

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	12-04-2024 15:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	12-04-2024 15:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	180 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Heavy Industries And Public Enterprises
Department Name/विभाग का नाम	Department Of Heavy Industry
Organisation Name/संगठन का नाम	Bharat Heavy Electricals Limited (bhel)
Office Name/कार्यालय का नाम	10250020-pem, Noida
Total Quantity/कुल मात्रा	31656
Item Category/मद केटगरी	Street Light LED Fixture SS62 , Well glass type, Vapour proff LED fixture suitable for platforms SW41 , Well glass type, vapour proff LED fixture suitable for platforms SW42 , FC34 - 1 x 10W Fluorescent, dust proof, totally enclosed type with sheet steel housing operating on 220V DC input supply - Outdoor DC lighting , Well glass type, SW41 LED , Well glass type, SW42 LED , FC34 -1 x 10W- DC LED , Type JB-F , Type RA , Type RC , 20 mm dia PVC coated conduit , Structural steel , 14 SWG Wire , 50X6 GS Flat , 25X3 GS Flat , DC Emergency Outdoor Type LP- D-6 , AC Normal -Emergency outdoor Type LP- A -18-with timer , 1 x 2.5 sq mm Cu PVC , 1 x 4 sq mm Cu PVC , 20 mm dia GI conduit, 1.6 mm thick - 1.5 sq.mm wire , 25 mm dia GI conduit, 1.6 mm thick -4 sq.mm wire- for RA type receptacle , 50mm dia GI conduit 2.0 mm thick- 2.5 to 3 meter per J pole , 3.5Cx50 sq.mm AL conductorm Armoured LT PVC Power cable , 2Cx16 sq.mm AL conductorm Armoured LT PVC Power cable
BOQ Title/बीओक्यू शीर्षक	STATION LIGHTING SYSTEM
Years of Past Experience Required for same/similar service/उन्हीं/समान सेवाओं के लिए अपेक्षित विगत अनुभव के वर्ष	1 Year (s)
MSE Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से एमएसई छूट	No
Startup Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से स्टार्टअप छूट	No

Bid Details/बिड विवरण	
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Experience Criteria,Past Performance,Certificate (Requested in ATC),Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Past Performance/विगत प्रदर्शन	10 %
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	Yes
RA Qualification Rule	H1-Highest Priced Bid Elimination
Type of Bid/बिड का प्रकार	Two Packet Bid
Primary product category	Street Light LED Fixture SS62
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	7 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Payment Timelines	Payments shall be made to the Seller within 90 days of issue of consignee receipt-cum-acceptance certificate (CRAC) and on-line submission of bills (This is in supersession of 10 days time as provided in clause 12 of GeM GTC)
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation

EMD Detail/ईएमडी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
EMD Amount/ईएमडी राशि	60000

ePBG Detail/ईपीबीजी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
ePBG Percentage(%) / ईपीबीजी प्रतिशत (%)	5.00
Duration of ePBG required (Months)/ईपीबीजी की अपेक्षित अवधि (महीने).	26

(a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy./जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित कैटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज़ प्रस्तुत करने हैं। एमएसई कैटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के

दायरे से बाहर रखा गया है।

(b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable./ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए।

Beneficiary/लाभार्थी :

Ifsc Code SBIN0017313, BRANCH-CAG II NEW DELHI
10250020-PEM, Noida, Department of Heavy Industry, Bharat Heavy Electricals Limited (BHEL), Ministry of Heavy Industries and Public Enterprises
(A/c No. 39922687394)

Splitting/विभाजन

Bid splitting not applied/बोली विभाजन लागू नहीं किया गया.

MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	No
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Details of the Competent Authority for MSE

Name of Competent Authority	S K DUBEY
Designation of Competent Authority	SDGM
Office / Department / Division of Competent Authority	BHEL PEM Noida
CA Approval Number	123
Competent Authority Approval Date	27-03-2024
Brief Description of the Approval Granted by Competent Authority	Since, subject package is non divisible, as per internal guidelines MSE preference not given.

Competent Authority Approval for not opting Micro and Small Enterprises Preference : [View Document](#)

Reserved for Make In India products

Reserved for Make In India products	Yes
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1. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.

2. Bid reserved for Make In India products: : Procurement under this bid is reserved for purchase from Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. However, eligible micro and small enterprises will be allowed to participate. The minimum local content to qualify as a class 1 local supplier is denoted in the bid document. All bidders must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which the bid is liable to be rejected. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other

than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020 . In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

3. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

4. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 10% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU / Public Listed Company. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

5. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

- i. If number of technically qualified bidders are only 2 or 3.
- ii. If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- iii. In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- iv. If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
- v. If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

Street Light LED Fixture SS62

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	15	365

Well Glass Type, Vapour Proff LED Ficture Suitable For Platforms SW41

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	240	365

Well Glass Type, Vapour Proff LED Fixture Suitable For Platforms SW42

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	50	365

FC34 -1 X 10W Fluorescent, Dust Proof, Totally Enclosed Type With Sheet Steel Housing Operating On 220V DC Input Supply -Outdoor DC Lighting

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	60	365

Street Light LED Fixture SS62

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	5	365

Well Glass Type, SW41 LED

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	15	365

Well Glass Type, SW42 LED

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	5	365

FC34 -1 X 10W- DC LED

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	5	365

Type JB-F

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	365	365

Type RA

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	16	365

Type RC**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)****Technical Specifications/तकनीकी विशिष्टियाँ**

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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	6	365

20 Mm Dia PVC Coated Conduit**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)**

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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	548	365

Structural Steel

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	2	365

14 SWG Wire

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	8203	365

50X6 GS Flat

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	50	365

25X3 GS Flat**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)****Technical Specifications/तकनीकी विशिष्टियाँ**

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	100	365

DC Emergency Outdoor Type LP- D-6**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)**

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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	1	365

AC Normal -Emergency Outdoor Type LP- A -18-with Timer

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	2	365

1 X 2.5 Sq Mm Cu PVC

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	12490	365

1 X 4 Sq Mm Cu PVC

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	1248	365

20 Mm Dia GI Conduit, 1.6 Mm Thick -1.5 Sq.mm Wire**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)****Technical Specifications/तकनीकी विशिष्टियाँ**

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	5720	365

25 Mm Dia GI Conduit, 1.6 Mm Thick -4 Sq.mm Wire- For RA Type Receptacle**(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)**

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	600	365

50mm Dia GI Conduit 2.0 Mm Thick- 2.5 To 3 Meter Per J Pole

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	660	365

3.5Cx50 Sq.mm AL Conductorm Armoured LT PVC Power Cable

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	1000	365

2Cx16 Sq.mm AL Conductorm Armoured LT PVC Power Cable

(Minimum 60% Local Content required for qualifying as Class 1 Local Supplier)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Farhan Ahmad	151111,PSPCL Lehra Mohhabat TPS, Bathinda ,Punjab-151111, Contact person of BHEL site is Mr Ram Kumar, 07408408804	250	365

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें**1. Generic**

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.

2. Inspection

Nominated Inspection Agency: On behalf of the Buyer organization, any one of the following Inspection Agency would be conducting inspection of stores before acceptance:
Pre-dispatch Inspection at Seller Premises (applicable only if pre-dispatch inspection clause has been selected in ATC):

At vendors works

Post Receipt Inspection at consignee site before acceptance of stores:
NA

3. Buyer Added Bid Specific ATC

Buyer uploaded ATC document [Click here to view the file.](#)

4. Certificates

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

5. Certificates

The bidder is required to upload, along with the bid, all relevant certificates such as BIS licence, type test certificate, approval certificates and other certificates as prescribed in the Product Specification given in the bid document.

6. Generic

Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.

Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. Any clause(s) incorporated by the Buyer regarding following shall be treated as null and void and would not be considered as part of bid:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process.
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action

in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्यवाई का आधार होगा।

---Thank You/धन्यवाद---

Index of Annexures

GeM Tender Enquiry for 1x 660 MW BHUSAWAL Project for 1x 210 MW PSPCL LEHRA MOHABAT ESP R&M

Sl. No.	Description	Annexures
1.	BOQ	Annexure I
2.	Land border certificate	Annexure II
3.	Certificate for local Content	Annexure III
4.	Technical PQR	-
5.	Technical Specification	-

Project:-1x 210 MW PSPCL LEHRA MOHABAT ESP R&M

Package:- Station Lighting System

BOQ CUM UNPRICED SCHEDULE (ANNEXURE I)

Sr. No.	Item code	Item description	Unit	Order Quantity
1.0		Lighting Luminaires complete with accessories		
1.1	558-11288-A	Street Light LED Fixture SS62	Nos.	15
1.2	558-11319-A	Well glass type, Vapour proof LED fixture suitable for platforms SW41	Nos.	240
1.3	558-11320-A	Well glass type, vapour proof LED fixture suitable for platforms SW42	Nos.	50
1.4	558-11939-A	FC34 (1 x 10W) Fluorescent, dust proof, totally enclosed type with sheet steel housing operating on 220V DC input supply. (Outdoor DC lighting)	Nos.	60
2.0		DRIVER FOR Lighting Luminaires		
2.1	558-11941-A	Street Light LED Fixture SS62	Nos.	5
2.2	558-11942-A	Well glass type, SW41 LED	Nos.	15
2.3	558-11943-A	Well glass type, SW42 LED	Nos.	5
2.4	558-11944-A	FC34 (1 x 10W) DC LED	Nos.	5
3.0		Junction boxes		
3.1	558-11038-A	Type JB-F	Nos.	365
4.0		Receptacles		
4.1	558-11121-A	Type RA	Nos.	16
4.2	558-11124-A	Type RC	Nos.	6
5.0		Flexible PVC coated conduit		
5.1	558-11026-A	20 mm dia PVC coated conduit	mtrs.	548
6.0	558-11127-A	Structural steel	MT	2
7.0		Earthing		
7.1	558-11034-A	14 SWG Wire	Meter	8203
7.2	558-11008-A	50X6 GS Flat	Meter	50
7.3	558-11005-A	25X3 GS Flat	Meter	100
8.0		Lighting Panels (LP)		
8.1	558-11079-A	DC Emergency Outdoor Type LP – D (6)	Nos.	1
8.2	558-11080-A	AC Normal /Emergency outdoor Type LP – A (18) [with timer]	Nos.	2
9.0		Wires		
9.1	558-11145-A	1x2.5 mm ² Cu PVC	mtrs.	12490

Project:-1x 210 MW PSPCL LEHRA MOHABAT ESP R&M

Package:- Station Lighting System

BOQ CUM UNPRICED SCHEDULE (ANNEXURE I)

Sr. No.	Item code	Item description	Unit	Order Quantity
9.2	558-11146-A	1x 4 mm ² Cu PVC	mtrs.	1248
10.0		Hot dip Galvanised Rigid Steel Conduits (Heavy Duty)		
10.1	558-11030-A	20 mm dia GI conduit, 1.6 mm thick (1.5 sq.mm wire)	mtrs.	5720
10.2	558-11031-A	25 mm dia GI conduit, 1.6 mm thick (4 sq.mm wire) for RA type receptacle	mtrs.	600
10.3	558-11033-A	50mm dia GI conduit 2.0 mm thick (2.5 to 3 meter per J pole)	mtrs.	660
11		LT Power cables		
11.1	558-11945-A	3.5Cx50 sq/mm AL conductorm Armoured LT PVC Power cable	mtrs.	1000
11.2	558-11244-A	2Cx16 sq.mm AL conductorm Armoured LT PVC Power cable	mtrs.	250
NOTES				
1	CONTAINERS AS PER SPECIFICATION ARE TO BE SUPPLIED ALONG WITH FIRST SUPPLIES. THE PRICE OF CONTAINER IS DEEMED TO BE INCLUDED IN PACKAGE PRICE. NO SEPARATE CHARGES SHALL BE PAYABLE.			
2	TYPE TESTS CHARGES ARE DEEMED TO BE INCLUDED IN THE PRICE OF ABOVE ITEMS. NO SEPARATE CHARGES FOR TYPE TESTING WILL BE PAYABLE.			

Annexure II

An undertaking regarding Model Clauses on company letter head only

(To be provided along with bid)

Reference: NIT No.-

Package: - Station Lighting System

Project: 1x 210 MW PSPCL LEHRA MOHABAT ESP R&M

TO WHOM SO IT MAY CONCERN

This is with reference to Ministry of Finance circular dated 23.02.23 reg. restriction under rule 144 (xi) of GFR.

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that M/s (bidder name) is not from such a country and is eligible to be considered/participate in tender enquiry for against aforesaid tender enquiry.

Sign & Signature (Not below Director/owner of the company)

Date:

Place:

ANNEXURE III
1x 210 MW PSPCL LEHRA MOHABAT ESP R&M
Station Lighting System
Letter head of Company

Ref.....

Date.....

To,
Bharat Heavy Electricals Limited
PEM, PPEI Building, Plot No 25,
Sector -16A, Noida (U.P) -201301

Subject: - Certification regarding local content

Reference: Tender Enquiry No-.....

Package: - Station Lighting System

Project: 1x 210 MW PSPCL LEHRA MOHABAT ESP R&M

Dear Sir,

We hereby certify that items offered by us of Station Lighting System for 1x 210 MW PSPCL LEHRA MOHABAT ESP R&M(minimum % of local content) meets the requirement of minimum local content in line with applicable clause of Make In India and the Public Procurement (Preference to Make in India), Order 2017 dated- 15.06.2017, 28.05.2018 & 29.05.2019, 04.06.20, 16.09.20 and subsequent order dated 16.11.21.


We further confirm that details of location at which the local value addition is made will be our registered works at(address of the works)

Yours very truly

..... (authorized signatory of company)

..... (firm name)

authorized signatory
of company

	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
		Issue No: 01
		Rev. No. 00
		Date :28.02.2024

PRE QUALIFICATION REQUIREMENT (TECHNICAL)

	PRE-QUALIFICATION REQUIREMENTS FOR STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	DOC. NO. PE-PQ-505-558-E001
		REVISION NO. 0 DATE 29.02.2024
		SHEET NO. 1 OF 2

ITEMS : LIGHTING FIXTURES & MISC. ITEMS, LIGHTING PANELS, PVC WIRES AND RIGID STEEL CONDUITS

SCOPE: Supply : YES; Erection & Commissioning : NO; Services: YES (Supervision of E&C)

1	<u>Manufacturing Capability</u> LED Lighting fixture manufacturer as per sub-vendor list (refer technical specification) or i) Vendor should be a Manufacturer of LED lighting fixture. ii) Availability of type test reports conducted at independent Lab or witnessed by third party of LED fixture as per relevant standard. iii) Availability of routine & acceptance test reports of LED lighting fixture to establish in-house capability at manufacturer's works to carry out routine & acceptance tests as per relevant standard. iv) Vendor should have supplied LED lighting fixtures to power plant/ industrial installations.
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NOTES-

- In case vendor is not able to meet criteria at Sl. No. 1 above i.e. bidder/supplier is not an OEM, the offer shall be evaluated as per point no. 1 of General points of PQR mentioned below. However, the JV companies/ Joint Bidders/ bidders should have collaboration/ licensing agreement/ MOU with LED Lighting fixture manufacturer as per PEM sub-vendor list.


