



दिल्ली मेट्रो रेल कॉर्पोरेशन लिमिटेड  
Delhi Metro Rail Corporation Limited

NOTICE OF INVITATION FOR EMPANELMENT OF MAKES FOR MAJOR ELECTRICAL ITEMS

1. DMRC intends to Review & Update 'DMRC's List of Empanelled Makes of Major Electrical Items' for its upcoming Projects, and a copy of the same is enclosed as Annexure - I.
2. For inclusion in the 'DMRC's List of Empanelled Makes of Major Electrical Items', Applications may be submitted in the enclosed format in soft copy along with all necessary & relevant supporting documents and no hard copy thereof shall be entertained. The key details are as follows: -

S. No.	Item	
2.1	Communication Mode' for any correspondence between the Applicants and DMRC	Email Id "vendor@dmrc.org"

*(Please note that only written request from the applicant and written response / clarification from DMRC will be admissible / taken into consideration for empanelment of Makes for Major Electrical Items).*

Please note, for the 'Makes' which already exists in 'DMRC's List of Empanelled Makes of Major Electrical Items' for a particular Item shall not be required to submit their Application again for the Item for which their 'Make' already exist in the above mentioned 'DMRC's List of Empanelled Makes of Major Electrical Items'. A copy of above mentioned 'DMRC's List of Empanelled Makes of Major Electrical Items' has been enclosed with this NIT as Annexure-I.

*However, DMRC reserves the right to delete any particular 'Vendor/Make' for a particular 'Item' in case of obsolescence, closure of business, major non-compliance of the approved QAP, non-performance, poor quality, withdrawal of required certification by the appropriate authority, blacklisting or banning of the firm etc.*

3. Soft copies may be submitted on "Email Id "vendor@dmrc.org".
4. Submission of documents on a piece-meal basis, will not be considered. Therefore, the applicants are requested to submit the complete applications along with relevant Annexures in one go.
5. In case the make / manufacturer intends to get approved for more than one item, then separate application is to be submitted for each individual item mentioned in Annexure-I.
6. This empanelment is being done only for Original Equipment Manufacturers (OEM) however dealers / license partners may apply for empanelment of OEM with duly notarized valid power of attorney in favour of the applicant from the authorized representative of OEM along with relevant Board Resolution. But if OEM also applies for empanelment of the same item(s) than application(s) of dealers / license partners shall not be considered and rejected summarily.
7. The application(s) and all the attachments must be in English language only. If document(s) in any other language are being submitted then it must be accompanied by an English translation from a certified translator only. In case, English translation is not submitted, the document will not be considered for evaluation.
8. The relevant standards specified against each item in Annexure-I are as per the DMRC's requirements at site and the documents submitted with prescribed application format will be examined for compliance with respect to the relevant standard mentioned in the list enclosed as Annexure – I.
9. Applicants are requested to provide an index on top of their submittal. The document must be serially page numbered and cross-references of the Annexures / enclosures may be



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mentioned in the application format to avoid any ambiguity during the evaluation of the submittal.

10. Queries / Clarifications / Correspondence (if any), shall be dealt as per communication mode stipulated in para 2 of the NIT.
11. **NOT USED**
12. Submission of application does not automatically guarantee registration in DMRC.
13. DMRC reserves the right to delete, modify or rename any of the forms, categories, conditions, procedures etc. given in the registration documents.
14. DMRC reserves the right to accept or reject any or all applications without assigning any reasons thereof.

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.....XXXXX.....



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Annexure-II:- Mandatory requirements for submitting Application for empanelment of makes of various major Electrical items.			
Product Name & S. No. as per Annexure-1			
Make			
Manufacturer			
S. No.	Type	Description	Yes / No
1	Blacklisting	Has the product / firm been black listed in last 03 years by any Govt. Department / PSU in India or abroad.	Y / N
2	General	Land/premises details of manufacturing unit, like address, total area, covered area etc provided.	Y / N
3		Ownership details of land/premises of manufacturing unit like copy of registered deed, copy of lease deed, copy of rent receipt etc provided	Y / N
4		Documents of company registration provided. (mandatory for Indian firm and alternative documents for foreign companies)	Y / N
5		Duly notarised valid power of attorney of the authorized representative along with relevant Board Resolution provided.	Y / N
6	Past Record	Copy of 05 largest purchase orders and their corresponding performance certificates from the end users provided. (Atleast 01 Purchase Order and its corresponding performance certificate from end user shall be mandatory.)	Y / N
7	Quality and Technology	Quality assurance & quality control plan submitted	Y / N
8		Complies with applicable standards. Corresponding type test certificate and type test report for the proposed product submitted.	Y / N
9	Financial Parameters	GST Registration Certificate (Mandatory for Indian firm and alternative documents for foreign companies)	Y / N
10		Duly filed income tax returns of last 2 years submitted	Y / N
11		Last Three Year Annual Report and Balance Sheet	Y / N
12	After Sales Service	Office setup in India for after sales service	Y / N

Please note that if any of the above mandatory documents is not submitted with the application, DMRC will not evaluate the application form any further and the proposal will be rejected outrightly.



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Application Form for Empanelment of Makes of various major Electrical items

S. No.	Description	Remarks
A	GENERAL	
1	Details of Material / Product proposed	
2	Name of Make, with brief details of proposed product like capacity, rating, etc.	
3	Registered Office of Manufacturer of the proposed Make.	
4	Name, Designation and contact details (Telephone number and email id) of the authorized representative.	
5	Please enclose Power of Attorney of the Authorized representative along with relevant Board Resolution.	
6	Address of Manufacturing Unit / Factory* (* Must comply with Neighboring Country order)	
6 (a)	Documents to substantiate ownership of land / premises of manufacturing unit. (like Lease deed, or copy of rent receipt, etc.)	
6 (b)	Total land / plot area,	
6 (c)	Total covered area	
7	Licensed capacity of the plant (if applicable), (backed by documentary evidence).	
8	Approximate monthly production capacity of proposed product / make per month.	
9	Actual production of the product / make per month with supporting documents.	
B	Company Profile & Experience of Vendor	
1	Ownership details of the Manufacturer of the proposed Make, with supporting documents. e.g. details of Share Holding, Parent company, Board of Directors, etc.	



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S. No.	Description	Remarks
2	Is the manufacturer registered in India under the Indian Companies Act.	
(a)	If yes, please provide copy of Registration certificate.	
(b)	If No, please provide relevant alternative documents applicable in the country of origin to substantiate the authority for manufacturing / business.	
3	Number of years, the proposed material / product, is being manufactured.	
4	Organizational details of the vendor Please provide the Organization chart of the manufacturing company, including details of manpower at various levels, experience and competency of key manpower, etc.	
5	Are following facilities available "in – house"? (If yes, please provide details along with the supporting documents)	
(a)	Design	
(b)	Testing	
(c)	Research and Development	
C	References / Details of Experience of providing proposed Make / Product in Last 10 Years.	
1	Details of Type / model of proposed product.	
2	Details of Purchase Orders.	



