Self undertaking that the bidder shall comply all the statutory compliance as per the applicable laws/rules etc.
10	The Bidder shall submit an undertaking that "No Litigation" is pending with BYPL or its Group/ Associates Companies as on the date of bid submission	Self-undertaking on bidder's letter head
11	The Bidder shall not be blacklisted/ debarred by any central/ state government institution/ electricity utilities as on the date of submission of the bid	Self-undertaking on bidder's letter head

Notwithstanding anything stated above, BYPL reserves the right to assess the bidder's capability to perform the contract, assess the capability and installed capacity of the Bidder for carrying out the supplies, should the circumstances warrant such assessment in the overall interest of the purchaser. In this regard the decision of the purchaser is final.

3.00 BIDDING AND AWARD PROCESS

Bidders are requested to submit their offer strictly in line with this tender document. Normally, the deviations to tender terms are not admissible and the bids with deviations are liable for rejection. Hence, the bidders are advised to refrain from taking any deviations on this Tender. Still, in case of any deviations, all such deviations shall be set out by the Bidders, clause by clause in the "Annexure - Schedule of Deviations" and the same shall be submitted as a part of the Technical Bid.

3.01 BID SUBMISSION

BIDS ARE INVITED THROUGH THE E-PROCUREMENT PORTAL:
BSES will carry out E-Procurement through its e-procurement SRM portal (https://srmprdportal.bsesdelhi.com:50001/irj/portal).

Interested non-registered bidders are requested to obtain the portal user name and password (if not available) for bid submission. For participating in e-Tenders of BYPL, please write a mail to:
1. Mr Rakesh Sharma, E-mail: Rakesh.Ku.Sharma@reliancegroupindia.com,
2. Mr Anup Toppo, E-mail: Anup.toppo@@reliancegroupindia.com, with your details as per below:

a) Existing Vendor Code with BYPL or its Group/Associates Companies (if available): .....
b) Trade Name: .....
c) Address of Principal Place of Business: .....
d) Contact Person's Name: .....
e) Contact Person's Designation: .....
f) Contact Person's Mobile No.: .....
g) Contact Person's email ID: .....
h) Also, attach a valid copy of the Power of Attorney in favour of the above-mentioned Contact Person for being authorized to receive user ID and password on behalf of their organization.

The login ID details shall be sent through email to the email ID mentioned by you for the same.

Bids shall be submitted in 2 (Two) parts on the assigned folder of the e-procurement site. Please refer to the user manual available at https://srmprdportal.bsesdelhi.com:50001/irj/portal and enclosed with the tender.

Bids have to be mandatorily submitted only through the e-procurement portal of BSES Delhi. Bids submitted through any other form/ route shall not be admissible.

However, documents that necessarily have to be submitted in originals like Tender Fee (in the form of DD) or EMD (in the form of BG/FD/DD as applicable) and any other documents mentioned in the tender documents have to be submitted at the BYPL office before the due date & time of submission.

Please mention our NIT Number: - ..... on the Tender and drop the same in our Tender Box placed at **BSES Yamuna Power Ltd, Reception, Ground Floor, Shaktikiran Building, Karkardooma, Delhi 110032**

The bids and the outer envelope shall be addressed to the following:
Head of Department
Contracts & Materials Deptt.
BSES Yamuna Power Ltd, Shaktikiran Building, Karkardooma, Delhi 110032

Kindly Note:
- The bidder has to ensure that the tender is dropped in the correct box designated for tender submission only.
- BYPL shall not be responsible for any wrong placement of tender documents by the bidder.

This is a two-part bid process. Bidders are to submit the bids online in 2(Two) parts **PART-A TECHNICAL BID & COMMERCIAL TERMS & CONDITIONS** and **Part-B FINANCIAL BID** and shall be submitted before the due date & time specified.

PART A: TECHNICAL BID comprising of the following, do not contain any cost information whatsoever and shall be submitted within the due date:

S. No.	Descriptions	Type of Documents/Format
A.1	**Bid Details**	
1	**Bid Index for Part-A (Technical Bid)**	In the prescribed format enclosed at APPENDIX I ANNEXURE – 1.01
2	**Cover Letter, if any**	Standard Format
3	**Bid Form (Un-priced) Duly Signed**	Duly Signed Bid Form as per enclosed format at APPENDIX I ANNEXURE – 1.02
4	**Tender Fee**	Non-refundable demand draft or online transfer of the requisite amount through IMPS/NEFT/RTGS for Rs 1,180/-, Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.03
5	**EMD**	Online transfer of the requisite amount through IMPS/NEFT/RTGS or FD or BG in the prescribed stamp paper & format enclosed at APPENDIX I ANNEXURE – 1.05, EMD Details Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.04
6	**Power-of-Attorney/ Authorization Letter**	In the standard stamp paper/letter
A.2	**Technical Bid**	
7	**Communication Details of the Bidder**	Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.06
8	**Manufacturer Authorization Form (as applicable)**	Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.07
9	**Technical Qualifying Criteria Compliance Index & Documents**	Documentary evidence in support of qualifying criteria mentioned in Section 1 Clause 2.00. Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.08, ANNEXURE – 1.09 & ANNEXURE – 1.10
10	**Schedule of Deviations - Technical**	Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.11
11	**Technical Details/ Filled in Guaranteed Technical particulars (GTP) as per specification**	Bidder shall submit duly filled GTP with all Technical documents (If Applicable)
12	**Technical Drawings as per specification**	Bidder shall submit all Drawings as per the specification (If Applicable)
13	**Type Test Reports**	Bidders shall submit a copy of type test reports in their technical bids in support of technical specifications. Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.12 (If Applicable)
14	**Sample Submission Details (if applicable as per specification)**	Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.13 (If Applicable)
15	**Product Catalogue (If applicable)**	Bidders shall submit a copy of the product catalogue in their technical bids in support of technical specifications
16	**Manufacturer's Quality Assurance Plan**	Bidders shall submit a copy of MQP in their technical bids in support of technical specifications

17	**Other drawings/ documents mentioned in technical specification**	Bidders shall submit a copy of documents in their technical bids in support of technical specifications (If Applicable)
18	**Testing Facilities**	Bidder shall submit the details of testing facilities available at their works/factory.
A.3	**Commercial Bid**	
19	**Company Profile, Organization Chart & Manpower Details.**	Bidder shall submit the details of Organization & Manpower with qualification and experience.
20	**Commercial Qualifying Criteria Compliance Index & Documents**	Documentary evidence in support of qualifying criteria mentioned in Section 1 Clause 2.00. Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.14
21	**Undertakings**	Duly signed self-undertakings as per enclosed format at APPENDIX I ANNEXURE – 1.15
22	**Schedule of Deviations - Commercial**	Duly filled and signed as per enclosed format at APPENDIX I ANNEXURE – 1.16
23	**Acceptance Form for Participation in Reverse Auction Event**	Duly signed Acceptance Form for Participation in Reverse Auction Event as per enclosed format at APPENDIX I ANNEXURE – 1.17
24	**Commercial Terms and Conditions**	Acceptance of Commercial Terms and Conditions viz. Delivery Schedule/ Period, Payment terms, PBG etc. Duly filled and signed as per enclosed format at APPENDIX II ANNEXURE – 2.05
25	**Un price Bid Duly Signed**	Item wise marked as "Quoted" & Duly Signed Un price Bid as per enclosed format at VOLUME – II - PRICE BID FORMAT
26	**Signed Tender document**	Original Tender documents duly stamped & signed on each page as a token of acceptance

PART B: FINANCIAL BID comprising of

- Price strictly in the Format enclosed at VOLUME – II - PRICE BID FORMAT indicating Break up of basic price, taxes & duties, etc.
- The Bidder has to submit the item-wise price bifurcation in the bid. An un-priced copy must be attached with the Part A (Technical Bid).

This will be opened internally after techno-commercial evaluation and only of the qualified bidders.

REVERSE AUCTION CLAUSE: Purchaser reserves the right to use the reverse auction as an optional tool through SAP-SRM as an integral part of the entire tendering process. All techno-commercially qualified bidders shall participate in the reverse auction. Reverse Auction will be carried out on individual item-wise rates or Package-wise.

Notwithstanding anything stated above, the Purchaser reserves the right to assess the bidder's capability to perform the contract, should the circumstances warrant such assessment in the overall interest of the purchaser. In this regard the decision of the purchaser is final. Bidder is to submit their acceptance as per the format APPENDIX I ANNEXURE – 1.17.

BIDS RECEIVED AFTER THE DUE DATE AND TIME MAY BE LIABLE FOR REJECTION

4.00 AWARD DECISION:

4.01 Purchaser intends to award the business on the lowest bid basis, so suppliers are encouraged to submit the bid competitively. The decision to place a Rate Contract/Purchase Order/LOI solely depends on the purchaser on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that Purchaser may deem relevant.

4.02 In the event of your bid being selected by the purchaser (and/or its affiliates) and you subsequent DEFAULT on your bid; you will be required to pay the purchaser (and/or its affiliates) an amount equal to the difference in your bid and the next lowest bid on the quantity declared in NIT/RFQ.

4.03 In case any supplier is found unsatisfactory during the delivery process, the award may be cancelled and BYPL reserves the right to award other suppliers who are found fit.

4.04 Rate Contract: Not Applicable.

4.05 Rate shall remain FIRM till the validity of the Contract.

4.06 Quantity Variation: The purchaser reserves the right to vary the quantity by (+/-) 30% of the tender quantity during the execution of the rate contract.

4.07 Quantity Splitting: Not Applicable.

5.00 MARKET INTEGRITY

We have a fair and competitive marketplace. The rules for bidders are outlined in the Terms & Conditions. Bidders must agree to these rules before participating. In addition to other remedies available, we reserve the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the Terms & Conditions. Bidders who violate the marketplace rules or engage in behavior that disrupts the fair execution of the marketplace restrict a bidder to the length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honour prices submitted to the marketplace.
- Breach of the terms of the published in Request for Quotation/NIT.

6.00 SUPPLIER CONFIDENTIALITY

All information contained in this RFQ is confidential and shall not be disclosed, published or advertised in any manner without written authorization from BYPL. This includes all bidding information submitted.

All RFQ documents remain the property of BYPL and all suppliers are required to return these documents to BYPL upon request.

Suppliers who do not honour these confidentiality provisions will be excluded from participating in future bidding events.

7.00 CONTACT INFORMATION

Technical clarification, if any, as regards this RFQ shall be sought in writing and sent by e-mail/ post/ courier to the following addresses. The same shall not be communicated through phone

Address	Name/ Designation	E-mail Address
Technical		
IT Dept. 3rd Floor, B-Block, BSES Yamuna Power Ltd Shaktikiran Building, Karkardooma, Delhi 110032	Rakesh Nayak AsVP - Information & Technology	Rakesh.Nayak@reliancegroupindia.com
	Ashwani Aggarwal Head - Information & Technology	Ashwani.Aggarwal@ reliancegroupindia.com
Commercial		
C&M Dept. 3rd Floor, A-Block, BSES Yamuna Power Ltd Shaktikiran Building, Karkardooma, Delhi 110032	Anup Toppo Sr. Manager (C&M)	Anup.Toppo@ reliancegroupindia.com
	Santosh Singh Addl. VP (Head-Procurement)	santosh.kum.singh@ reliancegroupindia.com
	Robin Sebastian VP (Head-Contract & Material)	robin.sebastian@ reliancegroupindia.com

BSES

SECTION – II: INSTRUCTION TO BIDDERS

A. GENERAL

1.00 BSES Yamuna Power Ltd, hereinafter referred to as "The Purchaser" is desirous of implementing the various Systems Improvement/Repair & Maintenance works at their respective licensed area in Delhi. The Purchaser has now floated this tender for procurement of material notified earlier in this bid document.

2.00 SCOPE OF WORK

The scope shall include Supply, Installation, Testing and Commissioning of Servers for Web portal and PI/PO conforming to the Technical Specifications along with Packing, Forwarding, Transportation Unloading and proper stacking at Purchaser's stores/site. (Refer **Volume – III** [Package 1&2] for technical specification and **Volume – IV** [Package 1&2] for detail scope of work)

3.0 DISCLAIMER

3.01 This Document includes statements, which reflect various assumptions, which may or may not be correct. Each Bidder/Bidding Consortium should conduct its estimation and analysis and should check the accuracy, reliability and completeness of the information in this Document and obtain independent advice from appropriate sources in their interest.

3.02 Neither Purchaser nor its employees will have any liability whatsoever to any Bidder or any other person under the law or contract, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage whatsoever which may arise from or be incurred or suffered in connection with anything contained in this document, any matter deemed to form part of this Document, provision of Services and any other information supplied by or on behalf of Purchaser or its employees, or otherwise a rising in any way from the selection process for the Supply.

3.03 Though adequate care has been taken while issuing the Bid document, the Bidder should satisfy itself that the Documents are complete in all respects. Intimation of any discrepancy shall be given to this office immediately.

3.04.1 This Document and the information contained herein are Strictly Confidential and are for the use of only the person(s) to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient's professional advisors).

4.0 COST OF BIDDING

The Bidder shall bear all costs associated with the preparation and submission of its Bid and the Purchaser will in no case be responsible or liable for those costs.

B. BIDDING DOCUMENTS

5.01 The Scope of Work, Bidding Procedures and Contract Terms are described in the Bidding Documents.

5.02 The Bidder is expected to examine the Bidding Documents, including all Instructions, Forms, Terms and Specifications. Failure to furnish all information required by the Bidding Documents or submission of a

Bid not substantially responsive to the Bidding Documents in every respect may result in the rejection of the Bid.

6.0 **AMENDMENT OF BIDDING DOCUMENTS**

6.01 At any time before the deadline for submission of Bids, the Purchaser may for any reason, whether at its initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by Amendment.

6.02 The Amendment shall be part of the Bidding Documents, pursuant to Clause 5.01, and it will be notified on the website **www.bsesdelhi.com** and the same will be binding on them.

6.03 To afford prospective Bidders reasonable time in which to take the Amendment into account in preparing their Bids, the Purchaser may, at its discretion, extend the deadline for the submission of Bids. The same shall be published as a corrigendum on the website **www.bsesdelhi.com**

6.04 Purchaser shall reserve the rights to the following:
a) Extend the due date of submission,
b) Modify the tender document in part/whole,
c) Cancel the entire tender

6.05 **Bidders are requested to visit the website regularly for any modification/ clarification/ corrigendum/ addendum of the bid documents.**

C. PREPARATION OF BIDS

7.0 **LANGUAGE OF BID**

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

8.0 **DOCUMENTS COMPRISING THE BID**

The Bid prepared and submitted by the Bidder shall comprise the following components:

(a) All the Bids must be accompanied by the required Tender Fees and EMD as mentioned in the tender.

(b) PART A – Technical Bid and

(c) PART B - Financial Bid

9.0 **BID FORM**

9.01 The Bidder shall submit Bid Form with the Bidding Documents.

9.02 **EMD**

Pursuant to Clause 8.0(a) above, the bidder shall furnish, as part of its bid, an EMD amounting to as specified in Section I. The EMD is required to protect the Purchaser against the risk of Bidder's conduct which will warrant forfeiture.

The EMD shall be denominated in any of the following forms**:**

(a) Bank Guarantee drawn in favour of BSES Yamuna Power Ltd, payable at Delhi or

(b) Fixed Deposit (lien marked in favour of BSES Yamuna Power Limited) payable at Delhi.

(c) Online transfer of requisite amount through IMPS/NEFT/RTGS to BYPL account mentioned herein in Appendix II - **BYPL BANK DETAILS WITH IFSC CODE**.

EMD shall be valid for One Hundred Twenty (120) days after the due date of submission drawn in favour of BSES Yamuna Power Ltd.

The EMD may be forfeited in the case of:

(a) The Bidder withdraws its bid during the period of specified bid validity.

or

(b) The case of a successful Bidder, if the Bidder does not

(i) Accept the Purchase Order, or

(ii) Furnish the required performance security BG.

10.0 **BID PRICES**

10.01 Bidders shall quote for the entire Scope of Supply/Work with a break-up of prices for individual items. The total Bid Price shall also cover all the Supplier's obligations mentioned in or reasonably to be inferred from the Bidding Documents in respect of Design, Supply and Transportation to the site, all in accordance with the requirement of the Bidding Documents. The Bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total Price.

10.02 The prices offered shall be inclusive of all costs as well as Duties, Taxes or Levies paid or payable during the execution of the supply work, a breakup of price constituents, should be there.

10.03 Prices quoted by the Bidder shall be **"Firm"** and not subject to any price adjustment during the performance of the Contract. **A Bid submitted with an adjustable price/ Price Variation Clause will be treated as non-responsive and rejected.**

11.0 **BID CURRENCIES**

11.01 Prices shall be quoted in Indian Rupees Only.

12.00 **PERIOD OF VALIDITY OF BIDS**

12.01 Bids shall remain valid for 120 days from the due date of submission of the Bid.

12.02 Notwithstanding Clause 12.01 above, the Purchaser may solicit the Bidder's consent to an extension of

the Period of Bid Validity. The request and the responses thereto shall be made in writing and sent by post/courier/E-mail.

13.00 **ALTERNATIVE BIDS**

13.01 Bidders shall submit Bids, which comply with the Bidding Documents. Alternative Bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the Bidding Documents.

14.0 **FORMAT AND SIGNING OF BID**

14.01 The original Bid Form and accompanying documents must be received by the Purchaser at the date, time and place specified pursuant to Clauses 15.0 and 16.0.

14.02 The original Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to sign on behalf of the Bidder. Such authorization shall be indicated by written Power-of-Attorney accompanying the Bid. The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of the authority of the person signing on behalf of the Bidder shall be furnished with the bid. A bid by a person who affixes to his signature the words 'President', 'Managing Director', 'Secretary', 'Agent' or other designations without disclosing his principal will be rejected.

The Bidder's name stated on the Proposal shall be the exact legal name of the firm.

14.03 The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initiated by the person or persons signing the Bid.

D. SUBMISSION OF BIDS

15.0 **SEALING AND MARKING OF BIDS**

15.01 Bid submission: Bids have to be mandatorily submitted only through the e-procurement portal of BSES Delhi. Bids submitted through any other form/ route shall not be admissible.

15.02 However, documents that necessarily have to be submitted in originals like EMD or Tender Fee (in the form of BG/ DD /FD as applicable) and any other documents mentioned in the tender documents have to be submitted at the BYPL office before the due date & time of submission. The Technical Documents and the EMD shall be enclosed in a sealed envelope and the said envelope shall be superscribed with — "Technical Bid & EMD". All the envelopes should bear the Name and Address of the Bidder and mark for the Original. The envelopes should be superscribed with — "Tender No. & Due date of opening".

15.03 The Bidder has the option of sending the Bids in person. Bids submitted by Email/Telex/Telegram /Fax will be rejected. No request from any Bidder to the Purchaser to collect the proposals from Courier/Airlines/Cargo Agents etc. shall be entertained by the Purchaser.

16.0 **DEADLINE FOR SUBMISSION OF BIDS**

16.01 The Bid must be received by the Purchaser on or before the due date & time of submission.

16.02 The Purchaser may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with Clause 6.0, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

17.0 **ONE BID PER BIDDER**

17.01 Each Bidder shall submit only one Bid by itself. No Joint venture is acceptable. A Bidder who submits or participates in more than one Bid will cause all those Bids to be rejected.

18.0 **LATE BIDS**

18.01 No Bid will be received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, pursuant to Clause 16.0.

19.0 **MODIFICATIONS AND WITHDRAWAL OF BIDS**

19.01 The Bidder is not allowed to modify or withdraw its Bid after the Bid's due date & time of submission subject to any corrigendum/ addendum/ modifications in the tender documents uploaded to the website.

E. EVALUATION OF BID

20.0 **PROCESS TO BE CONFIDENTIAL**

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the Purchaser's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

21.0 **CLARIFICATION OF BIDS**

To assist in the examination, evaluation and comparison of Bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its Bid. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.

22.0 **PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS**

22.01 Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and whether the Bids are generally in order. Purchaser may ask for submission of original documents to verify the documents submitted in support of qualification criteria.

22.02 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall

prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.

22.03 Prior to the detailed evaluation, Purchaser will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

22.04 Bid determined as not substantially responsive will be rejected by the Purchaser and/or the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

23.00 **EVALUATION AND COMPARISON OF BIDS**

23.01 The evaluation of Bids shall be done based on the delivered cost competitiveness basis.

23.02 The evaluation of the Bids shall be a stage-wise procedure. The following stages are identified for evaluation purposes: In the first stage, the Bids will be subjected to a responsiveness check. The Technical & qualifying Proposals and the Conditional ties of the Bidders will be evaluated.

Subsequently, the Financial Proposals along with Supplementary Financial Proposals, if any, of Bidders with Techno-commercially Acceptable Bids shall be considered for final evaluation.

23.03 The Purchaser's evaluation of a Bid will take into account, in addition to the Bid price, the following factors, in the manner and to the extent indicated in this Clause:

(a) Delivery Schedule

(b) Conformance to Qualifying Criteria

(c) Deviations from Bidding Documents

Bidders shall base their Bid price on the terms and conditions specified in the Bidding Documents.

The cost of all quantifiable deviations and omissions from the specification, terms and conditions specified in the Bidding Documents shall be evaluated. **The Purchaser will make its own assessment of the cost of any deviation to ensure a fair comparison of Bids.**

23.04 Any price adjustments that result from the above procedures shall be added for comparative evaluation only to arrive at an "Evaluated Bid Price". Bid Prices quoted by Bidders shall remain unaltered.

F. AWARD OF CONTRACT

24.00 **CONTACTING THE PURCHASER**

24.01 If any Bidder wishes to contact the Purchaser on any matter related to the Bid, from the time of Bid opening to the time of contract award, the same shall be done in writing only.

24.02 Any effort by a Bidder to influence the Purchaser and/or in the Purchaser's decisions in respect of Bid evaluation, Bid comparison or Contract Award, will result in the rejection of the Bidder's Bid.

25.00 **THE PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**

Submission of bids shall not automatically construe qualification for evaluation. The Purchaser reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time prior to the award of the Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

26.00 **AWARD OF CONTRACT:**

The Purchaser will award the Contract to the successful Bidder whose Bid has been Determined to be the lowest-evaluated responsive Bid, provided further that the Bidder has been determined to be qualified to satisfactorily perform the Contract. Purchaser reserves the right to award the order to other bidders in the tender, provided it is required for the timely execution of the project & provided he agrees to come to the lowest rate. Purchaser reserves the right to distribute the entire tender quantity at its own discretion without citing any reasons thereof.

27.0 **THE PURCHASER'S RIGHT TO VARY QUANTITIES**

The Purchaser reserves the right to vary the quantity i.e. increase or decrease the numbers/quantities without any change in terms and conditions during the execution of the Order.

28.0 **LETTER OF INTENT/ NOTIFICATION OF AWARD**

The letter of intent/ Notification of Award shall be issued to the successful Bidder whose bids have been considered responsive, techno-commercially acceptable and evaluated to be the lowest (L1). The successful Bidder shall be required to furnish a letter of acceptance within 7 days of the issue of the letter of intent /Notification of Award by Purchaser.

29.0 **PERFORMANCE BANK GUARANTEE (PBG)**

To be submitted within twenty-eight (28) days from the date of issuance of the Letter of Intent/Award/RC/PO. Bidder shall initially submit the performance bank guarantee (PBG) equivalent to 10% of total Purchase Order value (including GST) valid for a period of Sixty months (60) from the date of the commissioning or Sixty-six months (66) from the date of receipt of material (last consignment) at site/stores whichever is earlier plus 3 months towards claim period. Upon receipt of the PBG by BYPL, the EMD shall be released.