General Points of PQR

1. Offers of the JV companies/ Joint Bidders/ bidders having collaboration/ licensing agreement/ MOU/ Indian subsidiaries shall be evaluated as follows:

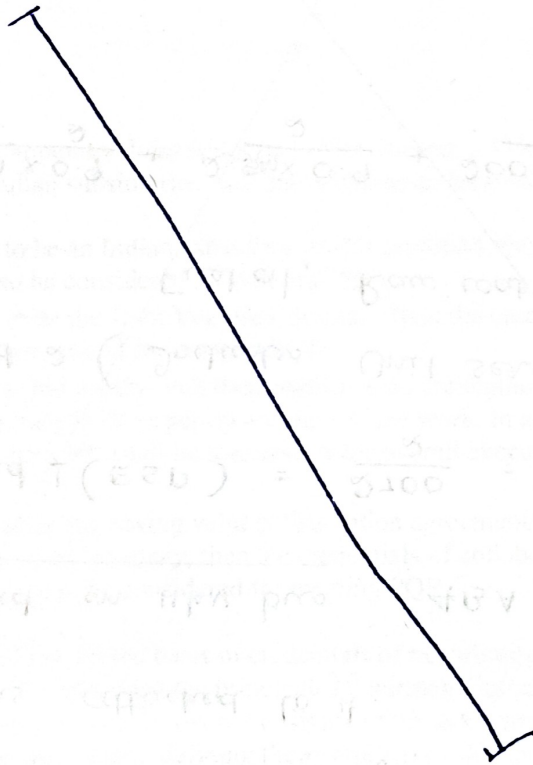
- If bidder happens to be an Indian subsidiary of foreign OEM, then the credentials of the foreign OEM can also be considered for meeting PQR.
- If bidder happens to be the Joint Venture Company, then the credentials of any of JV partners can be also considered for meeting PQR.
- If bidder happens to bid jointly with their partner, then credentials of both the partners will be considered for meeting PQR as per distribution of the work. In all such cases, lead bidder as specified in bid documents shall be responsible for overall execution of the contract and all guarantee/ warranty.
- If bidder happens to be the having valid collaboration agreement/ MOU/ licensing agreement with some other company, then the credentials of collaborator/ MOU partner/ licensing company can also be considered for meeting PQR.






Note: If bidder(s) qualifies on the basis of credentials of his principal/ JV partner/ Collaborator/ joint bidder etc., then the principal/ JV partner/ Collaborator/ MOU partner/ joint bidder shall be responsible for overall design vetting and warranty/ guarantee of the package. The scope matrix clearly defining their respective roles including design vetting,

PREPARED BY NAME: M S S RAJPAL DESIGNATION: MANAGER	CHECKED BY NAME: MEGHA DESIGNATION: MANAGER	REVIEWED BY: NAME: AYAN SAHA DESIGNATION: DGM	APPROVED BY NAME: SANDEEP LODH DESIGNATION: AGM	APPROVED BY NAME: DEBASIS RATH DESIGNATION: GM & DH ELECT.
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	PRE-QUALIFICATION REQUIREMENTS FOR STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	DOC. NO. PE-PQ-505-558-E001
		REVISION NO. 0 DATE 29.02.2024
		SHEET NO. 2 OF 2

- manufacturing of critical component, E&C etc. etc. and warranty/ guarantee shall be submitted along with the offer.
2. Bidder to note that the arrangement of bidding (joint bid partners/ collaborator/ MOU partner/ licensing company etc.) once offered to BHEL as a part of bidding documents cannot be changed till the execution of the project.
 3. Consideration of offer shall be subject to customer's approval of bidders.
 4. Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
 6. After satisfactory fulfillment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.
 7. Cut-off date for credentials shall be considered same as date of techno-commercial bid opening.



PREPARED BY  NAME: M S S RAJPAL DESIGNATION: MANAGER	CHECKED BY  NAME: MEGHA DESIGNATION: MANAGER	REVIEWED BY:  NAME: AYAN SAHA DESIGNATION: DGM	APPROVED BY  NAME: SANDEEP LODH DESIGNATION: AGM	 NAME: DEBASIS PATH DESIGNATION: GM & DH ELECT.
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**210 MW GURU HARGOBIND THERMAL PLANT, LEHRA
MOHABBAT**

**TECHNICAL SPECIFICATION
FOR
STATION LIGHTING SYSTEM**

SPECIFICATION No. PE-TS-505-558-E001
ISSUE NO. 01
REV NO. 00



**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA, INDIA**



TECHNICAL SPECIFICATION
STATION LIGHTING SYSTEM
210 MW GURU HARGOBIND THERMAL PLANT,
LEHRA MOHABBAT

PE-TS-505-558-E001


Issue No: 01

Rev. No. 00

Date :28.02.2024

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	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
		Issue No: 01
		Rev. No. 00
		Date :28.02.2024

SCOPE


SCOPE OF THIS PACKAGE COVERS THE FOLLOWING:


SL.NO	PARAMETERS	REQUIREMENT
1	Supply Including Design, Engineering, Manufacturing of Lighting Fixtures, Lamps & Misc. items	YES
a)	Main Supply	YES
b)	Commissioning Spares	NO
2	Painting	NO
3	Inspection & Testing	YES
4	Packing	YES
5	Transportation & Delivery To Site	YES
6	Erection & Commissioning	NO
7	Supervision of Erection & Commissioning	NO
8	Mandatory Spares	NO
9	O & M Service	NO
10	O & M Spares	NO


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	GENERAL TECHNICAL REQUIREMENT
1	It is not the intent to specify herein all the details of design and manufacturing. Bidder shall ensure that the offered equipment confirms in all respects to high standards of design, engineering and workmanship.
2	Bidder shall also ensure that the offered equipment shall comply with all applicable statutory and regulatory requirements.
3	In the event of any conflict between the requirements of two clauses of this specification, documents or requirements of different codes and standards specified, the more stringent requirement as per the interpretation of the owner shall apply.
4	Drawing/document submission shall be through web based Document Management System(DMS) of BHEL. Bidder would be provided access to the DMS for drawing/document submission. Bidder to ensure internet connectivity of min speed of 2Mbps at their end.
5	Drawings/ documents submitted by vendor at any stage shall be complete in all respects. Any incomplete drawing submitted shall be treated as non- submission with delays attributable to vendor. For any clarification/ discussion required to complete the drawings, the bidder shall depute his personnel to BHEL / Customer's Office as per the requirement for across the table submission/ finalizations of drawings.
6	Latest codes and standards shall be complied with as on 16.08.2023
7	Bidder shall submit Quality Plan in the event of order based on the Quality Plan enclosed therein on compliance route. Inspection / testing shall be witnessed as per same apart from review of various test certificates/ Inspection records etc.
8	Equipment must be safe, reliable and easy to maintain at all operating condition
9	The equipment shall comply with all applicable safety codes and statutory regulations of India as well as of the locality where the equipment is to be installed. Statutory and regulatory regulation shall be applicable as per Indian Electricity Rule, 2005 with latest amendment for illumination & low voltage power services


10	<p>Following sizes of 1100 V grade, PVC insulated, single core, stranded copper conductor wires will be used:</p> <p>Lighting Panel to Fixtures: 2.5 sq. mm (Cu)</p> <p>Lighting Panel to JB's: 2.5 sq. mm (Cu)</p> <p>JB's to Fixtures: 2.5 sq. mm (Cu)</p> <p>Panel to First receptacles: 4.0 sq. mm (Cu)</p> <p>First receptacles to looping other receptacles: 4.0 sq. mm (Cu)</p> <p>In case of only one receptacles in ckt., Panel to receptacles: 4.0 sq. mm (Cu)</p> <p>Following sizes of 1100 V grade, PVC insulated, Armoured, Aluminium conductor cables to be used:</p> <p>AC LDB to LP and LT switchgear to WDB: 3.5Cx50 sq.mm</p> <p>DC LDB to LP: 2Cx16 sq.mm.</p> <p>Both end cable lugs and glands to be provided by the bidder</p>
11	<p>Earthing of lighting system will be done by using of following sizes of wire / flat:</p> <p>Lighting Panels: GS Flat 2x25x3 mm</p> <p>Lighting fixtures, receptacles, conduits, junction boxes & switch boxes: 14 SWG GI wire</p> <p>Welding receptacles: GS Flat 2x50x6 mm</p> <p>All the earthing to various equipment like lighting panels, receptacles, junction boxes etc shall be provide at two point.</p>
12	Typical Mounting arrangmeent of Lightitng fixtures is shown under compliance drawings, all indicated accessories required for mounting of fixtures shall be supplied along with the respective lighting fixture.
13	<p>Following items are excluded from the supply of this package:</p> <p>Poles, Mast, LDB & WDB.</p>
14	Only items specified in BOQ cum un-priced schedule are in scope of supply of this package.
15	The vendor shall guarantee satisfactory performance of the equipment supplied under all conditions and requirement as laid down by this specification.
16	LED modules and drivers shall be compatible to each other. The LED module driver's ratings and makes shall be as recommended by corresponding LED chip manufacturer. LED Drivers shall have following control & protections:Open Circuit Protection, Suitable precision current control of LED, Short Circuit Protection, Over Temperature Protection, Overload Protection and Surge Protection.
17	The individual lamp wattage for LED shall be upto 3 watt. Fractional wattage LEDs are also acceptable. The LED chip efficacy shall be min 120 Lm/W. The luminaire efficacy shall be not less than 80 Lm/W. Suitable heat sink shall be designed & provided in the luminaire. The LED used in the luminaires shall have colour rendering index (CRI) of Min 80. Colour temperature of LED shall be min. 4000K, including rough & dust prone areas. LED shall conform to the LM 80 requirements


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TECHNICAL DATA - PART - A			
SL.NO		UOM	DETAIL
1.00	DESIGN CODES & STANDARDS		
1.1	Code of practice for interior illumination		IS 3646
1.2	Code of practice for industrial lighting		IS 6665
1.3	Code of practice for lighting of public thoroughfare		IS 1944
1.4	Luminaires.		IS 10322
1.5	General Lighting. LEDs & LED Modules Terms and definitions		IS 16101
1.6	Self-Ballasted LED lamps for General Lighting Services: Safety requirement.		IS 16102-1
1.7	Self-Ballasted LED lamps for General Lighting Services: Performance requirement		IS 16102-2
1.8	LED modules for General lighting safety requirements.		IS 16103-1
1.9	Lamp Control gear.		IS 15885-2
1.10	A.C. or D.C. supplied Control gear for LED modules		S 16104
1.11	Method of measurement of Lumen maintenance of solid state (LED) sources		IS 16105
1.12	Method of electric and photometric measurement of solid state (LED) products		IS 16106
1.13	Luminaires performance		IS 16107
1.14	Plugs and socket outlets of rated voltage upto and including 250 volts and rated current upto and including 16 amperes		IS 1293
1.15	Interlocking switch socket outlet		IS 4160
1.16	Electric ceiling type fans and regulators		IS 374
1.17	Recommended practice for hot dip galvanising of iron & steel		IS 2629
1.18	Method of testing uniformity of coating on zinc coated articles		IS 2603
1.19	Flexible steel conduits for electrical wiring		IS 3480
1.20	Scaffolds & ladders - Code of safety		IS: 3696
1.21	Aluminium extension ladders		IS: 4571
1.22	Low voltage switchgear and control gear.		IS 60947
1.23	Low voltage fuses for voltages not exceeding 1000V AC or 1500 V		IS 13703


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SL.NO		UOM	DETAIL
1.24	Code of practice for selection, installation and maintenance of switchgear and control gear.		IS 10118
1.25	Electrical Accessories - circuit breakers for over protection for household and similar installations		IS 60898
1.26	Visual indicator lamps		IS 1901
1.27	Danger notice plates		IS:2551
1.28	Degree of protection provided by enclosures for low-voltage Switchgear and control gear.		IS:2147
1.29	PVC insulated unsheathed and sheathed cables/cords with rigid and flexible conductor		IS:694
1.30	PVC insulation and sheath of electric cables		IS:5831
1.31	Conductors for insulated electric cables and flexible cords		IS:8130
1.32	Methods of tests for cables		IS:10810
1.33	Conduits for electrical installation		IS:9537 (Part I & II)
1.34	Recommended practice for hot dip galvanizing on iron and steel		IS:2629
1.35	Specification for hot dip zinc coatings on structural steel and allied products		IS:4759
1.36	Methods for determination of mass of zinc coating on zinc coated iron and steel articles		IS:6745
1.37	Hot rolled Steel strip for welded tubes and pipes		IS: 10748
1.38	Method for testing uniformity of coating on zinc coated articles		IS: 2633
1.39	Code of practice for phosphating iron & steel		IS:6005
2.0	DESIGN /SYSTEM PARAMETERS		
2.1	Design ambient temperature	°C	50 °C
2.2	AC Supply		
2.2.1	Rated voltage	V	415V
2.2.2	Rated frequency	Hz	50 Hz
2.2.3	Voltage variation (permissible)	%	+10% to -10%
2.2.4	Frequency variation (permissible)	%	+3% to -5%
2.2.5	Combined voltage & frequency variation	%	10%


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TECHNICAL DATA - PART - A			
SL.NO		UOM	DETAIL
2.2.6	System fault level & duration	KA/sec	10 kA for 1 sec.
2.3	DC Supply		
2.3.1	Rated voltage	V	220
2.3.2	Voltage variation (permissible)	%	+10% to -15%
2.4	Lighting Concept: Types of supplies considered (other than AC Normal)		
2.4.1	AC emergency		Taken care at LDB level
2.4.2	DC emergency		Applicable
3.0	CONSTRUCTION FEATURES		
3.1	Lighting Fixtures		
3.1.1	Lighting Fixture type and description		Total Luminous Flux (Lumen) of Luminaire – Min. Value, Measured Electrical Input Power (Watt) of Luminaire – Max. Value
3.1.1.11	SS62 (LED): Street light, LED fixture with integral driver.	Lumen, W	10080 lumen, 112 W
3.1.1.13	SW41 (LED): Well glass, Dust proof LED fixture with integral driver	Lumen, W	4500 lumen, 50 W
3.1.1.14	SW42 (LED): Well glass, Dust proof LED fixture with integral driver	Lumen, W	7200 lumen, 80 W
3.1.1.15	FC34 (LED):Bulkhead type LED fixture suitable for column mounting with integral driver. Fixture shall operate at 220 V DC supply. Necessary accessories like DC to AC convertor etc. to be included in fixture, if required.	Lumen, W	1260 Lumen, 14 W
b	Type of false ceiling for recessed LED luminaire		NA
c	Degree of protection for luminaires		Outdoor: Min IP65 and weather Proof
d	Hazardous area classification of flameproof/explosion proof lighting fixtures		NA
e	Type of LED Lamps		Cool Daylight
3.2	Emergency Lighting Unit		
a	Lamp type		NA
b	Nos. of Lamp		NA