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S. No.	Description	Remarks
	Please enclose copy of five largest Purchase Order from client indicating scope of work, type / model of the product, quantity, total value, date of issuance of purchase order. <i>(Purchase order should be on letter head of the client and must contain contact details of the client's representative for verification).</i>	
a	Summary of Purchase Order – 1	
b	Summary of Purchase Order– 2	
c	Summary of Purchase Order– 3	
d	Summary of Purchase Order– 4	
e	Summary of Purchase Order– 5	
	Details of Performance Certificates.	
3	Enclose copy of product performance certificate (of atleast 2 years of service) of five purchase orders mentioned above from the client indicating the scope of work, make & model of the product, quantity, total value, year of completion / installation and the remarks on performance of the equipment and after sales service. <i>(Certificate should be on the letter head of the client and must contain the contact details of the client's representative for verification).</i> If the performance certificate of parent company is submitted by Indian subsidiary of a foreign company, the parent company guarantee should also be submitted along with the performance certificate.	
a	Summary of certificate – 1	



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S. No.	Description	Remarks
b	Summary of certificate – 2	
c	Summary of certificate – 3	
d	Summary of certificate – 4	
e	Summary of certificate – 5	
4	Has the proposed product / material been used in Delhi Metro Rail Corporation. <i>(If yes, provide details thereof, accompanied by the performance certificate from DMRC)</i>	
5	Has the proposed product / material been used in any other Metro / System in India OR worldwide in similar environment conditions. <i>(If yes, please provide details thereof, accompanied by the client certificates)</i>	
6	Has the proposed product / material been used in any other Railway or Airport Project in India or worldwide. <i>(If yes, please provide details thereof, accompanied by the client certificates)</i>	
7	Has the proposed product / material been used in any other Central or State Government Project. <i>(If yes, please provide details thereof, accompanied by the client certificates)</i>	
8	Has the proposed product / material been used in any Private Limited Organization. <i>(If yes, please provide details thereof, accompanied by the client certificates)</i>	





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S. No.	Description	Remarks
9	Has the product, make or manufacturing unit been blacklisted by any public sector undertaking, State Govt., Central Govt. Department or Agency in India or Abroad in last 3 years.	
10	Have you been involved in any litigation / Arbitration with any Government Department / Public Sector Undertaking / Private Sector / or any other government agency during the last 3 years. If yes, provide details, thereof.	
D	Details of machinery and other facilities available at the manufacturing unit where the proposed material / product shall be manufactured. <i>(Please provide brief write up with supporting documents to explain the same.)</i>  <i>Note: DMRC reserves the rights to inspect the premises for the verification of above submitted details.</i>	
E	<b>QUALITY PLAN &amp; CERTIFICATION</b>	
1	Please provide Quality Plan for manufacturing of the proposed product. <i>(Plan should include quality checks and tests conducted on raw material, bought-out items / components, stage – wise quality checks, etc.)</i>	
2	Independent Certification/ Accreditation available for manufacturing unit (e.g. ISO 9001, etc.) <i>(Please provide copy of certificate)</i>	
(a)	Reference Number and date issuance	
(b)	Certificate issued by	
(c)	Validity of the certificate	
(d)	Scope for which certificate has been issued	
3	Details of measures adopted to reduce energy consumption and Green House Gas emission in the production process deployed. <i>(Please submit details / documents thereof.)</i>	



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S. No.	Description	Remarks
4	Measures adopted to recycle the industrial waste generated during processing (Please submit details / documents thereof.)	
5	Is Manufacturing facility ISO 14001 certified? (Please provide copy of certificate) Note: DMRC reserves the rights to inspect the premises for the verification of above submitted details.	
6	Reference of IS Code or any other code applicable to the proposed product.	
7	Technical Literature of proposed Product / Make. (Please provide comparison of construction and performance properties w.r.t. permissible limits as per the relevant code.)	
8	Details of In-House Testing facilities	
(a)	Details of available test facility as per applicable Indian OR International standard.	
(b)	Is it as per Standard applicable for the product / material? (If yes, please submit details).	
(c)	Is the testing facility accredited for the relevant standard by an independent agency? (If yes, please provide relevant certificate)	
(d)	Please confirm that all Routine Tests and other Type Tests / Special Tests as prescribed in the applicable standards, can be conducted in the "in-house" accredited test facility. Note: DMRC reserves the rights to inspect the premises for the verification of above submitted details.	
(e)	In case any tests are conducted in external facility, please provide details, thereof.	
<b>F</b>	<b>FINANCIAL DATA (Please submit audited balance sheets for last 3 years).</b>	
1	Net worth of the Manufacturer.	
2	GST Registration details (Please provide copy of GST Regn. Certificate)	
3	Profitability (should be positive in last 3 years)	



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S. No.	Description	Remarks
4	Liquidity of Manufacturer	
5	Turnover of Manufacturer	
6	Banker's Solvency Certificate to be submitted ( <u>issued in current financial year</u> )	
G	TYPE TEST CERTIFICATES	
	<p>Please provide Type test certificate from accredited laboratory mentioning relevant applicable standards for proposed material / product.</p> <p><i>(In case, specific requirements are mentioned in relevant standards with regard to type testing, same shall also be complied additionally)</i></p> <p>The Type Test certificate should be for the product / equipment manufactured from the particular factory / manufacturing works from where the applicant indents to supply the product / equipment.</p>	
1	Is the type test certificate provided	
2	Test Certificate is valid upto (Date)	
3	Is Test report from an accredited laboratory? <i>(If yes, please attach a copy of accreditation certificate valid on the date of test)</i>	
5	Is Certificate/ report for the proposed model?	
6	<p>Is Test certificate as per the relevant standard?</p> <p>All Type Test including the applicable special test as per the relevant standard and DMRC's contract specifications should have been conducted by the vendor, and the Test reports should be submitted by the vendor along with the application with the undertaking that in case any Type Test / the applicable special Test is not valid as per contract conditions at the time of submission of vendor proposal in main contract, the vendor undertakes to repeat the Type Test and the applicable Special Tests as per standards and DMRC's contract specifications, again at their own cost before the vendor approval.</p>	



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S. No.	Description	Remarks
7	Is Test certificate less than 5 Years old (as applicable on date of submission to DMRC)	
H	AFTER SALES SERVICE	
1	Please provide details of after sales support system in Delhi & NCR Region	
2	Please provide details of after sales support system in India (Excluding Delhi & NCR Region)	

We hereby confirm that: -

- 1) This proposal is in accordance with the relevant standard.
- 2) The proposed material/product is proven one and has been in service for \_ years
- 3) The proposed equipment performance will not be affected by EMI/EMC effect of 25kV single phase OHE. (Report of EMI/EMC study is enclosed, if applicable)
- 4) We assure to provide spares and maintenance support during the life time of the product, irrespective of upgradation/ phasing-out of the materials / products.
- 5) We are aware that despite inclusion in list of empanelled makes / vendors, we are liable to submit technical compliances in respective contract as per the stipulated Technical specifications in the prescribed format, prior to getting confirmed order from the Contractor for supply of material / to take up the work for DMRC project.
- 6) The vendor undertakes to comply to all the conditions of DMRC's Vendor Policy including the submission of Vendor warrantee undertaking and tripartite agreement in the main contract of DMRC (Ann-2A & Ann-2B of Vendor Policy are enclosed for ready reference)

Further, we assure that all the statements, information and answers given above are true and no information has been suppressed. In case any information provided by us is found incorrect or misleading, DMRC will be at liberty to take suitable penal action as considered appropriate.

Date:.....

Place:.....

(Signatures of the Authorised Signatory)  
Name and Stamp of Authorised Signatory



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## Annexure-I

### DMRC's List of Empanelled Makes of Major Electrical Items (Issued in January 2025)

S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E1	33 kV, single core, Aluminium/Copper conductor, PVC sheathed, XLPE Insulated, 300/400sqmm Power Cables	IEC-60502-2 (For Insulation FRLS & FRLSZH) IEC 60228 (For conductor) & DMES- T/0018/ DMRC-E-TR-CABLE-2	1. ILJIN, 2. Phelps Dodge, 3. Universal, 4. Sterlite, 5. KEI Industries Ltd., 6. Havells India Ltd., 7. APAR Industries Ltd., 8. KEC International Ltd <sup>(4)</sup> , 9. Tirupati Plastomatics Pvt. Ltd., 10. Paramount Communications Limited., 11. Polycab India Limited., 12. Gemscab Industries Ltd.
E2	25 kV, single core, Aluminium/Copper conductor, PVC sheathed, XLPE Insulated, 240/400sqmm Power Cables	IEC 60228 (For conductor), IEC 60502-2 (For Insulation FRLS & FRLSZH), IEC 60840 (For Testing) & DMES- T/0019/ DMRC-E-TR-CABLE-3	1. ILJIN, 2. Phelps Dodge, 3. Universal, 4. Sterlite, 5. KEI Industries Ltd., 6. APAR Industries Ltd., 7. KEC International Ltd <sup>(4)</sup> , 8. Polycab India Limited.
E3	3.3 kV return cable Aluminium conductor, PVC sheathed, XLPE insulatated, 400 sqmm Return cable	IEC 60228 (For conductor), IEC 60502-1(For Insulation FRLS & FRLSZH) & DMES- T/0020/ DMRC-E-TR- CABLE-3	1. ILJIN, 2. Phelps Dodge, 3. Universal, 4. Sterlite, 5. KEI Industries Ltd., 6. Havells India Ltd.,