30.0 **CORRUPT OR FRAUDULENT PRACTICES**

30.01 The Purchaser requires that the Bidders observe the highest standard of ethics during the procurement and execution of the Project. In pursuance of this policy, the Purchaser:

(a) Defines, for this provision, the terms set forth below as follows:

(i) "Corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or contract execution; and

(ii) "Fraudulent practice" means a misrepresentation of facts to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among

Bidders (before or after Bid submission) designed to establish Bid prices at artificial non -competitive levels and to deprive the Purchaser of the benefits of free and open competition.

(b) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(c) Will declare a firm ineligible, either indefinitely or for a stated period, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing a contract.

30.02 Furthermore, Bidders shall be aware of the provision stated in the Terms and Conditions of the Contract.

31.0 STATUTORY GUIDELINES & REGULATIONS

The bidder shall make himself fully aware & familiarize himself with all applicable laws/ guidelines/ regulations.

32.00 SAFETY

Safety related requirements as mentioned in our safety Manual put on the Company's website which can be accessed at http://www.bsesdelhi.com. All bidders shall strictly abide by the guidelines provided in the safety manual at all relevant stages during the contract period.

33.00 PRIORITY OF CONTRACT DOCUMENTS

The several documents forming the Agreement are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies, the same shall be explained and adjusted by the company, who shall, accordingly, issue suitable instructions thereon to the Contractor. In such event, unless otherwise provided in the agreement or explained by way of instructions by the company, as mentioned above, the priority of the documents forming the Agreement shall be as follows:

i) Contract Agreement/Purchase Order.
(a) Special Conditions of Contract
(b) General Conditions of Contract
(ii) The Letter of Acceptance/ Intent
(iii) Agreed Minutes of the Tender Negotiation Meetings
(iv) Agreed Minutes of the Tender Technical Meetings
(v) The Priced Bill of Quantities
(vi) The Technical Specifications / Scope of work
(vii) The Tender document, including all Appendices and/or Addenda, Corrigendum the latest taking precedence.

In the event of any conflict between the above-mentioned documents, the more stringent requirement or conditions which shall be favourable to the company shall govern and the decision of the company/BYPL shall be final and binding upon the parties.

BSES Yamuna Power Limited

APPENDIX I ANNEXURE – 1.01

BID INDEX FOR PART-A (TECHNICAL BID)

(To be filled & submitted on Bidder Letter Head, Bidders document submission should have following main categories as outlined below and should have page numbers printed at the bottom of each page with this page as page number 1. The page number should be in "Page X of Y" format. Separator with document description shall be provided before each document)

NIT & RFX No.:

Bidder's Name:

Bidder's Bid Reference No. & Date:

S. No.	Particulars	Bid Pdf Page No.	
		From	To
A.1	**Bid Details**		
1.	Bid Index for Part-A (Technical Bid) as per APPENDIX I ANNEXURE - 1.01	1	
2.	Cover Letter, If any		
3.	Bid Form (Unpriced) Duly Signed as per APPENDIX I ANNEXURE - 1.02		
4.	Tender Fee Details as per APPENDIX I ANNEXURE - 1.03		
5.	EMD Details as per APPENDIX I ANNEXURE - 1.04 & 1.05		
6.	Power-of-Attorney / Authorization Letter		
A.2	**Technical Bid**		
7.	Communication Details of the Bidder as per APPENDIX I ANNEXURE - 1.06		
8.	Manufacturer Authorization Form (as applicable) as per APPENDIX I ANNEXURE - 1.07		
9.	Technical Qualifying Criteria Compliance Index & Documents as per APPENDIX I ANNEXURE - 1.08, 1.09, 1.10		
10.	Schedule of Technical Deviations (along with soft editable Excel copy) as per APPENDIX I ANNEXURE - 1.11		
11.	Guaranteed Technical particulars (GTP) as per specification (If Applicable)		
12.	All Drawings as per specification (If Applicable)		
13.	Type Test Reports (Sequence of Tests shall be strictly in accordance with relevant IS/IEC) as per APPENDIX I ANNEXURE - 1.12		
14.	Sample Submission Details (If applicable as per Specification) as per APPENDIX I ANNEXURE - 1.13		
15.	Product Catalogue (If applicable)		
16.	Manufacturer's quality assurance plan (as applicable)		
17.	Other drawings/ documents mentioned in technical specification		
18.	Testing Facilities		
A.3	**Commercial Bid**		
19.	Company Profile/Organogram/Organization Chart & Manpower Details		
20.	Commercial Qualifying Criteria Compliance Index & Documents as per APPENDIX I ANNEXURE - 1.14		
21.	Undertakings as per APPENDIX I ANNEXURE - 1.15		
22.	Schedule of Commercial Deviations (along with soft editable Excel copy) as per APPENDIX I ANNEXURE - 1.16		
21.	Acceptance form for participation in reverse auction event as per APPENDIX I ANNEXURE - 1.17		
24.	Acceptance of Commercial Terms and Conditions as per APPENDIX II ANNEXURE - 2.05		
25.	Un Price Bid Duly Signed (Volume - II Price Bid Format)		
26.	NIT Document complete Signed & Stamped		

BSES Yamuna Power Limited

ANNEXURE – 1.02

BID FORM

To

Head of Department
Contracts & Material Deptt.
BSES Yamuna Power Ltd
Shaktikiran Building, Karkardooma,
Delhi 110032

Sir,

1. We understand that BYPL is desirous of procuring..... for it's licensed distribution network area in Delhi.
2. Having examined the Bidding Documents for the above-named works, we the undersigned, offer to deliver the goods in full conformity with the Terms and Conditions and technical specifications for the sum indicated in the Price Bid or such other sums as may be determined in accordance with the terms and conditions of the contract. The amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.
3. If our Bid is accepted, we undertake to deliver the entire goods as per the delivery schedule mentioned in Section IV from the date of award of the purchase order/letter of intent.
4. If our Bid is accepted, we will furnish a performance bank guarantee for due performance of the Contract in accordance with the Terms and Conditions.
5. We agree to abide by this Bid for 120 days from the due date of bid submission and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. We declare that we have studied the provision of Indian Laws for the supply/services of equipments/materials and the prices have been quoted accordingly.
7. Unless and until Letter of Intent is issued, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
8. We understand that you are not bound to accept the lowest or any bid you may receive.
9. There is provision for Resolution of Disputes under this Contract, by the Laws and Jurisdiction of Contract.

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

Signature..... In the capacity of .....

.....duly authorized to sign for and on behalf of

(IN BLOCK CAPITALS) .....

ANNEXURE – 1.03

TENDER FEE DETAILS

a. Amount (Rs.) : **1,180/- (One Thousand One Hundred Eighty Only)**

b. Mode of Payment : DD or online transfer through IMPS/NEFT/RTGS (select any one)

c. DD /UTR No. (As applicable) : .....

d. Dated : .....

e. Bidders Bank Account No. : .....

f. Name of the Bank : .....

g. Address of the Bank : .....

h. IFSC Code of the Bank : .....

BSES

ANNEXURE – 1.04

EMD DETAILS

a. EMD Amount (Rs.) : .....

b. Mode of Payment : BG/FD/online transfer through IMPS/NEFT/RTGS (select any one)

c. BG/FD/UTR No. (As applicable) : .....

d. Dated : .....

e. BG valid up to : .....

f. BG Claim period up to : .....

g. Bidders Bank Account No. : .....

h. Name of the Bank : .....

i. Address of the Bank : .....

j. IFSC Code of the Bank : .....

BSES Yamuna Power Limited

ANNEXURE – 1.05

(FORMAT FOR EMD BANK GUARANTEE)

(To be issued in a Non-Judicial Stamp Paper of Rs.50/-purchased in the name of the bank)

Whereas [*name of the Bidder*] (hereinafter called the "Bidder") has submitted its bid dated [*date of submission of bid*] for the supply of [*name and/or description of the goods*] (hereafter called the "Bid").

KNOW ALL PEOPLE by these presents that WE [name of bank] at [*Branch Name and address*], having our registered office at [*address of the registered office of the bank*] (hereinafter called the "Bank"), are bound unto BSES Yamuna Power Ltd., with its Corporate Office at Shaktikiran Building, Karkardooma, Delhi - 110032, (hereinafter called - the "Purchaser") in the sum of Rs..... (Rupees..... only) for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this_____ day of_____ 20____.

The conditions of this obligation are:

1 If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or

2. If the Bidder, having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity:

(a) fails or refuses to execute the Contract Form, if required; or

(b) fails or refuses to furnish performance security, In accordance with the Instructions to Bidders/Terms and Conditions;

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that is its demand the purchaser will note that amount claimed by it is due to it, owing to the occurrence of one or both of the two condition(s), specifying the occurred condition or condition(s).

This guarantee will remain in force up to and including One Hundred Twenty (120) days after the due date of submission bid, and any demand in respect thereof should reach the Bank not later than the above date.

----------(Stamp & signature of the bank)

-------Signature of the witness

ANNEXURE – 1.06

COMMUNICATION DETAILS OF THE BIDDER

S. No.	Designation	Name	Mobile No.	E-mail id
1	CEO / MD			
2	Sales / Marketing Head			
3	Sales Representative / Key Account Manager (KAM)			
4	Technical Head			
5	Manufacturer Plant / Operations Head			
6	Post Order Execution In Charge			
7	Authorized contact person (Primary responsibility for the Bid)			
8	Authorized contact person (Secondary responsibility for the Bid)			

BSES

ANNEXURE – 1.07

MANUFACTURER AUTHORIZATION FORM
(To be submitted on OEM's Letter Head)

Date: .....
Tender No.: .....

To

Head of Department
Contracts & Material Deptt.
BSES Yamuna Power Ltd
Shaktikiran Building, Karkardooma,
Delhi 110032

Sir,

WHEREAS M/s. *[name of OEM]*, who are official manufacturers of ..... having factories at *[address of OEM]* do hereby authorize M/s *[name of bidder]* to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us ..... and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty by the Conditions of the Contract or as mentioned elsewhere in the Tender Document, concerning the Goods offered by the above firm in reply to this Invitation for Bids.

We hereby confirm that in case, the channel partner fails to provide the necessary services as per the Tender Document referred above, M/s *[name of OEM]* shall provide standard warranty on the materials supplied against the contract. The warranty period and inclusion/exclusion of parts in the warranty shall remain the same as defined in the contract issued to our channel partner against this tender.

Yours Sincerely,

For .....

Authorized Signatory

ANNEXURE – 1.08

QUALIFYING CRITERIA COMPLIANCE INDEX - TECHNICAL CRITERIA				
S No	Qualifying Criteria Description as per section 1 clause 2.00	Documentary Proof Description	Documentary Proof Enclosed on Bid Page No.	
			From	To
1				
2				
3				
4				
5				

BSES

BSES
BSES Yamuna Power Limited

ANNEXURE – 1.09

LIST OF PURCHASE ORDERS EXECUTED & DELIVERY DETAILS IN SUPPORT OF QUALIFYING REQUIREMENTS													
S No	Item Details				PO & Execution Details					Customer Name	End User (shall be Utility/ SEB's/ PSU's) name and details	PO copy, MDCC /Delivery completion certificates/ Invoice Copies enclosed on Bid Page no.	
	Item	Model	Voltage Rating (kV)	Current Rating (A)	PO No	PO Date	PO Qty	Executed Qty	Execution Year			From	To
Total							∑	∑					

Note – Only items relevant as per qualifying requirements should be included in the list.

BSES

ANNEXURE – 1.10

LIST OF PERFORMANCE CERTIFICATES IN SUPPORT OF QUALIFYING REQUIREMENT														
S No	Item Details				PO No	Supplied/ Commissioning		Performance Certificate Issue Date	Performance Certificate Issued By End User (Utility/SEB/Govt Org.)	Contact Details of Issuing Person			Enclosed on Bid Page No.	
	Item	Model	Voltage Rating (kV)	Current Rating (A)		Qty.	Date			Name	Email	Mobile	From	To
Total						∑								

Note –

1. **Only items relevant as per qualifying requirement should be included in the list.**
2. **Only Performance certificates issued by End User (utilities/ SEB's/PSU's only) will be accepted as per qualifying requirement.**

ANNEXURE – 1.11

SCHEDULE OF DEVIATIONS - TECHNICAL

Vendor shall refrain from taking any deviations on this TENDER. Still, in case of any deviations, all such deviations from this tender shall be set out by the Bidder, Clause by Clause in this schedule and submit the same as a part of the Technical Bid.

Unless **specifically** mentioned in this schedule, the tender shall be deemed to confirm the BYPL's specifications:

Technical Deviations:-

S. No.	NIT Pdf Page No.	NIT Clause No.	NIT Clause Descriptions	Details of Clarification/deviation with justifications

Note – Please enclose detailed GTP and drawings as per specification after the technical deviation sheet

Seal of the Bidder:

Signature:

Name:

ANNEXURE – 1.12

TYPE TEST REPORTS (SEQUENCE OF TESTS SHALL BE STRICTLY IN ACCORDANCE WITH RELEVANT IS/IEC)								
S No	Test Description	Reference Standard	Reference Standard Clause No.	Name of Testing Lab	Test Report Reference Number	Date of Issue of Report	Report Enclosed on Bid Page No	
							From	To
1								
2								
3								
4								
5								
6								
7								

BSES

ANNEXURE – 1.13

SAMPLE SUBMISSION DETAILS (IF APPLICABLE AS PER SPECIFICATION)		
S No	**Description**	**Bidder's Response**
1	Samples submitted with the bid	Yes/No
1	Sample Type -1	
1.1	Model Number	
1.2	Number of samples	
2	Sample Type -2	
2.1	Model Number	
2.2	Number of samples	

BSES

ANNEXURE – 1.14

QUALIFYING CRITERIA COMPLIANCE INDEX - COMMERCIAL CRITERIA				
S No	**Qualifying Criteria Description as per section 1 clause 2.00**	**Documentary Proof Description**	**Documentary Proof Enclosed on Bid Page No.**	
			From	**To**
1				
2				
3				

BSES

ANNEXURE – 1.15

UNDERTAKINGS
(To be submitted on Bidders Letter Head)

Date: .....

Tender No.: .....

To

Head of Department
Contracts & Material Deptt.
BSES Yamuna Power Ltd
Shaktikiran Building, Karkardooma,
Delhi 110032

Sir,

We M/s *[name of bidder]*, ... do hereby undertake that

- *[name of bidder]* has "No Litigation" pending with the BYPL or its Group/Associates Companies as on the date of bid opening.
- *[name of bidder] has* not been blacklisted/debarred by any central/state government institution/Electricity utilities as on the date of bid opening.
- *[name of bidder]* shall comply with all the statuary compliances as per the laws/rules etc. before the start of the supply/work.

Yours Sincerely,

For .....

Authorized Signatory

BSES

ANNEXURE – 1.16

SCHEDULE OF DEVIATIONS - COMMERCIAL

Vendor shall refrain from taking any deviations on this TENDER. Still, in case of any deviations, all such deviations from this tender shall be set out by the Bidder, Clause by Clause in this schedule and submit the same as a part of the Technical Bid.

Unless **specifically** mentioned in this schedule, the tender shall be deemed to confirm the BYPL's specifications:

Commercial Deviations:-

S. No.	NIT Pdf Page No.	NIT Clause No.	NIT Clause Descriptions	Details of Clarification/deviation with justifications

By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply with all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those mentioned above.

Seal of the Bidder:

Signature:

Name:

BSES Yamuna Power Limited

ANNEXURE – 1.17

ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

(To be signed and stamped by the bidder)

BSES Yamuna Power Ltd (hereinafter referred to as **"BYPL"**) intends to use the reverse auction through the SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as techno commercial qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:

1. BYPL shall provide the user ID and password to the authorized representative of the bidder. (Authorization letter in lieu of the same be submitted along with the signed and stamped acceptance form)
2. BYPL will make every effort to make the bid process transparent. However, the award decision by BYPL would be final and binding on the bidder.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of BYPL, bid process, bid technology, bid documentation, bid details, etc.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitches, internet response issues, software or hardware hangs; power failure or any other reason shall not be the responsibility of BYPL.
6. In case of intranet medium, BYPL shall provide the infrastructure to bidders, further, BYPL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders from submitting the bids to ensure fair & transparent competitive bidding. In case an auction event is restarted, the best bid already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due to any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be outright rejected by BYPL.
8. The bidder shall be prepared with competitive price quotes on the day of the reverse auction event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR Landed Cost basis at the BYPL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by BYPL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all-inclusive prices offered during the conclusion of the auction event to arrive at the contract amount.

----------Signature & seal of the Bidder

ANNEXURE – 1.18

VENDOR CODE OF CONDUCT

Purchaser is committed to conducting its business in an ethical, legal and socially responsible manner. To encourage compliance with all legal requirements and ethical business practices, Purchaser has established this Vendor Code of Conduct (the "Code") for Purchaser's Vendors. For the purposes of this document, "Vendor" means any company, corporation or other entity that sells, or seeks to sell goods or services, to Purchaser, including the Vendor's employees, agents and other representatives.

Fundamental to adopting the Code is the understanding that a business, in all of its activities, must operate in full compliance with the laws, rules and regulations of the countries in which it operates. This Code encourages Vendors to go beyond legal compliance, drawing upon internationally recognized standards, in order to advance social and environmental responsibility.

I. Labour and Human Rights

Vendors must uphold the human rights of workers, and treat them with dignity and respect as understood by the international community.

. Fair Treatment - Vendors must be committed to a workplace free of harassment. Vendors shall not threaten workers with or subject them to harsh or inhumane treatment, including sexual harassment, sexual abuse, corporal punishment, mental coercion, physical coercion, verbal abuse or unreasonable restrictions on entering or exiting company provided facilities.

. Antidiscrimination - Vendors shall not discriminate against any worker based on race, colour, age, gender, sexual orientation, ethnicity, disability, religion, political affiliation, union membership, national origin, or marital status in hiring and employment practices such as applications for employment, promotions, rewards, access to training, job assignments, wages, benefits, discipline, and termination. Vendors shall not require a pregnancy test or discriminate against pregnant workers except where required by applicable laws or regulations or prudent for workplace safety. In addition, Vendors shall not require workers or potential workers to undergo medical tests that could be used in a discriminatory way except where required by applicable law or regulation or prudent for workplace safety.

. Freely Chosen Employment - Forced, bonded or indentured labour or involuntary prison labour is not to be used. All work will be voluntary, and workers should be free to leave upon reasonable notice. Workers shall not be required to hand over government-issued identification, passports or work permits as a condition of employment.

. Prevention of Under Age Labor - Child labour is strictly prohibited. Vendors shall not employ children. The minimum /age for employment or work shall be 15 years of age, the minimum age for employment in that country, or the age for completing compulsory education in that country, whichever is higher. This Code does not prohibit participation in legitimate workplace apprenticeship programs that are consistent with Article 6 of ILO Minimum Age Convention No. 138 or light work consistent with Article 7 of ILO Minimum Age Convention No. 138.

. Juvenile Labor - Vendors may employ juveniles who are older than the applicable legal minimum age for employment but are younger than 18 years of age, provided they do not perform work likely to jeopardize their health, safety, or morals, consistent with ILO Minimum Age Convention No. 138.

. Minimum Wages - Compensation paid to workers shall comply with all applicable wage laws, including those relating to minimum wages, overtime hours and legally mandated benefits. Any Disciplinary wage

deductions are to conform to local law. The basis on which workers are being paid is to be clearly conveyed to them in a timely manner.

. Working Hours - Studies of good manufacturing practices clearly link worker strain to reduced productivity, increased turnover and increased injury and illness. Work weeks are not to exceed maximum set by local law. Further, a work week should not be more than 60 hours per week, including overtime, except in emergency or unusual situations. Workers should be allowed at least one day off per seven-day week.

. Freedom of Association - Open communication and direct engagement between workers and management are the most effective ways to resolve workplace and compensation issues. Vendors are to respect the rights of workers to associate freely and to communicate openly with management regarding working conditions without fear of reprisal, intimidation or harassment. Workers' rights to join labour unions seek representation and or join worker's councils in accordance with local laws should be acknowledged.

II. Health and Safety

Vendors must recognize that in addition to minimizing the incidence of work-related injury and illness, a safe and healthy work environment enhances the quality of products and services, consistency of production and worker retention and morale. Vendors must also recognize that ongoing worker input and education are essential to identifying and solving health and safety issues in the workplace.

The health and safety standards are:

. Occupational Injury and Illness - Procedures and systems are to be in place to prevent, manage, track and report occupational injury and illness, including provisions to a) encourage worker reporting; b) classify and record injury and illness cases; c) provide necessary medical treatment; d) investigate cases and implement corrective actions to eliminate their causes; and e) facilitate return of workers to work.

. Emergency Preparedness - Emergency situations and events are to be identified and assessed, and their impact minimized by implementing emergency plans and response procedures, including emergency reporting, employee notification and evacuation procedures, worker training and drills, appropriate fire detection and suppression equipment, adequate exit facilities and recovery plans.

. Occupational Safety - Worker exposure to potential safety hazards (e.g., electrical and other energy sources, fire, vehicles, and fall hazards) is to be controlled through proper design engineering and administrative controls, preventative maintenance and safe work procedures (including lockout/ragout), and ongoing safety training. Where hazards cannot be adequately controlled by these means, workers are to be provided with appropriate, well-maintained, personal protective equipment. Workers shall not be disciplined for raising safety concerns.

. Machine Safeguarding - Production and other machinery are to be evaluated for safety hazards. Physical guards, interlocks and barriers are to be provided and properly maintained where machinery presents an injury hazard to workers.

. Industrial Hygiene - Worker exposure to chemical, biological and physical agents is to be identified, evaluated, and controlled. Engineering or administrative controls must be used to control overexposures. When hazards cannot be adequately controlled by such means, worker health is to be protected by appropriate personal protective equipment programs.

. Sanitation, Food, and Housing - Workers are to be provided with ready access to clean toilet, facilities potable water and sanitary food preparation, storage, and eating facilities. Worker dormitories provided by the Participant or a labour agent are to be maintained clean and safe, and provided by the Participant

or a labour egress, hot water for bathing and showering, and adequate heat and ventilation and reasonable personal space along with reasonable entry and exit privileges.
. Physically Demanding Work - Worker exposure to the hazards of physically demanding tasks, including manual material handling and heavy or repetitive lifting, prolonged standing and highly repetitive or forceful assembly tasks is to be identified, evaluated and controlled.

III. Environmental

Vendors should recognize that environmental responsibility is integral to producing world class products In manufacturing operations, adverse effects on the environment and natural resources are to be minimized while safeguarding the health and safety of the public.

The environmental standards are:

. Product Content Restrictions - Vendors are to adhere to applicable laws and regulations regarding prohibition or restriction of specific substances including labeling laws and regulations for recycling and disposal. In addition, Vendors are to adhere to all environmental requirements specified by Purchaser.
. Chemical and Hazardous Materials -Chemical and other materials posing a hazard if released to the environment are to be identified and managed to ensure their safe handling, movement storage, recycling or reuse and disposal.
. Air Emissions - Air emissions of volatile organic chemicals, aerosols, corrosives, particulates, ozone depleting chemicals and combustion by-products generated from operations are to be characterized, monitored, controlled and treated as required prior to discharge.
. Pollution Prevention and Resource Reduction -Waste of all types, including water and energy, are to be reduced or eliminated at the source or by practices such as modifying production, maintenance and facility processes, materials substitution, conservation, recycling and re-using materials.
. Wastewater and Solid Waste - Wastewater and solid waste generated from operations industrial processes and sanitation facilities are to be monitored, controlled and treated as required prior to discharge or disposal.
. Environmental Permits and Reporting - All required environmental permits (e.g. discharge monitoring) and registrations are to be obtained, maintained and kept current and their operational and reporting requirements are to be followed.