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SL.NO		UOM	DETAIL
c	Lamp wattage	W	NA
d	Type of battery		NA
e	Battery voltage	V	NA
f	Battery backup time	Hrs	NA
g	In-built charger		NO
3.3	Exit Sign		
a	Lamp type		NA
b	Nos. of Lamp		NA
c	Lamp wattage	W	NA
d	Type of battery		NA
e	Battery backup time	Hrs	NA
3.4	Junction Box (other than Street Light		
a	Type of terminals		Four (4) way stud type
b	Size of wire for termination	mm2	shall be for terminating upto 2 nos. 2.5 mm2 copper wire on each terminal
c	Type of installation		Suitable for outdoor installations
d	Enclosure material		16SWG sheet steel hot dip galvanized
e	Enclosure thickness	mm	2mm
f	Degree of protection		IPW-55 for outdoor
3.5	Industrial/ Welding Receptacle		
a	Enclosure material		MS sheet & hot dip galvanised / Die cast aluminium alloy / CRCA sheet steel with electrostatic powder coating
b	Enclosure thickness	mm	2 mm (min) for MS sheet & hot dip galvanized / 2.5 mm (min) for die cast aluminium alloy / 2 mm (min) for CRCA sheet steel with electrostatic power coating
c	Process of galvanization		Hot dip galvanized
d	Weight of zinc (Thickness)	g/m2 (micron)	460 g/m2 (65 micron)
e	Degree of protection		IP-55
f	other details		


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TECHNICAL DATA - PART - A			
SL.NO		UOM	DETAIL
a	Single Phase (20A) Industrial receptacle-RA		20A, 240V, 1-phase, 2 pole, 3-pin (third pin scrapping earth) porcelain, metal clad socket with a metallic cover tied to it
i	Switch		Rotary, heavy duty 20A switch conforming to applicable standard
ii	Plug		Shrouded, die-cast aluminium plug
iii	Interlock		It shall be combined interlocked weather proof industrial unit
iv	Mechanical interlock		(i) Switch can be put ON only when plug is fully engaged.
			(ii) Plug can be withdrawn only when switch is in OFF position
			(iii) Cover can be opened only when switch is in OFF position
v	Water protection		The arrangement should ensure that water does not enter the plug when socket is ON
vi	Loop-in loop-out terminals		Loop-in loop-out terminals shall be provided inside the box suitable for 4 mm ² Cu wire.
b	Three Phase (63A) Welding receptacle-RC		63A, 415V, 3-phase-neutral earth, metal clad socket with cover
i	Switch		Rotary, heavy duty 63A switch conforming to applicable standard.
ii	Plug		Shrouded, die-cast aluminium plug
iii	Interlock		It shall be combined, interlocked weather proof industrial unit.
iv	Mechanical interlock		same as that are applicable for RA type receptacles


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TECHNICAL DATA - PART - A			
SL.NO		UOM	DETAIL
v	Cable Size		The receptacle boxes shall be suitable for entry and exit of 3.5CX50 mm2
vi	Loop-in loop-out terminals		Al conductor PVC cable and loop-in loop-out terminals for the same shall be provided such that not more than one core is terminated at one terminal. Removable, undrilled cable gland plate shall be provided. Tinned copper lugs and double compression cable glands shall also be supplied by the bidder.
3.6	Decorative Receptacle		NA
a	Enclosure material		NA
b	Enclosure thickness	mm	NA
c	Surface treatment		NA
d	Process of galvanization		NA
e	Weight of zinc (Thickness)	g/m2 (micron)	NA
f	Degree of protection		NA
g	other details		NA
3.7	Switch Box		NA
a	Enclosure material		NA
b	Enclosure thickness	mm	NA
c	Degree of protection		NA
d	Switchboard types		NA
3.8	Flexible conduit		
a	Type		PVC coated electrogalvanized conduit
b	Size	mm	20 mm dia
c	Standard length	M	25 to 50 M
3.9	Cable Glands		By vendor for all incoming and outgoing cables/wires
a	Type		Double compression
b	Material		Brass
c	Nickel Plating provided		YES
d	Flameproof glands with flameproof		YES


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SL.NO		UOM	DETAIL	
3.10	Cable Lugs		By vendor for all incoming and outgoing cables/wires	
a	Type		Crimping type/ ring type	
b	Material		Tinned copper	
3.11	LADDERS		NA	
a	Type		NA	
b	Material		NA	
c	Duty		NA	
d	Surface treatment		NA	
3.12	LIGHTING PANELS			
a)	Application		[] Indoor [√] Outdoor [] Both	
b)	Type of sheet steel		CRCA	
c)	Sheet metal thickness (minimum)		2	
d)	Degree of Protection			
i)	Indoor panel		NA	
ii)	Outdoor panel		IP-55	
iii)	Canopy in outdoor panel		[√] Yes [] No	
e)	Bus bar material		[√] Aluminium [] Copper	
f)	Earth bus bar required		[√] Yes [] No	
g)	Earth bus bar material (if applicable)		[√] GI Strip Aluminium []	
h)			[] Copper	
i)	Gland Plate	mm	3	
j)	Earthing studs required		[√] Yes [] No	
k)	Hinged door with locking facility		[√] Yes [] No	
3.12.1	AC Lighting Panel			
a)	Incomer rating	A	63 FOR AC LP	
b)	Type of Incomer		[] TPN SFU [√] MCB	
c)	Type of Outgoing Feeders		[√] SPN MCB [] TPN MCB	
	(non-flameproof panel)			
d)	Type of Outgoing Feeders		NA	
	(Flameproof panel)			
e)	Type of Outgoing Feeders		NA	
	(Street Light panel)			
f)	Timer required for indoor panel		NA	
g)	Timer required for outdoor panel		[√] Yes [] No	
h)	Timer required Street Light panel/ High mast feeder pillar		NA	
i)	Photocell required for Street Light panel/ High mast feeder pillar		NA	


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SL.NO		UOM	DETAIL	
j)	Outgoing feeders rating	A	20	
k)	Earth Leakage Circuit Breaker (ELCB) in incomer required		[√] Yes [] No	
3.12.2	DC Lighting Panel			
a)	Incomer rating	A	32	
b)	Type of Incomer		[√] DP SFU [] DP MCCB	
c)	Type of Outgoing Feeders (non-flameproof panel)		[√] DP MCB [] DP MCCB	
d)	Type of Outgoing Feeders (Flameproof panel)		NA	
e)	Outgoing feeders rating	A	20	
3.13	COMPONENTS OF LIGHTING SYSTEM EQUIPMENT			
3.13.1	Switch-Fuse Unit			
a)	Utilisation category for main contacts		AC23	
b)	Breaking Capacity: With conditions: a) Voltage b) Power Factor		3 times rated current 110% of rated voltage 0.3	
3.13.2	Miniature Circuit Breaker			
a)	SPN MCB rating (min)	A	20	
b)	DP MCB rating (min)	A	20	
c)	TPN MCB rating (min)	A	63	
d)	Short time rating	kA	10	
e)	Magnetic short circuit protection required		[√] Yes [] No	
f)	Thermal overload protection required		[√] Yes [] No	
3.13.3	Cable Glands		By vendor for all incoming and outgoing cables/wires at both ends	
a	Type		Double compression	
b	Material		Brass	
c	Nickel Plating provided		YES	
d	Flameproof glands with flameproof		YES	
3.13.4	Cable Lugs		By vendor for all incoming and outgoing cables/wires at both ends	
a	Type		Crimping type/ ring type	
b	Material		Tinned copper	
3.14	PVC WIRES			
3.14.1	Make		BIS approved	

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SL.NO		UOM	DETAIL
3.14.2	Type of wire		FIRE-RESISTANT (FR)
3.14.3	Voltage grade	V	1100
3.14.4	Construction features		
3.14.5	Conductor		
3.14.5.1	No. of cores		1
3.14.5.2	Material		High conductivity untinned annealed copper
3.14.5.3	Size of conductor	Sq.mm	Refer BOQ
3.14.5.4	Type		Stranded conductor
3.14.5.5	Class		Class-2 as per IS: 8130
3.14.5.6	Minimum number of strands		As per IS: 8130 (table-2)
3.14.5.7	Max. resistance of conductor at 20° C		As per IS: 8130 (table-2)
3.14.6	Insulation		
3.14.6.1	Insulation material		PVC, Type-A as per IS :5831
3.14.6.2	Nominal insulation thickness		As per IS: 694 (table-3)
3.14.6.3	Min. volume resistivity		As per IS: 5831
3.14.7	Max. overall dia		As per IS: 694 (table-3)
3.14.8	Standard bundle length		90-100 meters (For all sizes)
3.14.9	Marking on label (the wire shall carry the following information either stencilled on the reel or contained in a label attached to it)		a) Reference of IS 694; b) Manufacturer's name, brand name or trade-mark; c) Type of wire (FR or FRLS), if applicable, to be used) and voltage grade; d) Number of cores & Nominal cross-sectional area of conductor; e) Colour of wire f) Length of wire on the reel or coil; g) Number of lengths on the reel or coil (if more than one)
3.15	RIGID STEEL CONDUITS		
3.15.1	Make		BIS approved
3.15.2	Material		Hot rolled mild steel
3.15.3	Sizes		AS PER BOQ CUM PRICE SCHEDULE
3.15.4	Standard length		3 – 5 meter

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SL.NO		UOM	DETAIL
3.15.5	Conduit thickness (minimum)		1.6mm upto & including 32 mm dia, 2.0mm above 32 mm & upto 50 mm dia
3.15.6	Classification as per mechanical properties		Heavy
3.15.7	Surface treatment		Hot dip galvanizing on inside & outside surface
3.15.8	Pre-treatment		As per IS 6005 prior to galvanising
3.15.9	Min. Thickness of zinc coating		48 micron (upto & including 32 mm dia), 65 micron(above 32mm & upto 50 mm dia)
3.15.10	Min. Weight of zinc coating		340 g/mm ² (upto & including 32 mm dia) 460g/mm ² (above 32 mm & upto 50 mm dia)
3.16	LT PVC POWER CABLES		
3.16.1	Fault Level		50kA RMS
3.16.2	CONDUCTOR		
3.16.2.1	Material		Aluminium
3.16.2.2	Grade and Class		Stranded, Compacted, H2 Grade
3.16.2.3	Standard Applicable		IS: 8130
3.16.2.4	Shape		Circular/ Shaped – as per IS
3.16.2.5	Min. number and diameter of strands for main and neutral conductor [Neutral conductor cross section w.r.t main conductor shall be as per Table-1 of IS:1554 (Part-1)]		As per Table-2 of IS: 8130
3.16.3	INSULATION		
3.16.3.1	Material		Extruded PVC Type-A
3.16.3.2	Standard Applicable		IS: 5831
3.16.3.3	Continuous withstand temperature		70°C
3.16.3.4	Short-circuit withstand temperature		160°C
3.16.3.5	Method of application		By extrusion; sleeve extrusion not permitted


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SL.NO		UOM	DETAIL
3.16.3.6	Nominal Thickness of insulation		As per Table-2 of IS: 1554 (Part-1)
3.16.4	INNER SHEATH		
3.16.4.1	Material		Extruded PVC Type ST-1
3.16.4.2	Standard Applicable		IS:1554 (Part-1), IS: 5831
3.16.4.3	Colour		Black
3.16.4.4	Whether FR-LSH		No
3.16.4.5	Thickness of inner sheath		As per Table-4 of IS: 1554 (Part-1)
3.16.4.6	Fillers		Acceptable
3.16.4.7	Material of fillers (if permitted)		Same as inner sheath (Material of filler to be compatible with that of inner sheath)
3.16.4.8	Method of application		
	Multi-core cables:		
	With fillers		Pressure/ Vacuum extruded
	Without fillers		Pressure extruded
3.16.5	ARMOUR		
3.16.5.1	Applicable		Yes
3.16.5.2	Material:		Wherever armouring is applicable
3.16.5.3	Multi-core cables		Galvanised Steel Round Wire , Galvanised Steel Formed Wire/Strip, conforming to (i) Type 'b' as per Table-5 of IS 1554 Part-I and (ii) IS 3975 (as specified in BOQ cum price schedule)
3.16.5.4	Standard Applicable		Dimension as per IS: 1554 (Part-1) Table-5 and tolerance on dimension as per IS:3975
3.16.5.5	Minimum Coverage		0.9
3.16.5.6	Gap between armour wires		Shall not exceed one armour wire space (No cross-over/ over-riding)
3.16.5.7	Breaking load of joint		95 % of normal armour
3.16.5.8	Paint on joint		Zinc rich paint shall be applied on armour joint surface of G.S. wire / formed wire
3.16.6	OUTERSHEATH		
3.16.6.1	Material		Extruded PVC Type ST-1 as per IS:5831

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SL.NO		UOM	DETAIL
3.16.6.2	Colour		Black
3.16.6.3	Whether FR-LSH		Yes
3.16.6.4	Method of application		Extruded
3.16.6.5	Thickness of outer sheath		As per IS: 1554 (Part-1)
3.16.7	TOLERANCE ON OUTER DIAMETER		+ 2mm
4.0	PERFORMANCE PARAMETERS		NA
5.0	INSPECTION/TESTING		
5.1	As per BHEL standard Quality Plan (part of specification)		

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TECHNICAL DATA - PART - B (SUPPLIER DATA TO BE FURNISHED ALONG WITH THE OFFER)				
S. No.	DESCRIPTION	LUMINAIRE MAKE AND MODEL	MEASURED ELECTRICAL INPUT POWER	TOTAL LUMINOUS FLUX (LUMEN) OF LUMINAIRE -
	MAIN SUPPLY ITEMS		(W) MAX. VALUE	(LUMEN) MIN. VALUE
1	Lighting Luminaires			
1.1	Luminaire Type SS62 (LED)			
1.2	Luminaire Type SW41 (LED)			
1.3	Luminaire Type SW42 (LED)			
1.4	Luminaire Type FC34 (LED)			
2	Lighting Panels		UOM	DETAIL
2.1	AC Lighting Panel			
a)	Incomer rating		A	
b)	Type of Incomer			
c)	Type of Outgoing Feeders			
g)	Timer required for outdoor panel			
j)	Outgoing feeders rating		A	
2.2	DC Lighting Panel			
a)	Incomer rating		A	
b)	Type of Incomer			
c)	Type of Outgoing Feeders			
e)	Outgoing feeders rating		A	
2.3	COMPONENTS OF LIGHTING SYSTEM			
2.3.1	Moulded Case Circuit Breaker (MCCB)			
a)	Rated voltage		V	
b)	Number of poles			
c)	Rated short circuit duty		kA	
d)	Rated breaking capacity (rms)		kA	
e)	Rated making current (peak)		kA	
f)	Release with short circuit			
g)	Release with overload			
h)	Release with under voltage			
i)	Auxiliary contacts			
1	Numbers		NO+NC	
2	Rating		A	