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
			7. APAR Industries Ltd., 8. KEC International Ltd <sup>(4)</sup> , 9. Special Cables Private Limited <sup>(19)</sup> , 10. Gemscab Industries Ltd., 11. Chandresh Cables Limited.
E4	33 kV STJ/Cable Terminations	IS:13573-Part-2, 2011 IEC-60502-2 (For Insulation FRLS & FRLSZH), IEC 60228 (For conductor), DMES- T/0018/ DMRC-E-TR-CABLE-2	1. 3M, 2. Behr Bircher Cellpack BBC India Pvt. Ltd., 3. Elsewedy Sedco, Egypt, 4. Raychem RPG Pvt Ltd., 5. Compaq International Pvt Ltd <sup>(5)</sup>
E5	25 kV STJ/Cable Terminations	IEC-60840, IEC 60228 (For conductor), IEC 60502-2 (For Insulation FRLS & FRLSZH), IEC 60840 (For Testing), DMES- T/0019/ DMRC-E-TR- CABLE-3	1. 3M, 2. Behr Bircher Cell Pack BBC India Pvt. Ltd (NOIDA), 3. Raychem RPG Pvt. Ltd.
E6	3.3kV STJ/Cable Terminations	IS:13573-Part2-2011 IEC 60228(For conductor), IEC 60502-1, DMES- T/0020/ DMRC-E-TR- CABLE-3	1. 3M, 2. Behr Bircher Cellpack BBC India Pvt. Ltd., 3. Elsewedy Sedco, Egypt, 4. Raychem RPG Pvt Ltd.
E7	LA (Composite Insulation) for 33 kV panel	IEC- 60099-4,	1. Raychem RPG, 2. Elektrolites Power Pvt Ltd.
E8	LA (composite Insulation) for 25 kV System	RDSO Specification No. ETI/PSI/71 (1/87) with Composite Insulation and minimum creepage 1600mm, IEC- 60099-4,	1. Raychem RPG, 3. RDSO Approved Sources for 25 kV System.
E9	33 kV, Dry Cast resin Inductive PT	IEC-61869-3,	1. Narayan, 2. ECS, 3. Pragati Electricals Pvt. Ltd.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E10	33 kV, Dry Cast resin Inductive CT	IEC-61869-2,	1. Narayan, 2. ECS, 3. Pragati Electricals Pvt. Ltd.
E11	33kV/415V, 200kVA-3150kVA, Dry cast resin Auxiliary Transformers	DMES-T0005/DMRC-E-TR-TRANSF-05 & IEC-60076-11, IS:11171 & IS 2026	1. ABB/Hitachi, 2. Elettromeccanica Italy, 3. Raychem, 4. TMC Transformers India Private Limited, 5. SGB Transformers India Private Limited.
E12	33 kV HT Panel with Vacuum Circuit Breaker and associated protection system.	IEC-62271-1 & 62271-200	1. ABB, 2. Siemens, 3. Schneider, 4. CG Power and Industrial Solutions Limited.
E13	Float Cum Boost Battery Charger (Vdc=110V)	IEC 60146	1. Statcon Energiaa India, 2. HBL Hyderabad, 3. Amar Raja Batteries India, 4. AMCO (For RSS), 5. CHABI (For RSS), 6. Chloride Power Systems & Solution Ltd., 7. Maha Mai Engineers <sup>(6)</sup> , 8. Vertiv Energy Private Ltd.
E14	Ni Cd, Battery Bank	IEC 60622/IEC 60623.	1. HBL Hyderabad, 2. AMCO/ SAFT India Pvt Ltd.
E15	25kV PTFE type Short Neutral Section	IEC 60507:71-1, 71-2: 1109 TI/SPC/OHE/SNS/0000: 2000 Service life shall not be less than 4 million pantograph passes.	1. Arther Flurry
E16	107/150sqmm Contact Wire (Cu-Ag /Cu ETP)	ETI/OHE/76(6/97) with AC slip 1,3,4,5&6 (Cu ETP, for Depot), EN 50149 (Cu-Ag, for main line)	1. Lamifil Belgium, 2. Isodart, Germany, 3. RDSO Approved Sources.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E17	65/120sqmm Messenger Wire (Cu-Mg/Cu-Cd)	TI/SPC/OHE/INSCAT/0000 DIN 48201 Part-2 (Cu-Mg Bronze)	1. Lamifil Belgium, 2. Isodart, Germany, 3. RDSO Approved Sources.
E18	93.3sqmm ACSR/240sqmm AAC for RC, OPC and BEC	IS 398 Part-2	1. Hindustan Urban Infrastructure Ltd, 2. Shashi Cables Limited., 3. Dynamic Cable Ltd.
E19	Section Insulators in Depot	ETI/OHE/27(8/84)	1. RDSO Approved Sources.
E20	MS CANTILEVER for Tramway type 25kV OHE	RDSO Specifications	1. RDSO Approved Sources.
E21	Modular type 25kV Aluminium CANTILEVER for main line	-	1. Siemens (Germany), 2. RIBE (Germany), 3. PPS International, 4. Atlantic Tradeengineers LLP.
E22	Mast & Fittings for 25kV OHE	ETI/OHE/13	1. RDSO sources.
E23	Remote Terminal Units (RAM 256MB)	Complying the protocols IEC 60870 – 5 – 103 and IEC 61850,	1. ABB, 2. Synergy, 3. Phoenix Contact India Pvt. Ltd.
E24	33 kV GIS Panel	IEC 62271-1, IEC 62271-100, IEC 62271-103, IEC 62271-200, IEC 60376, IEC 61869-3, IEC 61869-2, IEC 60028, IEC 60721-2-5, IEC 60099-4	1. Siemens, 2. Schneider, 3. CG Power and Industrial Solutions Limited, 4. ABB India Limited.
E25	25 kV, Dry Cast resin Inductive PT	IEC-61869-3	1. Sadtem (France), 2. ARTECHE (For RSS)
E26	25 kV, Dry Cast resin Inductive CT	IEC-61869-2	1. Sadtem (France), 2. ARTECHE (For RSS)
E27	25 kV Isolators motorised/manual with composite insulators of 1600 mm creepage	RDSO specs ETI/OHE/16(1/94) 250 kVp BIL, 1600mm Creepage insulators and 52 kV insulation withstand voltage	1. RDSO Approved Sources
E28	25 kV, magnetic actuated/ mechanical actuated Pole mounted CB/BM	IEC-62271-1 & 62271-100	1. Please refer to Note (1). 2. RDSO Approved Sources





