



Bid Number/बोली क्रमांक (बिड संख्या):
GEM/2024/B/5547478
Dated/दिनांक : 25-10-2024

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	04-11-2024 17:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	04-11-2024 17:30:00
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	50573

Bid Details/बिड विवरण	
Item Category/मद केटेगरी	Main Supply Lighting Luminaire Type FC02 IP67 , Main Supply Lighting Luminaire Type FC06 IP65 , Main Supply Lighting Luminaire Type FC26 , Main Supply Lighting Luminaire Type SB02 , Main Supply Lighting Luminaire Type SB03 , Main Supply Lighting Luminaire Type SS62 , Main Supply Lighting Luminaire Type SF63 , Main Supply Lighting Luminaire Type SF64 , Main Supply Lighting Luminaire Type SF66 , Main Supply Lighting Luminaire Type FC34 DC , Main Supply Lighting Luminaire Type FC33 DC , Main Supply Lighting Luminaire Type Downlighter 15 TO 18W LED , Main Supply Occupancy sensors and control system , Main Supply Neon Light System depicting company Logo , Main Supply Switch boxes Decorative Type SWB1 , Main Supply Switch boxes Decorative Type SWB2 , Main Supply Switch boxes Decorative Type SWB3 , Main Supply Switch boxes Decorative Type SWB4 , Main Supply Junction boxes Type JB F , Main Supply Junction boxes Type JB FE , Main Supply Receptacles Type RA1 TO 20A , Main Supply Receptacles Type RA3 TO 32A , Main Supply Receptacles Type RB , Main Supply Receptacles Type RC , Main Supply Fans Ceiling fan 1400 mm sweep , Main Supply Fans Wall mounted Fans , Main Supply Emergency lighting Units With Ni-Cd battery and 2 X 6W LED , Main Supply Flexible electrogalvanised conduit 20 mm dia electrogalvanised conduit 1.6 mm thick , Main Supply Ladder Wheel mounted adjustable aluminium ladder upto 12 m height , Main Supply Ladder Assorted Portable aluminum ladder of 2m , Main Supply Ladder Assorted Portable aluminum ladder of 5m , Main Supply portable plug in type inspection lamps with mechanical protection cover for 240V with 5 meter cable , Main Supply Power plug consisting of five no power sockets of 5A or 15A with 30m cable length and five pin 32A plug , Main Supply EXIT SIGN , Main Supply Structural steel , Main Supply Hume pipe 100 mm dia , Main Supply GI wire and Flat 16 SWG Wire , Main Supply GI wire and Flat 35X6 mm GS Flat , Main Supply GI wire and Flat 50X6 mm GS Flat , Main Supply 40 mm Dia MS Rod 3M long , Mand Spares Set
GeMARPTS में खोजी गई स्ट्रिंग / Searched Strings used in GeMARPTS	LIGHTING FIXTURE, LAMPS AND MISCELLANIOUS ITEMS
GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS	Category not available on GeM for the text string uploaded by the buyer
अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification	<ul style="list-style-type: none"> • Junction Box for Lighting • LED Well Glass Fixture
BOQ Title/बीओक्यू शीर्षक	LIGHTING FIXTURE LAMPS MISC ITEMS
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	Certificate (Requested in ATC), Additional Doc 1 (Requested in ATC), Additional Doc 2 (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
Do you want to show documents uploaded by bidders to all bidders participated in bid?/	Yes
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	Main Supply Lighting Luminaire Type FC02 IP67
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	2 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
Arbitration Clause	No
Mediation Clause	No

EMD Detail/ईएमडी विवरण

Required/आवश्यकता	No
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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).	44

(a). 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/लभार्थी :

MANAGER FINANCE BHEL PEM
10250020-PEM, Noida, Department of Heavy Industry, Bharat Heavy Electricals Limited (BHEL), Ministry of Heavy Industries and Public Enterprises
(Manager Finance)

Reserved for Make In India products

Reserved for Make In India products	Yes
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MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	Yes
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1. 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.

2. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 100% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

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. 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:

- If number of technically qualified bidders are only 2 or 3.
- If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- 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

Main Supply Lighting Luminaire Type FC02 IP67

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	150	365

Main Supply Lighting Luminaire Type FC06 IP65

(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

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	850	365

Main Supply Lighting Luminaire Type FC26**(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

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	320	365

Main Supply Lighting Luminaire Type SB02**(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/मात्र

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्र	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	120	365

Main Supply Lighting Luminaire Type SB03

(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/मात्र

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	160	365

Main Supply Lighting Luminaire Type SS62

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

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Lighting Luminaire Type SF63

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

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	300	365

Main Supply Lighting Luminaire Type SF64

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

Technical Specifications/तकनीकी विशिष्टियाँ

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BOQ Detail Document	View File