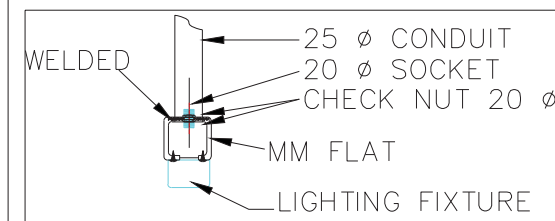
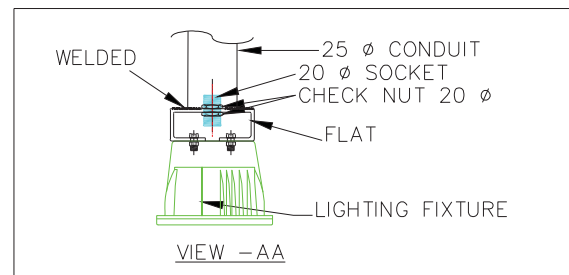
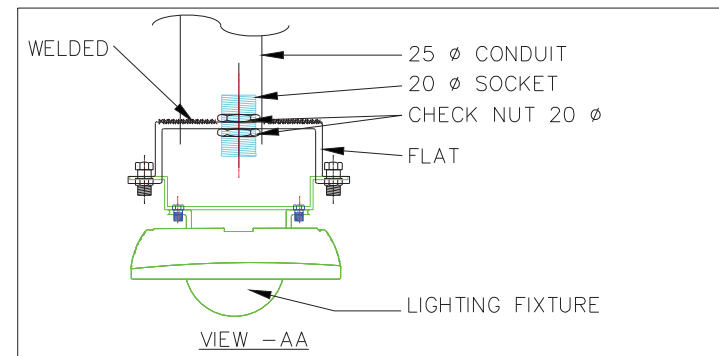
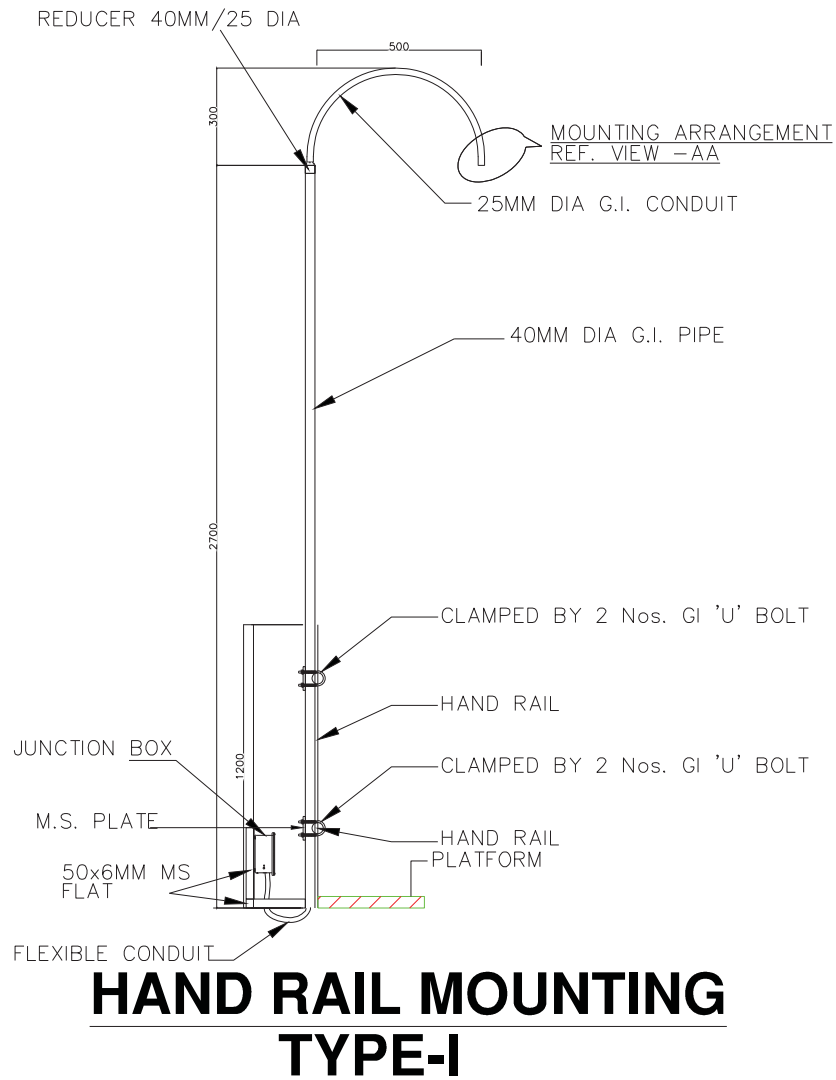
2.3.2	Switch-Fuse Unit		
a)	Utilisation category for main contacts		
2.3.3	Miniature Circuit Breaker		
a)	SPN MCB rating (min)	A	
b)	DP MCB rating (min)	A	
c)	TPN MCB rating (min)	A	
d)	Short time rating	kA	
e)	Magnetic short circuit protection required		
f)	Thermal overload protection required		
3	PVC WIRES		
	The following technical data shall be submitted by the manufacturer for each size of the wire for Employer's approval.	UOM	DETAIL
3.1	Manufacturer's name	Nos	
3.2	Number of strands	mm	
3.3	Dia. of strands (nominal)	mm	
3.4	Min. insulation thickness	mm	
3.5	Max. insulation thickness	mm	
3.6	Overall diameter of conductor	mm	
3.7	Continuous current carrying capacity under standard is: 3961-(v) conditions	Amps	
4	RIGID STEEL CONDUITS		
4.1	Make		
4.2	Material		
4.3	Sizes		
4.4	Standard length	MTR	
4.5	Conduit thickness (minimum)	mm	
4.6	Classification as per mechanical properties		
4.7	Surface treatment		
4.8	Pre-treatment		
4.9	Min. Thickness of zinc coating	mm	
4.10	Min. Weight of zinc coating	g/mm2	
5	LT PVC POWER CABLES		
5.1	Fault Level		
5.2	CONDUCTOR		
5.2.1	Material		
5.2.2	Grade and Class		
5.2.3	Standard Applicable		
5.2.4	Shape		
5.2.5	Min. number and diameter of strands for main and neutral conductor [Neutral conductor cross section w.r.t main conductor shall be as per Table-1 of IS:1554 (Part-1)]		
5.3	INSULATION		
5.3.1	Material		
5.3.2	Standard Applicable		
5.3.3	Continuous withstand temperature		
5.3.4	Short-circuit withstand temperature		
5.3.5	Method of application		

5.3.6	Nominal Thickness of insulation		
5.4	INNER SHEATH		
5.4.1	Material		
5.4.2	Standard Applicable		
5.4.3	Colour		
5.4.4	Whether FR-LSH		
5.4.5	Thickness of inner sheath		
5.4.6	Fillers		
5.4.7	Material of fillers (if permitted)		
5.4.8	Method of application		
a)	Multi-core cables:		
i)	With fillers		
ii	Without fillers		
5.5	ARMOUR		
5.5.1	Applicable		
5.5.2	Material:		
5.5.3	Multi-core cables		
5.5.4	Standard Applicable		
5.5.5	Minimum Coverage		
5.5.6	Gap between armour wires		
5.5.7	Breaking load of joint		
5.5.8	Paint on joint		
5.6	OUTERSHEATH		
5.6.1	Material		
5.6.2	Colour		
5.6.3	Whether FR-LSH		
5.6.4	Method of application		
5.6.5	Thickness of outer sheath		

	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
		Issue No: 01
		Rev. No. 00
		Date :28.02.2024

COMPLIANCE DRAWING

ANNEXURE-TYPICAL MOUNTING ARRANGEMENT



This is a typical mounting arrangement dwgs/ details for guidance only. Final Mounting arrangement dwg shall be made by the successful bidder during detailed Engineering. It is to be noted that GI Conduit 20mm Dia and Flexible PVC Coated Conduit, Structural Steel shall be provided by BHEL. Balance all other accessories clamps/ chains/ clips/ steel rope/ pins etc required for mounting as per typical mounting arrangement for their fixtures shall be part of fixtures only and shall be provided by the Bidders.

General Notes:

1. Mounting arrangement can be changed/ modified on site as per site requirements.
2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site Incharge.
3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
4. If any new type of mounting required at site than we can optimized or change the arrangement with prior inform to BHEL site incharge.
5. All structural steel parts/supporting parts shall be hot dip galvanized as per BOQ/TS.

01

02

03

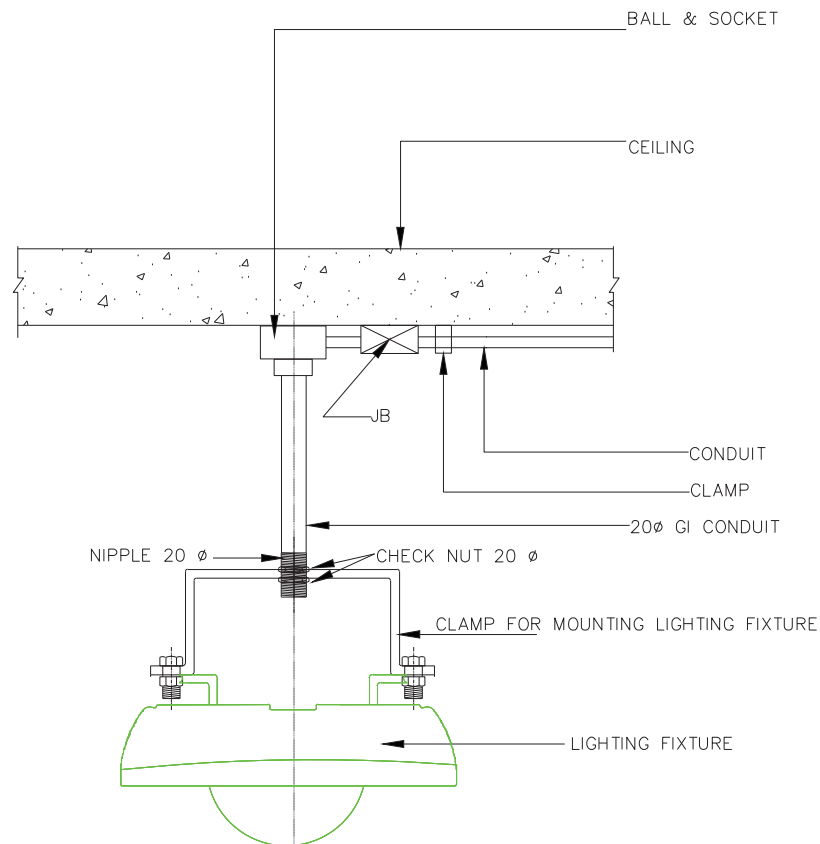
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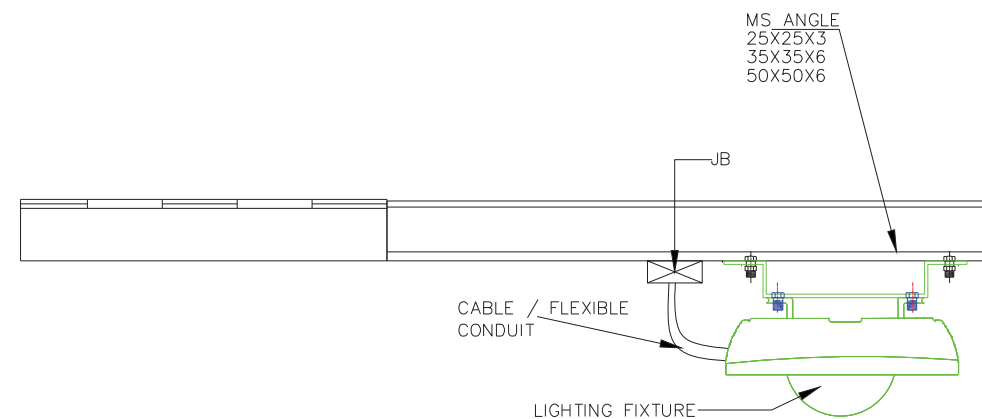
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07

08



SUPPORTED FROM CEILING
TYPE-F



**SUPPORTED FROM CHANNEL/
STRUCTURAL STEEL**
TYPE-G

General Notes:

1. Mounting arrangement can be changed/ modified on site as per site requirements.
2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site Incharge.
3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
4. If any new type of mounting required at site than we can optimized or change the arrangement with prior inform to BHEL site incharge.
5. All structural steel parts/supporting parts shall be hot dip galvanized as per BOQ/TS.

01

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	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
		Issue No: 01
		Rev. No. 00
		Date :28.02.2024

QUALITY PLAN

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN					SPEC. NO.:		DATE:	
			CUSTOMER :					QP NO.:PE-QP-999-558-E001, R05		DATE: 22.02.2024	
			PROJECT:					PO NO.:		DATE:	
			ITEM: LIGHTING FIXTURES, LAMPS & MISC. ITEMS			SYSTEM:STATION LIGHTING SYSTEM		SECTION: II		SHEET 1 OF 6	
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY	REMARKS	
1	2	3	4	5	6	7	8	9	* D	** M B C	
					M B/ C						


1.0 LED TYPE LIGHTING FIXTURES

1.0 LED TYPE LIGHTING FIXTURES														
A	Bought out items / in-process checks													
1.1	LED chip	LED chip efficacy	Major	Visual	Manufacturer Standard	-	LM 80 report	Approved GA drawing	LM 80 report	✓	P/V	V	V	At the time of final inspection
		LED chip CRI & CCT	Major	Visual	Manufacturer Standard	-	LM 80 report	Approved GA drawing	LM 80 report	✓	P/V	V	V	At the time of final inspection
		Reported TM21 (L80) lifetime of LED chip	Major	Visual	Manufacturer Standard	-	LM 80 report	Approved GA drawing	LM 80 report	✓	P/V	V	V	At the time of final inspection
1.2	LED Driver	Compatibility with LED module / chip, controls & protection features	Major	Visual	Manufacturer Standard	-	Approved GA drawing	Approved GA drawing	Certificate of Compliance	✓	P/V	V	V	Certificate of Compliance by LED driver manufacturer / lighting fixture supplier that driver meets all requirements as per approved GA Drawing
		THD & pf check	Major	Electrical	Manufacturer Standard	-	Approved GA drawing	THD <10% and pf >=0.9	Inspection report	✓	P/V	-	-	Refer note No. 1

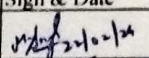
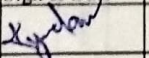
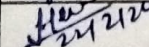
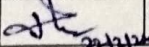
BHEL					
ENGINEERING			QUALITY		
	Sign & Date	Name		Sign & Date	Name
Prepared by:	<i>[Signature]</i>	MEET SAGAR SINGH RAJPAL	Checked by:	<i>[Signature]</i>	Kundan
Reviewed by:	<i>[Signature]</i>	HEMA KUSHWAHA	Reviewed by:	<i>[Signature]</i>	Harish

BIDDER/ SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER REVIEW & APPROVAL			
Doc No.			
	Sign & Date	Name	Seal
Reviewed by:			
Approved by:			


	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN					SPEC. NO :		DATE:	
			CUSTOMER :					QP NO.:PE-QP-999-558-E001, R05		DATE: 22.02.2024	
			PROJECT:					PO NO.:		DATE:	
			ITEM: LIGHTING FIXTURES, LAMPS & MISC. ITEMS			SYSTEM:STATION LIGHTING SYSTEM		SECTION: II		SHEET 2 OF 6	

SL NO.	COMPONENT & OPERATIONS	CHARACTERIST ICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTAN CE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	6		7	8	9	*	**			
					M	B/ C				D	M	B	C	
1.3	Castings	Freedom from defects	Major	Visual	Manufa cturer Standar d	-	Manufacturer Standard	Casting shall be free from any defects such as blow holes , surface blisters , cracks and cravities etc.	Inspection report		P/ V *	-	-	Refer note No. 1
1.4	Sheet metal forming and fabrication	Freedom from defects	Major	Visual	Manufa cturer Standar d	-	Manufacturer Standard	Manufacture r Standard	Inspection report		P/ V *	-	-	Refer note No. 1
1.5	Pre-treatment and powder coating	Pre-treatment process checks, Powder Coating finish, thickness , uniformity of coating and adhesion	Major	Visual, chemical & mech	Manufa cturer Standar d	-	Manufacturer Standard	Nominal coating thickness 50 microns or more	Inspection report	√	P/ V *	√		Refer note No. 1