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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E29	25 kV, 1600mm CD, Composite Post INSULATOR	DMES-0030/DMRC-E-TR-Insulator-1	1. Raychem RPG, 2. RDSO Approved Sources
E30	25kV, 1600mm CD Composite Operating Rod INSULATOR	DMES-0030/DMRC-E-TR-Insulator-1	1. Raychem RPG, 2. RDSO Approved Sources.
E31	25kV, 1600mm minimum CD, Composite bracket and stay insulators for Aluminium Cantilevers	DMES-0030/DMRC-E-TR-Insulator-1	1. RDSO Approved Sources.
E32	220/132/66kV EHV Power Cable	IEC 62067 (220kV), IEC 60840 (132/66kV), IEC/ EN 60811, IEC 60228	1. ILJIN, 2. Universal, 3. Sterlite (3 Core, 66kV), 4. KEI Industries Ltd., 5. Sterlite Power Transmission Ltd <sup>(1)</sup> , 6. LS Cables India Pvt Ltd <sup>(2)</sup> , 7. KEC International Ltd <sup>(7)</sup> , 8. Havells India Ltd <sup>(8)</sup> (For 66kV only), 9. Polycab India Limited (For 66kV only).
E33	220/132/66kV EHV Power Cable Termination & Straight Through Joint	IEC 60840 (132/66kV), IEC 62067 (220kV)	1. ILJIN, 2. Compaq International Pvt Ltd <sup>(9)</sup> (For 66 kV only), 3. Raychem RPG (P) Ltd <sup>(20)</sup>
E34	66 kV Gas Insulated Switchgear (GIS)	IEC 62271-1, IEC 62271-100, 62271-203, IEC-61869,	1. ABB / Hitachi Energy, 2. Siemens, 3. GE T and D India Ltd <sup>(10)</sup> 4. CG Power and Industrial Solutions Limited (For 145 kV Model of GIS manufactured by M/s CGL).
E35	25 kV Gas Insulated Switchgear (GIS)	IEC 62271-1, IEC 62271-100, 62271-203 IEC-61869, IEC 60099-4, IEC 62271-103, IEC 60376, IEC 61869-3, IEC 61869-2	1. Schneider, 2. Siemens, 3. ALSTOM, 4. ABB India Limited.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E36	220/132/66kV//33kV Auxiliary Mains Transformer (AT)	IEC 60076, IEC 60214	1. EMCO, 2. ALSTOM, 3. T&R, 4. CGL, 5. TOSHIBA, 6. BHEL, 7. ABB / Hitachi Energy, 8. TBEA Energy (India) Pvt Ltd <sup>(11)</sup> , 9. Kanohar Electricals Ltd <sup>(12)</sup>
E37	220/132/66kV//27.5kV Traction Transformer (TT)	IEC 60076, 60137, 60296 IEC 60214	1. ABB / Hitachi Energy, 2. CGL, 3. EMCO, 4. Transformers And Rectifiers India Limited (T&R) <sup>(22)</sup> (For 132/27.5 kV Traction Transformer (TT))
E38	220kV Current Transformer (CT)	IEC-61869,	1. ABB / Hitachi Energy (Oil, SF6), 2. Siemens (SF6), 3. GE T&D India Ltd <sup>(12)</sup> 4. CG Power and Industrial Solutions Limited <sup>(20)</sup>
E39	132kV Current Transformer (CT)	IEC-61869,	1. ABB / Hitachi Energy (SF6), 2. CGL (Oil), 3. MEHRU (Oil).
E40	66kV Current Transformer (CT)	IEC-61869,	1. ABB / Hitachi Energy (SF6), 2. MEHRU (Oil). 3. CHINT (SF6), 4. CG Power and Industrial Solutions Limited <sup>(20)</sup>
E41	220kV Capacitive Voltage Transformer (CVT)	IEC-61869-5	1. ABB / Hitachi Energy, 2. GE T&D India Ltd <sup>(12)</sup> , 3. CG Power and Industrial Solutions Limited.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E42	132kV Capacitive Voltage Transformer (CVT)	IEC-61869-5	1. CG Power and Industrial Solutions Limited <sup>(21)</sup>
E43	66kV Capacitive Voltage Transformer (CVT)	IEC-61869-5	1. ABB / Hitachi Energy, 2. Siemens
E44	220kV Lightning Arrestors (Composite type) (LA)	IEC 60099-4	1. RAYCHEM, 2. CG Power and Industrial Solutions Limited <sup>(20)</sup>
E45	132kV Lightning Arrestors (Composite type) (LA)	IEC 60099-4	1. RAYCHEM, 2. CG Power and Industrial Solutions Limited <sup>(20)</sup>
E46	66kV Lightning Arrestors (Composite type) (LA)	IEC 60099-4	1. RAYCHEM, 2. CG Power and Industrial Solutions Limited <sup>(20)</sup>
E47	220kV Circuit Breaker (CB)	IEC 62271-1, IEC 62271-100,	1. ABB / Hitachi Energy, 2. CGL, 3. GE T&D India Ltd <sup>(12)</sup>
E48	132kV Circuit Breaker (CB)	IEC 62271-1, IEC 62271-100,	1. ABB / Hitachi Energy, 2. CGL
E49	66kV Circuit Breaker (CB)	IEC 62271-1, IEC 62271-100,	1. ABB / Hitachi Energy, 2. CGL
E50	220/132/66kV ISOLATOR	IEC 62271-1, IEC 62271-102,	1. S&S
E51	RELAYS (Bay Controller unit and Protection relay on IEC 61850 protocol)	IEC 61850, IEC-60255, IEC-61000-4, IEC 60571, IEC 60068	1. ABB / Hitachi Energy, 2. Schneider, 3. Siemens, 4. GE T&D INDIA LTD <sup>(13)</sup>
E52	Sub-Station Automation (SAS) on IEC 61850 protocol	IEC 61850	1. ABB / Hitachi Energy, 2. Schneider, 3. Siemens, 4. GE T&D INDIA LTD <sup>(14)</sup>
E53	NGR	IEEE C57.32, IEC-60099-4, IEC-62271-102, IEC 60076-25	1. National Switchgear, 2. Resitech



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E54	Electrical Panels/ Distribution Boards	IS/IEC 61439-1&2 or, IEC 61439, IEC 61641 with switchgear as per IS/IEC 60947 or, IEC 60947	1. L&T-TERA, 2. ABB-Elsteel, 3. Schneider-BlokSeT, 4. Ritlall India Pvt. Ltd (With L& T Switchgear), 5. L&T Electrical & Automation-Ti, 6. Legrand (Novateur Electrical and Digital System Pvt Ltd)-XL3, 7. ABB India Ltd-ArTuk <sup>(3)</sup> , 8. Siemens Ltd-Siepan <sup>(3)</sup>
E55	Fire Fighting Pumps (Fire Services)	ISO 9906, NFPA 20 Motor for Fire Service: IS 15999 / IEC 60034	1. Armstrong, 2. Wilo, 3. Kirloskar Brothers Ltd, 4. KSB.
E56	Addressable Fire Detection System	NFPA 72	1. Notifier (Honey Well), 2. Simplex, 3. Siemens Ltd.
E57	Clean agent based Fire Suppression System for Panels (Inert Gas (IG-100) Based flooding system)	NFPA 2001 Tubing - UL 521 Cylinders and Valves - PESO Certificate IS 15660: 2017 / BS EN ISO 7866 : 2012 ISO 527 EN ISO 17871 ISO 179/2-1eA	1. Rotarex, 2. Swastik Synergy Engineering.
E58	LT Cu and Al Cables (For Underground Work):  LSZH Type armoured cable.  FS Type armoured cable.	BS 6724 (for Cu) & IEC 60502-1 (for Al)  BS 7846	1. Polycab, 2. Ducab, 3. KEI, 4. Paramount Cables, 5. Havells India Ltd, 6. Bonton Cables, 7. R R Kabel, 8. KEC <sup>(16)</sup> , 9. Rashi Cables.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E59	Wires (For Underground Work): LSZH and FS Wires. BMS Control cables 500/700 V.	BS/EN50525-3-41 and BS 6387. BS 6724 & BS 7846 BS/EN 50288-7,	1. Polycab, 2. Ducab, 3. KEI, 4. Bonton, 5. SBEE Cables <sup>(17)</sup> 6. R R Kabel, 7. Paramount Communications, 8. Rashi Cables.
E60	UPS (60 KVA and above)	IS-16242 or, IEC 62040	1. Riello (PCI), 2. APC Schneider, 3. Socomec Innovative Power Solution Pvt Ltd., 4. Fuji Electric Consul Neowatt Pvt Ltd, 5. Vertiv Energy Pvt. Ltd, 6. Numeric UPS (Novateur Electrical and Digital Syatem Pvt Ltd.), 7. Eaton Power Quality Pvt Ltd, 8. Autometers Aliance <sup>(16)</sup> & <sup>(17)</sup> 9. Hitachi Hirel Power Electronics <sup>(16)</sup>
E61	Battery (NiCd) for UPS	IEC 60623/ IS 10918	1. HBL, 2. SAFT
E62	LED Light Fixtures (Indoor Application)	BIS certified, complying L-70, B-50 standards for 50000 hrs Luminaire Standard: IS 16106 or, LM-79-8. Control gear for LED Drivers: IS 15885-Part 2/Sec 13 or, IEC 61347-2-13. Uniformity Factor : BS 12464 TM 21 report LM -80 report	1. Philips, 2. Crompton, 3. Wipro* (For Elevated), 4. Halonix Technologies Pvt Ltd., 5. Havells India Ltd., 6. Bajaj Electricals Ltd., 7. Purnima Solar Technologies <sup>(18)</sup> 8. Orient Electric.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E63	LED Light Fixtures (Outdoor Application)	BIS certified, complying L-70, B-50 standards for 50000 hrs  Luminaire Standard: IS 16106 or, LM-79-8. Control gear for LED Drivers: IS 15885-Part 2/Sec 13 or, IEC 61347-2-13. Uniformity Factor : BS 12464 TM 21 report LM -80 report	1. Philips, 2. Crompton, 3. Bajaj, 4. Wipro* (For Elevated), 5. Halonix Technologies Pvt Ltd., 6. Havells India Ltd., 7. WM Energy and Lighting <sup>(18)</sup> , 8. Purnima Solar Technologies <sup>(18)</sup> , 9. Orient Electric.
E64	MS & G.I. Pipes	IS 1239 / IS 3589, Galvanization as per BS EN ISO 1461 / IS 4736	1. Jindal, 2. Tata, 3. Surya Roshni <sup>(17)</sup>
E65	Sewage Pumps Submerged Semi open Impeller Non Clog Type, Seepage Pumps Submerged Semi Open Impeller.	ISO 9906 / ANSI HI 14.6 BS EN ISO 5198, Motor compliant to IEC BS / EN 60034-1	1. Grundfoss, 2. Wilo Mather and Platt Pumps Pvt Ltd, 3. KSB, 4. Kirloskar Brothers.
E66	LT Bus duct (Sandwich type)	IS/IEC 61439-1&6 or, IEC-61439-1 & 6	1. C&S, 2. Henikwon (L&T), 3. EAE Elektik, 4. Advance Panels and Switchgear Pvt Ltd., 5. Legrand (Zuccini) (Novateur Electrical and Digital System Pvt Ltd), 6. Schneider Electric India Pvt Ltd.
E67	DG sets	ISO 8528, complying latest CPCB norms ISO 3046 / BS 5514 / BS 649 IS 4722 IS 8183	1. Sudhir, 2. Sterling Wilson, 3. Electro Equipments