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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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Lighting Luminaire Type SF66

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	130	365

Main Supply Lighting Luminaire Type FC34 DC

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Lighting Luminaire Type FC33 DC

(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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	70	365

Main Supply Lighting Luminaire Type Downlighter 15 TO 18W LED

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	20	365

Main Supply Occupancy Sensors And Control System

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	25	365

Main Supply Neon Light System Depicting Company Logo

(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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	2	365

Main Supply Switch Boxes Decorative Type SWB1

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Switch Boxes Decorative Type SWB2

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Switch Boxes Decorative Type SWB3

(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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Switch Boxes Decorative Type SWB4

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Junction Boxes Type JB F

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	2000	365

Main Supply Junction Boxes Type JB FE

(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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	100	365

Main Supply Receptacles Type RA1 TO 20A

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	25	365

Main Supply Receptacles Type RA3 TO 32A

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	10	365

Main Supply Receptacles Type RB

(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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	30	365

Main Supply Receptacles Type RC

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	20	365

Main Supply Fans Ceiling Fan 1400 Mm Sweep

(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

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	5	365

Main Supply Fans Wall Mounted Fans

(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

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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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	5	365

Main Supply Emergency Lighting Units With Ni-Cd Battery And 2 X 6W LED

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	20	365

Main Supply Flexible Electrogalvanised Conduit 20 Mm Dia Electrogalvanised Conduit 1.6 Mm Thick

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

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	3000	365

**Main Supply Ladder Wheel Mounted Adjustable Aluminium Ladder Upto 12 M Height
(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
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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	1	365

Main Supply Ladder Assorted Portable Aluminum Ladder Of 2m

(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

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	1	365

Main Supply Ladder Assorted Portable Aluminum Ladder Of 5m

(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

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	1	365

Main Supply Portable Plug In Type Inspection Lamps With Mechanical Protection Cover For 240V With 5 Meter 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

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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

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	14	365

Main Supply Power Plug Consisting Of Five No Power Sockets Of 5A Or 15A With 30m Cable Length And Five Pin 32A Plug

(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

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	3	365

Main Supply EXIT SIGN

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

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
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BOQ Detail Document[View File](#)

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	65	365

Main Supply Structural Steel

(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
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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	5	365

Main Supply Hume Pipe 100 Mm Dia

(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

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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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	100	365

Main Supply GI Wire And Flat 16 SWG 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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	40000	365

Main Supply GI Wire And Flat 35X6 Mm GS Flat

(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

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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
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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	700	365

Main Supply GI Wire And Flat 50X6 Mm GS Flat

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	1000	365

Main Supply 40 Mm Dia MS Rod 3M Long

(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	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	1250	365

Mand Spares Set

(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
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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	HASEEN AHMED	700043,Haseen Ahmed/Sr. Mgr/PG-1 BHARAT HEAVY ELECTRICALS LTD. C/O KOLKATA PORT, NETAJI SUBHAS DOCK/KPT DOCK, KOLKATA, PIN CODE-700043	1	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. 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.

3. 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 %.

4. Generic

Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.

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

While generating invoice in GeM portal, the seller must upload scanned copy of GST invoice and the screenshot of GST portal confirming payment of GST.

7. Buyer Added Bid Specific ATC

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

8. Generic

The buyer organization is an institution eligible for concessional rates of GST as notified by the Government of India. The goods for which bids have been invited fall under classification of GST concession and the conditions for eligibility of concession are met by the institution. A certificate to this effect will be issued by Buyer to the Seller after award of the Contract. Sellers are requested to submit

their bids after accounting for the Concessional rate of GST.
Applicable Concessional rate of GST :

0.1

%

Notification No. and date :

41/2017

dated

23/10/2017

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. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

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. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
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 कार्रवाई का आधार होगा।