IV. Ethics

Vendors must be committed to the highest standards of ethical conduct when dealing with workers, Vendors, and customers.
. Corruption, Extortion, or Embezzlement - Corruption, extortion, and embezzlement, in any form, are strictly prohibited. Vendors shall not engage in corruption, extortion or embezzlement in any form and violations of this prohibition may result in immediate termination as a Vendor and in legal action.
. Disclosure of Information - Vendors must disclose information regarding their business activities, structure financial situation, and performance in accordance with applicable laws and regulations and prevailing industry practices.
. No Improper Advantage - Vendors shall not offer or accept bribes or other means of obtaining undue or improper advantage.
. Fair Business, Advertising, and Competition - Vendors must uphold fair business standards in advertising, sales, and competition.

. Business Integrity - The highest standards of integrity are to be expected in all business interactions. Participants shall prohibit any and all forms of corruption, extortion and embezzlement. Monitoring and enforcement procedures shall be implemented to ensure conformance.
. Community Engagement - Vendors are encouraged to engage the community to help foster social and economic development and to contribute to the sustainability of the communities in which they operate.
. Protection of Intellectual Property - Vendors must respect intellectual property rights; safeguard customer information; and transfer of technology and know-how must be done in a manner that protects intellectual property rights.

V. Management System

Vendors shall adopt or establish a management system whose scope is related to the content of this Code. The management system shall be designed to ensure (a) compliance with applicable laws, regulations and customer requirements related to the Vendors' operations and products; (b) conformance with this Code; and (c) identification and mitigation of operational risks related to this Code. It should also facilitate continual improvement.

The management system should contain the following elements:
. Company Commitment - Corporate social and environmental responsibility statements affirming Vendor's commitment to compliance and continual improvement.
. Management Accountability and Responsibility - Clearly identified company representative[s]responsible for ensuring implementation and periodic review of the status of the management systems.
. Legal and Customer Requirements - Identification, monitoring and understanding of applicable laws, regulations and customer requirements.
. Risk Assessment and Risk Management - Process to identify the environmental, health and safety and labour practice risks associated with Vendor's operations. Determination of the relative significance for each risk and implementation of appropriate procedural and physical controls to ensure regulatory compliance to control the identified risks.
. Performance Objectives with Implementation Plan and Measures - Areas to be included in a risk assessment for health and safety are warehouse and storage facilities, plant/facilities support equipment, laboratories and test areas, sanitation facilities (bathrooms), kitchen/cafeteria and worker housing /dormitories. Written standards, performance objectives, and targets an implementation plans including a periodic assessment of Vendor's performance against those objectives.
. Training - Programs for training managers and workers to implement Vendor's policies, procedures and improvement objectives.
. Communication - Process for communicating clear and accurate information about Vendor's performance, practices and expectations to workers, Vendors and customers.
. Worker Feedback and Participation - Ongoing processes to assess employees' understanding of and obtain feedback on practices and conditions covered by this Code and to foster continuous improvement.
. Audits and Assessments - Periodic self-evaluations to ensure conformity to legal and regulatory requirements, the content of the Code and customer contractual requirements related to social and environmental responsibility.
. Corrective Action Process - Process for timely correction of deficiencies identified by internal or external assessments, inspections, investigations and reviews.
. Documentation and Records - Creation of documents and records to ensure regulatory compliance and conformity to company requirements along with appropriate confidentiality to protect privacy.

The Code is modeled on and contains language from Recognized standards such as International Labour Organization Standards (ILO), Universal Declaration of Human Rights (UDHR), United Nations Convention against Corruption, and the Ethical Trading Initiative (ETI) were used as references in preparing this Code and may be useful sources of additional information

BSES

BSES Yamuna Power Limited

GENERAL CONDITIONS OF CONTRACT
(GCC – SUPPLY & IMPLEMENTATION)

BSES

BSES Yamuna Power Limited

GENERAL CONDITIONS OF CONTRACT (GCC)

The General Condition of Contract shall form a part of specifications, contract document.

1.0 General Instructions

1.01 All the Bids shall be prepared and submitted in accordance with these instructions.

1.02 Bidder shall bear all costs associated with the preparation and delivery of its Bid, and the Purchaser will in no case be responsible or liable for these costs.

1.03 The Bid should be submitted by the Bidder in whose name the bid document has been issued and under no circumstances it shall be transferred/ sold to the other party.

1.04 The Purchaser reserves the right to request any additional information and also reserves the right to reject the proposal of any Bidder if, in the opinion of the Purchaser, the data in support of RFQ requirement is incomplete.

1.05 The Bidder is expected to examine all instructions, forms, terms & conditions and specifications in the Bid Documents. Failure to furnish all information required in the Bid Documents or submission of a Bid not substantially responsive to the Bid Documents in every respect may result in rejection of the Bid. However, the Purchaser's decision in regard to the responsiveness and rejection of bids shall be final and binding without any obligation, financial or otherwise, on the Purchaser.

2.0 Definition of Terms

2.01 "Purchaser" shall mean BSES Yamuna Power Limited, on whose behalf this bid enquiry is issued by its authorized representative/officers.

2.02 "Bidder" shall mean the firm who quotes against this bid enquiry issued by the Purchaser. "Supplier" or "Supplier" shall mean the successful Bidder and/or Bidders whose bid has been accepted by the Purchaser and on whom the "Letter of Acceptance" is placed by the Purchaser and shall include his heirs, legal representatives, successors and permitted assigns wherever the context so admits.

2.03 "Supply" shall mean the Scope of Contract as described.

2.04 "Specification" shall mean collectively all the terms and stipulations contained in those portions of this bid document known as RFQ, Commercial Terms & Conditions, Instructions to Bidders, Technical Specifications and the Amendments, Revisions, Deletions or Additions, as may be made by the Purchaser from time to time.

2.05 "Letter of Acceptance" shall mean the official notice issued by the Purchaser notifying the Supplier that his proposal has been accepted and it shall include amendments thereto, if any, issued by the Purchaser. The "Letter of Acceptance" issued by the Purchaser shall be binding on the "Supplier" The date of Letter of Acceptance shall be taken as the effective date of the commencement of contract.

2.06 "Month" shall mean the calendar month and "Day" shall mean the calendar day.

2.07 "Codes and Standards" shall mean all the applicable codes and standards as indicated in the Specification.

2.08 "Offer Sheet" shall mean Bidder's firm offer submitted to BYPL in accordance with the specification.

2.09 "Contract" shall mean the "Letter of Acceptance/Purchase Order" issued by the Purchaser.

2.10 "Contract Price" shall mean the price referred to in the "Letter of Acceptance/Purchase Order".

2.11 "Contract Period" shall mean the period during which the "Contract" shall be executed as agreed between the Supplier and the Purchaser in the Contract inclusive of the extended contract period for reason beyond the control of the Supplier and/or Purchaser due to force majeure.

2.12 "Acceptance" shall mean and deemed to include one or more of the following as will be stipulated in the specification:

a) The written acceptance of material by the inspector at suppliers works to ship the materials.
b) Acceptance of material at Purchaser site stores after its receipt and due inspection/ testing and release of material acceptance voucher.
c) Where the scope of the contract includes supply, acceptance shall mean issue of necessary equipment / material takeover receipt after installation & commissioning and final acceptance.

3.0 Contract Documents & Priority

3.01 Contract Documents: The terms and conditions of the contract shall consist solely of these RFQ conditions and the offer sheet.

4.0 Scope of Supply - General

4.01 The "Scope of Supply" shall be on the basis of Bidder's responsibility, completely covering the obligations, responsibility and supplies provided in this Bid enquiry whether implicit or explicit.

4.02 Bidder shall have to quote for the Bill of quantities as listed in Section – IV of this RFQ.

4.03 Quantity variation and additional requirements if any shall be communicated to successful bidder during project execution.

4.04 All relevant drawings, data and instruction manuals.

5.0 Quality Assurance and Inspection

5.01 Immediately on award of contract, the bidder shall prepare detailed quality assurance plan/test procedure identifying the various stages of manufacture, quality checks performed at each stage, raw material inspection and the Customer hold points. The document shall also furnish details of method of checking, inspection and acceptance of standards/values and get the approval of Purchaser before proceeding with manufacturing. However, Purchaser shall have right to review the inspection reports, quality checks and results of supplier's in-house inspection department which are not Customer hold points and the supplier shall comply with the remarks made by purchaser or his representative on such reviews with regards to further testing, rectification or rejection, etc.

5.02 Witness and Hold points are critical steps in manufacturing, inspection and testing where the supplier is obliged to notify the Purchaser in advance so that it may be witnessed by the Purchaser. Final inspection is a mandatory hold point. The supplier is to proceed with the work past a hold point only after clearance by purchaser or a witness waiver letter from BYPL.

5.03 The performance of waiver of QA activity by Purchaser at any stage of manufacturing does not relieve the supplier of any obligation to perform in accordance with and meet all the requirements of the procurement documents and also all the codes & reference documents mentioned in the procurement document nor shall it preclude subsequent rejection by the purchaser.

5.04 On completion of manufacturing the items can only be dispatched after receipt of dispatch Instructions issued by the Purchaser.

5.05 All in-house testing and inspection shall be done without any extra cost. The in-house inspection shall be carried out in presence of BSES/BSES authorized third-party inspection agency. Cost of Futile/abortive visit(s) shall be debited from the invoices.

5.06 Purchaser reserves the right to send any material being supplied to any recognized laboratory for testing, wherever necessary and the cost of testing shall be borne by the Bidder. In case the material is found not in order with the technical requirement/specification, the charges along with any other penalty that may be levied are to be borne by the bidder.

6.0 Inspection & Test Charges

6.01 GOODS shall be inspected by BUYER and/or third-party inspection agency nominated by BUYER. Inspection shall carry out stage-wise/final inspection as per agreed QA /QC procedure.
In addition, inspection of GOODS shall be carried out at our Site/stores. SELLER shall, however, repair/replace the damaged/rejected GOODS to the satisfaction of BUYER at no extra cost.

6.02 Inspection charges are included in total order value, however, BUYER will bear third-party inspection charges. In case of a futile/abortive visit of BUYER's inspector at SELLER'S works, the cost towards the same shall be debited from the SELLER's invoices.

6.03 GOODS covered by this PURCHASE ORDER shall not be dispatched in whole or in part until SELLER has received a written Release for Shipment Notice from BUYER or their designated representative.

6.04 Inspection call shall be raised a minimum of 7 (seven) days in advance from the delivery schedule mentioned in the PO and duly filled Format issued by BYPL

7.0 Handling and Storage

7.01 Material Safety Data Sheet (MSDS), detail handling & storage instruction sheet/manual, wherever applicable, to be furnished before the commencement of supply and one copy is to be submitted in store/site with First Lot.

8.0 Packing, Packing List & Marking

8.01 **Packing:** Supplier shall pack or shall cause to be packed all Commodities in crates/ boxes/ drums/ containers/ cartons and otherwise in such a manner as shall be reasonably suitable for shipment by road or rail to BYPL, Delhi/New Delhi stores/site without undue risk of damage in transit. All the packaging materials as prescribed shall be supplied preferably with bio-degradable packing-materials.

8.02 **Packing List:** The contents of each package shall be itemized on a detailed list showing the exact weight, extreme outside dimensions (length, width & weight) of each container/box/drum/carton, Item SAP Code, PO No & date. One copy of the packing list shall be enclosed in each package delivered.

9.0 Prices/Rates/Taxes

9.01 **Price basis for supply of materials**

a) Bidder to quote their prices on Landed Cost Basis and separate price for each item for supply to BYPL Delhi/New Delhi stores inclusive of packing, forwarding, loading at manufacturer's premises, payment of GST, Freight, and any other local charges. **Octroi is presently not applicable in Delhi and however if applicable shall be reimbursed at actuals.**

b) The above supply prices shall also include unloading at BYPL Delhi/New Delhi stores/sites.

c) Transit insurance will be arranged by Bidder

10.00 Taxes & Duties

10.01 Prices for Goods are on Ex- Works basis. For the Goods covered under the GST laws, all taxes that are applicable under CGST, SGST, UGST, IGST and GST Compensation Cess shall be payable extra.

10.02 For the Goods not covered in the GST laws, the applicable ED, VAT / CST shall be payable extra at applicable rates.

10.03 GSTIN of BSES YAMUNA POWER LTD - 07AABCC8569N1Z0
CST No of BSES YAMUNA POWER LTD -07740254593
TIN NO of BSES YAMUNA POWER LTD - 07740254593
PAN NO of BSES YAMUNA POWER LTD - AABCC8569N

10.04 At the end of each month, the SELLER must submit their detail of invoices and amount thereof to the concerned officer in charge, within 07 days after the close of the respective month to which supply

relates. Non-submission of the said request would be treated as good as the SELLER has no requirement for reconciliation.

11.0 Invoicing Instructions

11.01 Invoices in triplicate [1) Original for recipient, 2) Duplicate for Transporter, 3) Triplicate for supplier] shall be made out and delivered to the following address: BSES YAMUNA POWER LIMITED, SHAKTI KIRAN BUILDING, KARKARDOOMA, DELHI-110032.
MDCC will be released separately for Capex & Opex. Invoice will be submitted by the supplier as per the MDCC.

11.02 Vendor shall obtain GST registration in the State from where the supply will be carried out. Vendors supplying Goods to the Purchaser shall have a valid GST registration number and shall submit GST Tax Invoice and other documents as per SGST Act, CGST Act, IGST Act, UTGST Act, GST Compensation Cess Act and Rules made there under. Failure to submit GST Tax Invoice shall be liable for withholding SGST, CGST, IGST, UTGST, GST Compensation Cess amount charged by the vendor while releasing the payment.

11.03 Invoice will be in the name of BSES YAMUNA POWER LIMITED & address of the store/site mentioned in the MDCC. Invoice should contain all information as required under GST Invoice, Debit Note and Credit Rules. The government has notified rules of invoicing under GST along with a template of invoice (GST INV-01) covering the elements such as supplier's details, GSTIN No, HSN Codes, item details, GST tax rates, etc that need to be presented by the supplier.

11.04 Vendor to carefully examine and charge relevant CGST / SGST, UGST, IGST and GST compensation cess as applicable to the transactions.

11.05 Timely provision of invoices / Debit Notes / Credit Notes:

11.05.1 Vendor to timely provide invoice / Debit note / Credit note to enable Purchaser to claim tax benefit on or before stipulated time period. All necessary adjustment entries (Credit Notes, Purchase Returns, Debit Notes) shall be made within the timelines prescribed under the GST Laws.

11.05.2 In case of receipt of advance, the Vendor undertakes to raise the tax invoice. Purchaser, upon payment of advance, shall issue payment voucher as per applicable GST laws and rules. Four copies of the invoices need to be provided by suppliers and wherever the law requires, an Electronic Reference Number for each invoice.
Documents and devices to be carried by a person in charge of a conveyance under.

11.05.3 Any Vendors / Contractors / Service providers 'shall' mention the following minimum requirements in 'invoice' while furnishing Invoices with us:
1. Invoice / Credit Note Number and Date.
2. Address of supplier/service provider and GSTN.
3. Customer Name and Address as per GST Registration Certificate and GST registration Number.
4. 'Shipped to' and 'Billed to' addresses.
5. Place of Supply.
6. Description of Goods/Service along with unit of measurements.

7. HSN / SAC Code.
8. Taxable value (Gross & deduct Discount separately if allowed)
9. Rate and amount of Tax separately for CGST, SGST and IGST as applicable.
10. Signature of Supplier. (For e-invoices physical signature is not required)
11. Whether Reverse Charge is applicable or not.

11.06 E Way Bills/transit documents for movement of Goods:
Wherever applicable, the Vendor shall be responsible for issuing required transit documents / E Way Bills for the movement of Goods and the logistic partner/transporter shall not be liable for any loss arising due to confiscation of goods by government agencies on account of lack of proper documents or any misdeclaration. The Supplier is responsible for complying with rules applicable to the E-way bill. Any violation in provision of E-way Bill will attract penalties and seizure of Transit Material. Any Penalty and Pre-Deposit due to violation of rules/provisions shall be paid and borne by the Supplier. Also, the Supplier is responsible for releasing goods from the Authority whether CGST/SGST. Delay in supply from the contractual date due to the seizure of goods shall also attract liquidated damages.

12.0 Terms of Payment and Billing

12.01 Payment shall be made in two milestone as per following:

MS-1: 70% against delivery and installation of hardware and required operating system against submission of performance bank guarantee of 10% of total contract value.
MS-2: 30% of total contract value shall be released after 45 Days of successful Bug Free system run after completion.

Note: Milestone payments shall be made in full upon the successful completion of the milestone. In the event that only a minor portion of a milestone is not fully completed, invoicing for partial payment of the milestone will be entirely to BYPL discretion. Payment terms shall be within 45 days from receipt of invoice supported by BYPL certification of completion of milestone as per table 12.01 above

Bidder to submit the following documents against dispatch of each consignment at our Vendor Support Cell (VSC):
a) Signed copy of accepted Rate Contract (as applicable) & Purchase Order (for first payment)
b) PBG equivalent to 10% of PO Value (including GST) valid till PO validity period, as applicable
c) LR / RR / BL as applicable
d) Challan as applicable
e) Two (02) copies of the Supplier's detailed Recipient Invoice showing Commodity description, quantity, unit price, total price and basis of delivery, and is 100% of the value of the consignment claimed.
f) Two (02) copies of Supplier's transporter invoice duly receipted by BYPL Store & Original certificate issued by BYPL confirming receipt of the subject material at Store/Site and acceptance of the same as per the provisions of the contract.
g) Two (02) copies Packing List / Detailed Packing List
h) Approved Test certificates / Quality certificates, if applicable
i) Certificate of Origin, if applicable
j) Material Dispatch Clearance Certificate (MDCC)
k) Warranty / Guarantee Certificate, if applicable

l) Checklist for bill submission.

12.02 Purchaser has the right to recover tax loss, interest and penalty suffered due to any non-compliance of tax laws by the Vendor. In the event, Purchaser is not able to avail of any tax credit due to any shortcoming on the part of the Vendor (which otherwise should have been available to Purchaser in the normal course), then the Vendor at his own cost and effort will get the short coming rectified. If for any reason the same is not possible, then the Vendor will make 'good' the loss suffered by Purchaser due to the tax credit it lost. In such event, any amount paid to the Vendors shall be first attributable to the tax (GST) charged in the invoice and the balance shall be considered towards the 'value' of supply of goods/ services.

12.03 Purchaser shall deduct "Tax Deducted at Source" wherever applicable and at the rate prescribed under the GST Laws or any other Indian law and remit the same to the Government. Necessary TDS certificates as per law shall be issued by the purchase to the vendor.

12.04 Any liability arising out of dispute on the tax rate, classification under HSN, calculation and payment of tax to the Government will be to the Vendor's account.

12.05 Where the supply of Goods is liable to GST under reverse charge mechanism, then the supplier should clearly mention the category under which it has been registered and also that "the liability of payment of GST is on the Recipient of Supply".

13.0 Tax Indemnity Clause

13.01 Vendor (along with its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for this agreement) agrees that it will be solely responsible for performing all compliances and making payments of all taxes (direct tax or indirect tax including but not limited to income-tax, transfer pricing, value added tax, SGST, CGST, IGST, UTGST, GST Compensation Cess custom duty, excise duty, Research and Development Cess, etc.), cesses, interest, penalties or any other tax/ duty/ amount/ charge/ liability arising either out of laws/ regulations applicable in India and overseas or because of a demand/ recovery initiated by any revenue authority under laws/ regulations applicable in India or overseas.

13.02 In case any tax liability (including but not limited to income tax, transfer pricing, value added tax, SGST, CGST, IGST, UTGST, GST Compensation Cess, custom duty, excise duty, Research and Development Cess, etc.), cesses, interest, penalties or any other tax/ duty/ amount/ charge/ liability becomes payable by Purchaser due to failure of the Vendor, or any of its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for this agreement, to comply with the relevant laws/ regulations applicable in India or overseas, Vendor undertakes to indemnify Purchaser for an amount equal to amount payable by Purchaser.

13.03 Further, Vendor undertakes to keep Purchaser indemnified at all times against and from all other actions, proceedings, claims, loss, damage, costs and expenses which may be brought against Purchaser or suffered or incurred by Purchaser and which shall have arisen either directly or indirectly out of or in connection with failure of The Vendor, or any of its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for this agreement, to comply with relevant obligations/ compliance under any law/ regulations applicable in India and overseas.

13.04 The parties agree to follow the following process in case any communication of demand, arising out of non-compliance by Vendor (along with its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for this agreement), is received by Purchaser:

13.04.1 On Purchaser receiving any communication from a competent authority demanding tax liability (including but not limited to income tax, transfer pricing, value added tax, SGST, CGST, IGST, UTGST, GST Compensation Cess custom duty, excise duty, Research and Development Cess, etc.), cesses, interest, penalties or any other tax/ duty/ amount/ charge/ liability, Purchaser shall, within 5 common working days from the date of receipt of such communication (save where the period to respond to the relevant authority is less than five days, in which case, as soon as reasonably possible) inform Vendor in writing of such communication.

13.04.2 Pursuant to receiving communication from Purchaser, Vendor shall suggest to accept the communication and pay the demand amount to the competent authority. In such an event, Vendor shall reimburse such amount paid to Purchaser within 5 working days from the date of payment by Purchaser to the competent authority.

13.04.3 If Vendor advises in writing and Purchaser agrees to dispute the demand, then Purchaser shall dispute the matter with competent authority as per due process prescribed under the regulations and Purchaser shall not pay the Tax Demand. In such scenario, cost of litigation including but not limited to Counsel cost, filing fees, other related charges, should be reimbursed by Vendor to Purchaser. Additionally, If any coercive steps of recovery are initiated by the department, then Purchaser would pay such amount (including by way of adjustment of refunds due to it) and the same would be reimbursed by Vendor within 5 working days from date of such recovery from Purchaser. Purchaser will take all necessary steps to avoid such recovery measures.

13.04.4 On determination of the demand through an Order issued by a Tribunal or any other similar Authority, by whatever name called, under any law applicable in India or overseas, if the demand or any part thereof becomes payable and is paid by Purchaser, then Vendor undertakes to reimburse such amount to Purchaser within 10 days from the date of payment. Alternatively, if on determination of the demand through an Order, no amount is payable by Purchaser then any refund arising to Purchaser due to such an Order shall be passed on to Vendor within 10 days from the date of receipt of refund.

14.0 The Micro, Small and Medium Enterprises (MSME)

14.01 If the SELLERS establishment is covered under the purview of The Micro, Small and Medium Enterprises Development Act, 2006 and its amendments, he shall declare so within the bid of its status failing which it will be presumed that it is a non-MSME unit. Also, submit a copy of Udyog Aadhaar (UA) & Udyam Registration Number.

15.00 Price Validity

15.01 All bids submitted shall remain valid, firm and subject to unconditional acceptance by BYPL Delhi for 120 days from the due date of submission. For awarded suppliers, the prices shall remain valid till contract completion.