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E68	Air- Conditioning System (VRF & Split)		1. Blue star, 2. LG, 3. Daikin, 4. Mitsubishi, 5. Carrier Air-Conditioning & Refrigeration Pvt Ltd (Carrier Make), 6. Carrier Air-Conditioning & Refrigeration Pvt Ltd (Toshiba),



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E69	FRLSH XLPE Cable	IS 7098	<ol style="list-style-type: none"><li>1. Bonton,</li><li>2. Cords cable,</li><li>3. Havells,</li><li>4. Polycab,</li><li>5. KEI,</li><li>6. Paragon Cable India (Elektron),</li><li>7. Special Cables Pvt. Ltd.,</li><li>8. APAR Industries Ltd. (Unicab),</li><li>9. SBEE Cable (India) Ltd.,</li><li>10. Ravicab Cables Pvt. Ltd.,</li><li>11. Gupta Power Infrastructure Ltd. (Rhino Wires &amp; Cables),</li><li>12. Gemscab Industries Ltd.,</li><li>13. Chandresh Cables Ltd<sup>(3)</sup>,</li><li>14. Ravi Indutries<sup>(3)</sup>,</li><li>15. Dynamic Cables Ltd,</li><li>16. Tortek India Pvt Ltd<sup>(3)</sup>,</li><li>17. Thermo Cables Ltd.,</li><li>18. Diamond Power Infrastructure Limited,</li><li>19. Sriram Cables Pvt. Ltd.,</li><li>20. R R Kabel Limited,</li><li>21. BMI Cables Pvt. Ltd.,</li><li>22. Tirupati Plastomatics Pvt. Ltd.,</li><li>23. K M Cables Pvt Ltd.,</li><li>24. Plaza Wires Limited,</li><li>25. Ravin Cables Ltd.,</li><li>26. Paramount Communications Ltd.,</li><li>27. V-MARC India Limited,</li><li>28. KEC International Limited,</li><li>29. LKB Engineering Pvt. Ltd.,</li><li>30. Insucon Cables and Cond. Pvt. Ltd.,</li><li>31. Gloster Cables Limited,</li><li>32. Svarn Infratel Private Limited,</li><li>33. Shriram Telelink.</li></ol>





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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E70	FRLSH PVC Cables FR Wire	IS 1554, IS 694	1. KEI, 2. Bonton, 3. Havells, 4. Polycab, 5. Paragon Cable India. (Elektron), 6. APAR Industries Ltd. (Unicab), 7. Ravicab Cables Pvt Ltd., 8. Gemscab Industries Ltd, 9. Chandresh Cables Ltd (For FRLSH PVC Cables only), 10. Ravi Industries, 11. Fortuneart Wires and Cables Pvt Ltd., 12. BMI Cables Pvt Ltd <sup>(3)</sup> , 13. Tortek India Pvt Ltd <sup>(3)</sup> , 14. Rashi Cable Pvt. Ltd <sup>(3)</sup> , 15. Thermo Cables Ltd., 16. Sriram Cables Pvt. Ltd., 17. R R Kabel Limited, 18. Tirupati Plastomatics Pvt. Ltd., 19. K M Cables Pvt Ltd., 20. Plaza Wires Limited, 21. Ravin Cables Ltd., 22. Paramount Communications Ltd., 23. V-MARC India Limited, 24. Insucon Cables and Cond. Pvt. Ltd., 25. Gloster Cables Limited, 26. Svarn Infratel Private Limited, 27. Shriram Telelink.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
E71	Water cooled SCREW / Centrifugal Chillers	Performance as per AHRI Standards 550/590 or Eurovent Certified. Pressure vessels as per ASME sec VIII Div 1/ PED-2014/68/EU	1. Trane, 2. York, 3. Dunhambush, 4. Carrier, 5. Climaveneta Climate Technologies Pvt. Ltd., 6. Daikin Air-Conditioning India Pvt Ltd, 7. Voltas Limited. 8. Blue Star Ltd.
E72	Air cooled SCREW Chillers	Performance as per AHRI Standards 550 / 590 or Eurovent Certified.	1. Carrier, 2. Climaveneta Climate Technologies Pvt. Ltd <sup>(3)</sup> , 3. Voltas <sup>(3)</sup> , 4. Blue Star <sup>(3)</sup> , 5. Daikin Airconditioning <sup>(17)</sup> , 6. Trane Technologies, 7. Dunham-Bush.
E73	ECS Pumps (Vertical Inline/Monoblock pump/ Horizontal Split case)	Standard HI 1.6 / ISO 9906 / IS 9137 HI 14.6	1. Grundfoss, 2. Xylem, 3. Armstrong Design Pvt Ltd., 4. Kirloskar Brothers Ltd (except vertical inline pump), 5. KSB.
E74	Variable speed Distributed AHU's and FCU Pumps	ISO 9906	1. Grundfoss, 2. KSB.
E75	ECS FANS (Axial Fan/Inline fan/Wall Mounted),	1. Performance as per AMCA 210 or ISO 5801. 2. Noise as per AMCA 300 or BS 848. 3. Motor as per IEC 60034 / IS 15999.	1. Kruger, 2. Systemair, 3. Air Flow Pvt. Ltd., 4. Wolter Ventilators India Pvt Ltd.,