---Thank You/धन्यवाद---

4 x 225 MW ARUN - III HEP									
LIGHTING FIXTURES,LAMPS & MISC. ITEMS									
BOQ CUM UNPRICED SCHEDULE (MAIN SUPPLY) : ANNEXURE-I									
ITEM NO.	DESCRIPTION-MAIN EQUIPMENT	UNIT	Order Quantity	UNIT EX-WORKS PRICE (Rs.)	TOTAL EX-WORKS PRICE (Rs.)	FREIGHT@... % (Rs.)	TOTAL EX-WORKS PRICE + FREIGHT (Rs.)	GST@18% (Rs.)	TOTAL F.O.R Price (Rs.)
A	Lighting Luminaires (complete with accessories)								
1	Luminaire Type FC02 (IP67)	Nos.	150						
2	Luminaire Type FC06 (IP65)	Nos.	850						
3	Luminaire Type FC26	Nos.	320						
4	Luminaire Type SB02	Nos.	120						
5	Luminaire Type SB03	Nos.	160						
6	Luminaire Type SS62	Nos.	10						
7	Luminaire Type SF63	Nos.	300						
8	Luminaire Type SF64	Nos.	10						
9	Luminaire Type SF66	Nos.	130						
10	Luminaire Type FC34-DC	Nos.	10						
11	Luminaire Type FC33-DC	Nos.	70						
12	Luminaire Type Downlighter 15-18W (LED)	Nos.	20						
13	Occupancy sensors and control system for control room, offices/ facility area	Nos.	25						
14	Neon Light System depicting company Logo & Name, Project Name & Capacity	Nos.	2						
B	Switch boxes for individual control of circuits								
	Switchboards consisting of switch boxes, switches,switch plates and fixing accessories.								
1	Decorative Type SWB1	Nos.	10						
2	Decorative Type SWB2	Nos.	10						
3	Decorative Type SWB3	Nos.	10						
4	Decorative Type SWB4	Nos.	10						
C	Junction boxes								
1	Type JB-F	Nos.	2000						
2	Type JB-FE	Nos.	100						
D	Receptacles								
1	Type RA1-20A	Nos.	25						
2	Type RA3-32A	Nos.	10						
3	Type RB	Nos.	30						
4	Type RC	Nos.	20						
E	Fans								
1	Ceiling fan 1400 mm sweep	Nos.	5						
2	Wall mounted Fans	Nos.	5						
F	Emergency lighting Units								
	With Ni-Cd battery and 2 X 6W LED	Nos.	20						
G	Flexible electrogalvanised conduit								
1	20 mm dia electrogalvanised conduit,1.6 mm thick	Mtrs.	3000						
H	Ladder								
1	Wheel mounted adjustable aluminium ladder upto 12 m height for the maintenance of Overhead indoor lights.	Nos.	1						
2	Assorted Portable aluminum ladder of 2m	Nos.	1						
3	Assorted Portable aluminum ladder of 5m	Nos.	1						
4	portable plug in type inspection lamps with mechanical protection cover for 240V with 5 meter cable.Cable shall be flexible copper with braided sheath	Nos.	14						
5	Power plug consisting of five no. power sockets of 5A/15A,with 30m cable length and five pin 32 A plug to be connected from the nearest receptacle.Cable shall be flexible copper with braided sheath.	Nos.	3						
I	EXIT SIGN	Nos.	65						
J	Structural steel								
1	Structural steel	MT	5						
K	Hume Pipe								
1	Hume pipe 100 mm dia	mtrs.	100						
L	GI wire & Flat								
1	16 SWG Wire	mtrs.	40000						
2	35X6 mm GS Flat	mtrs.	700						
3	50X6 mm GS Flat	mtrs.	1000						
4	40 mm Dia MS Rod 3M long	Nos.	1250						
	TOTAL OF ABOVE								
NOTES:									
1.Bidder to provide warranty of equipment performance for a period of 24 months after the illumination system is handed over to customer.									
2. Items shall be cleared for manufacturing and supply in stages (Lots) on the basis of engineering progress. Required information of engineering progress to be furnished by supplier who is responsible for engineering of lighting system.Quantiy variation shall be limited to +/-30% of PO value.									
3. Accessories has to be worked out for the total supply as per BOQ. The price to be quoted for SUPPLY accordingly for equipment and fittings.									
4. Design engineering charges are considered to be included in main equipment supply price. No separate charges shall be applicable.									

4 x 225 MW ARUN - III HEP
LIGHTING FIXTURES,LAMPS & MISC. ITEMS

BOQ CUM UNPRICED SCHEDULE (MANDATORY SPARES) ANNEXURE-II

S no	DESCRIPTION	QTY.	UNIT EX-WORKS PRICE (Rs.)	TOTAL EX- WORKS PRICE (Rs.)	FREIGHT@...% (Rs.)	TOTAL EX- WORKS PRICE + FREIGHT (Rs.)	GST@18% (Rs.)	TOTAL F.O.R Price (Rs.)
1	Multiple plug power sockets suitable for							
	63A/ 32A	20% of installed quantity						
	15A/ 5A	20% of installed quantity						
2	Multiple plug suitable for							
	63A/ 32A	20% of installed quantity						
	15A/ 5A	20% of installed quantity						
3	Control gear box of each type	20% of installed quantity						
4	Lighting fixtures of each type used	20% of installed quantity						
5	All type of switches, contactors, terminal blocks, screws	20% of installed quantity						
6	Lux meter	1 No						
7	Lug, thimble, glands etc.	10% of installed quantity						
	TOTAL OF ABOVE							