16.0 Performance Guarantee

16.01 To be submitted within twenty-eight (28) days from the date of issuance of the Letter of Intent/Award/RC. Bidder shall initially submit the performance bank guarantee (PBG) equivalent to 10% of total Purchase Order value (including GST) valid for a period of Sixty months (60) from the date of the commissioning or Sixty-six months (66) from the date of receipt of material (last consignment) at site/stores whichever is earlier plus 3 months towards claim period. Upon receipt of the PBG by BYPL against contract, the EMD shall be released.

16.02 Bank guarantee shall be drawn in favour of BSES Yamuna Power Ltd as applicable. The performance Bank guarantee shall be in the format specified by BYPL.

17.0 Forfeiture

17.01 Each Performance Bond established under Clause 10.0 shall contain a statement that it shall be automatically and unconditionally forfeited without recourse and payable against the presentation by BYPL of this Performance Bond, to the relevant bank referred to above, together with a simple statement that supplier has failed to comply with any term or condition outlined in the Contract.

17.02 Each Performance BG established under will be automatically and unconditionally forfeited without recourse if BYPL in its sole discretion determines that supplier has failed to comply with any term or condition outlined in the contract.

18.0 Release

18.01 All Performance Bonds will be released without interest within seven (7) days from the last date up to which the Performance Bond has to be kept valid (as defined in Clause 16.0) except for the case outlined in Clause 22.0.

19.0 Defects Liability Period/Guarantee/Warranty & Support

19.01 Offered solution should be with onsite warranty and support. Bidder required to provide OEM warranty certificate.

19.02 24x7, 4 hrs resolution, 5 years onsite Warranty (part and labor), support from OEM along with all patches for hardware and software

19.03 The offered products should be the latest version and should not be at the end of life for next seven (07) years. However, if any product is declared End of life by OEM during the supply period of material, the bidder should supply replaced model or next higher model/version of the Product without any cost implication to BYPL.

19.04 H/W and SD WAN License warranty and support will start after DC, DR and 50% Grid office Go Live.

20.0 Return, Replacement or Substitution

20.01 BYPL shall give Supplier notice of any defective Commodity promptly after becoming aware thereof. BYPL may at its discretion elect to return defective Commodities to Supplier for replacement, free of charge to BYPL or may reject such Commodities and purchase the same or similar Commodities

from any third party. In the latter case, BYPL shall furnish proof to Supplier of the cost of such substitute purchase. In either case, all costs of any replacement, substitution, shipping, labour and other related expenses incurred in connection with the return and replacement or for the substitute purchase of a Commodity hereunder should be for the account of Supplier. BYPL may set off such costs against any amounts payable by BYPL to the Supplier. Supplier shall reimburse BYPL for the amount, if any, by which the price of a substitute Commodity exceeds the price for such Commodity as quoted in the Bid. BUYER at its sole discretion shall have the opinion to dispose of the material or GOODS so rejected and not taken back within forty-five days from the date of intimation of rejection.

21.0 Effective date of commencement of contract

21.01 The date of the issuance of the Letter of Acceptance/Purchase Order shall be treated as the effective date of the commencement of Contract.

22.0 Time – The Essence of Contract

22.01 The time and the date of completion of the "Supply" as stipulated in the Letter of Acceptance / Purchase order issued to the Supplier shall be deemed to be the essence of the "Contract". The Supply has to be completed not later than the aforesaid Schedule and date of completion of supply.

23.0 The Laws and Jurisdiction of Contract:

23.01 The laws applicable to this Contract shall be the Laws in force in India.

23.02 All disputes arising in connection with the present Contract shall be settled amicably by mutual consultation failing which shall be finally settled as per the rules of Arbitration and Conciliation Act, 1996 at the discretion of Purchaser. The venue of arbitration shall be Delhi, India

24.0 Events of Default

24.01 Events of Default. Each of the following events or occurrences shall constitute an event of default ("Event of Default") under the Contract:

(a) Supplier fails or refuses to pay any amounts due under the Contract;

(b) Supplier fails or refuses to deliver Commodities conforming to this RFQ/ specifications, or fails to deliver Commodities within the period specified in P.O. or any extension thereof

(c) Supplier becomes insolvent or unable to pay its debts when due, or commits any act of bankruptcy, such as filing any petition in any bankruptcy, winding-up or reorganization proceeding, or acknowledges in writing its insolvency or inability to pay its debts; or the Supplier's creditors file any petition relating to bankruptcy of Supplier;

(d) Supplier otherwise fails or refuses to perform or observe any term or condition of the Contract and such failure is not remediable or, if remediable, continues for a period of 30 days after receipt by the Supplier of notice of such failure from BYPL.

25.0 Consequences of Default.

(a) If an Event of Default shall occur and be continuing, BYPL may forthwith terminate the Contract by written notice.

(b) In the event of an Event of Default, BYPL may, without prejudice to any other right granted to it by law, or the Contract, take any or all of the following actions;

(i) Present for payment to the relevant bank the Performance Bond;

(ii) Purchase the same or similar Commodities from any third party; and/or

(iii) Recover any losses and/or additional expenses BYPL may incur as a result of Supplier's default.

26.00 Penalty for Delay

26.01 If supply of items/equipments is delayed beyond the supply schedule as stipulated in the purchase order then the Supplier shall be liable to pay to the Purchaser as penalty for delay, a sum of 1% (one percent) of the basic (ex-works) price for every week delay of undelivered units or part thereof for individual milestone deliveries.

26.02 The total amount of penalty for delay under the contract will be subject to a maximum of ten percent (10%) of the basic (ex-works) price of total undelivered units.

26.03 The Purchaser may, without prejudice to any method of recovery, deduct the amount for such damages from any amount due or which may become due to the Supplier or from the Performance Bond or file a claim against the supplier.

26.4 If the Penalty is levied as per the Order terms & conditions; BYPL will raise the Invoice for the penalty amount along with applicable GST rates. Accordingly, after setting off the penalty Invoice amount, net payment shall be made.

27.0 Variation in Taxes, Duties & Levies

27.1 The total order value shall be adjusted on account of any variations in Statutory Levies imposed by Competent Authorities by way of fresh notification(s) within the stipulated delivery period only. In case of reduction in taxes, duties and levies, the benefits of the same shall be passed on to BUYER.

27.2 No other Taxes, Duties or levies other than those specified above will be payable by BUYER except in case of new Levies, Taxes or duties imposed by the Competent Authorities by way of fresh notification(s) after the issue of PURCHASE ORDER but within the stipulated delivery period.

27.3 Notwithstanding what has been stated above, changes in Taxes, Duties & Levies shall apply only to that portion of PURCHASE ORDER not executed on the date of notification by the Competent Authority. Further, changes in Taxes, Duties & Levies after the due date of Delivery shall not affect PURCHASE ORDER Terms and Value.

27.4 PURCHASE ORDER value shall not be subject to any variation on account of variation in Exchange rate(s).

28.0 Taxes & Duties on raw materials & bought out components

28.01 Taxes & Duties on raw materials & bought-out components are included in Order Value and are not subject to any escalation or variation for any reason whatsoever.

28.02 Taxes & Duties on raw materials & bought-out components procured indigenously are included in Order Value and are not subject to any escalation or variation for any reason whatsoever.

29.0 Force Majeure

29.01 General

An ”Event of Force Majeure" shall mean any event or circumstance not within the reasonable control directly or indirectly, of the Party affected, but only if and to the extent that:

(i) Such event or circumstance materially and adversely affects the ability of the affected Party to perform its obligations under this Contract, and the affected Party has taken all reasonable precautions, due care and reasonable alternative measures to prevent or avoid the effect of such event on the affected party's ability to perform its obligations under this Contract and to mitigate the consequences thereof.

(ii) For the avoidance of doubt, if such event or circumstance would not have materially and adversely affected the performance of the affected party had such affected party followed good industry practice, such event or circumstance shall not constitute force majeure.

(iii) Such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Contract.

(iv) Such Party has given the other Party prompt notice describing such events, the effect thereof and the actions being taken to comply with the above clause.

29.02 Specific Events of Force Majeure subject to the provisions of above clause, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements:

(i) The following events and circumstances:

a) Effect of any natural element or other acts of God, including but not limited to storm, flood, earthquake, lightning, cyclone, landslides or other natural disasters.

b) Explosions or fires

(ii) War declared by the Government of India.

(iii) Dangers of navigation, perils of the sea.

Note: Causes like power breakdowns/strikes, accidents etc do not fall under Force Majeure.

29.03 Notice of Events of Force Majeure If a force majeure event prevents a party from performing any obligations under the Contract in part or in full that party shall:

i) Immediately notify the other party in writing of the force majeure events within 7(seven) working days of the occurrence of the force majeure event

ii) Be entitled to suspend performance of the obligation under the Contract which is affected by force majeure event for the duration of the force majeure event.

iii) Use all reasonable efforts to resume full performance of the obligation as soon as practicable
iv) Keep the other party informed of all such efforts to resume full performance of the obligation on a regular basis.
v) Provide prompt notice of the resumption of full performance or obligation to the other party.

29.04 Mitigation of Events of Force Majeure Each Party shall:

(i) Make all reasonable efforts to prevent and reduce to a minimum and mitigate the effect of any delay occasioned by an Event of Force Majeure including recourse to alternate methods of satisfying its obligations under the Contract;
(ii) Use its best efforts to ensure resumption of normal performance after the termination of any Event of Force Majeure and shall perform its obligations to the maximum extent practicable as agreed between the Parties; and
(iii) Keep the other Party informed at regular intervals of the circumstances concerning the event of Force Majeure, with best estimates as to its likely continuation and what measures or contingency planning it is taking to mitigate and or terminate the Event of Force Majeure.

29.05 Burden of Proof In the event that the Parties are unable in good faith to agree that a Force Majeure event has occurred to an affected party, the Parties shall resolve their dispute in accordance with the provisions of this Agreement. The burden of proof as to whether or not a force majeure event has occurred shall be upon the party claiming that the force majeure event has occurred and that it is the affected party.

29.06 Termination for Certain Events of Force Majeure. If any obligation of any Party under the Contract is or is reasonably expected to be delayed or prevented by a Force Majeure event for a continuous period of more than 3 months, the Parties shall promptly discuss in good faith how to proceed with a view to reaching a solution on mutually agreed basis. If a solution on mutually agreed basis cannot be arrived at within a period of 30 days after the expiry of the period of three months, the Contract shall be terminated after the said period of 30 days and neither Party shall be liable to the other for any consequences arising on account of such termination.
The Purchaser may terminate the contract after giving 7 (seven) days' notice if any of the following occurs:
i. Bidder fails to complete the execution of works within the approved schedule of works, terms and conditions.
ii. In case the Bidder commits any Act of Insolvency, or is adjudged insolvent
iii. Has abandoned the contract
iv. Has failed to commence work or has suspended the progress of works
v. Has failed to proceed with the works with due diligence and failed to make such due progress

29.07 Limitation of Force Majeure event. The Supplier shall not be relieved of any obligation under the Contract solely because the cost of performance is increased, whether as a consequence of adverse economic consequences or otherwise.

29.08 Extension of Contract Period due to Force Majeure event The Contract period may be extended by mutual agreement of Parties by way of an adjustment on account of any period during which an obligation of either Party is suspended due to a Force Majeure event.

29.09 Effect of Events of Force Majeure. Except as otherwise provided herein or may further be agreed between the Parties, either Party shall be excused from performance and neither Party shall be

construed to be in default in respect of any obligations hereunder, for so long as the failure to perform such obligations shall be due to an event of Force Majeure."

29.10 Severability

If any provision of this Agreement is or becomes invalid or unenforceable by the courts of any jurisdiction to which it is subject, such invalidity or unenforceability shall not prejudice the remaining provisions of this Agreement, which shall continue in full force and effect.

30.0 Transfer and Sub-Letting

30.01 The Supplier shall not sublet, transfer, assign or otherwise part with the Contract or any part thereof, either directly or indirectly, without prior written permission of the Purchaser.

31.0 Recoveries

31.01 Whenever under this contract any money is recoverable from and payable by the bidder, the purchaser shall be entitled to recover such sum by appropriating in part or in whole by detecting any sum due to which any time thereafter may become due from the supplier in this or any other contract. Should the sum be not sufficient to cover the full amount recoverable the bidder shall pay to the purchaser on demand the remaining balance

32.0 Waiver

32.01 Failure to enforce any condition herein contained shall not operate as a waiver of the condition itself or any subsequent breach thereof.

33.0 Indemnification

33.01 Notwithstanding contrary to anything contained in this RFQ, Supplier shall at his costs and risks make good any loss or damage to the property of the Purchaser and/or the other Supplier engaged by the Purchaser and/or the employees of the Purchaser and/or employees of the other Supplier engaged by the Purchaser whatsoever arising out of the negligence of the Supplier while performing the obligations under this contract.

34.00 Termination for convenience of Purchaser

34.1 Purchaser at its sole discretion may terminate the contract by giving 30 days prior notice in writing or through email to the Supplier. Purchaser shall pay the Supplier for all the supplies/ services rendered till the actual date of contract termination against submission of invoice by the Supplier to that effect.

34.2 Payment of such compensation is the sole and exclusive remedy of the supplier for termination of this Agreement by Purchaser hereunder and the supplier shall not be entitled to, and hereby waives, claims for lost profits and all other damages and expenses.

34.3 Supplier hereby agrees that substantiation for settlement of any claims submitted by supplier shall be complete and in sufficient detail to allow Purchaser's evaluation. Terminate all sub-contracts except those that have been/ to be assigned to the Purchaser all rights, titles and benefits of the Suppliers/Vendor as the case may be.

35.00 Documentation

35.01 The Bidder shall procure all equipment from BYPL-approved sources as per the attached specifications. The Bidders shall submit copies of Material/Type Test Certificates, O&M Manuals, and Approved & As-built drawings, related to various equipment (as applicable). The Bidder shall ensure strict compliance with the specifications and Field Quality Procedures issued by BYPL.

36.0 Transit Insurance

36.01 Transit Insurance shall be arranged by the Bidder.

36.02 DAMAGE / LOSS OF CARGO IN TRANSIT: The vendor shall be solely responsible for coordinating with the concerned insurance company for procuring insurance for material and/or Goods, processing claims lodgment and settlement. Notwithstanding the insurance cover, in case of loss/damage to material and/or Goods, in any manner and for any cause whatsoever, Vendor shall cause the damaged cargo to be replaced and delivered to the Purchaser with new material and/or Goods within 30 days of such loss/damage. The Vendor shall be solely responsible for all expenses in relation to the replacement and delivery in such circumstances.

37.0 Limitation of Liability

37.01 Except for willful misconduct or gross negligence, neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or any other indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract. The total liability of the Supplier to the Purchaser under the Contract shall not exceed the Contract Value. Except that this Clause shall not limit the liability of the Supplier:
(a) In cases of fraud, willful misconduct or illegal or unlawful acts, or
(b) In cases of acts or omissions of the Supplier that are contrary to the most elementary rules of diligence that a conscientious Supplier would have followed in similar circumstances.

38.0 Liability of Suppliers

38.1 Subject to the due discharge of its obligations under the Contract and except in case of gross negligence or willful misconduct on the part of the Supplier or on the part of any person acting on behalf of the Supplier, with respect to any loss or damage caused by the Supplier to the Purchaser's property or the Site, the Supplier shall not be liable to the Purchaser for the following:
(a) For any indirect or consequential loss or damage; and
(b) For any direct loss or damage that exceeds:
(i) The total payments made and expected to be made to the Supplier under the Contract including reimbursements, if any; or
(ii) The insurance claim proceeds that the Supplier may be entitled to receive from any insurance purchased by the Supplier to cover such a liability, whichever is higher.

38.2 This limitation of liability shall not affect the supplier's liability, if any, for damage to third-party property or injury or death of a person due to negligence of the Contractor or any Person or firm acting on behalf of the supplier in executing the order.

38.3 Notwithstanding anything contained in the Contract, the supplier shall not be liable for any gross

negligence or willful misconduct on the part of the Purchaser or any of its affiliates, any vendor, or any party, other than Supplier and/or, its directors, officers, agents or representatives or its affiliates, or Sub-supplier, or the vendor or any third party engaged by it.

38.4 Notwithstanding anything contained in the Contract, including but not limited to approval by the Purchaser of any drawings, documents, vendor list, supply of information or data or the participation of the Purchaser in any meeting and/or discussion or otherwise, shall not absolve the Supplier from any of its liabilities or responsibilities arising in relation to or under the Contract.

39.0 Intellectual Property Rights and Royalties

39.1 The Supplier shall indemnify the Purchaser and the Purchaser's Representative from and against all claims and proceedings on account of infringement (or alleged infringement) of any patent rights, registered designs, copyright, design, trademark, trade name, know-how or other intellectual property rights (hereinafter collectively referred to as "**Intellectual Property Rights**") in respect of the Works, Supplier's Equipment, machines, Works method, Plant, Materials, or anything whatsoever required for the execution of the Works and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. In the event of an infringement of any Intellectual Property Rights of any third party as a result of the execution of the Works (or any part thereof) by the Supplier, the Supplier shall rectify, modify or replace, at its own cost, the Works, Plant or Materials or anything whatsoever required for the Works so that infringement ceases to exist or, in the alternative, the Supplier shall procure necessary rights/ licenses from the affected third party so that there is no infringement of Intellectual Property Rights.

39.2 The Supplier shall be promptly notified of any claim made against the Purchaser. The Supplier shall, at its cost, conduct negotiations for the settlement of such claim, and any litigation or arbitration that may arise from it. The Purchaser or the Purchaser's Representative shall not make any admission that might be prejudicial to the Supplier unless the Supplier has failed to take over the conduct of the negotiations, litigation or arbitration within a reasonable time after having been so requested. In the event of the Supplier failing to act at the Purchaser's Representative's notice, the Purchaser shall be at full liberty to deduct any such amount of pending claim from any amount due to the Supplier under the Contract or any other contract and the balance portion of claim shall be treated as debt due from the Supplier.

39.3 All Intellectual Property Rights in respect of any Plant, Materials, Drawings and Designs, plans, documents, specifications, data, materials, know-how, charts, information, etc., provided to the Supplier by the Purchaser pursuant to this Contract for the execution of the Works, belongs to and shall continue to belong to the Purchaser and the Supplier shall not have any rights in the same other than the limited right for its use for the purpose of execution of the Works.

39.4 Intellectual Property Rights in respect of any Plant, Materials, Drawings and Designs, plans, calculations, drawings, documents, know-how and information relating to the Works which are proprietary to the Supplier and/ or its third-party licensors ("**Supplier's IPR**") shall continue to vest with the Supplier and/ or its third-party licensors and the Supplier shall grant and/ or procure from its third party licensors, at its own cost, a worldwide, perpetual, royalty-free, non-exclusive license (along with the right to sub-license) to use and reproduce such Supplier's IPR for the use, operation, maintenance and repair of the Works.

39.5 If any patent, trademark, trade name, registered design or software is developed by the Supplier or its Sub-Supplier specifically for the execution of the Works, then all Intellectual Property Rights in respect

of such design, trademark, trade name or software shall be the absolute property of the Purchaser and shall not be utilized or retained by the supplier (or its Sub-suppliers) for any purpose other than with the prior written consent of the Purchaser.

39.6 If the Supplier uses proprietary software (whether customized or off the shelf) for the purpose of storing or utilizing records in relation to the Works, the Supplier shall obtain at its own expense, the grant of a worldwide, royalty-free, perpetual license or sublicense (including the right to sublicense) to use such software, in favour of the Purchaser provided that the use of such software under the license or the sublicense may be restricted to use any such software only for the design, construction, reconstruction, manufacture, installation, completion, reinstatement, extension, repair and operation of the Works or any part thereof.

39.7 If any software is used by the Supplier for the execution of the Works over which the Supplier or a third party holds pre-existing title or other rights, the Supplier shall obtain for the Purchaser, a worldwide, royalty-free, perpetual license for the right to use and apply that software (together with any modifications, improvements and developments thereof).

40.0 Acceptance

40.01 Vendor confirms to have gone through the Policy of BYPL on legal and ethical code required to be followed by vendors encapsulated in the "Vendor Code of Conduct" displayed on the official website of BYPL (www.bsesdelhi.com) also, which shall be treated as a part of the contract/PO/WO.
The vendor undertakes that he shall adhere to the Vendor Code of Conduct and also agrees that any violation of the Vendor Code of Conduct shall be treated as breach of the contract/PO/WO.
In the event of any such breach, irrespective of whether it causes any loss/damage, Purchaser (BYPL) shall have the right to recover loss/damage from Vendor.
The Contractor/Vendor hereby indemnifies and agrees to keep indemnified the Purchaser (BYPL) against any claim/litigation arising out of any violation of Vendor Code of Conduct by the Contractor/Vendor or its officers, agents & representatives etc.

40.02 Acceptance of the CONTRACT implies and includes acceptance of all terms and conditions enumerated in the CONTRACT in the technical specification and drawings made available to Contractor consisting of general conditions, detailed scope of work, detailed technical specification, detailed equipment drawing and complete scope of work.

40.03 Contractor and Company contractual obligations are strictly limited to the terms set out in the CONTRACT. No amendments to the concluded CONTRACT shall be binding unless agreed to in writing for such amendment by both parties.

40.04 We expect your services and supplies to be aligned to our Vision, Mission and Values. Please refer to the following link to know about our Vision, Mission and Values; https://www.bsesdelhi.com/web/bypl/about-bses.

BSES
BSES Yamuna Power Limited

BILL OF MATERIAL AND OFFICE CATEGORIZATION

Package - 1: SITC & Implementation of SD-WAN for Router & Firewalls:

Sl. No.	Item	Description	Technical Specification	Total Qty. (Nos)	Tentative Delivery Schedule	Destination
1	IT DC core Router (KKD)	Divided ISP link based on Services Total Ports: 23 used for WAN links, Can divide into two pair 10 and 13 excluding LAN and Heartbeat. Proposed device must have minimum 2 spare port for future. And Device must be in HA (A-A or A-P)	VOLUME – III	4	Please refer implementation schedule attached	BYPL Delhi Office(s)/ Site(s)
2	IT DR core Router (SRD)	DR location without HA,		2		
3	IT for Remote office	Office Location		105		
4	BYPL Router LTE 4G and 5G for IT and OT	For SIM based router		05		
5	Implementation	Implementation Cost		LS		

The delivery schedule shown above is tentative. PO(s) will be released as per the actual requirement. However, the supplier has to deliver the material within the delivery schedule provided.
Schemes may be executed in a pha sed manner.

Office Categorization:

Category	Office Type
A	Hub Location
B	Other Office (IT Site Office)
C	IT LTE for Site office (Where ISP link not Feasible)

No. of offices:

BYPL	No. of Offices
BYPL IT DC (KKD)	01
BYPL IT DR SCADA (SRD)	01
BYPL IT Office Site, Circle, Division and Sub Division.	105
BYPL OT Grid site (Switch Replacment)	65

BSES Yamuna Power Limited

Package - 2: SITC & Implementation of L2 Switches for IT & OT:

Sl. No.	Item	Description	Technical Specification	Total Qty. (Nos)	Tentative Delivery Schedule	Destination
1	L2 Switch for IT Remote Location	24 Port 100/1000 + 1 G Uplink	VOLUME – III	200	Please refer implementation schedule attached	BYPL Delhi Office(s)/ Site(s)
2		24 Port 100/1000 +10 G Uplink		30		
3		48 Port 100/1000 +2x1G Uplink		10		
4	L2 Switch for OT Remote Location	N/w Switch for OT Grid		65		
5	Implementation	Implementation and Designing Cost		LS		

The delivery schedule shown above is tentative. PO(s) will be released as per the actual requirement. However, the supplier has to deliver the material within the delivery schedule provided.
Schemes may be executed in a phased manner.