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
			5. Greenheck.
E76	Air Handling Unit (Plug Fans with Internal Rotor Permanent Magnet Motor (PM))	1: Casing EN 1886 / AHRI-1350. 2. Coil: EN 1216/AHRI-410. 3. Fan: AMCA 210 or ISO 5801 / AHRI 430. 4. Rating and the Performance of AHU as per whole: Eurovent Certified as per EN 13053 / AHRI Certified as per relevant standard.	1. Systemair, 2. Edgetech Air Systems, 3. Waves Aircon, 4. Citizen Industries, 5. Zeco Aircon.
E77	ECS Sound Attenuator	Tested as per BS EN ISO 7235 or ASTM E 477. ASTM E-84 / UL no. 723	1. Ruskin, 2. Systemair, 3. ETA, 4. Kruger Ventilation Industries <sup>(16)</sup>
E78	Fire Dampers (MFD/FLFD/FMD)	UL 555 S & 555 and AMCA 500 BS 476 Part 20, UL classified	1. Ruskin*, 2. Green Heck* (* Except Honeywell Actuator)
E79	Prefabricated Ducts	DW 143 & DW-144, SMACNA IS 277	1. Waves, 2. D. S. Ductofab Systems, 3. Zeco Aircon.
E80	VFD	UL 508c, IEC 61800 and Harmonics control as per IEEE 519	1. Fuji, 2. Danfoss, 3. L&T Electrical & Automation (for VFD Series Fx2000 and Hx2000), 4. Delta Electronics India Pvt Ltd., 5. Yaskawa.
E81	PLC based BMS for building services	SIL-2 as per EN-50128 certified PLC based BMS for building services having redundant configuration at processor, communication and power supply level.	1. GE, 2. Rockwell, 3. Honeywell, 4. Schneider Electric India Pvt Ltd.,



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
		PLC processor shall have the capability to support one of the following language structures: <ul style="list-style-type: none"><li>• Structured Text.</li><li>• Subsequent Function Charts</li><li>• Ladder Logic.</li><li>• Function Block.</li></ul>	5. Siemens Ltd.
E82	Tunnel Ventilation Fan (TVF, TBF, TEF) with fire rating of 250°C for 2 Hrs.	Performance as per AMCA 210, ISO 5801, AMCA 250, ISO 13350. Noise as per BS EN 848 / ISO 13347/ ISO 37347/ DIN 45635. Vibration: ISO 14694/ ISO 10816.  Tunnel ventilation Fan motors with fire rating of 250°C for 2 Hrs tested as per IEC 60034 / IS 15999	1. Flaktwood, 2. Witt and Sohn, 3. Systemair, 4. Green heck (For TEF only), 5. Air Flow Pvt Ltd (For TEF only), 6. Witt India (For TEF only) <sup>(3)</sup> , 7. CFT <sup>(17)</sup> , 8. Kruger Ventilation Industries <sup>(16)</sup> & <sup>(17)</sup> .
E83	TVS Sound Attenuator with fire rating of 250°C for 2 Hrs.	Tested as per BS EN ISO 7235 or ASTM E477. Attenuator material tested as per & BS476 or ASTM E84.	1. Ruskin, 2. ETA, 3. Kruger Ventilation Industries <sup>(16)</sup> .
E84	Air Compressor	1. Performance as per ISO 1217 or Equivalent. 2. Air receiver as per ASME Section VIII DIV 1 or IS 2825 or BS 5169	1. Chicago Pneumatic Compressor <sup>(3)</sup> 2. Atlas Copco (India) Limited <sup>(15)</sup> (Submitted on e-procurement portal through Times Marketing Pvt. Ltd)
E85	Tunnel ventilation Damper with fire rating of 250°C for 2 Hrs.	AMCA 500, 510 and UL 555 / BS 476 PART 20. Leakage-class-1 as per UL 555s	1. Trox, 2. AWV, 3. Ruskin, 4. Flow Pro <sup>(16)</sup> & <sup>(17)</sup> .
E86	EOT Crane	IS 3177:1999, IS 807:1976/ DIN 15018, IS 3938:1979/ FEM 9811, IS 2266:1976/ FEM 1001, IS 4460:1967, BS 466, BS 2573, BS 5395, DIN 15018/ EN	1. DEMAG, 2. Times Industrial Engineers Pvt Ltd., 3. Cranex Limited.



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
		13001/ EN 15011, DIN 15401, FEM 9.683, FEM 9.661, DIN 15020	
E87	High mast and street light pole	IS 2062/ IS 875 Part iii IS 4736/ EN ISO 1461	1. Bajaj, 2. Transrail Lighting Ltd.
E88	Cooling Tower	CTI STD-201	1. Bell Cooling Towers Pvt Ltd, 2. Paharpur Cooling Towers Ltd.
<b>Description of Riders: -</b>			
(1) M/s Sterlite is approved only for 66 kV & 132 kV Cables.			
(2) Subject to submission of NABL accreditation certificate for in-house testing.			
(3) The applicant will have to establish provenness for a minimum three years for the offered model of equipment at the time of submission of proposal.			
(4) The applicant should submit valid Type Test Reports for the type of Cable proposed for use in execution of contract.			
(5) The applicant should submit valid Type Test Reports for the type of Joint proposed for use in execution of contract.			
(6) The applicant should submit valid Type Test Reports for the Battery Charger proposed for use in execution of contract.			
(7) The applicant should submit valid Type Test Reports for the type of cable proposed for use in execution of contract. In addition, for 220kV cable pre-qualification test report as per IEC should also be submitted. Manufacturer should ensure quality of cables during manufacturing. The cables shall be supplied with a warranty of 5 years from the date of commissioning.			
(8) The applicant should submit Type Test Report for the type and rating of actual equipment proposed, valid at the time of submission of proposal in the execution of contract. Manufacturer should ensure quality of cables during manufacturing. The cables shall be supplied with a warranty of 5 years from the date of commissioning.			
(9) The applicant should submit Type test reports for the type and rating of actual equipment Proposed, valid at the time of submission of proposal in the execution of contract. Since, some of the performance certificate are for recent installations, commissioned for recent period of less than 3 years, therefore, The applicant should provide warranty of 5 years from the date of commissioning.			
(10) The applicant should submit Type Test Reports for the type and rating of actual equipment proposed, valid at the time of submission of proposal in the execution of contract. Manufacturer should ensure quality of GIS during manufacturing. The GIS shall be supplied with a warranty of 5 years from the date of commissioning.			
(11) Short circuit withstand Test Report is not submitted (special test as per IEC 60076). The applicant should submit Valid Short Circuit withstand Test Report and Type Test Reports for the type of Transformer proposed for use in execution of contract.			
(12) The applicant should submit Type Test Reports for the type and rating of actual equipment proposed, valid at the time of submission of proposal in the execution of contract.			
(13) Type Test Reports of Relays of MiCoM Series and Multilin Series are submitted. The applicant may be asked to submit Type Test Reports of Specific Model proposed for use in execution of contract.			
(14) The applicant should submit Type Test Report of Specific version for the type of SAS proposed for use in execution of contract.			



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S. No.	Items	Reference Standard	Already Approved Makes (Superscript indicates Riders explained at the end of table)
(15)	Subject to submission of test certificate as per ASME Section VIII DIV 1 or IS 2825 for Air receiver.		
(16)	The applicant should submit valid type test report of the item from proposed manufacturing unit.		
(17)	The applicant will have to establish provenness for a minimum three year for the offered model of equipment at the time of submission of proposal.		
(18)	The applicant shall have NABL accredited in-house testing facilities at the time of submission of proposal.		
(19)	(i) After-sales service assurance, (ii) A factory visit to assess the quality aspects & (iii) Valid type test report and compliance with DMRC specifications.		
(20)	All the valid Type Test reports should be ensured at the time of submission of proposal in the execution of contract.		
(21)	132 kV CVT of M/s CGL shall be provided with 5 years warranty from taking over after commissioning.		
(22)	Approved for 132/27.5 kV Traction Transformer (TT) with 5 years warranty from taking over after commissioning.		
<b>Note: -</b>			
(1) The Makes existing as 'Already Approved Makes' in 'DMRC's List of Empanelled Makes for Major Electrical Items 2022' are already included in the 'RDSO Approved Sources' depicted in the 'Newly Approved Makes' of this 'DMRC's List of Empanelled Makes of Major Electrical Items (January 2025)'.			
<b>Disclaimers:-</b>			
1. Please note that this enlistment does not guarantee award of work / Supply of Items / Product.			
2. During technical evaluation stage for the proposed products, valid type tests reports, compliance to technical specifications and BOQ shall be evaluated by DMRC, besides other details before issuing "No Objection" for procurement of proposed product.			
3. DMRC reserves the right to inspect the work place / factory / manufacturing unit for assurance of product quality. Manufacturer / OEM shall arrange inspection of the product as and when required by DMRC.			
4. It may be noted that any changes in product range, brand name, location of work / organization structure / address / Phone / email, etc. shall be intimated to this office immediately along with relevant documents for necessary updating of database.			
5. DMRC reserves the sole and absolute right to cancel the enlistment without assigning any reason thereof.			
6. In case any information provided is found to be incorrect or misleading, DMRC will be at liberty to take suitable penal action as considered appropriate.			
7. The terms and conditions of Original NIT and the Addendums thereof are an integral part of this process and shall remain applicable.			
8. DMRC reserves the right to approve additional vendors / makes for the items already included in the list, in case of any exigencies.			
9. All Type Test including the applicable special test as per the relevant standard and DMRC's contract specifications should have been conducted by the vendor, and the Test reports should be submitted by the vendor, and in case any Type Test / the applicable special Test is not valid as per contract conditions at the time of submission of vendor proposal in main contract, the vendor undertakes to repeat the Type Test and the applicable Special Tests as per standards and DMRC's contract specifications, again at their own cost before the vendor approval.			
10. The vendor undertakes to comply to all the conditions of DMRC's Vendor Policy including the submission of Vendor warrantee undertaking and tripartite agreement in the main contract of DMRC (Ann-2A & Ann-2B of DMRC's Vendor Policy).			