4 x 225 MW ARUN - III HEP
LIGHTING FIXTURES,LAMPS & MISC. ITEMS
BOQ CUM UNPRICED SCHEDULE (SUPERVISION OF ERECTION & COMMISSIONING) ANNEXURE-III

SR. No.	ITEM CODE	ITEM DESCRIPTION	UOM	Quantity	UNIT RATE (INR)
1.0	558-12086-A	SUPERVISION OF ERECTION & COMMISSIONING			
1.01		CHARGES PER VISIT	VISIT	2	20000
1.02		MANDAYS CHARGES	DAYS	8	5000

Notes :

1. For supervision of E&C 4(four) Visits and 20 (twenty) Mandays to be considered. The prices shall be inclusive of charges of Airfare (To & Fro), Boarding, Lodging, Medical, Insurance etc.
2. Amount payable per visit = Visit charges as per Sl. No 1.01 above (+) Unit Price for mandays charges as per Sl. No 1.02 above (x) No. of mandays at site (to be certified by BHEL Site)
3. The total Mandays mentioned for supervision of E&C also include Mandays of inspection of installation for completeness and correctness of work.
4. Unit rate for 1.01 and 1.02 above shall remain firm. Supervision of E&C rate shall not be considered for price evaluation.
5. Nos. of visit and Mandays for supervision of E&C may increase based on project requirement.



ITEMS : Lighting Fixtures, Lamps, Junction boxes, Miscellaneous Items.

SCOPE:

Supply (Including Design) : YES

Erection & Commissioning: No

Services : YES (Supervision of E&C)

1.0	<p><u>Manufacturing Capability</u></p> <p>The bidder shall have designed, manufactured, type tested and at least the specified quantity of the all equipments covered under the scope of this contract of Power Plant of 200MW rating or higher in last 20 years and supplied equipment should be in successful operation for at least 2 years in last 10 years as on the date of Bid opening.</p>
2.0	<p><u>Lighting System Design Capability</u></p> <p>Lighting designer as per sub-vendor list (refer technical specification).</p> <p>or</p> <p>The vendor / agency should have engineered / prepared Minimum 33 number drawings including Lighting Design calculations (Minimum 10 No.), Lighting layout Drawings (Min. 10 No.), Conduit layout drawings (Minimum 10 No.), Power distribution schemes (Minimum 2 no.) and lighting single line diagrams (Minimum 1 No.) for power stations or refineries and Petro-Chemical plants/process plants/ other industrial installations. Drawings should be customer approved.</p>

Notes:

1. In case vendor is able to meet criteria at Sl. No. 1 only and not Sl. No. 2 above, vendor can tie-up with any lighting designer (herein termed associate) who is meeting all criteria mentioned in S. No. 2 & submit the credentials of associate if required. Vendor to submit MOU on non-judicial stamp paper of Rs. 100 /- with associate at bidding stage.
2. In case vendor is able to meet criteria at Sl. No. 2 only and not Sl. No. 1 above, vendor can tie-up with any lighting manufacturer (herein termed associate) who is meeting all criteria mentioned in S. No. 1 & submit the credentials of associate. Vendor to submit MOU on non-judicial stamp paper of Rs. 100 /- with associate at bidding stage.
3. Bidder to note that MOU on non-judicial stamp paper once offered to BHEL cannot be changed till the execution of the project.
4. The requirement at Sl no 1 is customer PQR.

General Points of PQR:

1. Cut-off date for credentials shall be considered same as date of techno-commercial bid opening.
2. **Consideration of offer shall be subject to customer's approval of bidders.**

PREPARED BY

N. Mohan
 21.09.24

NAME: MANMMOHAN
 MAHAPATRA
 DESIGNATION: Sr. MANAGER

CHECKED BY

Hema
 21/9/24

NAME: HEMA KUSHWAHA
 DESIGNATION: DGM

REVIEWED BY

Preveen Dutta
 21/9/24
 NAME: PREVEEN DUTTA
 DESIGNATION: AGM-
 ELECT

APPROVED BY

Debasish Rath
 21/9/24
 NAME: DEBASISH RATH
 DESIGNATION: GM-ELECT

3. 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.
4. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
5. After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all other terms of the tender.