Office Categorization:

Category	Office Type
A	OT Switch for Grid
B	IT Switch for Site Office

No. of offices:

BYPL	No. of Offices
BYPL IT Office Site, Circle, Division and Sub Division.	105
BYPL OT Grid site (Switch Replacment)	65

BSES
BSES Yamuna Power Limited

SCHEDULE OF IMPLEMENTATION

Implementation and deployment timeline for [Package 1 and 2] is as per the following:

S. No	Hardware	Duration of Implementation (Time reckoned after delivery of the device)
1	Devices at DC	04 weeks
2	Devices at DR	04 weeks
3	Devices at other Site locations	24 weeks

Selected Bidder is expected to adhere to the above or mutually agreed timeline for the implementation and submit the Office wise IT and OT, expected Device delivery schedule in the below format for BYPL. Penalty clauses are applicable (see Section 5 of RFP) for delay in implementation and commissioning of the devices.

Integration, Installation and Commissioning:

The Bidder is responsible for assembling, installation and commissioning of all Hardware at respective offices. The list of offices is being enclosed, where the Hardware items needs to be installed and commissioned in given time line as specified in RFP. The bidder should perform work i.e. installation, commissioning of the Hardware and also provide 5 years onsite comprehensive warranty.

Bidder should install and commission the hardware at respective office in given time line and take sign off from the respective office head.
The installation will be deemed as incomplete if any component of the hardware, software, etc., or any item is not delivered or is delivered but not installed and commissioned and/or not operational or not acceptable to BYPL after acceptance testing/examination.

In such an event, the supply, installation and commissioning will be termed as incomplete and it will not be accepted and warranty period will not commence. The entire site will be accepted after complete commissioning of equipment and satisfactory working of the entire equipment for a minimum period of 7 days.

Expected Device Delivery and commissioning Schedule

Supply: Bidder should deliver all required hardware at BYPL KKD and SRD office/store within 45 days of intimation to the bidder

S. No	Initiatives	Town wise	Site wise	Month	M1				M2				M3		Remarks
		BYPL		Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	
1		Town 1	Site 1 (Location)												
2			Site 2												
3			Site 3												
4			Site 4												
6		Town 2	Site 1												

S. No	Initiatives	Town wise	Site wise	Month	M1				M2				M3		Remarks
		BYPL		Week	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	
7			Site 2												
8			Site 3												
9			Site 4												
11		Town 3	Site 1												
12			Site 2												
13			Site 3												
14			Site 4												
N		Town n													

Note:

Bidder is expected to submit a Office/ Grid wise Device Delivery Schedule for BYPL

W1 starts from the date of issuance of Detailed Work Award

LIST OF LOCATION OF BYPL GRID LOCATION

All the BYPL office are in Delhi, Central, East and west location. Details of office location we will share separately during project execution, or you can refer https://www.bsesdelhi.com/web/bypl/home.

BSES

BSES Yamuna Power Limited

APPENDIX II

ANNEXURE – 2.01

FORMAT OF PERFORMANCE BANK GUARANTEE

(To be executed on a Non-Judicial Stamp Paper of appropriate value)

This Guarantee made at _____ this [___] day of [_____] 20XX

1. WHEREAS M/s BSES Yamuna Power Limited, a Company incorporated under the provisions of Companies Act, 1956 having its Registered Office at Shaktikiran Building, Karkardoa, Delhi 110032, India hereinafter referred to as the " Owner ", (which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns).

2. AND WHEREAS the Owner has entered into a contract for _____(Please specify the nature of contract here) vide Contract No. _____dated _____(hereinafter referred to as the "Contract") with M/s._____, (hereinafter referred to as "the Supplier", which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include each of their respective successors and assigns) for providing services on the terms and conditions as more particularly detailed therein.

3. AND WHEREAS as per clause ___of Conditions of Contract, the Suppliers are obliged to provide to the Owners an unconditional bank guarantee for an amount equivalent to ten percent (10%) of the total Contract Value for the timely completion and faithful and successful execution of the Contract from **[**_____**]** *pl. specify the name of Bank)* having its head/registered office at **[**_____**]** through its branch in _____*(pl. specify the name of Branch through which B.G is issued)* hereinafter referred to as "the Bank", (which expression shall unless it be repugnant to the context or meaning thereof be deemed to include its successors and permitted assigns).

4. NOW THEREFORE, in consideration inter alia of the Owner granting the Suppliers the Contract, the Bank hereby unconditionally and irrevocably guarantees and undertakes, on a written demand, to immediately pay to the Owner any amount so demanded (by way of one or more claims) not exceeding in the aggregate [Rs.].....*(in words)* without any demur, reservation, contest or protest and/or without reference to the Supplier and without the Owner needing to provide or show to the Bank, grounds or reasons or give any justification for such demand for the sum/s demanded.

5. The decision of the Owner to invoke this Guarantee and as to whether the Supplier has not performed its obligations under the Contract shall be binding on the Bank. The Bank acknowledges that any such demand by the Owner of the amounts payable by the Bank to the Owner shall be final, binding and conclusive evidence in respect of the amounts payable by the Supplier to the Owner.

Any such demand made by the Owner on the Bank shall be conclusive and binding, notwithstanding any difference between the Owner and the Supplier or any dispute raised, invoked, threatened or pending before any court, tribunal, arbitrator or any other authority.

6. The Bank also agrees that the Owner at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor without proceeding against the Suppliers notwithstanding any other security or other guarantee that the Owner may have in relation to the Supplier's liabilities.

7. The Bank hereby waives the necessity for the Owner first demanding the aforesaid amounts or any part thereof from the Suppliers before making payment to the Owner and further also waives any right the Bank may have of first requiring the Owner to use its legal remedies against the Suppliers, before presenting any written demand to the Bank for payment under this Guarantee.

8. The Bank's obligations under this Guarantee shall not be reduced by reason of any partial performance of the Contract. The Bank's obligations shall not be reduced by any failure by the Owner to timely pay or perform any of its obligations under the Contract.

9. The Bank further unconditionally and unequivocally agrees with the Owner that the Owner shall be at liberty, without the Bank's consent and without affecting in any manner its rights and the Bank's obligation under this Guarantee, from time to time, to:

(i) Vary and/or modify any of the terms and conditions of the Contract;
(ii) Forebear or enforce any of the rights exercisable by the Owner against the Suppliers under the terms and conditions of the Contract; or
(iii) Extend and/or postpone the time for performance of the obligations of the Suppliers under the Contract;

and the Bank shall not be relieved from its liability by reason of any such act or omission on the part of the Owner or any indulgence shown by the Owner to the Suppliers or any other reason whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving the Bank of its obligations under this Guarantee.

10. This Guarantee shall be a continuing bank guarantee and shall not be discharged by any change in the constitution or composition of the Suppliers, and this Guarantee shall not be affected or discharged by the liquidation, winding-up, bankruptcy, reorganization, dissolution or insolvency of the Suppliers or any of them or any other circumstances whatsoever.

11. This Guarantee shall be in addition to and not in substitution or in derogation of any other security held by the Owner to secure the performance of the obligations of the Suppliers under the Contract.

12. NOTWITHSTANDING anything herein above contained, the liability of the BANK under this Guarantee shall be restricted to _____*(insert an amount equal to ten percent (10%) of the Contract Value)* and this Guarantee shall be valid and enforceable and expire on

_____*(pl. specify date)* or unless a suit or action to enforce a claim under this Guarantee is filed against the Bank on or before the date of expiry.

13. On termination of this Guarantee, all rights under the said Guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities hereunder.

14. The Bank undertakes not to revoke this Guarantee during its validity except with the prior written consent of the Owner and agrees that any change in the constitution of the Bank or the Suppliers shall not discharge our liability hereunder.

15. This Guarantee shall be governed by the laws of India. Any suit, action, or other proceeding arising out of, connected with, or related to this Guarantee or the subject matter hereof shall be subject to the exclusive jurisdiction of the courts of **Delhi,** India.

Dated this ..... day of ....20XX at .....

(Signature)

.....

(Name)

.....

(Designation with Bank Stamp)

Attorney as per

Power of Attorney No.....

Date.....

BSES

ANNEXURE – 2.02

BYPL BANK DETAIL WITH IFSC CODE:

1. Name of the Bank:	Axis Bank Limited
2. Branch Name & Full Address:	C-58, Basement & Ground Floor, Preet Vihar, Main Vikas Marg, New Delhi 110092
3. Branch Code:	055
4. Bank Account No:	911030003596085
5. IFSC Code:	UTIB0000055
6. Swift Code:	AXISINBB055

BSES

ANNEXURE – 2.03

FORMAT OF WARRANTY/GUARANTEE CERTIFICATE

BSES YAMUNA POWER LIMITED
Shaktikiran Building, Karkardooma,
Delhi -110032.

Ref. Purchase Order No. :

Dear Sir,

We hereby confirm that the.....dispatched to BSES YAMUNA POWER LTD vide invoice no..... DT.....is exactly of the same nature and description as per above mentioned Purchase Order.

We further confirm that we will replace/repair our.....free of cost if any manufacturing defect during.....months from the date of dispatch of material or.....months from the date of commissioning whichever is earlier.

Vendor Name & Signature

ANNEXURE – 2.04

UNDERTAKING GST

The Vendor shall give an undertaking in the following words on each invoice in the absence of which tax payment as on the Vendor's invoice may be withheld.

"The tax component as mentioned in the invoice shall be deposited with the GST Department as per law by way of actual payment or by way of legal set off as per law. The turnover billed shall be duly declared in my GST returns a copy of which shall be filed with the Purchaser. Should the input tax credit to the Purchaser be denied by way of any lapse on the part of the Vendor, the same shall be paid on demand and in any case the Purchaser is authorized to deduct the tax equivalent amount from the amount payable to the Vendor"

BSES Yamuna Power Limited

ANNEXURE – 2.05

SUMMARY OF COMMERCIAL TERMS AND CONDITIONS

S. No	Particulars	Clause as per tender	Bidder's Confirmation
1	Validity	120 days from the date of submission of the bid	
2	Price basis	**"Firm"**, FOR Delhi store(s)/site(s) basis. Prices shall be inclusive of all taxes & duties, freight up to Delhi store(s)/site(s).	
3	Unloading	Unloading at stores/sites shall be in vendor's scope	
4	Transit insurance	Transit insurance in Bidder's scope	
5	Payment terms	**MS-1:** 70% against delivery and installation of hardware and required operating system against submission of performance bank guarantee of 10% of Total Contract value. **MS-2:** 30% of total contract value shall be released after 45 Days of successful Bug Free system run after completion.	
6	Delivery/ Completion Schedule	Supply of IT Hardware as per BOQ shall be completed within 30 days from the date of the LOI/PO date. Installation, Testing & Commissioning shall be completed as per the schedule of implementation as incorporated in Scope of work.	
7	Defect Liability Period	**i)** Offered solution should be with onsite warranty and support. Bidder required providing OEM warranty certificate. **ii)** 24x7, 4 hrs resolution, 5 years onsite Warranty (part and labor), support from OEM along with all patches for hardware and software	
8	Penalty for delay	a) 1% (One) of the basic value (ex-works value) of undelivered units per week of delay or part thereof, subject to maximum of 10% (Ten) of the total basic value (ex-works value) of undelivered units for Supply and Services. b) Penalty for Service Level Agreements shall be as per clause-2 of scope of work	
9	Performance Bank Guarantee	Performance Bank Guarantee within Twenty-eight (28) days, for an amount of 10% (Ten percent) of the Total Contract value. The Performance Bond shall be valid for a period of Sixty months (60) from the date of the commissioning or Sixty-six months (66) from the date of receipt of material (last consignment) at site/stores whichever is earlier plus 3 months towards claim period.	
10	Reverse Auction	In a bid to make our entire procurement process fairer and more transparent, BYPL intends to use the reverse auctions through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as techno commercial qualified based on the tender requirements shall be eligible to participate in the reverse auction event.	

Seal of the Bidder:

Signature:

Name:

BSES Yamuna Power Limited

VOLUME – II

PRICE BID FORMAT

BSES
BSES Yamuna Power Limited

ALL PRICES IN INR (₹)

Package 1: SITC & Implementation of SD-WAN for Router & Firewalls

S. No.	DESCRIPTION OF GOODS	HSN CODE (8 Digit Mandatory)	UoM	QTY **(A)**	UNIT BASIC PRICE INCL FREIGHT (₹) **(B)**	UNIT GST & CESS AS APPLICABLE (CGST & SGST/ UTGST or IGST) (₹) **(C)**		UNIT LANDED RATE (All Inclusive) (₹) **(D=B+C)**	TOTAL LANDED VALUE (₹) **(E=DXA)**
						%	AMT		
Supply of IT hardware for Software Defined Wide Area Network (SD-WAN)									
1	BYPL IT SCADA DC Core Router (KKD)		Nos	04					
2	BYPL IT SCADA DR Core Router (SRD)		Nos	02					
3	BYPL IT for Office Location		Nos	105					
4	BYPL Router LTE 4G and 5G for IT and OT For sim-based router		Nos	05					
Installation, Testing, Configuration & Maintenance of Software Defined Wide Area Network (SD-WAN) connections									
5	Implementation Cost		LS	Lot					
GRAND TOTAL LANDED VALUE (₹)									
In words									

BSES
BSES Yamuna Power Limited

ALL PRICES IN INR (₹)

Package 2: SITC & Implementation of L2 Switches for IT & OT

S. No.	DESCRIPTION OF GOODS	HSN CODE (8 Digit Mandatory)	UoM	QTY **(A)**	UNIT BASIC PRICE INCL FREIGHT (₹) **(B)**	UNIT GST & CESS AS APPLICABLE (CGST & SGST/ UTGST or IGST) (₹) **(C)**		UNIT LANDED RATE (All Inclusive) (₹) **(D=B+C)**	TOTAL LANDED VALUE (₹) **(E=DXA)**
						%	AMT		
Supply of IT hardware for Software Defined Wide Area Network (SD-WAN)									
1	24 Port 100/1000 + 1 G Uplink		Nos	200					
2	24 Port 100/1000 +10 G Uplink		Nos	30					
3	48 Port 100/1000 +2x1G Uplink		Nos	10					
4	L2 Switch for OT Remote Location		Nos	65					
Installation, Testing, Configuration & Maintenance of Software Defined Wide Area Network (SD-WAN) connections									
5	Implementation Cost		LS	Lot					
GRAND TOTAL LANDED VALUE (₹)									
In words									

BSES Yamuna Power Limited

NOTE:

1. **The bidder can quote either for Package 1 or Package 2 or for both.**
2. **Price Evaluation and the Reverse Auction shall be conducted solely on the basis of the prices submitted for the respective Package 1 and Package 2, evaluated separately.**
3. **Cost of all tests as per technical specification is to be included. No separate charges will be paid.**

The Un-priced bid should be marked as **"Quoted"** and be submitted with Part – A & Part B.

We declare that the following are our quoted prices in INR for the entire package.

Date: Bidders Name:

Place: Bidders Address:

Signature: ..... Designation: .....

Printed Name: ..... Common Seal: .....

BSES

BSES Yamuna Power Limited

TECHNICAL SPECIFICATION AND SCOPE OF WORK OF NIT

VOLUME – III

TECHNICAL SPECIFICATIONS

BSES

BSES Yamuna Power Limited

Technical Compliance Sheet

The bidder shall specify detailed reference including page numbers in the Data Sheet Reference. Incomplete details shall be summarily rejected.

PACKAGE - 1: SITC & IMPLEMENTATION OF SD-WAN FOR ROUTER & FIREWALLS

SD WAN Device

Sl No.	Specification	Compliance	Data Sheet Reference
General			
1	Solution must be implemented as software defined network architecture on premises with a Physical/Logical separation of Control/Data Plane, management/ orchestration and integrate the WAN and branch networks into a single, end-to-end framework that uses policies to manage traffic.		
2 3 4	System shall be implemented as software-defined network architecture on premises with a physical/logical of Control/Data plane. It shall integrate different types of connectivity (MPLS, ILL, FTTH, Broadband, LTE) into a single, end-to-end framework that uses policies to manage traffic **The solution shall comprise of following components**: The solution must allow management of networks as software-defined network (SDN). The proposed solution should have separate Centralized Network Orchestrator/ Management/ Controller along with compatible head end and Branch devices. **Centralized Management-** Shall be a separate component that provides single point of entry for Configuration and Monitoring. Shall be securely accessed and capable of configuration policies, monitoring and troubleshooting of multiple WAN Edge devices in the branches, data-centers or remote locations. This management engine shall be available in either physical/virtual form factor and should provide high availability. **Controller/HeadEnd -** Control plane must be secured using DTLS/TLS/IPSec encryption and shall be a separate/in-built component that abstracts all the routing information from the edge devices and distributes route prefixes, encryption key/Certificate to all Edges. The controller/HeadEnd shall maintain centralized routing table, controls route advertisement as per policy, creates end to end segments on network, instructs data plane to change traffic flow as per the defined policy. Controller/head-end shall be available in either physical/virtual form factor and should provide Active-Active instances across DC and DR. **Orchestrator/Authentication Gateway** shall be used to authenticate the onboarding edge devices using Certificates and serial number of the edge devices. **Data Plane:** Data plane is responsible to forward traffic in encrypted tunnels, apply local policy like QoS, ACL etc.		

	Solution shall support deployment of any kind of topologies such as full-mesh, hub-spoke and partial mesh or any arbitrary topology. It shall be possible to change network topology only by pushing policy on central controller/central orchestrator/manager and shall not require device by device configuration. The solution should be capable to cater multi hub sites deployment.		
	The solution shall support direct site-to-site remote routing (spoke- to-spoke model) and/or any-to-any.		
	System shall support multiple WAN links such as Multiprotocol Label Switching (MPLS), ILL, Internet, Broadband/FTTH, P2P TDM links (Lease Lines), RF links in Active-Active mode. The solution shall be capable of integrating with external LTE based devices. Termination of the link on device should be ethernet media (RJ45/Fiber)		
5	The overlay paths established amongst the edge devices shall support transport of unicast/multicast.		
6	The SDWAN Solution shall be capable of upgrading SD-WAN devices to the latest version and also support rollback of the software version when upgraded to the latest software version, if required. Rollback and Upgrade shall be from the Centralized platform.		
7	The centralized Management Portal shall support Customized Role Based Access Control that provides only relevant information to the user based on their roles and privileges. Solution shall also provide customized role builder and support multiple administrators. Solution shall provide detailed audit trail of changes etc.		
8	The centralized Management Portal shall support local, external Radius Server User/Account authentication method, one/two factor authentications		
9	The SDWAN should support zero touch /Light Touch deployment.		
10	The System shall be functional at the time of connectivity failure to the centralized orchestrator/controller/manager. There shall not be any data plane disruption when the SDWAN controller/centralized orchestrator/manager is not reachable or goes offline for maintenance		
11	The solution shall allow for plug and play installation of location devices without requiring any manual configuration at the remote location		
12	The SD-WAN Solution shall be able to horizontally scale at the Datacenter to support future expansion of the network		
13	The proposed SDWAN components (hardware and software) will be from the same OEM at the edge location however, the software for centralized manager/orchestrator requires VM instances which can be deployed on Third-Party hardware as per Approved OEM.		
14	All the functionality and feature licenses shall be available to be consumed from day 1		
15	The SDWAN solution should be on-premise deployment for both the data plane and control plane components		

16	Solution shall integrate with SIEM, Ticketing tool & Tacacs/Radius/AAA and should also support API's.		
17	OEM Support and services engineering team should be based in India		
18	All elements of the solution will have IPv4 and IP 6 from Day 1.		
19	The solution should not have any license-based restrictions on the bandwidth or the number of users that it supports		
20	All the SD-WAN licenses should be preferred perpetual/Subscription.		
21	Solution must be implemented as software defined network architecture On premises with a Physical/Logical separation of Control/Data Plane, management/orchestration and integrate the WAN and branch networks into a single, end-to-end framework that uses policies to manage traffic		
22	System shall be implemented as software-defined network architecture on premises with a physical/logical of Control/Data plane. It shall integrate different types of connectivity (MPLS, ILL, FTTH, Broadband, LTE) into a single, end-to-end framework that uses policies to manage traffic		
Dynamic Load Sharing of Traffic Based on Business and/or application policies			
23	SDWAN (Edge & Central) devices shall be able to load balance traffic across multiple connectivity paths based on load balancing algorithms efficiently using all available connectivity. System shall also detect blackouts & brownouts by supporting active-active load balancing and fast session failover. Shall be able to integrate different types of connectivity (MPLS/ILL/FTTH/Broadband/LTE/VSAT) for Active-Active Load Balancing.		
24	Proposed solution must support per packet or per flow-based Load balancing		
25	The solution shall be able to dynamically control data packet forwarding decisions by looking at application type, performance, policies, and path status		
26	The solution shall allow various traffic load balancing requirement like, between equal and unequal bandwidth links, application flow via specific link only etc. Shall be able capable of Seamless Sub-Second Failover of Voice/Video and Data Traffic		
27	The system shall do continuous performance monitoring of loss and latency for all network paths and link and make decisions to forward critical applications over the best performing path based on the defined application policy.		
28	The SD-WAN solution shall improve the degraded link (e.g. Forward Error Correction/SACK or equivalent, Quality of Service (QoS) etc.) to maintain application performance for high priority applications		
29	The solution should be able to tune the network /Select the linkfor business-critical services, resolve network problems and to help ensure that critical applications are properly prioritized across the network.		
30	In the event of link degradation or link down the solution shall be able to move traffic to a better link without any application disruption by moving the data traffic on a per packet/flow basis		

31	The system shall be able to prioritize business/OT critical traffic.		
32	SDWAN (Edge & Central) devices shall be able to load balance traffic across multiple connectivity paths based on load balancing algorithms efficiently using all available connectivity. System shall also detect blackouts & brownouts by supporting active-active load balancing and fast session failover. Shall be able to integrate different types of connectivity (MPLS/ILL/FTTH/Broadband/LTE/VSAT) for Active-Active Load Balancing.		
High Availability			
33	The SD-WAN shall support High Availability feature (Active-Active/active-passive) at the Data Center for the Management /Controller Platforms.		
34	The SD-WAN solution shall be capable to provide High Availability of the hub and edge device with the support for Active/Active configuration.		
Security			
35	All remote site traffic shall be encrypted when transported over WAN transport links: MPLS, ILL, FTTH, Broadband and 3G/4G/LTE network protecting Data Confidentiality and Integrity.		
36	The encryption shall be done as per IPsec standards using AES-256 or AES-GCM or higher coupled with SHA 256/ 512 Hash Algorithm		
37	Solution should have the capability to use Standard IPSEC with AES256 encryption and other standard encryptions which is leading in Gartner leaders.		
38	The Firewall Policy shall be based on IP, Protocol and Port numbers.		
39	The SD-WAN solution should be STQC certified/ BIS certified/ IS 13252(PART 1):2010/ IEC 60950-1: 2005/ TEC Certified/MEF 3.0 / SOC2 / FCC Part 15B / Class A / CE / RCM / VCCI / UL/cUL / CB/NDPP/NDcPP/BSM and MTCT certified, similar certification which required for Indian standard Security		
40	The solution shall have functionality to protect the edge devices from traffic flooding from Day1 without any additional hardware requirement		
41	Centralized Management, Monitoring and Configuration of WAN.		
42	The Device should support IP, FQDN, Device based /**MAC based**, and User/Group based policies		
43	SD-WAN solution must support NETFLOW / JFLOW/ IP FIX to share complete L2/L3-L7 telemetry information to analytical engine or any 3rd party device/solution		
44	The Proposed SDWAN CPE solution should support serial number/ UID or Higher security mechanism based device authentication.		
45	The Proposed SDWAN CPE solution should support URL filtering for local breakout sessions.		
46	The solution should support IPS/IDS at the CPE device of all the branches and the Hub.		
47	Proposed Solution should allow user to choose custom Security associations with all available encryption algorithms, DH Groups etc. as per the standards		