**Annexure 2A**  
**(Refer Vendor Policy)**

The Contractor ( ..... ) has proposed to engage the Sub-Contractor/Vendor ( ..... ) for execution of works / Supply of equipments ( ..... ) under contract ( ..... ) dated .....

This undertaking is being submitted as part of Subcontractor / Vendor Approval Checklist for obtaining consent of the Employer's Representative before entering into the Sub-contract / vendor agreement.

In this regard the Sub-Contractor/Vendor undertakes and confirms that:-

- a) he will execute and complete the Sub-contract Works/Supply, and will carry out each and all of the obligations, duties and undertakings of the Sub-contractor/Vendor under the Sub-contract when and if such obligations, duties and undertakings shall become due and performable, in accordance with the terms of the Sub-contract (as the same may from time to time be varied or amended with the consent of the Employer); and
- b) he will supply to the Contractor and in specific cases wherever required to the Employer's Representative with all information as may be required from time to time in relation to progress of the Sub-contract Works.
- c) he will honour all obligations under the contract including commitments under Defect Liability Period. Defect Liability period as per contract shall be 24 months from date of Issuance of Taking Over Certificate or as specified by Employer regardless of any commitment made between Contractor and Sub-Contractor / Vendor.

- d) The subcontractor/ vendor undertakes that they shall provide full support to Employer directly during DLP Period as well as post DLP period till the design life of equipment for Spares, Fault Rectification, Servicing, Root Cause analysis of failures etc. as required by Employer for proper functioning of the equipment.
- e) The subcontractor/ vendor undertakes that Spares for the Items supplied under the subject contract shall be made available to the employer at reasonable prices throughout the currency of the contract and design life of equipment. If any item of Spares is being discontinued by Sub-Contractor/Vendor a written notice regarding the same shall be given to Employer at least 6 months in advance with an option to procure as many spares as Employer desires at a reasonable cost.
- f) The subcontractor/ vendor undertakes that support for the software shall be provided by them to the Employer throughout the lifetime of the installation. Any Software/Firmware upgradation due to change in operating system support by Hardware manufacturers, shall be provided by subcontractor / vendor at a reasonable cost to Employer throughout the design life of the equipment.
- g) The subcontractor/ vendor undertake to provide, if required by the employer during the design life of the equipment supplied, technical assistance in the form of additional drawings, maintenance practices and technical advice.
- h) If the vendor is unable to supply any Spare Parts throughout the design life of the Works / equipment, or where the vendor ceases availability support of that item before the end of such design life or if the Vendor ceases trading, the vendor undertakes to transfer the relevant intellectual property rights, design rights and technology to the Employer and the Employer shall have the full right to manufacturing drawings, schedules, software and any other information needed to manufacture the relevant item. Such rights shall give the Employer complete freedom to manufacture the item in Delhi or anywhere else world-wide. The vendor



shall also undertake to notify the Employer two years in advance of the intended cessation of spares availability of any item.

- i) If any Spare Part is rendered obsolete by a design change or material change during the design life of the Works supplied under the Contract, the subcontractor / vendor shall design a replacement item to match the identical mechanical and electrical interfaces as the former item.
- j) If, as a result of changes in technology, any Spare Part is not completely interchangeable with the original item, or the performance of any Spare Part is different from the original item, then the Contractor shall purchase the same from the Employer, at a price agreed between the parties, such quantities of the obsolete Spare Part as the Employer may possess

The Subcontractor / vendor will execute and enter in to the Tripartite warranty agreement with the Employer as per the format attached to the contract within 30 days after signing of subcontract / vendor agreement between the contractor and the subcontractor / vendor.

<p>Signature and seal of authorized signatory of the Contractor / Vendor</p> <p>Name:-</p> <p>Designation:-</p>	<p>Signature and seal of authorized signatory of the Subcontractor / Vendor</p> <p>Name:-</p> <p>Designation:-</p>
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**Annexure-2B**

**(Refer Vendor Policy)**

Format for Tripartite warranty Agreement between DMRC, Contractor & Subcontractor /

Vendor

**TRIPARTITE AGREEMENT BETWEEN EMPLOYER, CONTRACTOR & SUB-  
CONTRACTOR/VENDOR**

THIS AGREEMENT is made the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

BETWEEN:

1. The Delhi Metro Rail Corporation Limited (together with its successors and assigns, "the Employer") of:

Metro Bhawan,  
Fire Brigade Lane  
Barakhamba Road,  
New Delhi 110001,  
India.

2. [ \_\_\_\_\_ ] [whose registered office is at]/[of] [ \_\_\_\_\_ ] ("the Contractor") and

3. [ \_\_\_\_\_ ] [whose registered office is at]/[of] [ \_\_\_\_\_ ] ("the Sub-Contractor/Vendor") and

**WHEREAS**

- (A) By a contract [ ..... ] dated [ ..... ] ("the Contract") made between (1) Delhi Metro Rail Corporation Limited ("the Employer") and (2) [ ..... ] ("the Contractor"), the Contractor has agreed to execute, complete, test and commission (including Integrated Testing and Commissioning) and remedy any defects in works upon the terms and conditions contained in the Contract.

- (B) The Sub-Contractor / Vendor has had an opportunity of reading and noting the provisions of the Contract (other than details of the Contractor's prices and rates).
- (C) Pursuant to the Contract, the Contractor wishes to enter into an agreement with the Sub-Contractor / Vendor ("the Sub-contract") for the Sub-Contractor / Vendor to carry out and complete a part of the Works as more particularly described in the Sub-contract ("the Sub-contract Works").
- (D) The Contract stipulates that the Contractor shall obtain the consent of the Employer's Representative before entering into the Sub-contract / vendor agreement, and that the Contractor shall ensure that the Sub-contractor / Vendor executes a warranty agreement in favour of the Employer.

**NOW IT IS HEREBY AGREED** as follows:-

1. In consideration of the Employer's Representative consenting to the Contractor and the Sub-contractor / Vendor entering into the Sub-contract, the Sub-contractor warrants and undertakes to the Employer that:
  - a) he will execute and complete the Sub-contract Works/Supply, and will carry out each and all of the obligations, duties and undertakings of the Sub-contractor/Vendor under the Sub-contract when and if such obligations, duties and undertakings shall become due and performable, in accordance with the terms of the Sub-contract (as the same may from time to time be varied or amended with the consent of the Employer); and
  - b) he will supply to the Contractor and in specific cases wherever required to the Employer's Representative with all information as may be required from time to time in relation to progress of the Sub-contract Works.
  - c) he will honour all obligations under the contract including commitments under Defect Liability Period. Defect Liability period as per contract shall be 24 months from date of Issuance of Taking Over Certificate or as specified

by Employer regardless of any commitment made between Contractor and Sub-Contractor / Vendor.