PREPARED BY

M. Manmohan
21.09.24
NAME: MANMMOHAN
MAHAPATRA
DESIGNATION: Sr MANAGER

CHECKED BY


Hema
21/9/24
NAME: HEMA KUSHWAHA
DESIGNATION: DGM

REVIEWED BY

Preveen
21/9/24
NAME: PREVEEN DUTTA
DESIGNATION: AGM-
ELECT

APPROVED BY

Debasish
21/9/24
NAME: DEBASISH RATH
DESIGNATION: GM-ELECT

	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-437-558-E006
		Rev. No. 00
		Date : 12.09.2024


ARUN-III HYDRO ELECTRIC PROJECT (4X225 MW), NEPAL

TECHNICAL SPECIFICATION FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS

SPECIFICATION No. **PE-TS-437-558-E006**



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

	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-437-558-E006
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	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-437-558-E006
		Rev. No. 00
		Date : 12.09.2024


SCOPE


SCOPE OF THIS PACKAGE COVERS THE FOLLOWING:		
1	SUPPLY INCLUDING DESIGN, ENGINEERING & MANUFACTURING	YES
2	INSPECTION & TESTING AT MANUFACTURER WORKS (CALIBRATION/CV TEST)	YES
3	E&C	NO
4	SUPERVISION OF ERECTION & COMMISSIONING	YES
5	MANDATORY SPARE	YES
6	O & M SPARE	NO
7	COMMISSIONING SPARE	NO
8	PACKING	YES
9	TRANSPORTATION & DELIVERY TO SITE	NO
10	LIGHTING SYSTEM DESIGN	YES


	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-437-558-E006
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	GENERAL TECHNICAL REQUIREMENT
1	Following items are excluded from the scope of supply of this package: Poles, Mast, LDB, WDB, Lighting panels, Rigid conduit, Cables and PVC Wires .
2	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.
3	Bidder shall also ensure that the offered equipment shall comply with all applicable statutory and regulatory requirements.
4	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.
5	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.
6	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.
7	Latest codes and standards shall be complied with as on date of techno-commercial bid opening.
8	After award of contract, bidder shall submit the Quality Plan no. 000-0-999-QOE-S-062 along with Annexures as enclosed with the specification on compliance route without any deviation. Inspection / testing shall be witnessed as per same, apart from review of various test certificates/ Inspection records etc.
9	Equipment must be safe, reliable and easy to maintain at all operating conditions
10	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
11	The illumination system shall be designed on the basis of best engineering practice and shall ensure uniform, reliable, aesthetically pleasing and glare free illumination. All fixtures shall be of proven design for applications in power plant environment. The lighting fixtures shall be designed for minimum glare. The design shall prevent glare/luminous patch seen on VDU/ Large video screens, when viewed from an angle. The finish of the fixtures shall be such that no bright spots are produced either by direct light source or by reflection. The diffusers/ louvers used in fixtures shall be made of impact resistant polystyrene sheet and shall have no yellowing property over a prolonged period.
12	<p>Following sizes of 1100 V grade, Light Duty PVC insulated unsheathed, single core, stranded copper conductor wires will be used:</p> <ul style="list-style-type: none"> * Lighting Panel to JBs/ Switches: 2.5 sq. mm (Cu Wire) * JBs/ switches to Fixtures: 2.5 sq. mm (Cu Wire) * Panel to First receptacles: 4.0 sq. mm (Cu Wire) * First receptacles to looping other receptacles: 4.0 sq. mm (Cu Wire) * In case of only one receptacles in ckt., Panel to receptacles: 4.0 sq. mm (Cu Wire) * Panel/ JBs to flood light fixtures: 2-1C x 2.5 sq. mm (Cu Wire) <p>Note: Wires & Cables are not in vendor's scope of supply, however vendor to show size & quantity in CLO drawings. Wiring in hazardous area if applicable, transformer yard, outdoor area (like Miscellaneous areas) will be done using 3C-2.5 sq. mm (Cu), PVC insulated, FRLS XLPE sheathed armoured cable.</p>
13	<p>Earthing of lighting system will be done by using of following sizes of wire / flat:</p> <p>Lighting fixtures, receptacles, conduits, junction boxes & switch boxes: 16 SWG GI wire</p> <p>MLDB, Pole, highmast, Welding receptacles: GS Flat 50x6 mm</p> <p>Lighting panel: GS Flat 35x6 mm</p> <p>Electrode for pole/high mast: 40mm dia Ms rod</p> <p>All the earthing to various equipment like receptacles, junction boxes etc shall be provide at two point.</p>
14	Luminaires suitable for surface mounting shall also be suitable for pendant mounting. Knockouts of 20mm ET conduit fixation shall be provided for this purpose. Fixture shall be suitable for 2.5 mm ² wire connection.
15	Recessed type decorative luminaires shall be suitable for mounting with gypsum boards / luxalon / plaster of Paris/ aluminium frame false ceiling of standard size
16	Typical Mounting arrangement of Lightng fixtures is shown under Annexure-E, all indicated accessories required for mounting of fixtures shall be supplied along with the respective lighting fixture.
17	Vendor shall prepare and submit Lighting layout and Conduit layout drawings considering the following requirements for purchaser's approval :