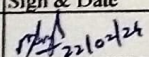
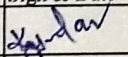
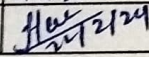
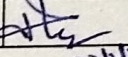
BHEL					
ENGINEERING			QUALITY		
	Sign & Date	Name		Sign & Date	Name
Prepared by:		MEET SAGAR SINGH RAJPAL	Checked by:		Kundan
Reviewed by:		HEMA KUSHWAHA	Reviewed by:		Harish Kumar


BIDDER/ SUPPLIER	
Sign & Date	
Seal	

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Reviewed by:			
Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN					SPEC. NO :		DATE:		
			CUSTOMER :					QP NO.:PE-QP-999-558-E001, R05		DATE: 22.02.2024		
			PROJECT:					PO NO.:		DATE:		
			ITEM: LIGHTING FIXTURES, LAMPS & MISC. ITEMS			SYSTEM:STATION LIGHTING SYSTEM		SECTION: II		SHEET 3 OF 6		
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY	REMARKS
1	2	3	4	5	6		7	8	9	*	**	
					M	B/ C				D	M	B C

B	Acceptance Tests on LED Lighting fixtures													
1	LED Lighting fixture	LED chip make	Major	Visual	-		Accepted type test reports (LM80) report	LM80 report	Certificate of compliance	√	V	V	V	
2		Constructional features including: Internal wiring , terminal block, earthing terminal, safety chain (if applicable)	Major	Visual	1 Sample per type	1 Sample per type	Approved GA drawing	Approved GA drawing	Inspection report	√	P	W	W	
3		Degree of protection test in case of lighting fixtures having IP X4 and above rating.	Major	Mechanical	1 Sample per type	1 Sample per type	IS 10322	Approved GA drawing	Certificate of compliance	√	P	W	V	
4		Resistance to dust (applicable if IP5X and above)	Major	Optical	Manuf acturer Standa rd	-	IS 10322	Approved GA drawing	Certificate of compliance	√	P/ V *	V	V	Refer note No. 1
5		Photometry check	Major	Optical	Manuf acturer	-	LM79, IS 16106	Approved GA drawing	Certificate of	√	P/ V	V	V	Refer note No. 1

BHEL						BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING			QUALITY			Sign & Date		Doc No:			
	Sign & Date	Name		Sign & Date	Name	Seal			Sign & Date	Name	Seal
Prepared by:		MEET SAGAR SINGH RAJPAL	Checked by:		Kundan				Reviewed by:		
Reviewed by:		HEMA KUSHWAHA	Reviewed by:		Hawa				Approved by:		

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN					SPEC. NO :		DATE:	
			CUSTOMER :					QP NO.:PE-QP-999-558-E001, R05		DATE: 22.02.2024	
			PROJECT:					PO NO.:		DATE:	
			ITEM: LIGHTING FIXTURES, LAMPS & MISC. ITEMS			SYSTEM:STATION LIGHTING SYSTEM		SECTION: II		SHEET 4 OF 6	


SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	6		7	8	9	*	**			
					M	B/ C				D	M	B	C	

					Standard				compliance		*			
6		Dimensions	Major	Visual	1 Sample per type	1 Sample per type	Approved GA drawing	Approved GA drawing	Inspection report	√	P	W	W	
7		LED driver: THD and pf check	Major	Electrical	1 Sample per type	1 Sample per type	Approved GA drawing	THD<10% and pf >= 0.9	Inspection report	√	P	W	W	At lighting fixtures supplier test lab.
8		LED driver: Precision current control check	Major	Electrical	1 Sample per type	1 Sample per type	Approved GA drawing	Approved GA drawing	Inspection report	√	P	W	W	
9		LED driver: Open circuit protection simulation check	Major	Electrical	1 Sample per type	1 Sample per type	Approved GA drawing	Approved GA drawing	Inspection report	√	P	W	W	
10		LED driver: short circuit protection simulation check	Major	Electrical	1 Sample per type	1 Sample per type	Approved GA drawing	Approved GA drawing	Inspection report	√	P	W	W	
11		LED driver: overload protection simulation check	Major	Electrical	1 Sample per type	1 Sample per type	Approved GA drawing	Approved GA drawing	Inspection report	√	P	W	W	
12		LED driver: surge protection	Major	Electrical	1 Sample	1 Sample	Approved GA drawing	Certificate of compliance	Certificate of	√	V	V	V	

BHEL					
ENGINEERING			QUALITY		
	Sign & Date	Name		Sign & Date	Name
Prepared by:	<i>[Signature]</i>	MEET SAGAR SINGH RAJPAL	Checked by:	<i>[Signature]</i>	<i>[Signature]</i>
Reviewed by:	<i>[Signature]</i>	HEMA KUSHWAHA	Reviewed by:	<i>[Signature]</i>	<i>[Signature]</i>

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Sign & Date	
Seal	

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	Sign & Date	Name	Seal
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Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN				SPEC. NO :		DATE:	
		CUSTOMER :				QP NO.:PE-QP-999-558-E001, R05		DATE: 22.02.2024	
		PROJECT:				PO NO.:		DATE:	
		ITEM: LIGHTING FIXTURES, LAMPS & MISC. ITEMS		SYSTEM:STATION LIGHTING SYSTEM		SECTION: II		SHEET 5 OF 6	

SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	6		7	8	9	*	**			
					M	B/ C				D	M	B	C	
		compliance check			e per type	e per type		that surge protection is provided.	compliance					


3.0 JUNCTION BOXES & RECEPTACLES

A	Acceptance Tests													
1	Acceptance Tests	Dimensions	Major	MEASUREMENT	100%	-	Approved GA drawing	Approved GA drawing	Inspection report		P	V	-	Components shall be of approved Make
2		Paint Shade/ Thickness	Major	VISUAL/MEAS.	10%	-	Approved GA drawing	Approved GA drawing	Inspection report		P	V	-	At the time of final Inspection
3		HV/ IR	Major	ELECT.TESTS	100%	-	2KV AC FOR 1 MINUTE	2KV AC FOR 1 MINUTE	Inspection report		P	V	-	
4		Degree Of Protection	Major	TEST	1 Sample/Type	-	IS:2147	IS:2147	TEST CERT.	√	P	V	-	
5		Special tests if any, explosion proof etc.	Major	TEST	1 Sample/Type	-	IS:2148	IS:2148	TEST CERT.	√	P	V	-	
6		Operation Check	Major	TEST	10%	-	Approved GA drawing	Approved GA drawing	Inspection report		P	V	-	
7		Mechanical Interlock	Major	TEST	10%	-	Approved GA drawing	Approved GA drawing	Inspection report		P	V	-	

4.0 PACKING

	PACKING	Soundness of Packing against transit damage	Major	Visual	100%	10%	Approved Packing procedure	Approved Packing procedure	Inspection report	√	P	W	-	
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BHEL						BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING			QUALITY			Sign & Date		Doc No:			
Prepared by:	Sign & Date	Name	Checked by:	Sign & Date	Name	Seal		Sign & Date	Name	Seal	
Prepared by:	22/02/24	MEET SAGAR SINGH RAJPAL	Checked by:	Kundan	Kundan			Reviewed by:			
Reviewed by:	22/2/24	HEMA KUSHWAHA	Reviewed by:		Harish			Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN					SERIAL NO.:		DATE:	
			CUSTOMER :					QP NO.: PE-QP-999-558-1001, R05		DATE: 22.02.2024	
			PROJECT:					PO NO.:		DATE:	
			ITEM: LIGHTING FIXTURES, LAMPS & MISC. ITEMS			SYSTEM: STATION LIGHTING SYSTEM		SECTION: II		SHEET 6 OF 6	
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY	REMARKS
1	2	3	4	5	6	7	8	9	*	**	
					M B/ C				D	M B C	


NOTES:

1. P/V/- means test will be performed either by lighting fixture supplier or their sub-vendor and verified by lighting fixture supplier
2. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
3. Items like ceiling fans, emergency lighting unit, flexible conduit, 24V supply module, ladders, hume pipe, switchboxes, exit signs etc. Will be cleared based on COC (certificate of compliance).

LEGENDS:


*Records, identified with "Tick" (✓) shall be essentially included by supplier in QA Documentation.
 ** M: Supplier/ Manufacturer/ Sub-Supplier, B: Main supplier/ BHEL/ Third Party Inspection Agency, C: Customer,
 P: Perform, W: Witness, V: Verification, as appropriate
 MA: Major, Mi: Minor, CR: Critical, D: Documentation


BHEL						BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING			QUALITY			Sign & Date		Doc No.			
Prepared by	Sign & Date	Name	Checked by	Sign & Date	Name	Seal		Reviewed by	Sign & Date	Name	Seal
	<i>[Signature]</i>	MEET SAGAR SINGH RAJPAL		<i>[Signature]</i>	<i>[Signature]</i>			Approved by			
Reviewed by	<i>[Signature]</i>	HEMA KUSHWAHA	Reviewed by	<i>[Signature]</i>	<i>[Signature]</i>						

	MANUFACTURER/BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN		SPEC. NO.	DATE:
		CUSTOMER :		QP NO.: PE-QP-999-558-E002, R-J	DATE:
		PROJECT:		PO NO.:	DATE:
		ITEM DISTRIBUTION BOARD	SYSTEM:	SECTION:	SHEET 1 OF 4

SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY				REMARKS
1	2	3	4	5	6		7	8	9	D	**			
					M	B/ C					M	B	C	
1.0	Raw Material	(a)Material (b)Thickness (c) Surface Finish (d) Chemical Composition	MA	V/M	100%	100%	Manuf. Std. / Approved Document	Manuf. Std. / Approved Document	Test Certificate	√	P	V	-	
		Verification of make, type, Size & rating of component like indicating lamps, PB's, contactors, relays, switches etc.	MA	Visual	100%	100%	Approved drg. & Datasheet	Approved drg. & Datasheet	Test Certificate	√	P	V	-	Component to be of approved make.
LIGHTING DISTRIBUTION BOARDS & LIGHTING PANELS														
2.0	Final Inspection	1 Dimensions	MA	Measurement	100%	10%	Approved drg. / Datasheet	Approved drg. / Datasheet	Insp. Report	√	P	W	-	
		2. Paint shade/ Paint Finish & thickness	MA	Visual/ measurement	100%	10%	Approved drg. / Datasheet	Approved drg. / Datasheet	Insp. Report	√	P	W	-	
		3. Verification of GA	CR	Visual	100%	100%	Approved drg.	Approved drg.	Insp. report	√	P	W	-	
		4. Verification of BOM	CR	Visual	100%	100%	Approved drg.	Approved drg.	Insp. report	√	P	W	-	
		5. Functional tests (incl. wiring cont.)	MA	Elect	100%	100%	Approved drg.	Approved drg.	Insp. report	√	P	W	-	
		6 HV/ IR/ HV	MA	Elect	100%	100%	App DataSheet	App DataSheet	Insp. report	√	P	W	-	

BHEL				BIDDER/ SUPPLIER		FOR CUSTOMER APPROVAL			
ENGINEERING		QUALITY		Sign & Date		Doc No.			
Prepared by:	Sign & Date	Name	Sign & Date	Name		Reviewed by:	Sign & Date	Name	Seal
		DEVENDRA SINGH		MYTOO					
Reviewed by:		HEMA KUSHWAHA	Reviewed by:	HARISH KUMAR		Approved by:			

	MANUFACTURER/BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN		SPEC. NO :	DATE:
		CUSTOMER :		QP NO.: PE-QP-999-558-E002, R-3	DATE:
		PROJECT:		PO NO.:	DATE:
		ITEM: DISTRIBUTION BOARD	SYSTEM:	SECTION:	SHEET 2 OF 4



PROJECT:

ITEM: DISTRIBUTION BOARD

SYSTEM:


SECTION:

.NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENC E DOCUMENT	ACCEPTAN CE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					6				9	D	**			
					M	B/ C					M	B	C	
1	2	3	4	5			7	8						
		7. Degree of protection (including explosion proof if any)	MA	Scrutiny of type test certificates	1/rating	1/rating	IS 13947	IS 13947	Test certificate	√	P	V	-	
		7. Temperature rise test (for complete assembled LDB/ LP)	MA	Scrutiny of type test certificates	1/rating	1/rating	IS 13947	IS 13947	Test certificate	√	P	V	-	
1.0 LIGHTING TRANSFORMER														
		1.Routine test	CR	Visual	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		a.) Type/ Rating	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		b.) Winding/ Resistance	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		c.) Voltage Ratio/ Vector	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		d) Z Volt/ Z Sckt	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	

BHEL			
ENGINEERING		QUALITY	
Sign & Date	Name	Sign & Date	Name
Prepared by: <i>[Signature]</i>	DEVENDRA SINGH	Checked by: <i>[Signature]</i>	MINTOO
Reviewed by: <i>[Signature]</i>	HEMA KUSHWAHA	Reviewed by: <i>[Signature]</i>	HARISH KUMAR

BIDDER/ SUPPLIER	
Sign & Date	
Seal	


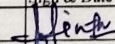


FOR CUSTOMER APPROVAL			
Doc No	Sign & Date	Name	Seal
Reviewed by:			
Approved by:			


	MANUFACTURER/BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN		SPEC. NO :	DATE:
		CUSTOMER :		QP NO.: PE-QP-999-558-E002, R-3	DATE:
		PROJECT:		PO NO.:	DATE:
		ITEM: DISTRIBUTION BOARD	SYSTEM:	SECTION:	SHEET 3 OF 4

I.L.NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENC E DOCUMENT	ACCEPTANC E NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	6		7	8	9	*	**			
					M	B/ C				D	M	B	C	
		e). Load Loss/ Current	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		f.) No Load Loss & No Load Current	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		g.) Source Withstand	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		h) Induced O/ V	CR	Test	100%	100%	IS 11171	IS 11171	Insp. report	√	P	V	-	
		2. Type Test	MA	Verification	-----	1/Ratin g	IS 11171	IS 11171	Test Certificates	√	P	V	-	Type Test Certificate Clearance from BHEL/Customer
4.0	PACKING	As per BHEL Appd. Drg./Packing Procedure	MA	Visual	100%	100%	Appd. Packing Drg./ Packing procedure	Appd. Packing Drg./ Packing procedure	Insp. report	√	P	W	-	

NOTES: -

- (A) THE INSPECTION SHALL BE CARRIED OUT ONCE FOR THE MATERIAL OFFERED FOR INSPECTION IN ONE LOT. FOR SUBSEQUENT LOTS AGAINST THE SAME PROJECT, THE MATERIAL CAN BE ACCEPTED BASED ON CERTIFICATE OF COMPLIANCE FURNISHED BY THE VENDOR.
- (B) BHEL RESERVES THE RIGHT FOR CONDUCTING REPEAT TEST, IF REQUIRED.
- (C) AFTER PACKING AND PRIOR TO ISSUE OF MDCC, PHOTOGRAPHS OF COMPLETE MATERIAL (TO BE DISPATCHED) SHALL BE SENT TO BHEL-PURCHASE GROUP FOR REVIEW.
- (D) IN CASE THERE ARE ANY CHANGES IN QP COMMENTED BY CUSTOMER AT CONTRACT STAGE, THE SAME SHALL BE CARRIED OUT BY THE BIDDER

BHEL				BIDDER/ SUPPLIER		FOR CUSTOMER APPROVAL			
ENGINEERING		QUALITY		Sign & Date		Doc No			
Prepared by:	Sign & Date	Name	Checked by:	Sign & Date	Name	Reviewed by:	Sign & Date	Name	Seal
		DEVENDRA SINGH			MINTOO				
Reviewed by:		HEMA KUSHWAHA	Reviewed by:		HARISH KUMAR	Approved by:			

	MANUFACTURER/BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN		SPEC. NO :	DATE:
		CUSTOMER :		QP NO.: PE-QP-999-558-E002, R-3	DATE:
		PROJECT:		PO NO.:	DATE:
		ITEM: DISTRIBUTION BOARD	SYSTEM:	SECTION:	SHEET 4 OF 4

	WITHOUT ANY IMPLICATION TO BHEL/ CUSTOMER.
(E)	PROJECT SPECIFIC QP TO BE DEVELOPED BASED ON CUSTOMER REQUIREMENT.
(F)	FOR EXPORT JOB, PACKING SHALL BE AS PER BHEL SEAWORTHY PACKING SPECIFICATION.