48	The SDWAN solution should behave like Stateful Distributed firewall for increased security.		
49	SDWAN Solution should have capabilities to define VRF/Tenant.		
Application			
50	The system should be able to identify know and custom applications and route traffic based on policies defined SD-WAN solution should have built in intelligence to find out the best optimized path from multiple paths to access SAAS applications like Azure, AWS and Google cloud etc.		
51	The system should automatically measure the link SLA's (packet loss, latency and jitter) without the need for defining any probing endpoint manually on the devices		
52	SDWAN should support SLA Dampening/Equivalent/ (latency and Jitter) for a smoother transition and prevent disruptions and instabilities.		
53	Solution should be able to identify applications at layer-7 and we should able to define QoS and access control based on application. It should possible to identify minimum 1000 common applications with capability to define custom applications.		
54	The SDWAN solution must be able to apply QoS policies for all traffic types including TCP, UDP traffice types other non-TCP traffic types is additional benefits		
55	SDWAN should support inline data measurements/Equivalent or inspected directly at the edge of the network for App-Route Detection and SLA Enforcement during app aware routing.		
56 57	Link SLA management should have fall-back mechanism in place i.e. the traffic or should flow to best path when all links cannot serve SLA to continue traffic flow.		
58	The system should allow various traffic load balancing requirement like between equal and unequal bandwidth links, application flow via specific link only etc.		
59	The SDWAN solution should support path conditioning using forward error correction and packet replication/duplication for real time applications like voice and video to improve application experience		
60	The system should be able to prioritize business critical applications and should prioritize this traffic over others during congestion supporting end-to-end packet classification, marking, scheduling and bandwidth allocation.		
61	SDWAN solution should have the capability to transparently honor/ forward or rewrite the QoS marking on the SDWAN tunnels so that service providers can use them to provide end to end QOS		
62	The system should be able to provide a local internet break out for specific set of applications as configured in the policy while rest of intranet bound applications are destined towards centralized hub.		
63	The proposed SD WAN solution should be able to leverage multiple links simultaneously and load balance across multiple links for different users accessing a single application by distributing the packets/session/flows across multiple links to ensure high application performance for bandwidth intensive applications such as multi-media streaming, video conferencing,		

	backups, and large file transfers.		
64	SD-WAN solution should provide automated & guided workflows to extend the SDWAN fabric to cloud service providers like AWS, Azure and GCP		
65	SD WAN solution should be able to load balance across multiple links simultaneously and leverage all the available links to carry traffic in the flow/ Packet based forwarding method.		
Routing and VPN			
66	The SD-WAN solution shall be able to support local breakout of internet traffic and in case of a failure of internet links shall backhaul internet traffic to the Datacenter via the MPLS (wherever MPLS is provided)		
67	The solution shall allow support Link Aggregation Groups (LAG) functionality or equivalent technology to represent multiple physical links in active-active forwarding		
68	The proposed solution of LTE (4G/5G) should be utilized as active/active or (And) active/passive for data traffic		
69	For seamless integration with current network SD-WAN edge shall be able to build IPSec tunnel to a non-SD-WAN device or equivalent.		
70	In case of a change in WAN IP Address (Private/Public) the SD-WAN solution shall detect and rebuild the VPN tunnel without manual VPN configurations.		
71	The SD-WAN solution shall support edge to edge VPN tunnel without another device as a hop		
72	The Solution dashboard shall be capable to view the routing table of the entire enterprise site wise and have ability to audit and troubleshoot		
73	The SD-WAN solution shall co-exist with non-SD-WAN sites on the any type of network with standard deployments topologies which may send traffic directly between the SD-WAN and Non-SD-WAN through routing protocols. Should support device to device and dialup VPN (IPSec and SSL) along with licenses.		
NAT			
74	The SD-WAN solution shall support NAT and port forwarding of all LAN side prefixes.		
75	The SD-WAN solution shall support source NAT on location subnets to allow overlapping location subnet to communicate to the datacenter. Also, the solution shall support LAN side destination NAT for simplicity of redirecting traffic		
QoS			
76	The solution shall be capable of configuring QoS weights on default applications, bespoke applications & destination IP based QoS definitions/VLAN based/VRF based etc		
77	The SD-WAN solution shall be able to apply QoS policies for all traffic types including TCP, UDP and other non-TCP traffic types		
Segmentation/VRF's			

78	The SD-WAN solution shall be able to isolate different departments/functions (which may have overlapping IP subnetting) and also have separate routing policies, firewalling policies by end to end segmentation/VRF functionality on the edge device.		
Centralized Management, Monitoring and Configuration of WAN.			
79	The Centralized management solution shall provide a single, unified platform for network service provisioning, device configuration, software updates, monitoring and assurance, change and compliance management.		
80	The centralized management solution shall have web-based GUI. The solution shall support SSL for access to the management web GUI.		
81	Monitoring Live dashboard with customizable features to be provided with min 30 concurrent users. Device should support alert through email or to ticketing portal.		
82	All network-wide configurations shall be from the orchestrator/controller/Manager		
83	The centralized management solution shall have NMS capabilities and shall support network wide device and network visibility for all the devices in the terminated on the devices irrespective of the type of link (MPLS, broadband, FTTH, ILL, SIM etc.). The NMS /SDWAN Monitoring solution shall have capabilities including but not limited to TCP dump or equivalent ping and trace route. Device should be equipped with the features like Visualize in real-time, graphs and reports, WAN Link utilization, Detailed bandwidth usage of applications, Link wise WAN Link Latency, jitter and packet loss, SLA monitoring and compliance, Appliance utilization, Alert for high resource utilization. All types of alarms, Application/Network performance monitoring. In case of performing any troubleshoot, the solution should have trouble tracking tools such as TCP dump or equivalent, ping, trace route etc.		
84	Solution shall provide the real time and historical (for least 1month) and health status of all the location devices on the dashboard, link utilization and performance, application utilization etc.		
85	The solution shall store historical traffic and performance information for at least one month to assist with trouble analysis, and SLA compliance. The bidder shall preserve logs for security and audit trail without purging. The solution shall have the capabilities to define, monitor and report SLA of the WAN links. There should be provision for automatic export of the logs to an external storage, so that in case of a failure of the internal reporting engine, the syslog can provide the relevant information.		
86	The solution shall support email-based alarm to notify the administrators when any device/link fault or network performance degradation happens. The recipient of the alerts should be Deployed/configurable per site.		
87	The SD-WAN Solution shall support syslog export directly from the SDWAN edge device		
88	The solution should be using advanced protocol for analytics and WAN monitoring instead of SNMP which is resource intensive for real time applications.		

89	The solution shall support SNMP V2/V3, syslog, IPFIX /Netflow or equivalent polling of the SD-WAN devices and send SNMP to equivalent traps/logs.		
90	The Centralized management solution shall provide a single, unified platform for network service provisioning, device configuration, software updates, monitoring and assurance management.		
Reports & Analytics to be available in the solution			
91	Real & historical time series log event reporting from day one without purging any logs		
92	Traffic usage, CPU/Memory Utilization		
93	Ad-hoc and scheduled reports		
94	Predefined report templates		
95	Traffic reports per site: availability, bandwidth usage, latency, packet loss, QoS per link etc		
96	Site wise Reports: All Sources, All Destinations, Site based Application usage analysis report, All sites, All Sites over time, Site availability over time, Total Availability etc.		
97	Security Related all operational report should be configured for detailed for engineer in charge and higher level for management.		

BYPL IT DC (KKD) (Category A)

IT Enterprise Core Router, the devices to be deployed for category A shall be classified as a KKD Data center location.

Sl. No.	Specification	Compliance	Data Sheet Reference
1	Device shall be able to connect in SD-WAN architecture and shall meet requirements as per specification mentioned under functional requirement.		
2	Should 19" rack mountable, built to protect mission-critical networks.		
3	Device should support Minimum 2 Gbps aggregated throughput with Threat Protection, URL Filtering and HTTPS/SSL Inspection along with others security features, with minimum of 2 X 10 G SFP Ports and 13 X copper 1G RJ-45RJ-45 L3/L2 ports, devices should be configuring in HA. • All ports should be configurable as LAN or WAN as required All ports should be populated to be used from day-1 with required SFP's if required Note: Total Ports: 23 used for WAN links, considering some spare at least 28 ports for WAN links and separate links for internal LAN connectivity. We can segregate service in two part Core (DIA, M2M) and Services (MPLS, P2P, Services). All ports should be Copper RJ45		
4	Device should be deployed in HA with full redundancy. (Active-active, active-standby)		
5	Solution shall have minimum 1Gbps throughput capability (in each direction).		

6	Device should have redundant hot swappable power supply 100-240V VAC units and power cords. There should be high availability for the solution at the data center.		
7	Should be capable to support following routing protocols, IPv4, IPv6 static routes, Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), Dynamic Host Configuration Protocol (DHCP), (VRRP), DNS, RADIUS, Authentication, Authorization, and Accounting (AAA), Application Visibility and Control (AVC) or equivalent, IPsec.		
8	Solution should have the features site-Site/DVPN (Dynamic VPN)/Remote VPN, (SSL, IPSec and Client VPN)		
9	Proposed device should have Ethernet 802.1Q VLAN capability or Equivalent		
10	"Proposed device should have Multicast, PIM, IGMPv3 capability or Equivalent solution" which comply the Requirement		
11	Proposed device should have Radius, SSHv2, SNMPv3 and/or Telemetry or equivalent, NAT, Syslog capability		
12	Proposed device should have advanced encryption algorithms like AES-256 or AES-GCM or Above		
13	Device shall be able to identify applications and shall be able to define QoS and access control based on application.		
14	Appliance shall be hardened appliance from OEM and shall have capability to boot from OEM provided image only and not from non-standard/unauthorized software		
15	Shall have adequate memory, CPU etc. so that the utilization does not normally exceed 75% or impacting performance of the device. In case augmentation in any component is required, the same shall be done without any additional cost		
16	Proposed device should have forward error correction or equivalent for enhancing end user experience.		
17	Proposed device should have support DHCP helper/relay address to forward DHCP request to central DHCP servers		
18	The solution shall have option for including 3rd party NMS integration.		
19	Should not impose license-based limitation on number of users. Should support mesh any to any.		
20	Should have the ability to monitor events and take informational, corrective, action when the monitored events occur or when a threshold is reached.		
21	Solution should be able to adjust the shaper parameters/real time bandwidth allocation based on the actual available bandwidth in both directions, which is periodically computed		
22	To ensure protection against known and unknown vulnerabilities, the integrated IPS must have a threat signature database covering at least the last 10 years and containing a minimum of 10,000 signatures loaded or at least 10,000 signatures in its database or vulnerabilities with a CVSS score of 8 or higher that includes Malware CNC, Exploit Kits, SQL Injection threats		
23	The solution must support TPM chip for secure IPSEC overlay key storage		

	on all proposed HUB devices for security		
24	SDWAN solution should support secure networking with PQC (Post Quantum Cryptography) readiness. It should support future-proofs branch security with advanced, quantum-resistant encryption and NIST approved algorithms without requiring additional hardware/software.		

Location/Site Devices (Category B)

IT Enterprise Office, the devices to be deployed for category B shall be classified as location devices e.g. Division, Circle, Commercial, Complaints Centre, Circle etc

Sl. No.	Specification	Compliance	Data Sheet Reference
1	Device shall able to connect in SD-WAN architecture and shall meet requirements as per specification mentioned under functional requirement		
2	Built to protect mission critical networks and applications in harsh environments without impacting performance.		
3	Routing Protocol Support: BGP, RIP v2, OSPF, IP SLA routing, Static, Policy based routing (PBR)		
4	Device shall support QoS on physical and sub interface, NAT, DHCP		
5	Device shall support Radius, SSHv2, SNMPv3 and/or Telemetry, Syslog, NTP		
6	Device shall identify applications and shall be able to apply QoS based on application		
7	The solution should not have licensed based limitation on the user count		
8	Device shall be hardened appliance from OEM and shall have capability to boot from OEM provided image only and not from non-standard/unauthorized software		
9	Device shall have hardened procedure and disable unwanted services		
10	Device shall have minimum 4 X 1G RJ-45 ports with flexibility to configure any port as L2/L3 and WAN/LAN, • Aggregated device throughput requirement minimum 500 mbps throughput with Threat Protection, URL Filtering and HTTPS/SSL Inspection along with others security features from day one. • All ports should be populated to be used from day-1 with required SFP's if required.		
11	Device should supply with minimum 250 Mbps throughput in each direction		
12	Proposed device should have Ethernet 802.1Q VLAN capability or Equivalent		
13	Shall have adequate memory, CPU etc so that the utilization does not normally exceed 75% or impacting performance of the device. In case augmentation in any component is required, the same shall be done without any additional cost		
14	Device shall meet requirements as per specification mentioned under General section requirement Should not impose license-based limitation on number of remote access		

	VPN users. Should support mesh NW any to any NW		
15	Device shall support ILL, Broadband, MPLS.		
16	Device should have the local internet breakout capability and compliance all Security parameter mentioned in General section requirement.		
17	Temperature support: -10° to 40°C		
18	To ensure protection against known and unknown vulnerabilities, the integrated IPS must have a threat signature database covering at least the last 10 years and containing a minimum of 10,000 signatures loaded.		
19	The solution must support TPM chip for secure IPSEC overlay key storage on all proposed HUB devices for security		
20	Power supply: 100/110-220 VAC /10A Complied to various Indian and International standards for IT- OT environment		
21	SDWAN solution should support secure networking with PQC (Post Quantum Cryptography) readiness. It should support future-proofs branch security with advanced, quantum-resistant encryption and NIST approved algorithms without requiring additional hardware/software.		

Location/Site Devices (Category C)

SDWAN device with LTE 4G, 5G, LTE, NB_IOT for IT branch office.

Sl. No.	Specification	Compliance	Data Sheet Reference
1	Device shall support the true SD-WAN architecture and shall meet requirements as per specification mentioned under functional requirement, this is exclusive for Grid 5 Location where OT security is primary requirement.		
2	Routing Protocol Support: BGP, RIP v2, OSPF, IP SLA routing, Static, Policy based routing (PBR)		
3	Device shall support QoS on physical and sub interface, NAT, DHCP		
4	Device shall support Radius, SSHv2, SNMPv3 and/or Telemetry, Syslog, NTP		
5	Device shall identify applications and shall be able to apply QoS based on application		
6	The solution should not have licensed based limitation on the user count		
7	Device shall be hardened appliance from OEM and shall have capability to boot from OEM provided image only and not from non-standard/unauthorized software		
8	Device shall have hardened procedure and disable unwanted services		
9	Device shall have **minimum 4 X 1G RJ-45 ports with flexibility to configure any port as L2 and L3, 1 X Mgmt, 1 X Console**. Device should have capability of 4G, 5G, LTE, NB-IOT with with Inbuilt SIM Slot • Aggregated **device throughput requirement minimum 500 Mbps** from day one with Threat Protection and HTTPS/SSL Inspection for entire traffic.		

	All ports should be populated to be used from day-1 with required SFP's if required		
10	Device **should be supplied with 250 Mbps B/w license traffic** in each direction.		
11	Shall have adequate memory, CPU etc so that the utilization does not normally exceed 75% or impacting performance of the device. In case augmentation in any component is required, the same shall be done without any additional cost		
12	Device shall meet requirements as per specification mentioned under General section requirement		
13	Should not impose license-based limitation on number of remote access VPN users. Should support mesh NW any to any NW		
14	Device shall support ILL, Boradband, MPLS, LTE 4G and 5G		
15	Device should supply with 100 Mbps B/w license traffic in each direction		
16	Compliance to various Indian and International standards for OT security Power supply: 100/110-220 VAC 10A (DC Supply as per Indian Standard)		
17	Temperature support: -10° to 40°C		
18	To ensure protection against known and unknown vulnerabilities, the integrated IPS must have a threat signature database covering at least the last 10 years and containing a minimum of 10,000 signatures loaded.		
19	The solution must support TPM chip for secure IPSEC overlay key storage on all proposed HUB devices for security		
20	SDWAN solution should support secure networking with PQC (Post Quantum Cryptography) readiness. It should support future-proofs branch security with advanced, quantum-resistant encryption and NIST approved algorithms without requiring additional hardware/software.		

BSES

Technical Compliance Sheet

The bidder shall specify detailed reference including page numbers in the Data Sheet Reference. Incomplete details shall be summarily rejected.

PACKAGE - 2: SITC & IMPLEMENTATION OF L2 SWITCHES FOR IT & OT

OT L2 Switch

Location/Site Devices (Category A) **Network L2 Switch (**GRID, DTL Grid, Grid FRTU**). The N/W switch to be deployed with Grid router shall be classified as location devices.**			
Sl. No.	**Specification**	**Compliance**	**Data Sheet Reference**
1	Rugged Industrial Device 19" rack mountable, built to protect mission-critical networks and applications in harsh environments without impacting performance		
2	24 x Copper RJ 45 1Gbps L2 LAN ports for data, 1xConsol		
3	The Switch should have minimum switching capabilities required such as VLAN, Multicast address management, filtering, QoS, Port Prioritization, DSCP priority, Ingress, Egress, Protection, IGMP Snooping etc.		
4	The Switch should have minimum security features such as MACsec Support including port based security, Port based control, ACL, DoS prevention, Device Security Indication, Audit Trail, CLI Logging, HTTPS Certificate Management, Restricted Management Access RADIUS, CLI, Logging, Privilege access management etc		
5	Management: Dual Software Image Support, TFTP, SFTP, SSHv2, HTTP, HTTPS, Traps, SNMP v1, v2, v3, Telnet		
6	Diagnostics: Switch should have diagnostics functionalities such as conflict detection, device status, Logging, Overload etc for better management, monitoring and rectification support.		
7	Comply with IEC 61850 substation standard		
8	Comply with IEC 62443, Cybersecurity for OT and Compliance to various IT standards for OT security		
9	Power supply: 12 to -220V/10A VDC, Complied to all various Indian and International standards for OT environment. (DC Supply as per Indian Standard)		
10	Temperature support: -20° to 60°C		

Location/Site Devices (Category B)

Network L2 Switch (Division, Circle, Commercial, Complaints Centre, Circle etc**).**
IT Enterprise Office, the devices to be deployed for category E shall be classified as location devices e.g. Division, Circle, Commercial, Complaints Centre, Circle etc

L2 Switch for IT Remote Location			
Sl. No.	**Specification**		
1	Device 19" rack mountable,		
2	Device type: 8 or 24 or 48 -port fully managed Layer 2 switch (as per price bid)		
3	**Interfaces & Ports** • 24or48 x 10/100/1000Base-T RJ-45 ports with auto-negotiation (Copper) • Minimum 2 x 1G/10G uplink ports (Copper) • Console port for local management • Auto MDI/MDIX support on all copper ports		
4	**Performance** • Switching capacity: Minimum 56 Gbps or higher (non-blocking) • Forwarding rate: Minimum 41 Mpps or higher • MAC address table: Minimum 16K entries • VLAN: IEEE 802.1Q, 4096 VLANs, support for voice and private VLANs • Jumbo frame support • Support for 802.1Q VLAN tagging, 802.1p priority queuing		
5	**Layer 2 Features** • IEEE 802.1D, 802.1w, and 802.1s Spanning Tree Protocols (STP, RSTP, MSTP) • Link aggregation (IEEE 802.3ad) • IGMP snooping, port mirroring • QoS Support • 802.1p QoS with 4 or more priority queues per port		
6	**Security Features** • IEEE 802.1X port-based network access control • ACLs (IPv4 and IPv6) • DHCP snooping, Dynamic ARP Inspection • SSH, SSL, SNMPv3, RADIUS, TACACS+ authentication. • Switch should have integrated trusted platform module (TPM) or equivalent for platform integrity to ensure the boot process is from trusted source.		
7	**Management** • Web-based GUI, CLI (through console/SSH), SNMP v1/v2c/v3 • Software images upgradable via TFTP/FTP/USB • Compatible with standard NMS platforms		
8	**Software Update and Upgrade** Software update and upgrades; minor or major including version upgrades till warranty period.		
9	**Networking Features**		

	• IPv6 support • Spanning Tree Protocols: 802.1D, Rapid STP (RSTP), Multiple STP (MSTP) or equivalent • Link aggregation and port mirroring • Flow control (IEEE 802.3x) for full-duplex operation		
10	**Other Requirements** • Flash memory minimum 2 GB, RAM 4GB or better & 8MB packet buffer		
11	**Environmental** • Operating temperature: 0°C to 45°C • Relative humidity: 15% to 90% non-condensing		
12	**Compliance, Warranty & Support** • Certification: UL, CE, FCC Class A/B, RoHS compliant • Warranty: 5-year Warranty and 24x7 support with next business day replacement • End of Support Life (EOSL): Minimum 7 years from the date of supply		

BSES

VOLUME – IV

DETAILED SCOPE OF WORK

BSES

PACKAGE 1: SITC & IMPLEMENTATION OF SD-WAN FOR ROUTER & FIREWALLS

1.0 SCOPE OF WORK

BYPL is seeking services of Supply, Install, Configuration and Maintenance of SD WAN devices across various Offices and DC/DR (on premise) of BYPL. The Bidder has to provide devices to field office locations along with on-premise IT Data Centre as per Annexure-6. The Bidders shall extend the SDWAN solution for the upcoming office. The below mentioned are the essential requirements to be fulfilled by the bidder so as to ensure that the offices/sites are provided with the best in class service.

Hardening of all network devices under this project needs to be taken care by bidder as per industry best practices to ensure secure configuration. BYPL reserve right to perform VAPT of the installed system and any findings of VAPT needs to be closed by bidder in within 15 days of reporting vulnerabilities by BYPL.

1.1 Functional Specification of the Network devices

- The bidder shall provide the solution as per the technical requirement and shall without fail submit the technical compliance sheet as per Technical Compliance Sheet
- The SI shall ensure that all the supplied hardware /software and upgrades for the solution shall have a support upto next 7 years from the date of issue of Contract Order.
- Proposed Device should not be declaring by OEM EOL and EOS in next two year issuing the PO.
- The devices proposed should have Zero touch serviceability available from day one.
- The device installation will be performed first at the Data Centers and offices locations as per the preference list of sites provided by BYPL.
- The customer edge devices provided at the locations shall be new and bidder shall provide and install software Updates/Patches/Versions during all the Stages for all software components including operating systems (that of Network Equipment's), firmware, management software, security software, or any other software, which would be part of the supplies.
- The SD-WAN solution license preferred perpetual, if perpetual not be available subscription license can also provide in nature and the recurring cost after the initial contract of 5 years should only be the support.
- Bidder is required to design, supply, implement, integrate, maintain and manage branch and hub network devices commissioned and provide warranty, AMC and ATS services for the mentioned equipment(s) and associated management software during the tenure of contract.
- Bidder will consider the all N/W Device log as per proposed Solution BoQ for 180 days.

- Total solution under this RFP should be on premises and hardened appliance based and all hardware required should be provided by bidder along with all license requirements.
- The OEM will lead the project during the implementation phase, including core DC device installation and configuration, as well as 10% of the device setup at BYPL site offices. The HLD, LLD, solution documentation, and configuration will be carried out by the OEM Professional Services team. Afterward, the SI will configure the remaining site devices.
- Overall Project Management responsibility will be own oy OEM along with SI.
- VAPT and hardening will carried by OEM/SI.
- All the device must be MTCTE certified and MoP compliance.