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17.1	<p>Lighting calculations for indoor areas covering details such as room dimensions (length, width, height), illumination level, maintenance factor (Dust prone indoor/outdoor areas: 0.6, Control room, office area/ air conditioned areas : 0.8, Indoor areas (non-ac): 0.7) at 40 degree ambient, reflection factor (For AC Areas/ White n light colors ceiling : 80, wall : 40, floor : 20 & For non-conditioned area: ceiling : 60, wall : 40, floor : 20), type of luminaire, mounting height of luminaire, room index, coefficient of utilisation, no. of luminaires (AC Normal & AC Emergency), lumen output of each luminaire, reference drawings and remarks.</p> <p>Working height from floor level should be considered as 0.85 m.</p> <p>Lighting design for indoor areas will be done by LUMEN method only.</p> <p>For a given indoor area, number of luminaires is calculated as follows: $\text{Number of luminaires} = (L \times W \times \text{LUX LEVEL (Average)}) / (\text{LUMEN} \times \text{COU} \times \text{MF})$ Where, L= Length of room (Restricted to Max. 5 times of width) W= Width of room LUMEN= Lumen output of each lamp COU= Coefficient of Utilisation MF= Maintenance Factor Coefficient of Utilisation (COU) is determined from the COU chart for a particular luminaire of the manufacturer, corresponding to selected reflection factors and calculated Room Index. Room index should be calculated using the following formula : $(L \times W) / ((L+W) \times MH)$ where MH : Mounting height of luminaire . L&W : Length and width of the room</p>	
17.2	<p>Apart from maintenance factors given above, temperature correction factor shall be considered in the lighting design for fixtures located in non air conditioned areas.</p>	
17.3	<p>Lighting calculations for outdoor areas covering average illumination level, type of luminaire, chart for illumination level at various points in the area; location (coordinates), number and height of poles; type, number (normal + emergency) and orientation of luminaires etc. Lighting design for outdoor area, open area shall be done by computer programme as per standard norms for lighting design to meet the specified lux level. For outdoor lighting and road lighting ratio of minimum to average illumination will not be less than 0.3 and for minimum to maximum will not be less than 0.05. Average maintenance factor for outdoor and road lighting: 0.6.</p>	
17.4	<p>Single line diagrams of power distribution upto Lighting Panels. Separate drawing for complete lighting distribution shall also be prepared by vendor.</p>	
17.5	<p>Loads on each phase of LP and LDB with consideration of diversity factor(50%) for sockets.</p>	
17.6	<p>Layout drawings for each indoor area indicating location of luminaires, sockets, fan points, exhaust fans, LDBs and LPs. Details of type of luminaires, source of power supply (AC Normal, AC Emergency and DC Emergency). Bill of Material shall also be covered which shall include unit wise requirements of luminaires and other items.</p>	
17.7	<p>Layout drawings for each outdoor area indicating location of poles / towers, orientation of luminaires, sockets and LPs. Details of pole height / mounting height, type of luminaires, source of power supply (AC Normal, DC Emergency). Bill of Material shall also be covered for various types of luminaires.</p>	
17.8	<p>Conduit layout drawings with wiring and load distribution details as superimposed on the area layout drawings indicated above. Drawings shall include Bill of Material for conduits, wires, cables etc.</p>	
17.9	<p>Wires shall be laid in GI conduits of 20mm dia size (minimum). Filling area of wires in conduit shall not exceed 40% of conduit area. Wiring of AC Normal, AC Emergency and DC services will run in separate conduits. Lighting and receptacles will be fed from separate circuits. No two different phase circuits will be run in same conduit. However, different circuit of same phase may be laid in the same conduit. A maximum of 20 fittings per circuit will be connected to one phase. At least two sub circuits shall be used for illumination of a particular area. Sub circuit loading of each lighting panel shall be restricted to 2000 Watts.</p>	
18	<p>Cables shall run in cable trays. Conduit is not applicable for the portion where cables are used.</p>	
19	<p>Master Bill of Material (to be submitted at regular intervals of engineering progress) including all items required for the complete lighting system viz. lighting fixtures, lamps, Lighting DBs, Welding DBs, lighting panels, conduits, PVC wires, cables etc.</p>	
20	<p>Lighting panels shall have 20% spare outgoing feeders. AC NLP (with timer for outdoor LP) shall have 6/12/18 outgoing feeders as per the loading requirement of the area where LP is installed. Street LP shall have 6 outgoing feeders.</p>	
21	<p>The vendor shall guarantee satisfactory performance of the equipment supplied under all conditions and requirement as laid down by this specification.</p>	
22	<p>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.</p>	