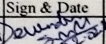
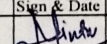
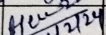
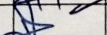
LEGENDS:

*RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,

** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, B: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, C: CUSTOMER,


P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE

MA: MAJOR, MI: MINOR, CR: CRITICAL

BHEL			
ENGINEERING		QUALITY	
Sign & Date	Name	Sign & Date	Name
Prepared by: 	DEVENDRA SINGH	Checked by: 	MINTOO
Reviewed by: 	HEMA KUSHWAHA	Reviewed by: 	HARISH KUMAR

BIDDER/ SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER APPROVAL			
Doc No:			
	Sign & Date	Name	Seal
Reviewed by:			
Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN					SPEC. NO.:		DATE:	
			CUSTOMER :					QP NO.: PE-QP-999-558-E003, R02		DATE: 22.02.2024	
			PROJECT:					PO NO.:		DATE:	
			ITEM: PVC Wires			SYSTEM: STATION LIGHTING SYSTEM		SECTION: II		SHEET 1 OF 2	

SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	6		7	8	9	*	**			
					M	B/C				D	M	B	C	

1.0 RAW MATERIAL/BOUGHT OUT ITEMS

1.1	CONDUCTOR (COPPER)	1. PHYSICAL PROPERTIES	MA	PHYSICAL TESTS	SAMPLE/ BATCH	-	IS:8130	IS:8130	TEST CERT.	✓	V	V	-	
		2. ELEC. PROPERTIES	MA	ELECTRICAL TESTS	SAMPLE/ BATCH	-	IS:8130	IS:8130	TEST CERT.	✓	V	V	-	
1.2	PVC COMPOUND FOR INSULATION	1. MATERIAL PROPERTIES	MA	PHYSICAL TESTS	SAMPLE/ BATCH	-	IS 5831	IS 5831	TEST CERT.	✓	P	V	-	


2.0 ROUTINE/ ACCEPTANCE TEST

2.1	PVC WIRES	SURFACE DEFECTS	MA	VISUAL	IS 694 ANNEX A	-	IS:694	IS:694	INSP. & TEST REPORT FROM MANUF.	✓	P/V	V	-	
2.2		CONSTRUCTION OF WIRE	MA	VISUAL/ MEASUREM ENT	IS 694 ANNEX A	-	IS-694 (TABLE 3) IS-8130 (TABLE-2) APPROVED DS	IS-694 (TABLE-3) IS-8130 (TABLE-2) APPROVED DS	INSP. & TEST REPORT FROM MANUF.	✓	P/V	V	-	
2.3		ROUTINE TESTS a) CONDUCTOR RESISTANCE TEST b) HIGH VOLTAGE TEST OR SPARK TEST	MA	CR	100%	-	IS 694/ IS 8130	IS 10810	TEST REPORT	✓	P/V	V		
2.4		ACCEPTANCE TESTS a) ANNEALING TEST b) CONDUCTOR RESISTANCE TEST c) THICKNESS OF INSULATION	MA	CR	IS 694 ANNEX A	IS 694 ANNEX A	IS 694/ IS 8130	IS 10810	TEST REPORT	✓	P	W		

BHEL					
ENGINEERING			QUALITY		
Prepared by:	Sign & Date	Name	Checked by:	Sign & Date	Name
Reviewed by:	Sign & Date	Name	Reviewed by:	Sign & Date	Name
	23/2/24	HEMA KUSHWAHA		23-2-24	Harish

BIDDER/SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER REVIEW & APPROVAL			
Doc No			
Reviewed by:	Sign & Date	Name	Seal
Approved by:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS	STANDARD QUALITY PLAN				SPEC. NO. :		DATE:	
		CUSTOMER :				QP NO.: PE-QP-999-558-E003, R02		DATE: 22.02.2024	
		PROJECT:				PO NO.:		DATE:	
		ITEM: PVC Wires		SYSTEM: STATION LIGHTING SYSTEM		SECTION: II		SHEET 2 OF 2	

SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLAS S	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
1	2	3	4	5	6		7	8	9	D	..		
					M	B/C					M	B	C

		d) TENSILE STRENGTH AND ELONGATION AT BREAK OF INSULATION e) IR TEST f) HV TEST g) FLAMMABILITY TEST h) OXYGEN INDEX TEST i) TEMPERATURE INDEX j) HALOGEN ACID GAS (ONLY FOR FRLSH WIRE) k) SMOKE DENSITY (ONLY FOR FRLSH WIRE)											
25		MARKING	MA	VISUAL	IS 694 ANNEX A	IS 694 ANNEX A	APPD DS	APPD DS	INSP. REPORT	✓	P/V	W	

3.0 PACKING


PACKING	SOUNDNESS OF PACKING AGAINST TRANSIT DAMAGE	MAJOR	VISUAL	100%	100%	BHEL APPROVED DOCUMENT	BHEL APPROVED DOCUMENT	INSPECTION REPORT	✓	P	V	-	
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NOTE: Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred

LEGENDS:

*RECORDS IDENTIFIED WITH "TICK"(✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.
 ** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, B: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, C: CUSTOMER,
 P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE
 MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

BHEL				BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING		QUALITY		Sign & Date		Doc No			
Sign & Date	Name	Sign & Date	Name	Seal		Sign & Date	Name	Seal	
Prepared by: <i>[Signature]</i> 23/02/24	MEET SAGAR SINGH RAJPAL	Checked by: <i>[Signature]</i> 23.02.24	Suman						
Reviewed by: <i>[Signature]</i> 23/2/24	HEMA KUSHWAHA	Reviewed by: <i>[Signature]</i> 23.02.24	Hemsh						

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN						SPEC. NO :		DATE:	
			CUSTOMER :						QP NO.: PE-QP-999-558-E001, R05		DATE: 22.02.2024	
			PROJECT:						PO NO.:		DATE:	
			ITEM: RIGID STEEL CONDUITS			SYSTEM: STATION LIGHTING SYSTEM			SECTION: II		SHEET 1 OF 2	

SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	6		7	8	9	*	**			
					M	B/ C				D	M	B	C	

1.0 RAW MATERIAL/BOUGHT OUT ITEMS

1 1		HOT ROLLED STEEL STRIP	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS10748	IS10748	TEST CERT.	✓	V	V	-	AS APPLICABLE
1 2		COLD ROLLED STEEL SHEET	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS513	IS513	TEST CERT.	✓	V	V	-	AS APPLICABLE


2.0 ACCEPTANCE TESTS

2 1	RIGID STEEL CONDUITS	DIMENSIONS	MA	MEASUREMENT	IS 9537-II	IS 9537-II	IS-9537/ APPROVED DATA SHEET	APPROVED DATA SHEET	INSP. REPORT	✓	P	W	-	
2 2		MECH. PROPERTIES												
		a) BENDING TEST	CR	MECH. TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-II	INSP. REPORT	✓	P	W	-	
		b) COMPRESSION TEST	CR	MECH. TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-II	INSP. REPORT	✓	P	W	-	
2 3		GALVANISATION TEST												
		a) UNIFORMITY OF ZINC COATING	CR	CHEMICAL TEST	IS 9537-II	IS 9537-II	IS-2633/ APPD DS	IS-2633/ APPD DS	INSP. REPORT	✓	P	W	-	
		b) MASS OF ZINC COAT.	CR	CHEMICAL TEST	IS 9537-II	IS 9537-II	IS-6745/ APPD DS	IS-6745/ APPD DS	INSP. REPORT	✓	P	W	-	
		c) EPOXY THICKNESS	MA	VISUAL	IS 9537-II	IS 9537-II	APPD DS	APPD DS	INSP. REPORT	✓	P	W	-	AS APPLICABLE
2 4		MARKING	CR	VISUAL	IS 9537-II	IS 9537-II	APPROVED	APPROVED	INSP.		P	W	-	

BHEL					
ENGINEERING			QUALITY		
Prepared by	Sign & Date	Name	Checked by	Sign & Date	Name
	<i>[Signature]</i>	MEET SAGAR SINGH RAJPAL		<i>[Signature]</i>	Suman
Reviewed by	Sign & Date	Name	Reviewed by	Sign & Date	Name
	<i>[Signature]</i>	HEMA KUSHWAHA		<i>[Signature]</i>	Harish

BIDDER/ SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER REVIEW & APPROVAL			
Doc No:			
	Sign & Date	Name	Seal
Reviewed by:			
Approved by:			

		MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN				SPEC. NO :		DATE:		
				CUSTOMER :				QP NO.: PE-QP-999-558-E001, R05		DATE: 22.02.2024		
				PROJECT:				PO NO.:		DATE:		
				ITEM: RIGID STEEL CONDUITS		SYSTEM: STATION LIGHTING SYSTEM		SECTION: II		SHEET 2 OF 2		
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY	REMARKS
1	2	3	4	5	6		7	8	9	D	**	
					M	B/ C					M B C	
							DATA SHEET	DATA SHEET	REPORT			
3.0 PACKING												
	PACKING	SOUNDNESS OF PACKING AGAINST TRANSIT DAMAGE	MA	VISUAL	100%	100%	BHEL APPROVED DOCUMENT	BHEL APPROVED DOCUMENT	INSP. REPORT	✓	P	V

NOTE: Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.

LEGENDS:

*RECORDS, IDENTIFIED WITH "TICK"(✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.

** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, B: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, C: CUSTOMER,


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MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

BHEL					
ENGINEERING			QUALITY		
	Sign & Date	Name		Sign & Date	Name
Prepared by	<i>[Signature]</i> 23/01/24	MEET SAGAR SINGH RAJPAL	Checked by	<i>[Signature]</i> 23.2.24	<i>[Signature]</i>
Reviewed by	<i>[Signature]</i> 23/2/24	HEMA KUSHWAHA	Reviewed by	<i>[Signature]</i>	Harish

BIDDER/ SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER REVIEW & APPROVAL			
Doc No			
	Sign & Date	Name	Seal
Reviewed by			
Approved by			

	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
		Issue No: 01
		Rev. No. 00
		Date :28.02.2024

SUB VENDOR LIST

ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR NAME	ADDRESS	PHONE	REMARKS
LIGHTING FIXTURES (NON LED)	2	BALIGA LIGHTING EQPT PVT LTD	63A,CP RAMASWAMY ROAD, PB NO 6910, CHENNAI-600018	44-24995505,22680990-4	
LIGHTING FIXTURES (NON LED)	3	ELEXPLO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	02637-265140, Mr. Jssk kumar	
LIGHTING FIXTURES (NON LED)	4	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID :	
LIGHTING FIXTURES (NON LED)	5	CROMPTON GREAVES	3RD FLOOR, EXPRESS BUILDING,9-10, BAHADUR SHAH ZAFAR MARG, NEAR ITO CROSSING,NEW DELHI-110002, INDIA	91 11 23460700 - 999 Sunil.Das@cgglobal.com, Mr. Prashant Wewhare 9930095703	
LIGHTING FIXTURES (NON LED)	6	EVERGREEN ENGG. CO.	EVERGREEN ENGG COMPANY WORKS-5, PLOT NO. 9,10,11,12, SURVEY NO. 242, CHINCH PADA, VASAI EAST-401208	(0250) 6458250	
LIGHTING FIXTURES (NON LED)	7	PHILIPS	9TH FLOOR,DLF 9B, DLF CYBER CITY, DLF PHASE-III,GURGAON-122002	01244606001, Sharad (+919871150447)	
LIGHTING FIXTURES (NON LED)	8	WIPRO LTD.	WIPRO CONSUMER CARE AND LIGHTING, 5TH FLOOR, GODREJ ETERNIA -C, OLD PUNE-MUMBAI ROAD, SHIVAJINAGAR, PUNE - 411005	020-66098700	
LIGHTING FIXTURES (NON LED)	9	M/S HPL ELECTRIC & POWER PVT. LTD	M/S HPL ELECTRIC & POWER PVT. LTD. PLOT NO. 76-B,PHASE-IV, SEC-57, HSIIDC, INDL. AREA , KUNDLI, DIST.- SONEPAT (HARYANA) - 131028	mohitsharma@hplindia.com'	
LIGHTING FIXTURES (NON LED)	10	SURYA ROSHNI LIMITED	PADMA TOWER, RAJENDRA PLACE, RAJENDRA PLACE NEW DELHI	011-25810093 ; 9810071832 (Akhilesh Agrawal) agrawal@suryaroshni.co	
LIGHTING FIXTURES (NON LED)	11	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA- 201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
LIGHTING FIXTURES (NON LED)	12	M/s Halonix Technologies Limited	M/s Halonix Technologies Limited B-31 , Phase -II, Noida Distt. Gautam Budh Nagar (U.P.) Pin- 201305	Mr. Mohit Gautam 'Tel: +919568152111 'mohit.gautam@halonix.co.in'; 'rahul.singh@halonix.co	

LIGHTING FIXTURES (LED)	1	Neev Luminaries	B-6/3 Okhla Industrial Area Phase-2 New Delhi 110020	Phone: 011 40604830-31, M:8826995888 Fax: +91 11 4060 4831 info@neevenenergy.in, Jitendra Sahu <jsahu@neevenenergy.com>	
LIGHTING FIXTURES (LED)	2	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA- 201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922, girish.srivastava@havells.com\	
LIGHTING FIXTURES (LED)	3	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectrica	
LIGHTING FIXTURES (LED)	4	SURYA ROSHNI LIMITED		1 011-25810093 ; 9810071832 (Akhilesh Agrawal) aagrawal@sroshni.com	
LIGHTING FIXTURES (LED)	5	PHILIPS	9TH FLOOR,DLF 9B, DLF CYBER CITY, DLF PHASE-III,GURGAON-122002	01244606001, Sharad (+919871150447), Mr. Guruseelan M 8939693949, Mr Ashish Sethi	
LIGHTING FIXTURES (LED)	6	M/S HPL ELECTRIC & POWER PVT. LTD	M/S HPL ELECTRIC & POWER PVT. LTD. PLOT NO. 76-B,PHASE-IV, SEC-57, HSIIDC, INDL. AREA , KUNDLI, DIST.- SONEPAT (HARYANA) - 131028	mohitsharma@hplinda.com, Mr. Nitesh Verma 8851036938, Mr Ajay lakra 9560045423	
LIGHTING FIXTURES (LED)	7	INSTA POWER	PLOT NO. - 457 PHASE - V, UDYOG VIHAR, GURGAON - 122016	124-4124000, Mr amit Bhardwar: 8800508090	