1.1.1 Functional Requirements for SDWAN Device

Q1	Specification
General	
1	Solution must be implemented as software defined network architecture On premises with a Physical/Logical separation of Control/Data Plane, management/orchestration and integrate the WAN and branch networks into a single, end-to-end framework that uses policies to manage traffic
2	System shall be implemented as software-defined network architecture on premises with a physical/logical of Control/Data plane. It shall integrate different types of connectivity (MPLS, ILL, FTTH, Broadband, LTE) into a single, end-to-end framework that uses policies to manage traffic
3	The solution shall comprise of following components: The solution must allow management of networks as software-defined network (SDN). The proposed solution should have separate Centralized Network Orchestrator /Management/Controller along with compatible head end and Branch devices. Centralized Management- Shall be a separate component that provides single point of entry for Configuration and Monitoring. Shall be securely accessed and capable of configuration policies, monitoring and troubleshooting of multiple WAN Edge devices in the branches, data-centers or remote locations. This management engine shall be available in either physical/virtual form factor and should provide high availability. Controller/HeadEnd - Control plane must be secured using DTLS/TLS/IPSec encryption and shall be a separate/in-built component that abstracts all the routing information from the edge devices and distributes route prefixes, encryption key/Certificate to all Edges. The controller/HeadEnd shall maintain centralized routing table, controls route advertisement as per policy, creates end to end segments on network, instructs data plane to change traffic flow as per the defined policy. Controller/head-end shall be available in either physical/virtual form factor and should provide Active-Active instances across DC and DR. Orchestrator/Authentication Gateway shall be used to authenticate the onboarding edge devices using Certificates and serial number of the edge devices. Data Plane: Data plane is responsible to forward traffic in encrypted tunnels, apply local policy like QoS, ACL etc.
4	System shall support multiple WAN links such as Multiprotocol Label Switching (MPLS), ILL, Internet, Broadband/FTTH, P2P TDM links (Lease Lines), RF links in Active-Active mode. The solution shall be capable of integrating with external LTE based devices. Termination of the link on device should be ethernet media (RJ45/Fiber)
5	The overlay paths established amongst the edge devices shall support transport of unicast/multicast.

6	The SDWAN Solution shall be capable of upgrading SD-WAN devices to the latest version and also support rollback of the software version when upgraded to the latest software version, if required. Rollback and Upgrade shall be from the Centralized platform.
7	The centralized Management Portal shall support Customized Role Based Access Control that provides only relevant information to the user based on their roles and privileges. Solution shall also provide customized role builder and support multiple administrators. Solution shall provide detailed audit trail of changes etc.
8	The centralized Management Portal shall support local, external Radius Server User/Account authentication method, one/two factor authentications
9	The SDWAN should support zero touch deployment.
10	The System shall be functional at the time of connectivity failure to the centralized orchestrator/controller/manager. There shall not be any data plane disruption when the SDWAN controller/centralized orchestrator/manager is not reachable or goes offline for maintenance
11	The solution shall allow for plug and play installation of location devices without requiring any manual configuration at the remote location
12	The SD-WAN Solution shall be able to horizontally scale at the Datacenter to support future expansion of the network
13	The proposed SDWAN components (hardware and software) will be from the same OEM at the edge location however, the software for centralized manager/orchestrator requires VM instances which can be deployed on Third-Party hardware as per Approved OEM.
14	All the functionality and feature licenses shall be available to be consumed from day 1
15	The SDWAN solution should be on-premise deployment for both the data plane and control plane components
16	Solution shall integrate with SIEM, Ticketing tool & Tacacs/Radius/AAA and should also support API's.
17	OEM Support and services engineering team should be based in India
18	All elements of the solution will have IPv4 and IPv6 from Day.
19	The solution should not have any license-based restrictions on the bandwidth or the number of users that it supports
20	All the SD-WAN licenses should be preferred perpetual/Subscription.
21	Solution must be implemented as software defined network architecture On premises with a Physical/Logical separation of Control/Data Plane, management/orchestration and integrate the WAN and branch networks into a single, end-to-end framework that uses policies to manage traffic
22	System shall be implemented as software-defined network architecture on premises with a physical/logical of Control/Data plane. It shall integrate different types of connectivity (MPLS, ILL, FTTH, Broadband, LTE) into a single, end-to-end framework that uses policies to manage traffic
Dynamic Load Sharing of Traffic Based on Business and/or application policies	
23	SDWAN (Edge & Central) devices shall be able to load balance traffic across multiple connectivity paths based on load balancing algorithms efficiently using all available connectivity. System shall also detect blackouts & brownouts by supporting active-active load balancing and fast session failover. Shall be able to integrate different types of connectivity (MPLS/ILL/FTTH/Broadband/LTE/VSAT) for Active-Active Load Balancing.
24	Proposed solution must support per packet or per flow-based Load balancing
25	The solution shall be able to dynamically control data packet forwarding decisions by looking at application type, performance, policies, and path status

26	The solution shall allow various traffic load balancing requirement like, between equal and unequal bandwidth links, application flow via specific link only etc. Shall be able capable of Seamless Sub-Second Failover of Voice/Video and Data Traffic The system shall do continuous performance monitoring of loss and latency for all network paths and link and make decisions to forward critical applications over the best performing path based on the defined application policy.
27	The SD-WAN solution shall improve the degraded link (e.g. Forward Error Correction/SACK or equivalent, Quality of Service (QoS) etc.) to maintain application performance for high priority applications
28	The solution should be able to tune the network /Select the link for business-critical services, resolve network problems and to help ensure that critical applications are properly prioritized across the network.
29	In the event of link degradation or link down the solution shall be able to move traffic to a better link without any application disruption by moving the data traffic on a per packet/flow basis
30	The system shall be able to prioritize business/OT critical traffic.
31	SDWAN (Edge & Central) devices shall be able to load balance traffic across multiple connectivity paths based on load balancing algorithms efficiently using all available connectivity. System shall also detect blackouts & brownouts by supporting active-active load balancing and fast session failover. Shall be able to integrate different types of connectivity (MPLS/ILL/FTTH/Broadband/LTE/VSAT) for Active-Active Load Balancing.
High Availability	
32	The SD-WAN shall support High Availability feature (Active-Active/active-passive) at the Data Center for the Management /Controller Platforms.
33	The SD-WAN solution shall be capable to provide High Availability of the hub and edge device with the support for Active/Active configuration.
Security	
34	All remote site traffic shall be encrypted when transported over WAN transport links: MPLS, ILL, FTTH, Broadband and 3G/4G/LTE network protecting Data Confidentiality and Integrity.
35	The encryption shall be done as per IPsec standards using AES-256 or AES-GCM or higher coupled with SHA 256/ 512 Hash Algorithm
36	Solution should have the capability to use Standard IPSEC with AES256 encryption and other standard encryptions which is leading in Gartner leaders.
37	The Firewall Policy shall be based on IP, Protocol and Port numbers.
38	The SD-WAN solution should be STQC certified/ BIS certified for IS 13252(PART 1):2010/ IEC 60950-1: 2005/ TEC Certified/MEF 3.0 / SOC2 / FCC Part 15B / Class A / CE / RCM / VCCI / UL/cUL / CB/ BSM and MTCT certified or similar certification which required for Indian standard Security compliance.
39	The solution shall have functionality to protect the edge devices from traffic flooding from Day1 without any additional hardware requirement
40	Centralized Management, Monitoring and Configuration of WAN.
41	The Device should support IP, FQDN, Device based /MAC based, and User/Group /IP based policy.
42	SD-WAN solution must support NETFLOW / JFLOW/ IP FIX to share complete L2/L3-L7 telemetry information to analytical engine or any 3rd party device/solution
43	The Proposed SDWAN CPE solution should support serial number/ UID or Higher security mechanism based device authentication
44	The Proposed SDWAN CPE solution should support URL filtering for local breakout sessions.
45	The solution should support IPS/IDS at the CPE device of all the branches and the Hub.

46	Proposed Solution should allow user to choose custom Security associations with all available encryption algorithms, DH Groups etc. as per the standards
47	The SDWAN solution should behave like Stateful Distributed firewall for increased security.
48	SDWAN Solution should have capabilities to define VRF/Tenant.
Application	
49	The system should be able to identify know and custom applications and route traffic based on policies defined SD-WAN solution should have built in intelligence to find out the best optimized path from multiple paths to access SAAS applications like Azure, AWS and Google cloud etc.
50	The system should automatically measure the link SLA's (packet loss, latency and jitter) without the need for defining any probing endpoint manually on the devices
51	SDWAN should support SLA Dampening/Equivalent/ (latency and Jitter) for a smoother transition and prevent disruptions and instabilities.
52	Solution should be able to identify applications at layer-7 and we should able to define QoS and access control based on application. It should possible to identify minimum 1000 common applications with capability to define custom applications.
53	The SDWAN solution must be able to apply QoS policies for all traffic types including TCP, UDP traffice types other non-TCP traffic types is additional benefits
54	SDWAN should support inline data measurements/Equivalent and inspected directly at the edge of the network for App-Route Detection and SLA Enforcement during app aware routing.
55	Link SLA management should have fall-back mechanism in place i.e. the traffic or should flow to best path when all links cannot serve SLA to continue traffic flow.
56	The system should allow various traffic load balancing requirement like between equal and unequal bandwidth links, application flow via specific link only etc.
57	The SDWAN solution should support path conditioning using forward error correction and packet replication/duplication for real time applications like voice and video to improve application experience
58	The system should be able to prioritize business critical applications and should prioritize this traffic over others during congestion supporting end-to-end packet classification, marking, scheduling and bandwidth allocation.
59	SDWAN solution should have the capability to transparently honor/ forward or rewrite the QoS marking on the SDWAN tunnels so that service providers can use them to provide end to end QOS
60	The system should be able to provide a local internet break out for specific set of applications as configured in the policy while rest of intranet bound applications are destined towards centralized hub.
61	The proposed SD WAN solution should be able to leverage multiple links simultaneously and load balance across multiple links for different users accessing a single application by distributing the packets/session/flows across multiple links to ensure high application performance for bandwidth intensive applications such as multi-media streaming, video conferencing, backups, and large file transfers.
62	SD-WAN solution should provide automated & guided workflows to extend the SDWAN fabric to cloud service providers like AWS, Azure and GCP
63	SD WAN solution should be able to load balance across multiple links simultaneously and leverage all the available links to carry traffic in the flow/ Packet based forwarding method.
Routing and VPN	

64	The SD-WAN solution shall be able to support local breakout of internet traffic and in case of a failure of internet links shall backhaul internet traffic to the Datacenter via the MPLS (wherever MPLS is provided)
65	The solution shall allow support Link Aggregation Groups (LAG) functionality or equivalent technology to represent multiple physical links in active-active forwarding
66	The proposed solution of LTE (4G/5G) should be utilized as active/active or (And) active/passive for data traffic.
67	For seamless integration with current network SD-WAN edge shall be able to build IPSec tunnel to a non-SD-WAN device or equivalent.
68	In case of a change in WAN IP Address (Private/Public) the SD-WAN solution shall detect and rebuild the VPN tunnel without manual VPN configurations.
69	The SD-WAN solution shall support edge to edge VPN tunnel without another device as a hop
70	The Solution dashboard shall be capable to view the routing table of the entire enterprise site wise and have ability to audit and troubleshoot
71	The SD-WAN solution shall co-exist with non-SD-WAN sites on the any type of network with standard deployments topologies which may send traffic directly between the SD-WAN and Non-SD-WAN through routing protocols.
NAT	
72	The SD-WAN solution shall support NAT and port forwarding of all LAN side prefixes.
73	The SD-WAN solution shall support source NAT on location subnets to allow overlapping location subnet to communicate to the datacenter. Also, the solution shall support LAN side destination NAT for simplicity of redirecting traffic
QoS	
74	The solution shall be capable of configuring QoS weights on default applications, bespoke applications & destination IP based QoS definitions/VLAN based/VRF based etc
75	The SD-WAN solution shall be able to apply QoS policies for all traffic types including TCP, UDP and other non-TCP traffic types
Segmentation/VRF's	
76	The SD-WAN solution shall be able to isolate different departments/functions (which may have overlapping IP subnetting) and also have separate routing policies, firewalling policies by end to end segmentation/VRF functionality on the edge device.
Centralized Management, Monitoring and Configuration of WAN.	
77	The Centralized management solution shall provide a single, unified platform for network service provisioning, device configuration, software updates, monitoring and assurance management.
78	The centralized management solution shall have web-based GUI. The solution shall support SSL for access to the management web GUI.
79	Monitoring Live dashboard with customizable features to be provided with min 30 concurrent users. Device should support alert through email or to ticketing portal.
80	All network-wide configurations shall be from the orchestrator/controller/Manager
81	The centralized management solution shall have NMS capabilities and shall support network wide device and network visibility for all the devices in the terminated on the devices irrespective of the type of link (MPLS, broadband, FTTH,

	ILL, SIM etc.). The NMS /SDWAN Monitoring solution shall have capabilities including but not limited to TCP dump or equivalent ping and trace route. Device should be equipped with the features like Visualize in real-time, graphs and reports, WAN Link utilization, Detailed bandwidth usage of applications, Link wise WAN Link Latency, jitter and packet loss, SLA monitoring and compliance, Appliance utilization, Alert for high resource utilization. All types of alarms, Application/Network performance monitoring. In case of performing any troubleshoot, the solution should have trouble tracking tools such as TCP dump or equivalent, ping, trace route etc.
	Solution shall provide the real time and historical (for least 1month) and health status of all the location devices on the dashboard, link utilization and performance, application utilization etc.
82	The solution shall store historical traffic and performance information for at least one month to assist with trouble analysis, and SLA compliance. The bidder shall preserve logs for security and audit trail without purging. The solution shall have the capabilities to define, monitor and report SLA of the WAN links. There should be provision for automatic export of the logs to an external storage, so that in case of a failure of the internal reporting engine, the syslog can provide the relevant information.
83	The solution shall support email-based alarm to notify the administrators when any device/link fault or network performance degradation happens. The recipient of the alerts should be Deployed/configurable per site.
84	The SD-WAN Solution shall support syslog export directly from the SDWAN edge device
85	The solution should be using advanced protocol for analytics and WAN monitoring instead of SNMP which is resource intensive for real time applications.
86	The solution shall support SNMP V2/V3, syslog, IPFIX /Netflow or equivalent polling of the SD-WAN devices and send SNMP to equivalent traps/logs.
87	The Centralized management solution shall provide a single, unified platform for network service provisioning, device configuration, software updates, monitoring and assurance management.
Reports & Analytics to be available in the solution	
88	Real & historical time series log event reporting from day one without purging any logs
89	Traffic usage, CPU/Memory Utilization
90	Ad-hoc and scheduled reports
91	Predefined report templates
92	Traffic reports per site: availability, bandwidth usage, latency, packet loss, QoS per link etc
93	Site wise Reports: All Sources, All Destinations, Site based Application usage analysis report, All sites, All Sites over time, Site availability over time, Total Availability etc.
94	Security Related all operational report should be configured for detailed for engineer in charge and higher level for management.

1.1.1.1 BYPL IT DC (KKD) (Category A)

1	Device shall be able to connect in SD-WAN architecture and shall meet requirements as per specification mentioned under functional requirement.
2	19" rack mountable, built to protect mission-critical networks

3	Device should support Minimum 2 Gbps aggregated throughput with Threat Protection, URL Filtering and HTTPS/SSL Inspection along with others security features, with minimum of 2 X 10 G SFP Ports and 13 X copper 1G RJ-45RJ-45 L3/L2 ports, devices should be configuring in HA. • All ports should be configurable as LAN or WAN as required All ports should be populated to be used from day-1 with required SFP's if required, All ports and SFP should be Copper RJ45. **Note:** Total Ports: 23 used for WAN links, considering some spare consider at least 28 ports for WAN links and separate links for internal LAN connectivity. We can segregate service in two part Core (Dia,M2M) and Services (MPLS, P2P, Services)
4	Device should be deployed in HA with full redundancy. (Active-active, active-standby)
5	Solution shall have minimum 1 Gbps throughput capability (in each direction).
6	Device should have redundant hot swappable power supply 100-240V VAC units and power cords. There should be high availability for the solution at the data centre.
7	Should be capable to support following routing protocols, IPv4, IPv6 static routes, Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), Dynamic Host Configuration Protocol (DHCP), (VRRP), DNS, RADIUS, Authentication, Authorization, and Accounting (AAA), Application Visibility and Control (AVC) or equivalent, IPsec.
8	Solution should have the features site-Site/DVPN (Dynamic VPN)/Remote VPN, (SSL, IPSec and Client VPN)
9	Proposed device should have Ethernet 802.1Q VLAN capability or Equivalent
10	"Proposed device should have Multicast, PIM, IGMPv3 capability or Equivalent solution" which comply the Requirement
11	Proposed device should have Radius, SSHv2, SNMPv3 and/or Telemetry or equivalent, NAT, Syslog capability
12	Proposed device should have advanced encryption algorithms like AES-256 or AES-GCM or Above
13	Device shall be able to identify applications and shall be able to define QoS and access control based on application.
14	Appliance shall be hardened appliance from OEM and shall have capability to boot from OEM provided image only and not from non-standard/unauthorized software
15	Shall have adequate memory, CPU etc. so that the utilization does not normally exceed 75% or impacting performance of the device. In case augmentation in any component is required, the same shall be done without any additional cost
16	Proposed device should have forward error correction or equivalent for enhancing end user experience.
17	Proposed device should have support DHCP helper/relay address to forward DHCP request to central DHCP servers
18	The solution shall have option for including 3rd party NMS integration.
19	Should not impose license-based limitation on number of users. Should support mesh any to any.
20	Should have the ability to monitor events and take informational, corrective, action when the monitored events occur or when a threshold is reached.
21	Solution should be able to adjust the shaper parameters/real time bandwidth allocation based on the actual available bandwidth in both directions, which is periodically computed
22	To ensure protection against known and unknown vulnerabilities, the integrated IPS must have a threat signature database covering at least the last 10 years and containing a minimum of 10,000 signatures loaded or at least 10,000 signatures in its database or vulnerabilities with a CVSS score of 8 or higher that includes Malware CNC, Exploit Kits, SQL Injection threats
23	The solution must support TPM chip for secure IPSEC overlay key storage on all proposed HUB devices for security
24	SDWAN solution should support secure networking with PQC (Post Quantum Cryptography) readiness. It should support future-proofs branch security with advanced, quantum-resistant encryption and NIST approved algorithms without requiring additional hardware/software.

1.1.1.2 Location/Site Devices (Category B)

IT Enterprise Office, the devices to be deployed for category C shall be classified as location devices e.g. Division, Circle, Commercial, Complaints Centre, Circle etc

IT Remote site Device	
Sl. No.	**Specification**
1	Device shall able to connect in SD-WAN architecture and shall meet requirements as per specification mentioned under functional requirement
2	Built to protect mission critical networks and applications in impacting performance.
3	Routing Protocol Support: BGP, RIP v2, OSPF, IP SLA routing, Static, Policy based routing (PBR)
4	Device shall support QoS on physical and sub interface, NAT, DHCP
5	Device shall support Radius, SSHv2, SNMPv3 and/or Telemetry, Syslog, NTP
6	Device shall identify applications and shall be able to apply QoS based on application
7	The solution should not have licensed based limitation on the user count
8	Device shall be hardened appliance from OEM and shall have capability to boot from OEM provided image only and not from non-standard/unauthorized software
9	Device shall have hardened procedure and disable unwanted services
10	Device shall have minimum 4 X 1G RJ-45 ports with flexibility to configure any port as L2/L3 and WAN/LAN, • Aggregated device throughput requirement minimum 500 mbps throughput with Threat Protection, URL Filtering and HTTPS/SSL Inspection along with others security features from day one. • All ports should be populated to be used from day-1 with required SFP's if required.
11	Device should supply with minimum 250 Mbps throughput in each direction
12	Proposed device should have Ethernet 802.1Q VLAN capability or Equivalent
13	Shall have adequate memory, CPU etc so that the utilization does not normally exceed 75% or impacting performance of the device. In case augmentation in any component is required, the same shall be done without any additional cost
14	Device shall meet requirements as per specification mentioned under General section requirement Should not impose license-based limitation on number of remote access VPN users. Should support mesh NW any to any NW
15	Device shall support ILL, Broadband, MPLS.
16	Device should have the local internet breakout capability and compliance all Security parameter mentioned in General section requirement.
17	To ensure protection against known and unknown vulnerabilities, the integrated IPS must have a threat signature database covering at least the last 10 years and containing a minimum of 10,000 signatures loaded.
18	The solution must support TPM chip for secure IPSEC overlay key storage on all proposed HUB devices for security
19	Power supply: 100/110-220 VAC /10A Complied to various Indian and International standards for IT environment.
20	SDWAN solution should support secure networking with PQC (Post Quantum Cryptography) readiness. It should support future-proofs branch security with advanced, quantum-resistant encryption and NIST approved algorithms without requiring additional hardware/software.

1.1.1.3 Location/Site Devices (Category C)

SDWAN device with LTE 4G, 5G, LTE, NB_IOT for IT.

Remote site Device with LTE	
Sl. No.	**Specification**
1	Device shall support the true SD-WAN architecture and shall meet requirements as per specification mentioned under functional requirement, this is exclusive for Grid 5 Location where IT security is primary requirement.

2	Routing Protocol Support: BGP, RIP v2, OSPF, IP SLA routing, Static, Policy based routing (PBR)
3	Device shall support QoS on physical and sub interface, NAT, DHCP
4	Device shall support Radius, SSHv2, SNMPv3 and/or Telemetry, Syslog, NTP
5	Device shall identify applications and shall be able to apply QoS based on application
6	The solution should not have licensed based limitation on the user count
7	Device shall be hardened appliance from OEM and shall have capability to boot from OEM provided image only and not from non-standard/unauthorized software
8	Device shall have hardened procedure and disable unwanted services
9	Device shall have **minimum 4 X 1G RJ-45 ports with flexibility to configure any port as L2 and L3, 1 X Mgmt, 1 X Console**. Device should have capability of 4G, 5G, LTE, NB-IOT with with Inbuilt SIM Slot • Aggregated **device throughput requirement minimum 500 Mbps** from day one with Threat Protection and HTTPS/SSL Inspection for entire traffic. • All ports should be populated to be used from day-1 with required SFP's if required
13	Device **should be supplied with 250 Mbps B/w license traffic** in each direction for SDWAN
14	Shall have adequate memory, CPU etc so that the utilization does not normally exceed 75% or impacting performance of the device. In case augmentation in any component is required, the same shall be done without any additional cost
15	Device shall meet requirements as per specification mentioned under General section requirement
16	Should not impose license-based limitation on number. Should support mesh NW any to any NW
17	Device shall support ILL, Boradband, MPLS, LTE 4G and 5G
18	Device should supply with 250 Mbps B/w license traffic in each direction
19	Compliance to various Indian and International standards for OT security Power supply: 100/110-220 VAC 10A (DC Supply as per Indian Standard)
20	Temperature support: -10° to 45°C
21	SDWAN solution should support secure networking with PQC (Post Quantum Cryptography) readiness. It should support future-proofs branch security with advanced, quantum-resistant encryption and NIST approved algorithms without requiring additional hardware/software.