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23	<p>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 90 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 designation of LED shall be "cool day light" (min 5700K) type for indoor areas. However for outdoor areas, the colour temperature of LED shall be min. 4000K, including rough & dust prone areas. LED shall conform to the LM 80 requirements.</p> <p>The max. junction temperature of LED shall be 85 deg C. Further the lumen maintenance at this temperature shall be min 90%. The THD of LED Luminaires shall be less than 10%. Further the EMC shall be as per IS 14700. The power factor of the luminaire shall not be less than 0.9. The marking on luminaire & safety requirements of luminaire shall be as per IS standards. Suitable heat sink with proper thermal management shall be designed & provided in the luminaire.</p> <p>The connecting wires used inside the system, shall be low smoke halogen free, fire retardant type and fuse protection shall be provided in input side specifically for LED luminaire.</p> <p>Care shall be taken in the design that there is no water stagnation anywhere in the housing of the luminaire. The entire housing shall be dust and water proof protection as per IS 12063.</p>	
24	<p>The lighting fixtures in the plant area shall be group controlled from lighting panel. The lighting fixtures in office areas, control rooms etc. shall be controlled by switches. Each switch shall control a maximum of three fluorescent fixtures.</p>	
25	<p>LED Luminaires shall be used for the lighting of all the indoor & outdoor areas. However, for hazardous areas lighting etc. conventional type or LED luminaires shall be used. In false ceiling area LED luminaires shall be recessed mounting type & in non-false ceiling area the LED luminaires shall be surface mounting type. Any special cable required for the same shall be in the supplier scope.</p>	
26	<p>The LED luminaire shall have minimum life of 44,000 burning hours with 80% of lumen maintenance at the end of the life.</p>	
27	<p>For all outdoor fixtures, all metal parts shall be made of high-pressure die-cast aluminium with non-corrosive finish. For outdoor equipment lighting, fixtures shall be flood type. The housing shall be diecast aluminium and the reflector shall be high grade aluminium. Frame shall be designed for easy re-lamping. The front glass shall be heat & shock resistant with the gasket for jet-proof and dust- proof sealing.</p>	
28	<p>Occupancy based passive infra-red sensors (if applicable as per BOQ cum price schedule). The sensors shall be recess mounted, programmable type suitable for lighting load of 6A with variable off delay settings. The detection area shall be minimum 5 metres for standard room height of 3mt. All the calibrated settings shall be stored in non-volatile memory of PIR sensor which shall be unaffected by power supply fluctuations. Necessary 16A contactor shall be supplied along with each sensor & shall be located inside the switch box. Occupancy sensors shall be installed in office, store, toilets, conference room and pantry to turn off or on the lights depending upon occupancy for the purpose of power saving. Requisite co-ordination and provision of necessary contacts and / or ports for integration of lighting system with plant SCADA system shall be made.</p>	
29	<p>Lighting system will be provided with AC normal and DC emergency as listed against various areas.</p> <p>The sources of power lighting are as below:</p> <p>(i) 415V AC Normal (ACN) Supply from lighting distribution boards / switchboard MCCs</p> <p>(ii) 220V DC Supply from DC Distribution Board</p> <p>(iii) DC lighting is to be provided through self-Contained DC Emergency lighting fixtures, (totally enclosed single unit suitable to receive 240 V +/- 10% AC, 50 Hz supply) with four hours back-up duration, at strategic locations, in auxiliary/ offsite buildings wherever DC lighting is not available. The fixtures shall be switched 'ON' automatically in case of failure of AC supply.</p> <p>For main plant area normally all AC luminaries will be in service on normal AC supply.</p> <p>For Average lux level, type of fixtures, lighting and LV service to be provided in different areas please refer to performance guarantees.</p>	
30	<p>Receptacles boxes shall be fabricated out of die-cast aluminium alloy of thickness not less than 2.5 mm. The boxes shall be provided with two nos. earthing terminals, gasket to achieve IP55 degree of protection, terminal blocks for loop-in loop-out for cable of specified sizes, mounting brackets suitable for surface mounting on wall/column/structure, gland plate etc. The ON-OFF switch shall be rotary type heavy duty, double break, AC23 category, suitable for AC supply. Plug and Socket shall be shrouded Die-cast aluminium. Socket shall be provided with lid safety cover. Robust mechanical interlock shall be provided such that the switch can be put ON only when the plug is fully engaged and plug can be withdrawn only when the switch is in OFF position. Also cover can be opened only when the switch is in OFF position. Wiring shall be carried out with 1100 V grade PVC insulated stranded aluminium/copper wire of adequate size. The Terminal blocks shall be of 1100 V grade. The Terminal blocks shall be of 1100 V grade made up of unbreakable polyimide with adequate current rating and size. The welding receptacles shall be provided with RCCB/RCD of 30mA sensitivity having facility for manual testing/checking of operation of RCCB/RCD.</p>	
31	<p>(i) Decorative receptacle: At least 02 number 6/16A, 6-Pin, 240V AC decorative socket with switch will be provided in control room, office area, store room, cabin etc. In office area, suitable number of decorative socket with switch to be provided for IT requirements.</p> <p>(ii) Industrial receptacle: At least 01 number each of 20A (240V) and 32A(415V) ,5-Pin, AC industrial type receptacles with switch will be provided at suitable location in industrial area. All receptacles will be controlled with a switch. In hazardous areas receptacles shall be of flameproof type.</p>	