LIGHTING FIXTURES (LED)	8	Pyrotech Electronics Pvt. Ltd.	M/s Pyrotech Electronics Pvt. Ltd(Unit -1) Led Light, Sensor Division F-16A, Road No.3 Mewar Industrial Area, Madri Udaipur -313003, Rajasthan,	Concern Person – Mr. Praveen sisodiya : 9314310042(psisodia @pyrotechlighting.co m) Ms Ritika 9509245814	
LIGHTING FIXTURES (LED)	9	M/s Halonix Technologies Limited	M/s Halonix Technologies Limited B-31 , Phase –II, Noida Distt. Gautam Budh Nagar (U.P.) Pin- 201305	Mr. Mohit Gautam ' 'Tel: +919568152111 'mohit.gautam@haloni x.co.in'; M: 9891868793'rahul.sing h@halonix.co.in'	
LIGHTING FIXTURES (LED)	10	M/s JAQUAR & COMPANY PVT. LTD.	M/s JAQUAR & COMPANY PVT. LTD. Plot No.3 , Sector M-11, IMT Manesar. Gurgaon· 122050 Haryana	Mr. Dhruv Kumar ' 'Tel: +919350043727 dhruv.kumar@jaquar.c om ; gaurav.bhalla@jaquar.	
LIGHTING FIXTURES (LED)	11	M/s CROMPTON GREAVES CONSUMER ELECTRICALS LTD.	M/s CROMPTON GREAVES CONSUMER ELECTRICALS LTD.Tower- 3, 1st Floor, East Wing Equinox Business Park LBS Marg, Kurla (West), Mumbai-	Mr S L Sivakumar 'Sivakumar L' <sivakumar.sl@crompt on.co.in> M: 9176609363	
LIGHTING FIXTURES (LED)	12	M/s WIPRO ENTERPRISES PRIVATE LTD.	M/s WIPRO ENTERPRISES PRIVATE LTD. L-8, MIDC Waluj, Aurangabad- 431136, Maharashtra, India	Ms Dhanya K K 'dhanya.kk8@wipro.co m' M 9891815476, Mr Puneet kalia 'puneet.kalia@wipro.c	
LIGHTING FIXTURES (LED)	13	M/s Nessa Illumination Technologies Pvt. Ltd.	M/s Nessa Illumination Technologies Pvt. Ltd.36/A Devraj Industrial Park, Opp. Sameep Fabrics, Pipalaj Pirana Road, Piplaj,	Mr. Dhaval Shah <dhalval@nessa.in> M 9825650354, Mr. Akshat Khare <akshat@nessa.in> M:	
LIGHTING FIXTURES (LED)	14	M/s. Forus Electric Pvt. Ltd.	M/s. Forus Electric Pvt. Ltd. B-313, Okhla Industrial Area, Phase- 1, New delhi-110020	Mr. Amit Bharadwaj <amit.bharadwaj@for uselectric.com> M 8800508090, Mr. Uttam Goyal	
LIGHTING FIXTURES (LED)	15	M/s. ORIENT ELECTRIC LIMITED.	C- 130, Sector-63, Noida-201301, Uttar Pradesh, D-209, Sector-63, Noida-201301, Uttar Pradesh	Birjendra Kumar Yadav <birjendra.yadav@orie ntelectric.com> P. +91- 120-4894900 , +91- 9599848491	

LIGHTING FIXTURES (LED)	16	M/s Mika Engineers	Survey no. 47, shed no. 2, AGHAI, Shahpur-wada road, AGHAI Thane, Maharashtra-421601	"deepak" <deepak@mikaengineers.com>MOB: 8976737543	
LIGHTING FIXTURES (LED)	17	M/s Kalingia Illuminaton Pvt Ltd.	15/3/2 SITE-IV SAHIBABAD INDUSTRIAL AREA GHAZIABAD UP 201010	Bidyut Mandal' <bidyut.mandal@kalingialights.com> (M: 9555367941 / 9315029882), 'Suresh Shiromani'	
LIGHTING FIXTURES (FLAME PROOF)	1	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA- 201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
LIGHTING FIXTURES (FLAME PROOF)	2	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
LIGHTING FIXTURES (FLAME PROOF)	3	BALIGA ELECTRICALS	63A,CP RAMASWAMY ROAD, PB NO 6910, CHENNAI-600018	44-24995505,22680990-4	
DICHORIC SPOT LIGHTING FIXTURE	REPUTED MAKE				
LIGHTING PANEL (NON FLAME PROOF)	1	MIKA ENGINEERS	D'-101, DHEERAJ HERITAGE RESIDENCY II, SHASTRI NAGAR, SANTACRUZ (W), MUMBAI 400 054.	Director : Mr. Asgar Karimi E-mail : mika@mtnl.net.inTelfax : 022-26610081/82/83/84Tel : 02527-249066/70 Cell : 099230 74373;asgar@mikaengineers.com	
LIGHTING PANEL (NON FLAME PROOF)	2	ELEXPLO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	02637-265140, Mr. Jssk kumar	

LIGHTING PANEL (NON FLAME PROOF)	3	Vidhyut Controls (India) Pvt. Ltd.	M/S VIDHYUT CONTROL (I) PVT.LTD. D-12 & 13, SECTOR-17,KAVI NAGAR INDL.AREA,GHAZIABAD – 201002 (DELHI NCR) U.P. INDIA	0120-4186400, 0120-4186423, 8527005590(DK GUPTA)	
LIGHTING PANEL (NON FLAME PROOF)	4	KMG ATOZ SYSTEMS	"ATOZ HOUSE" C-49, SECTOR-81, GAUTAM BUDDH NAGAR, NOIDA – 201 305 U. P. (INDIA)	Tel : +91-120-4207920 Fax : +91-120-4207921, 4327958 Phone:098 10 802710	
LIGHTING PANEL (NON FLAME PROOF)	5	UNILEC ENGINEERS PVT. LTD.	BEHRAMPUR INDUSTRIAL AREA, BEGAMPUR KHATOLA ROAD, GURGAON-122001	0124-4030247,248, 4559700, 9911087173	
LIGHTING PANEL (NON FLAME PROOF)	6	AVAIODS TECHNOVATORS LTD.	PLOT NO.25 ,SECTOR-3,IMT- MANESAR, GURGEON-122050 (HARYANA)	KRISHNA KALRA- 09958096168	
LIGHTING PANEL (NON FLAME PROOF)	7	Adroit Control Engineers Pvt.Ltd.	M/S ADROIT CONTROL ENGINEERS PVT.LTD. PLOT-3, KRISHNA INDL. AREA, SECTOR-25 FARIDABAD – 121004	011-47600700, 0129-4251400	
LIGHTING PANEL (NON FLAME PROOF)	8	JACKSON ENGINEERS	A-43, HOSEIRY COMPLEX, OPPOSITE NSEZ, NOIDA-201305	0120-4302600, 2568923,27	
LIGHTING PANEL (NON FLAME PROOF)	9	MILESTONE SWITCHGEARS PVT. LTD.	MILESTONE SWITCHGEARS PVT. LTD. 97, UDYOG VIHAR, PHASE-1, GURGEON HARYANA - 122016	Phone Nos.: 0124-4994900 (30 Lines) Fax: 0124-4002973 Email: jaideep.ahuja@milestonesindia.com URL: www.milestonesindia.com	
LIGHTING PANEL (NON FLAME PROOF)	10	Positronics Pvt. Ltd.	POSITRONICS HOUSE ,882/ 2, G.I.D.C. MAKARPURA,VADODARA 390010 GUJARAT	+91 265 2642496 Fax: +91 265 264 7033 / 234 0944 E- mail : info@positronicsindia.com Website:www.positronicsindia.com	

LIGHTING PANEL (NON FLAME PROOF)	11	Pyrotech Electronics Pvt. Ltd.	M/s Pyrotech Electronics Pvt. Ltd(Unit -1) Led Light, Sensor Division F-16A, Road No.3 Mewar Industrial Area, Madri Udaipur -313003, Rajasthan,	Concern Person – Mr. Praveen sisodiya (psisodia@pyrotechlig hting.com) Ankit Kumar Sr. Engineer(North Region -Sales & Marketing) # +91- 7340061769, 8287897309	
PVC WIRES	BIS APPROVED MAKE				
FLEXIBLE CONDUIT (PVC COATED)	REPUTED MAKE				
GI CONDUITS	BIS APPROVED MAKE				
MCB	1	MDS SWITCHGEAR LTD	314-317SHAH NAHAR ESTATE	011 - 25793021	
MCB	2	INDO ASIAN	B-24, PHASE - II , NOIDA - 201305, U.P.	120-3042222	
MCB	3	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER- C, DLF CYBER CITY, PH-II, GURGAON- 122002	0124-3940400	
MCB	4	S&S POWER SWITCHGEAR LTD,	NEW NO. 67, OLD NO. 19, DR. RANGA ROAD, MYLAPORE, CHENNAI - 600004	044 - 24988056, 044 - 24988057, 044 - 24988058	
AC MCCB	1	C&S ELECTRIC LTD.	222, OKHLA IND. ESTATE, PH-III, NEW DELHI-110020	011-3088 7520-29	
AC MCCB	2	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER- C, DLF CYBER CITY, PH-II, GURGAON- 122002	0124-3940400	
AC MCCB	3	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 amit.bhadauria@siem ens.com	
AC MCCB	4	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	044-49681447	
AC MCCB	5	L&T	32, SHIVAJI MARG, P.O. BOX- 6223, NEW DELHI-110015	011-41419554/59	
AC MCCB	6	CROMPTON GREAVES	RAIL TRANSPORTATION SYSTEMS,VANDANA BUILDING, 11, TOLSTOY MARG, TOLSTOY MARG, NEW DELHI, DL 110001	011 3041 6300	


LT PVC POWER CABLE	1	APAR INDUSTRIES LTD.	Mr. Vijay Kumar Bajaj 12/13,Jyoti Wire House,23-A,Shah Ind Est Off. Veera Desai Road, Andheri (West). Mumbai Phone- 022-26740001 Pincode : 400053 Email : info.cable@apar.com		
LT PVC POWER CABLE	2	CHANDRESH CABLES LIMITED	Mr RK JAIN/MD, G-6 NEW MADHAVPURA MARKET, NEAR POLICE COMM. OFFICE, SHAHIBAUG AHMEDABAD Phone- 9825136231 Pincode : 380004 Email : rkiain@avocah.com		
LT PVC POWER CABLE	3	CMI LTD.	Mr.Munishvar Gaur, 501-503,New Delhi House, 27,Barakhamba Road New Delhi, Phone- 9599599244 Pincode : 110001 Email : mgaur@cmilimited.in		
LT PVC POWER CABLE	4	CORDS CABLE INDUSTRIES LTD.	MR. NAVEEN SAWHNEY B-1/A-26, MOHAN CO-OPERATIVE INDUSTRIAL ESTATE, MATHURA ROAD, NEW DELHI Phone- 9818356799 Pincode : 110044 Email : sa@cordscable.com		
LT PVC POWER CABLE	5	Dynamic Cables Limited	F-260 ,Road No. 13 V.K.I Area Jaipur Phone- 01412332388 Pincode : 302013 Email : info@dynamiccables.co.in		
LT PVC POWER CABLE	6	GEMSCAB INDUSTRIES LTD.	Sh. A. N. Pathak, (GM/Business Develop.) 704-707, 7th Floor, Vikrant Tower 4, Rajendra Place NEW DELHI Phone- 09212560974 Pincode : 110008 Email : annathak@gemscab.com		
LT PVC POWER CABLE	7	Govind Cable Industries,	73/1, Cotton Street, Kolkata, Phone- 9331055614, Pincode : 700007, Email : govindcable2001@yahoo.com		
LT PVC POWER CABLE	8	GUPTA POWER INFRASTRUCTURE LIMITED	Mr. NITISH KUMAR PARIDA ,502, 5th Floor, K M Trade Tower,Radisson Blu Complex, Sector-14, Kaushambi Ghaziabad Phone- 09861995978 Pincode : 201010 Email : info@guptapower.com		
LT PVC POWER CABLE	9	Insucon Cables And Conductors Pvt. Ltd.	Mr. SUMIT NAHATA, 314-A, 3rd Floor, City Centre, Sansar Chand Road Jaipur Phone- 8290073333 Pincode : 302001 Email : info@insuconcables.com		
LT PVC POWER CABLE	10	KEC INTERNATIONAL LIMITED	Mr. Radheshyam Singh CEAT MAHAL, 1ST FLOOR, 463, DR. ANNIE BESANT ROAD,WORLI, MUMBAI Phone- 9313244467 Pincode : 400 030 Email : powercables@kecrng.com		

LT PVC POWER CABLE	11	KEI INDUSTRIES LTD.	Mr. ANIL GUPTA D-90, OKHLA INDUSTRIAL AREA, PHASE-I, NEW DELHI Phone- 011-26818840 Pincode : 110020 Email : lalit.saxena@kei-ind.com		
LT PVC POWER CABLE	12	LASER POWER & INFRA PVT. LTD.	Mr. Devesh Goel, Director 5A, Woodburn Central 5th Floor, Unit No. 502 & 503 Kolkata Phone- 9830623440 Pincode : 700020 Email : devesh@lasernpowerinfra.com		
LT PVC POWER CABLE	13	Lumino Industries Limited	Acropolis, 1858/1, 12th Floor, Rajdanga Main Road, KOLKATA Phone- 9711480487 Pincode : 700107 Email : northzone@luminoindustries.com		
LT PVC POWER CABLE	14	Nangalwala Industries Pvt. Ltd.	F 151 to 154 M.I.A M.I.A Alwar Phone- 9928033029 Pincode : 301030 Email : registration@suncables.co		
LT PVC POWER CABLE	15	PARAMOUNT COMMUNICATIONS LTD.	Mr. Sanjay Aggarwal C-125, Naraina Industrial Area, Phase-I, NEW DELHI Phone- 9650005915 Pincode : 110028 Email : jatan.singh@paramountcables.com		
LT PVC POWER CABLE	16	POLYCAB INDIA LIMITED	HICO HOUSE, 1st FLOOR, 771, PANDIT SATWALEKAR MARG, MAHIM, MUMBAI Phone- 011-29841697 Pincode : 400016 Email : lnsingh@polycab.com		
LT PVC POWER CABLE	17	Ravi Industries	Deepak Goyal, Proprietor Plot No. 451,EPIP,HSIIDC INDUSTRIAL AREA Sec-53, Phase 3, Kundli Sonipat Phone- 9810019276 Pincode : 131028 Email : deepakgoyal@deegeelitecables.com		
LT PVC POWER CABLE	18	RAVIN CABLES LIMITED	MR.PRAKASH LAKHKAR 30,AKRUTI TRADE CENTRE, 3RD FL, ROAD NO.7 , MIDC ,MAROL,ANDHERI (E) MUMBAI Phone- 09324081733 Pincode : 400093 Email : surendra.rawat@ravingroup.com		
LT PVC POWER CABLE	19	Sam Cables & Conductors (P) Ltd.,	6th Km. Rudrapur-kichha Road, Post-Lalpur, Rudrapur, Distt. Udham Singh Nagar , Uttrakhand, Phone- 9837766444, Pincode : 263148, Email : manpreet@samcables.com ,		
LT PVC POWER CABLE	20	SBEE CABLES (INDIA) LIMITED	Kishore Kumar .B, Director No.29, JCW Industrial Estate 11th Km Kanakapura Road Bangalore Phone- 08026662172 Pincode : 560062 Email : info@sbeecables.in		