The Bidder shall maintain the Existing Installed N/W racks to mount the network devices at all locations including hub location. The bidder shall work in coordination with system integrators of the various projects for successful implementation of the project especially for installation, configuration and commissioning and integration of the solution at on-prem. The bidder shall also integrate the solution with the existing set-up of the projects without any disruption. The bidders shall co-ordinate with BYPL's identified team to support for configuration issues, hardware replacements etc. The bidder shall configure, install, re-install, re-configure(in case BYPL need any configure change) at no extra cost during the entire contract period. The bidder shall design the overall solution architecture including physical infrastructure and logical design duly incorporating the inputs from BYPL. The scope of work shall also include supply of required and related accessories and cabling necessary for successful implementation of the solution.

If any services, functions or responsibilities not specifically described in this scope but are an inherent, necessary or customary part of the services and are required for proper performance or provision of the services in accordance with the scope, they shall be deemed to be included within the scope of the services, as if such services, functions or responsibilities were specifically required and described in this scope and shall be provided by the vendor at no additional cost. The bidder is expected to provide post installation support to the BYPL. The bidder shall provide assistance whenever required. Warranty and AMC support shall be provided by the successful vendor through OEM. It is the responsibility of the bidder to configure the various

WAN networks available across the sites and hub locations, the bidder shall gather the required inputs for the configuration activity without any dependency from BYPL. The sites may have various WAN links viz, broadband, leased lines etc. which is to be configured by the bidder. The bidder is expected to work in co-ordination with bandwidth providers engaged by BYPL for configuration, testing, and troubleshooting activities.
The bidder shall undertake the following activities,

1. Inform BYPL and implementation/ applying the latest patches, OS/application versions, updates, signatures, etc. as and when released by the OEM and evaluating and applying the same as per their applicability in BYPL's environment as per BYPL's policies/requirements after implementation.
2. Proactive monitoring of health of the solution, including the H/W, S/W, application, solution on various parameters such as CPU, memory, interface utilizations, etc.
3. Reporting abnormalities to BYPL and taking suitable corrective actions as and when observed/occurred after implementation.
4. Preparing and submitting regular reports as and when required by BYPL.
5. Troubleshooting day to day issues, faced by end users, pertaining to SDWAN solution in coordination with BYPL Network integrator, security integrator, or other relevant teams/vendors.
6. Keep back up of log, configuration, data etc.
7. Bidder will depute one permanent resource at site for maintain and established the SDWAN solution till project completion.
8. Bidder will share detailed Solution document along with detailed BoQ and associate all infrastructure to complete the solution.
9.

1.2 Shifting of Locations

BYPL at any time during the period of contract due to business requirements may shift their office location to any other locations within BYPL area. In that scenario Bidder will be placed with the Order as per contracted rate, the bidder to shift the Devices (on a particular date as decided – mostly on weekends) to the new location. The bidder has to depute engineer for de-installing the Devices, shifting to the new location, installation, termination of transport media and commission the devices and operationalize the connectivity at no additional cost.

1.3 Preventive maintenance

1. The bidder has to carry out periodic preventive maintenance including inspection, testing, satisfactory execution of all diagnostics, earthing testing, updation / up-gradation of patches / firmware etc, in addition to normal maintenance required without any additional cost.
2. The preventive maintenance at the locations should be carried out at least once in a year.
3. The bidder has to prepare Preventive Maintenance schedule and intimate to the BYPL / Sites. The onsite resource deployed by the bidder at the sites has to coordinate with the field officers during Preventive Maintenance.
4. On completion of Preventive Maintenance, the bidder has to submit the report in prescribed template which will be shared with successful bidder.

5. Bidder will maintain the complete N/W rack preventive maintenance, cleaning and shifting the replaced device from site to BYPL Store.

1.4 Onsite support during implementation:

The onsite implementation is required have to perform the below mentioned (but not limited to) duties pertaining to the solution:

1. The Successful bidder has to ensure the physical availability of certified professional from OEM at Hub Locations for setting up and administration of the solution till the complete implementation solution.
2. The OEM's technical/implementation team should be an active part of the network link implementation team and should remain onsite throughout the solution implementation/project sign off, which should be provided without any additional cost.
3. During the implementation, the performance or security of the existing network setup should not be compromised.
4. Onsite support during implementation will be applicable at all sites.
5. Overall management of the complete SDWAN solution such as refinement of policies, creation of policies, configuration optimization or any changes/modifications to be done for enforcing BYPL's policies, etc.
6. The bidder shall configure/reconfigure associated (existing and new) network equipments (switches/workstations/PCs etc) for successful implementation of the project.

1.5 Site Details

The list of sites along with hub locations to provide the SD-WAN devices is mentioned in the annexure

A. Hub Locations: 2 Nos DC and DR

On - Premise OT SCADA Data Center (SRD) of BYPL.

B. Other Offices:

65 OT network (**OT NW, GRID, DTL Grid, FRTU, Sub Station)**

C. Office Categorization

BYPL	NO. OF OFFICES
BYPL IT DC (KKD)	01
BYPL IT DR (SRD)	01
BYPL IT Enterprise (All other offices (Division, Circle, Commercial, Complaints Centre, Circle, etc)	105

Category	**Office Type**
A	BYPL IT DC (KKD)
B	All other offices (Division, Circle, Commercial, Complaints Centre, Circle, etc)
C	SDWAN device with LTE 4G, 5G, LTE, NB_IOT for IT and OT.

1.6 Support of the project

The duration of the project is 5 years from date of Go-Live, with the provision of extension of 2 years on year on year basis.

1.7 Reporting

The bidder shall make available the required network tools/applications. The bidder shall provide report. While submitting the reports, the bidder shall ensure to provide separate details for individual links and device hardware. The bidder shall provide the following reports on daily/monthly/weekly basis as csv/xls pdf, email notification as desired by the BYPL.

a. Real & historical time series log event reporting
b. Traffic usage
c. Configurational Changes made with version history
d. Compliance report on configuration, security and associated parameters
e. Traffic reports per site: availability, bandwidth usage.
f. Bandwidth usage per application, latency, packet loss, QoS.
g. Hardware status (Related to CPU, Memory, Ports, etc.) of all the devices present across BYPL and DC. It shall contain the MTTR, in case there is any occurrence of failure.
h. Ad-hoc and scheduled reports
i. Device Up/Down time

1.8 Variation in the quantity

- In case of items for which the rates are available in the Contract the extra quantities shall be executed by the bidder at the same rates up to the variation limit of twenty-five percent (±25%) or as provided in the Contract.

1.9 Spares availability

The bidder shall always maintain at their own facility, 2% spares of the components used per BYPL in deploying the solution to meet all the contingencies of BYPL in their respective headquarters.

Company	Headquarters
BYPL	KKD

1.10 Restoration times

The bidder shall, upon interruption of the services, carry out the restoration activity proactively. Any additional hardware/replacement of hardware shall be carried out within 24hrs by the bidder at no additional cost to BYPL. The restoration process shall be carried out to provide services as per the **SLA**.

1.11 Periodic meeting

The bidder shall periodically access the outages in the services, analyze the reasons for outage and the corrective action taken up to avoid future occurrence of the same issue. The bidder shall provide such a report to BYPL every quarter or as per the frequency set by BYPL. The bidder shall attend the meeting as and when intimated by the BYPL along with the designated personnel of the bidder/ OEM/ System Integrator.

1.12 Supporting documentation

The bidder shall maintain updated inventory of the devices along with the history of configuration/hardware changes made. The bidder shall provide BYPL all the requisite documentation on the SD-WAN devices, shall update it regularly and submit to BYPL.

1.13 Escalation matrix

The bidder shall provide the Escalation matrix with timelines of escalation. Upon any changes in the matrix, the updated version shall be provided to BYPL

1.14 Training and Assistance

a) The successful bidder shall arrange for certified offline training to SDWAN Solution for Security and Network Administration five persons from BYPL from the OEM personnel during installation and commissioning activity.

b) After installation, the successful vendor need to provide OEM authorized certified offline training program to BYPL's network track leads, regarding installation, configuration, operation, functionalities, troubleshooting etc., as per BYPL's requirement. Detailed training requirement will be shared with the successful vendor. The required manuals, books and resources shall be provided along with training.

c) The documentations shall include but not limited to the followings: -
   a. User guides for those who shall be using the system
   b. Operational guides for administrators and technical support officers;
   c. Installation, configuration, fine-tuning and maintenance guides;
   d. Configuration documentations, which includes the various parameter settings in the various system after the fine-tuning processes.

d) Technical hands-on training for Administrator and Operational teams of BYPL, at the appropriate sites (Bidder and BYPL premises as identified at the time of training) and the Bidder has to organize the classroom trainer from OEM for 5 persons for one week.

e) All training/certifications shall be at no additional cost.

2. SERVICE LEVEL AGREEMENTS AND PENALTIES

2.1 Service Level Agreements

Selected Bidder will sign Service Level Agreement (SLA) with BYPL to ensure minimum uptime for entire solution and Uptime for individual site as per SLA's mentioned below.

1. The Hardware Network Infrastructure (hardware devices, physical/virtual media) will be fully managed by the bidder. Bidder shall provide SLA compliance tool and reports.
2. The selected bidder shall submit monthly and quaertely SLA reports to BYPL or the authorized representative appointed by BYPL for verification
3. The Selected Bidder shall enter into a detailed Service Level Agreement with BYPL. SLA will include essential parameters as given below:

- **Working days:** Seven days a week (Monday to Sunday).
- **Hardware Availability Requirements:** 24 hours for IT DC
- **Hardware Availability Requirements:** Monday to Friday (9X5) NBD for IT filed device

2.2 Penalties

Device Uptime: The percentage uptime shall be calculated on quarterly basis as follows:
Availability = (Total no of Hours in month – Total Outage Hours in month) x 100%
(Total No of Hours in month)

(IT & OT DC 24 Hours)
(IT Field Office (9X6)
Note: All penalties should be linked to the overall project cost and adjusted against the PBG submitted by the bidder, on a quarterly basis, with final settlement done annually.

2.2.1 Uptime for IT DC Devices

Bidder shall give uptime guarantee of 99.5% on monthly basis for all DC IT and DC OT devices. In case uptime falls below the guaranteed level, BYPL will impose a penalty of 10% of the monthly amount for each percent below the guaranteed level for the respective device. Refer table – a for penalty percentage details. Further, if uptime for any device during any month is less than 95%, BYPL will not make any payment for the month for that location.

TABLE – A:

Uptime (%)	Penalty of (%) of total quarterly M5 invoices payment
>=99.5	0
>=98.5 and < 99.5	10
>=97.5 and < 98.5	20
>=96.5 and < 97.5	30
>=95.5 and < 96.5	40
>=95 and < 95.5	50

2.2.2 Uptime for Devices other than IT DC:

The minimum uptime for all other sites is 98.5%. In case uptime falls below the guaranteed level, BYPL will impose a penalty of 5% of the monthly amount for each percent below the guaranteed level for the respective site. Refer table – B for penalty percentage details. Further, if uptime for any device during any month is less than 95%, BYPL will not make any payment for that quarter for that location. BYPL have the right to recover the cost from bidder for alternate arrangements.

TABLE - B

Uptime (%)	Penalty of (%) of total quarterly M5 invoices
>=98.5	0
>=97.5 and < 98.5	5
>=96.5 and < 97.5	10
>=95.5 and < 96.5	15
>=95 and < 95.5	20

2.2.3 Maximum Penalty:

The maximum penalty shall not exceed beyond 10% of quarterly contract value in any quarter of operations. If maximum penalty is levied for more than 3 quarters or if total penalty crosses 10% of overall project cost, BYPL reserves the right to terminate and recover the financial losses in addition to the LD clause from the bidder.
All penalties should be linked to the overall project cost and adjusted against the PBG submitted by the bidder, on a quarterly basis, with final settlement done annually.

2.2.4 Penalty due to erroneous behavior of the Solution:

If the solution or any of its components behaves erroneously which results in monetary or business loss to BYPL, then the entire amount of such loss shall be recovered from the bidder on actual basis.
All penalties should be linked to the overall project cost and adjusted against the PBG submitted by the bidder, on a quarterly basis, with final settlement done annually.

BYPL reserves the right to validate and test the proposed product features and functionality at any stage, both prior to and after issuance of the LOI. Upon request, the bidder shall arrange a demonstration within two working days.

BSES

PACKAGE 2: SITC & IMPLEMENTATION OF L2 SWITCHES FOR IT & OT

1.0 Scope of Work

BYPL is seeking services of Supply, Install, Configuration and Maintenance of IT and OT Network Switch devices across various Offices of BYPL. The Bidder has to provide devices to field office locations along with on-premise IT Data Centre. The below mentioned are the essential requirements to be fulfilled by the bidder so as to ensure that the offices/sites are provided with the best in class service.

Hardening of all network devices under this project needs to be taken care by bidder as per industry best practices to ensure secure configuration. BYPL reserve right to perform VAPT of the installed system and any findings of VAPT needs to be closed by bidder in within 15 days of reporting vulnerabilities by BYPL.

Functional Specification of the Network devices

- The bidder shall provide the solution as per the technical requirement and shall without fail submit the technical compliance sheet as per Technical Compliance Sheet
- The SI shall ensure that all the supplied hardware /software and upgrades for the solution shall have a support upto next 7 years from the date of issue of Contract Order.
- Proposed Device should not be declaring by OEM EOL and EOS in next two year issuing the PO.
- The customer edge devices provided at the locations shall be new and bidder shall provide and install software Updates/Patches/Versions during all the Stages for all software components including operating systems (that of Network Equipment's), firmware, management software, security software, or any other software, which would be part of the supplies.
- Bidder is required to design, supply, implement, integrate, maintain and manage branch and hub network devices commissioned and provide warranty, AMC and ATS services for the mentioned equipment(s) and associated management software during the tenure of contract.
- Total solution under this RFP should be on premises and hardened appliance based and all hardware required should be provided by bidder along with all license requirements.
- The OEM will lead the project during the implementation phase, installation and configuration, as well as 10% of the device setup at BYPL site offices.
- All the device must be MTCTE certified and MoP compliance.

Functional Requirements for SDWAN Device
Location/Site Devices (Category A)
Network L2 Switch (GRID, DTL Grid, Grid FRTU).

The N/W switch to be deployed with Grid router shall be classified as location devices.

L2 Switch for OT Remote Location	
Sl. No.	**Specification**
1	Rugged Industrial Device 19" rack mountable, built to protect mission-critical networks and applications in harsh environments without impacting performance
2	24 x Copper RJ 45 1Gbps L2 LAN ports for data, 1xConsol
3	The Switch should have minimum switching capabilities required such as VLAN, Multicast address management, filtering , QoS, Port Prioritization, DSCP priority, Ingress, Egress, Protection, IGMP Snooping etc.
4	The Switch should have minimum security features such as MACsec Support including port based security, Port based control ,ACL, DoS prevention, Device Security Indication, Audit Trail, CLI Logging, HTTPS Certificate Management, Restricted Management Access RADIUS ,CLI, Logging , Privilege access management etc
5	Management: Dual Software Image Support, TFTP, SFTP, SSHv2, HTTP, HTTPS, Traps, SNMP v1, v2, v3, Telnet

6	Diagnostics: Switch should have diagnostics functionalities such as conflict detection, device status, Logging, Overload etc for better management, monitoring and rectification support.
7	Comply with IEC 61850 substation standard
8	Comply with IEC 62443, Cybersecurity for OT and Compliance to various IT standards for OT security
9	Power supply: 12 to -220V/10A VDC, Complied to all various Indian and International standards for OT environment. (DC Supply as per Indian Standard)
10	Temperature support: -20° to 60°C

Location/Site Devices (Category B)
Network L2 Switch (Division, Circle, Commercial, Complaints Centre, Circle etc).

IT Enterprise Office, the devices to be deployed for category E shall be classified as location devices e.g. Division, Circle, Commercial, Complaints Centre, Circle etc

L2 Switch for IT Remote Location	
Sl. No.	**Specification**
1	Device 19" rack mountable,
2	Device type: 8 or 24 or 48 -port fully managed Layer 2 switch (as per price bid)
3	**Interfaces & Ports** • 24or48 x 10/100/1000Base-T RJ-45 ports with auto-negotiation (Copper) • Minimum 2 x 1G/10G uplink ports (Copper) • Console port for local management • Auto MDI/MDIX support on all copper ports
4	**Performance** • Switching capacity: Minimum 56 Gbps or higher (non-blocking) • Forwarding rate: Minimum 41 Mpps or higher • MAC address table: Minimum 16K entries • VLAN: IEEE 802.1Q, 4096 VLANs, support for voice and private VLANs • Jumbo frame support • Support for 802.1Q VLAN tagging, 802.1p priority queuing
5	**Layer 2 Features** • IEEE 802.1D, 802.1w, and 802.1s Spanning Tree Protocols (STP, RSTP, MSTP) • Link aggregation (IEEE 802.3ad) • IGMP snooping, port mirroring • QoS Support • 802.1p QoS with 4 or more priority queues per port
6	**Security Features** • IEEE 802.1X port-based network access control • ACLs (IPv4 and IPv6) • DHCP snooping, Dynamic ARP Inspection • SSH, SSL, SNMPv3, RADIUS, TACACS+ authentication • Switch should have integrated trusted platform module (TPM) or equivalent for platform integrity to ensure the boot process is from trusted source
7	**Management** • Web-based GUI, CLI (through console/SSH), SNMP v1/v2c/v3 • Software images upgradable via TFTP/FTP/USB

	• Compatible with standard NMS platforms
8	**Software Update and Upgrade** • Software update and upgrades; minor or major including version upgrades till warranty period.
9	**Networking Features** • IPv6 support • Spanning Tree Protocols: 802.1D, Rapid STP (RSTP), Multiple STP (MSTP) or equivalent • Link aggregation and port mirroring • Flow control (IEEE 802.3x) for full-duplex operation
10	**Other Requirements** • Flash memory minimum 2 GB, RAM 4GB or better & 8MB packet buffer
11	**Environmental** • Operating temperature: 0°C to 45C • Relative humidity: 15% to 90% non-condensing
12	**Compliance, Warranty & Support** • Certification: UL, CE, FCC Class A/B, RoHS compliant • Warranty: 5-year Warranty and 24x7 support with next business day replacement • End of Support Life (EOSL): Minimum 7 years from the date of supply • MTCTE Certified

The Bidder shall maintain the Existing Installed N/W racks to mount the network devices at all locations including hub location. The bidder shall work in coordination with system integrators of the various projects for successful implementation of the project especially for installation, configuration and commissioning and integration of the solution at on-prem. The bidder shall also integrate the solution with the existing set-up of the projects without any disruption. The bidders shall co-ordinate with BYPL's identified team to support for configuration issues, hardware replacements etc. The bidder shall configure, install, re-install, re-configure (in case BYPL need any configure change) at no extra cost during the entire contract period. The bidder shall design the overall solution architecture including physical infrastructure and logical design duly incorporating the inputs from BYPL. The scope of work shall also include supply of required and related accessories and cabling necessary for successful implementation of the solution.

If any services, functions or responsibilities not specifically described in this scope but are an inherent, necessary or customary part of the services and are required for proper performance or provision of the services in accordance with the scope, they shall be deemed to be included within the scope of the services, as if such services, functions or responsibilities were specifically required and described in this scope and shall be provided by the vendor at no additional cost. The bidder is expected to provide post installation support to the BYPL. The bidder shall provide assistance whenever required. Warranty and AMC support shall be provided by the successful vendor through OEM. It is the responsibility of the bidder to configure the various WAN networks available across the sites and hub locations, the bidder shall gather the required inputs for the configuration activity without any dependency from BYPL. The sites may have various WAN links viz, broadband, leased lines etc. which is to be configured by the bidder. The bidder is expected to work in co-ordination with bandwidth providers engaged by BYPL for configuration, testing, and troubleshooting activities.

The bidder shall undertake the following activities,

1. Inform BYPL and implementation/ applying the latest patches, OS/application versions, updates, signatures, etc. as and when released by the OEM and evaluating and applying the same as per their applicability in BYPL's environment as per BYPL's policies/requirements after implementation.
2. Proactive monitoring of health of the solution, including the H/W, S/W, application, solution on various parameters such as CPU, memory, interface utilizations, etc.
3. Reporting abnormalities to BYPL and taking suitable corrective actions as and when observed/occurred after implementation.

4. Preparing and submitting regular reports as and when required by BYPL.
5. Troubleshooting day to day issues, faced by end users, pertaining to SDWAN solution in coordination with BYPL Network integrator, security integrator, or other relevant teams/vendors.
6. Keep back up of log, configuration, data etc.
7. Bidder will depute one permanent resource at site for maintain and established the SDWAN solution till project completion.
8. Bidder will share detailed Solution document along with detailed BoQ and associate all infrastructure to complete the solution.

Shifting of Locations

BYPL at any time during the period of contract due to business requirements may shift their office location to any other locations within BYPL area. In that scenario Bidder will be placed with the Order as per contracted rate, the bidder to shift the Devices (on a particular date as decided – mostly on weekends) to the new location. The bidder has to depute engineer for de-installing the Devices, shifting to the new location, installation, termination of transport media and commission the devices and operationalize the connectivity at no additional cost.

Preventive maintenance

1. The bidder has to carry out periodic preventive maintenance including inspection, testing, satisfactory execution of all diagnostics, earthing testing, updation / up-gradation of patches / firmware etc, in addition to normal maintenance required without any additional cost.
2. The preventive maintenance at the locations should be carried out at least once in a year.
3. The bidder has to prepare Preventive Maintenance schedule and intimate to the BYPL / Sites. The onsite resource deployed by the bidder at the sites has to coordinate with the field officers during Preventive Maintenance.
4. On completion of Preventive Maintenance, the bidder has to submit the report in prescribed template which will be shared with successful bidder.
5. Bidder will maintain the complete N/W rack preventive maintenance, cleaning and shifting the replaced device from site to BYPL Store.

Onsite support during implementation:

The onsite implementation is required have to perform the below mentioned (but not limited to) duties pertaining to the solution:

1. The Successful bidder has to ensure the physical availability of certified professional from OEM at Hub Locations for setting up and administration of the solution till the complete implementation solution.
2. The OEM's technical/implementation team should be an active part of the network link implementation team and should remain onsite throughout the solution implementation/project sign off, which should be provided without any additional cost.
3. During the implementation, the performance or security of the existing network setup should not be compromised.
4. Onsite support during implementation will be applicable at all sites.
5. The bidder shall configure/reconfigure associated (existing and new) network equipments (switches/workstations/PCs etc) for successful implementation of the project.

Site Details

The list of sites will share to final bidder before initiate the Implementation, Bidder will consider https://bsesdelhi.com

On - Premise OT SCADA Data Center (SRD) of BYPL.

B. Other Offices:

65 OT network (**OT NW, GRID, DTL Grid, FRTU, Sub Station)**

Office Categorization

BYPL	NO. OF OFFICES

BYPL (OT NW, GRID, DTL Grid, Grid FRTU)	65
BYPL IT Enterprise (All other offices (Division, Circle, Commercial, Complaints Centre, Circle, etc)	105

Category	**Office Type**
A	BYPL L2 Switch OT NW, (**OT NW, GRID, DTL Grid, Grid FRTU)**
B	Network L2 Switch IT NW (Division, Circle, Commercial, Complaints Centre, Circle etc).

Support of the project

The duration of the project is 5 years from date of Go-Live, with the provision of extension of 2 years on yearly basis.

BYPL reserves the right to validate and test the proposed product features and functionality at any stage, both prior to and after issuance of the LOI. Upon request, the bidder shall arrange a demonstration within two working days.

BSES