- d) The subcontractor/ vendor undertakes that they shall provide full support to Employer directly during DLP Period as well as post DLP period till the design life of equipment for Spares, Fault Rectification, Servicing, Root Cause analysis of failures etc. as required by Employer for proper functioning of the equipment.
- e) The subcontractor/ vendor undertakes that Spares for the Items supplied under the subject contract shall be made available to the employer at reasonable prices throughout the currency of the contract and design life of equipment. If any item of Spares is being discontinued by Sub-Contractor/Vendor a written notice regarding the same shall be given to Employer at least 6 months in advance with an option to procure as many spares as Employer desires at a reasonable cost.
- f) The subcontractor/ vendor undertakes that support for the software shall be provided by them to the Employer throughout the lifetime of the installation. Any Software/Firmware upgradation due to change in operating system support by Hardware manufacturers, shall be provided by subcontractor / vendor at a reasonable cost to Employer throughout the design life of the equipment.
- g) The subcontractor/ vendor undertake to provide, if required by the employer during the design life of the equipment supplied, technical assistance in the form of additional drawings, maintenance practices and technical advice.
- h) If the vendor is unable to supply any Spare Parts throughout the design life of the Works / equipment, or where the vendor ceases availability support of that item before the end of such design life or if the Vendor ceases

trading, the vendor undertakes to transfer the relevant intellectual property rights, design rights and technology to the Employer and the Employer shall have the full right to manufacturing drawings, schedules, software and any other information needed to manufacture the relevant item. Such rights shall give the Employer complete freedom to manufacture the item in Delhi or anywhere else world-wide. The vendor shall also undertake to notify the Employer two years in advance of the intended cessation of spares availability of any item.

- i) If any Spare Part is rendered obsolete by a design change or material change during the design life of the Works supplied under the Contract, the subcontractor / vendor shall design a replacement item to match the identical mechanical and electrical interfaces as the former item.
  - j) If, as a result of changes in technology, any Spare Part is not completely interchangeable with the original item, or the performance of any Spare Part is different from the original item, then the Contractor shall purchase the same from the Employer, at a price agreed between the parties, such quantities of the obsolete Spare Part as the Employer may possess.
2. The Sub-contractor/Vendor undertakes to indemnify the Employer against each and every liability which the Employer may have to any person whatsoever and against any claims, demands, proceedings, loss, damages, costs and expenses sustained, incurred or payable by the Employer provided that the Sub-contractor/Vendor shall have no greater liability to the Employer by virtue of this agreement than the liability of the Contractor to the Employer under the Contract insofar as and to the extent that the same has arisen by reason of any breach by the Sub-contractor/Vendor of his obligations under the Sub-contract.

3. No allowance of time by the Employer hereunder or by the Contractor under the Sub-contract nor any forbearance or forgiveness in or in respect of any matter or thing concerning this agreement or the Sub-contract on the part of the Employer or the Contractor, nor anything that the Employer or the Contractor may do or omit or neglect to do, shall in any way release the Sub-contractor/Vendor from any liability under this agreement.
4. The Sub-contractor/Vendor agrees that he will not without first giving the Employer not less than 21 day's prior notice in writing exercise any right he may have to terminate the Sub-contract or treat the same as having been repudiated by the Contractor or withhold performance of its obligations under the Sub-contract. In case of termination of the subcontract after supply of work / equipment this agreement shall remain binding between the Employer and the Subcontractor / vendor for performance of pending obligations under this agreement.
5.
  - (1) In the event that the Contract or the employment of the Contractor under the Contract is terminated for any reason whatsoever before supply of work / equipment under the subcontract and if so requested by the Employer in writing within 21 days of such termination, the Sub-contractor/Vendor shall carry out and complete his obligations under this agreement and shall enter into a novation agreement with the Employer and the Contractor in which the Sub-contractor will undertake inter alia to perform the Sub-contract and be bound by its terms and conditions as if the Employer had originally been named as a contracting party in place of the Contractor. The said novation agreement will be in such form as the Employer may reasonably require.
  - (2) In the event that the Employer does not require the Sub-contractor/Vendor to enter into a novation agreement as required by Sub-clause 5(1), the Sub-contractor/Vendor shall have no claim whatsoever against the Employer for

any damage, loss or expense howsoever arising out of or in connection with this Agreement.

(3) In the event that the Contract or the employment of the Contractor under the Contract is terminated for any reason whatsoever after supply of work / equipment under the subcontract then this agreement shall remain binding between the Employer and the Subcontractor / vendor for performance of pending obligations under this agreement

6. Insofar as the copyright or other intellectual property rights, in any plans, calculations, drawings, documents, materials, know-how and information relating to the Sub-contract Works shall be vested in the Sub-contractor / Vendor, the Sub-contractor / Vendor grants to the Employer, his successors and assignees a royalty free, non-exclusive and irrevocable licence (carrying the right to grant sub-licences) to use and reproduce any of the works designs or inventions incorporated and referred to in such documents or materials and any such know-how and information for all purposes relating to the Works of the Mass Rapid Transport System – Phase IV, without limitation the supply, installation, completion, reinstatement, extension, remedy of any defect of the Works. To the extent beneficial ownership of any such copyright or other intellectual property right is vested in anyone other than the Sub-contractor/Vendor, the Sub-contractor/vendor shall use best endeavours to procure that the beneficial owner thereof shall grant a like licence to the Employer. For the avoidance of doubt, any such licence granted shall not be determined if the Sub-contractor / Vendor shall for any reason cease to be employed in connection with the Sub-contract Works.
7. In the event of any ambiguity or conflict between the terms of the Sub-contract and this agreement, the terms of this agreement shall prevail.

8. The provisions of this agreement shall be without prejudice to and shall not be deemed or construed so as to limit or exclude any rights or remedies which the Employer may have against the Contractor / Sub-contractor / Vendor whether in tort or otherwise.
9. Nothing contained in this agreement shall vary or affect the Contractor /Sub-contractor's/Vendor's rights and obligations under the Sub-contract.
10. The Employer shall be entitled to assign the benefit of this agreement at any time without the consent of the Contractor / Sub-contractor/Vendor being required.
11. All documents arising out of or in connection with this agreement shall be served:
  - (1) upon the Employer at [ ], marked for the attention of [ ];
  - (2) upon the Contractor, at [ ] India.
  - (3) upon the Sub-contractor/Vendor, at [ ] India
12. The Employer and the Contractor / Sub-contractor / Vendor may change their respective nominated addresses for service of documents to another address in India but only by prior written notice to each other. All demands and notices must be in writing.
13. This Warranty shall be governed by and construed according to the laws for the time being in force in India.
14.
  - (1) Any dispute or difference of any kind whatsoever between the Employer and the Sub-contractor/Vendor arising under out of or in connection with this agreement shall be referred to arbitration in accordance with the Arbitration as described in the Contract.
  - (2) In the event that the Employer is of the opinion that the issues in such a dispute or difference will or may touch upon or concern a dispute or



difference arising under out of or in connection with the Contract ("the Contract Dispute") then provided that an arbitrator has not already been appointed pursuant to Clause 14(1), the Employer may by notice in writing to the Sub-contractor/Vendor require and the Sub-contractor/Vendor shall be deemed to have consented to the referral of such dispute or difference to the arbitrator to whom the Contract Dispute has been or will be referred.

- (3) Save as expressly otherwise provided, the arbitrator shall have full power to open up, review and revise any decision, opinion, instruction, notice, order, direction, withholding of approval or consent, determination, certificate, statement of objection, assessment or valuation by the Employer's Representative or the Contractor relating to the dispute or difference.
- (15) This Warranty agreement shall cease to exist on the last day of the month of expiry of design life of the work / equipment supplied by the subcontractor / vendor under the contract. For this purpose, the design life of the work / equipment supplied under the contract to the employer shall be [.....] Years from the date of the taking over of the work / equipment by the employer.

**IN WITNESS** whereof this agreement has been executed as a deed on the date first before written.

THE COMMON SEAL of )

[ ] )

was affixed hereto in )

the presence of:- )