LT PVC POWER CABLE	21	SHIVPRIYA CABLES PVT. LTD.	Mr. AYUSH GUPTA,DIRECTOR B 15 / 23 GROUND FLOOR DLF CITY PHASE-I GURUGRAM Phone- 9810322001 Pincode : 122002 Email : info@shivpriyacables.com		
LT PVC POWER CABLE	22	SPECIAL CABLES PVT. LTD.	MR.MUKUL KHANNA-VICE PRESIDENT B-II/12, Mohan Cooperative Industrial estate, Badarpur, Mathura Road NEW DELHI Phone- 9599186479 Pincode : 110044 Email : sales@specialcables.co.in		
LT PVC POWER CABLE	23	SRIRAM CABLES PVT. LTD.	Anil Garg / Sunil Garg Flat No. 102, A 8A Rama Road, Adarsh Nagar Delhi Phone- 011-27670005 Pincode : 110033 Email : contact@sriramcables.com		
LT PVC POWER CABLE	24	SUYOG ELECTRICALS LTD.	Mr.Bimal Y.Desai/Mr. Haresh Hansoti 1, Madhuvan Apartment,24 Arunoday Society,Alkapuri VADODARA Phone- 9227192737 Pincode : 390 007 Email : suyog@seplcables.com		
LT PVC POWER CABLE	25	THERMO CABLES LTD.	Ms.UMA GHURKA/N.SRINIVASA RAO 28, NAGARJUNA HILLS, PUNJAGUTTA HYDERABAD Phone- 9397803596 Pincode : 500082 Email : isharma@thermocables.com		
LT PVC POWER CABLE	26	TIRUPATI PLASTOMATICS PVT. LTD.	Mr. Ravi Gemini B-141 A, Road No. 9D V.K.I. Area Jaipur Phone- 0141-2330305 Pincode : 302013 Email : ravi.gemini@vahoo.com		
LT PVC POWER CABLE	27	ULTRACAB INDIA LIMITED	SR NO 262 BH GALAXY BEARINGS LTD SHAPAR VERAVAL RAJKOT Phone- Pincode : 360024 Email : tenders@ultracab.in		
LT PVC POWER CABLE	28	UNIVERSAL CABLES LTD.	MR. Y.S. LODHA/MR. AMITAVA ABOSE P.O. BIRLA VIKAS, SATNA SATNA Phone- +91 9584968066 Pincode : 485005 Email : amsingh@unistar.co.in		
LT PVC POWER CABLE	29	V-MARC INDIA LIMITED	Mr. Vikas Garg, 203,Aditya Complex,Local Shopping Centre Sarita Vihar 110092 Phone- 8171169401 Pincode : New Delhi Email : sales@v-marc.in		
LT PVC POWER CABLE	30	Zenium Cables Ltd.	H.O:102/103 Leena Heights,Opp.Thunga Hospital Mira Bhayander Road, Mira Road(E) Thane Phone- 02228114444 Pincode : 401107 Email : info@zeniumcables.com		

MODULAR SWITCH BOARD	1	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	022-30418888.	
MODULAR SWITCH BOARD	2	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	02637-265140, Mr. Jssk kumar	
MODULAR SWITCH BOARD	3	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA- 201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
SWITCH BOX	1	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	022-30418888.	
SWITCH BOX	2	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	02637-265140, Mr. Jssk kumar	
SWITCH BOX	3	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
SWITCH BOX	4	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmera.net	
SWITCH BOX	5	S.B. ELECTRICAL ENGINEERING CORPORATION	03, SARDAR GRIHA BUILDING, LOHAR CHAWAL, MUMBAI-400002	022- 22069831; 022-66637259	
RECEPTACLES - DECORATIVE	1	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	022-30418888.	
RECEPTACLES - DECORATIVE	2	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	02637-265140, Mr. Jssk kumar	

RECEPTACLES - DECORATIVE	3	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
RECEPTACLES - DECORATIVE	4	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmera.net	
RECEPTACLE (NON FLAME PROOF)	1	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmera.net	
RECEPTACLE (NON FLAME PROOF)	2	CROMPTON GREAVES	3RD FLOOR, EXPRESS BUILDING,9- 10, BAHADUR SHAH ZAFAR MARG, NEAR ITO CROSSING,NEW DELHI- 110002, INDIA	91 11 23460700 - 999 'Sunil.Das@cgglobal.com	
RECEPTACLE (NON FLAME PROOF)	3	CYCLO ELECTRIC DEVICE & SERV.CO.	: A-3, NEAR ANTHEM BIOSCIENCE, KSSIDC INDUSTRIAL AREA, BOMMASANDRA, BOMMASANDRA INDUSTRIAL AREA, BANGALORE, KARNATAKA 560099	Mr. H.Jaishanker +919845039081, 080 - 27833102 , 080 - 27833103 : +91 80 41460985 'cycloelectric@gmail.com	
RECEPTACLE (NON FLAME PROOF)	4	BCH	20/4, MATHURA ROAD, FARIDABAD - 121006, HARYANA, INDIA	0(129)-4063000, 9015800189(Ramesh Giri) 'ramesh.giri@bchindia.com	
RECEPTACLE (NON FLAME PROOF)	5	BEST & CROMPTON	BEST & CROMPTON ENGINEERING LTD 28C, AMBATTUR INDUSTRIAL ESTATE (NORTH) AMBATTUR, CHENNAI - 600 098	Ph : +91 44 4551 4724 , MRKT DGM Mr. VI Raj:- 9840593411 'bestcromptonviraj@gmail.com	


	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
		Issue No: 01
		Rev. No. 00
		Date :28.02.2024

PACKING REQUIREMENT

Sl.no	DESCRIPTION
1	Type of Packing: FOR LIGHTING FIXTURES
a	The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
b	Lighting Fixtures, Lamps, Receptacles, Switchboards, 24V Supply modules, 24V sockets, Junction Boxes, Exit signs shall be clean and dry prior to packaging.
c	All items specified at sl. (b) above shall be supplied in packed cartons. The tapes used for packing shall not bleed, leave residue, or damage the item when removed.
d	Fixtures & other lighting material shall be wrapped in weather proof material such as polythene sheets, air bubble sheets/ packed in thermocol etc. The lighting fixtures shall be placed in a corrugated paperboard/ fibreboard container/ mono carton.
e	The mono cartons shall be wrapped or bagged or tied in place in master cartons. The master carton shall be taped and then wrapped with cushioning material.
f	The dimensions of cartons shall be as per manufacturer's recommendations.
g	For items like step ladder, wheel mounted ladder and flexible conduits, packing shall be as per manufacturer standard.
h	Containers adequate for storing 100% of P.O. quantity material at site are to supplied. Vendor shall furnish suitable justification to purchaser during detailed engineering for the number and size of containers being supplied. Materials like Concrete Blocks of Paved surface required for installation and placing of container shall be made available by BHEL. Other supporting material like Rails etc. shall be part of Container only.
2	Type of Packing: FOR LIGHTING PANELS
2.1	PREPARATION OF PACKING CASES:
2.2	DIMENSIONS:
2.2.1	Minimum number of planks shall be used for a shook.
2.2.2	Thickness of planks for Front, rear, top and bottom sides and binding, jointing battens shall be 25/20mm +2/-3 mm
2.2.3	Horizontal, vertical, diagonal planks shall be given for binding
2.2.4	Width of binding planks shall be minimum 100mm
2.2.5	Distance between any 2 binding planks shall be less than 750mm
2.2.6	Diagonal planks shall be used in between vertical binding planks when distance between inner to inner of vertical planks is more than 750mm
2.2.7	Distance of the outer edges of these planks from the edge of case shall be less than 250mm.
2.2.8	Diagonal planks are not required for top planks and width side, if the width of pallet is less than 750mm.
2.3	JOINTING OF PLANKS:

2.3.1	Single length planks shall be used for cubicles whose overall length is less than 2400 mm. For cubicles of length more than 2400 mm, jointing is permitted. The jointing shall be done with one single or maximum of 2 planks of wood same as other planks of width 250 mm (minimum) with two rows of nails on either side of the joint in zigzag manner. From the joint along height side, it shall be of lap joint with overlap of at least the width of plank.
2.4	PERMISSIBLE DEFECTS:
2.4.1	<p>Wood shall be free from knots, bows, visible sign of infection and any kind of decay caused by insects, fungus, etc.</p> <p>End splits: Longest end splits at each end shall be measured and lengths added together. The added length shall not exceed 60mm per meter run of shook's. Wood pins shall be used to prevent further development of split.</p> <p>Surface cracks: Surface cracks with a maximum depth of 3mm are permissible. A continuous crack of any depth all along the length is not allowed.</p>
2.5	OTHER MATERIALS
2.5.1	<p>NAILS</p> <p>Nails of suitable dia and length shall be used for joining the planks.</p>
2.5.2	<p>BLUE NAILS</p> <p>If applicable, these shall be used for nailing bituminized Kraft paper/hessian cloth to the planks.</p>
2.5.3	<p>HOOP IRON STRIPS</p> <p>These are used for strapping the boxes. The material shall be free from rust. If sufficient nailing is done for bigger boxes, strapping need not be done.</p>
2.5.4	<p>CLIPS</p> <p>These are used for strapping the boxes.</p>
2.5.5	<p>BRACKET</p> <p>Brackets of suitable dimension shall be used for nailing to the corners of cubicle boxes. The brackets shall be of mild steel of suitable thickness. The brackets shall be of "L" shape. Two holes shall be provided towards the end of each side for screwing /nailing.</p>
2.5.6	<p>MULTI LAYERED CROSS LAMINATED POLYTHELENE FILM</p> <p>Multi Layered Cross Laminated Polyethylene Film shall be used to make covers to the jobs individually. The cross lamination gives qualities of extra toughness, together with flexibility and lightness coupled with good weather resistance to ultra violet rays.</p>

2.5.7	<p>RUBBERISED COIR:</p> <p>The rubberized coir is used as cushioning material. For the packing of loose items, items are to be arrested by using rubberized coir.</p>
2.5.8	<p>FASTENERS</p> <p>Bolts, double nuts, spring washers will have to be used to hold the job to the bottom plank of the box so that there shall be no jerk on the DISTRIBUTION BOARDS (LDB & LP) during transit.</p>
3	Type of Packing: FOR PVC WIRES
3.1	The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
3.2	The wire shall be clean and dry prior to packaging
3.3	The wire shall be supplied in packed coils. The tapes used for packing shall not bleed, leave residue, or damage the item when removed.
3.4	The inside coil diameters shall not be smaller than the minimum safe allowable bending diameter for wires.
3.5	The coil shall be placed in a corrugated paperboard/ fibreboard container/ mono carton.
3.6	The mono cartons shall be wrapped or bagged or tied in place in master cartons. The master carton shall be taped and then wrapped with cushioning material.
3.7	The dimensions of cartons shall be as per manufacturer's recommendations.
4	Type of Packing: FOR RIGID STEEL CONDUITS
4.1	The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
4.2	The ends of conduits shall be sealed with protective caps.
4.3	Each conduit shall be wrapped in plastic to prevent dust deposition.
4.4	The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
4.5	Each bundle shall be covered with jute fibre / thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.
5	Packing slip & holder:
a	Packing slip kept in polyethylene bag shall be placed inside the container at appropriate place.
b	One copy of packing slip wrapped in polyethylene bag covered in galvanized iron tin sheet/ aluminium packing slip holder shall be fixed on the external surface the container.

	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
		Issue No: 01
		Rev. No. 00
		Date :28.02.2024

DOCUMENTATION REQUIREMENT

DRAWINGS & DOCUMENTS TO BE SUBMITTED BY ALL THE BIDDERS ALONG	
Sl. No.	DOCUMENT TITLE
1	PQR CREDENTIALS
2	COMPLIANCE SHEET

DRAWINGS & DOCUMENTS TO BE SUBMITTED BY SUCCESSFUL BIDDER AFTER AWARD OF CONTRACT ALONG WITH SUBMISSION SCHEDULE

Sl. No.	BHEL Drawing No.	DOCUMENT TITLE	SUBMISSION SCHEDULE			
			Vendor submission (Days)*	BHEL Comment (Days)	Vendor submission (Days)#	BHEL & Customer comment/ approval (Days)
1	PE-V0-505-558-E001	DATASHEET and GA Drawing of Lighting Fixtures and Misc. Items	21	8	8	18
2	PE-V0-505-558-E901	QUALITY PLAN of Lighting Fixtures, lamps & Misc. items	21	8	8	18
3	PE-V0-505-558-E002	GA & DATA SHEET OF LIGHTING PANEL	11	8	8	18
4	PE-V0-505-558-E902	QUALITY PLAN OF LIGHTING PANEL	11	8	8	18
5	PE-V0-505-558-E003	DATA SHEET OF PVC WIRES	7	4	3	16
6	PE-V0-505-558-E903	QUALITY PLAN OF PVC WIRES	7	4	3	16
7	PE-V0-505-558-E003	DATA SHEET OF RIGID STEEL CONDUITS	7	4	3	16
8	PE-V0-505-558-E903	QUALITY PLAN OF RIGID STEEL CONDUITS	7	4	3	16
9	PE-V0-505-558-E004	Mounting arrangement of Lighting Fixtures	21	8	8	18
10	PE-V0-505-558-E005	Mounting arrangement of Misc. items	21	8	8	18
11	PE-V0-505-558-E006	Type test report of Lighting Fixtures	Within 2 months from PO/ within 1 week of type test conduction (as applicable)			
12	PE-V0-505-558-E006	Type test report of Lighting Panels	11	8	8	18


NOTES:

a) * 1st submission within indicated days from date of purchase order.

b) # Submission (within indicated days) after incorporating all BHEL comments.

c) Primary documents shall be considered for Delay analysis

DRAWINGS & DOCUMENTS TO BE SUBMITTED AS FINAL/AS-BUILT DOCUMENT	
Sl. No.	DOCUMENT TITLE
1	APPROVED DOCUMENTS
2	Field Quality Plan of lighting fixtures

	TECHNICAL SPECIFICATION STATION LIGHTING SYSTEM 210 MW GURU HARGOBIND THERMAL PLANT, LEHRA MOHABBAT	PE-TS-505-558-E001
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		Date :28.02.2024

COMPLIANCE CERTIFICATE	
1	It is hereby confirm that the technical specification (sheet 1 to 60) has been read, understood. We confirm compliance to the tender specification including any clarification and amendments without any deviation.
2	It is hereby declared that any technical submittals which was not specifically asked for in NIT shall stand withdrawn.

Signature of authorised Representative

Name and Designation :

Name & Address of the Bidder

Date