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32	(iii) Welding receptacle: 63A, 3-phase, 415V AC welding receptacles with isolating switch will be provided at specific points near all major equipment and at an average distance of 50m (location will be decided during detailed engineering). Maximum 03 nos. receptacles will be fed through one feeder.	
33	For items other than fixtures, bidder to furnish test certificates/conformance certificate during detailed engineering.	
34	Glands & lugs for JB's for cables shall be in bidder scope.	
35	Rubber components used in the gland shall be of neoprene. Name / trade name of manufacturer, type no. and applicable range of outer diameter of cable shall be engraved / indelibly printed on the cable gland	
36	All equipment shall be supplied with the power and control cable lugs of suitable size, whether specifically mentioned or not. Name / trade name and size of lug shall be engraved/ indelibly printed on each cable lug.	
37	Containers adequate for storing 100% of P.O. quantity material at site are to be 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.	
38	Packing slip & holder: Packing slip kept in polyethylene bag shall be placed inside the container at appropriate place. 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 of the container.	
39	<p>Junction box (JB) shall be made of fire retardant material. Material of JB shall be Thermoplastic or thermosetting or FRP type. The box shall be provided with the terminal blocks, mounting bracket and screws etc. The cable entry shall be through galvanized steel conduits of 20mm diameter. The JB shall have suitable knockouts on four sides of conduits or drilled during execution. The JB shall be suitable for surface mounting on ceiling/structures. The JB cover shall be either hinged or chain supported. The JB shall be of grey color RAL 7035. All the metal parts shall be corrosion protected. Terminal block shall be stud type suitable for loop-in loop-out of up to 2 numbers of 10 sq.mm aluminium conductors and tap off of 2.5 sq. mm copper conductors. The JB shall have internal provision to maintain earth continuity of connected metal conduits and shall have provision for lighting fixture earthing. Junction box surface should be such that it is free from crazings, blisterings, wrinkling, colour blots/striations. There should not be any mending or repair of surface. JB's will be provided with captive screws so that screws don't fall off when cover is opened. JB's mounting brackets should be of powder coated MS.</p> <p>Type test reports shall be furnished for the following Type tests.</p> <p>(a) Impact resistance for impact energy of 2 Joules (IK07) as per BS EN50102 (b) Thermal ageing at 70deg C for 96 hours as per IEC60068-2-2Bb. (c) Class of protection shall be IP 65. (d) HV test.</p>	
40	RECOMMENDED SPARE PARTS: The bidder is required to provide the itemized price list, under the respective price schedule, for the recommended luminaires / spare parts for 5 years operation.	

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A. GENERAL INFORMATION		
1	PROJECT	ARUN-III HYDRO ELECTRIC PROJECT (4X225 MW), NEPAL
SYSTEM DATA		
1	Design ambient temperature	40 °C
2	AC Supply	
a	Rated voltage	415V
b	Rated frequency	50 Hz
c	Voltage variation (permissible)	+10% to -10%
d	Frequency variation (permissible)	+5% to -5%
e	Combined voltage & frequency variation (sum of absolutes permissible)	10%
f	System fault level & duration	20 kA for 1 sec.
3	DC Supply	
a	Rated voltage	220
b	Voltage variation (permissible)	+10% to -15%
c	System fault level & duration	10 kA for 1 sec.
B. DESIGN CODES & STANDARDS		
1	APPLICABLE STANDARDS	a) IS 3646 Code of practice for interior illumination. b) IS 6665 Code of practice for industrial lighting. c) IS 1944 Code of practice for lighting of public thoroughfare. d) IS 10322 Luminaires. e) IS 16101 General Lighting, LEDs & LED Modules Terms and definitions. f) IS 16102-1 Self-Ballasted LED lamps for General Lighting Services: Safety requirement. g) IS 16102-2 Self-Ballasted LED lamps for General Lighting Services: Performance requirement h) IS 16103-1 LED modules for General lighting safety requirements. i) IS 15885-2 Lamp Control gear. j) IS 16104 A.C. or D.C. supplied Control gear for LED modules k) IS 16105 Method of measurement of Lumen maintenance of solid state (LED) sources l) IS 16106 Method of electric and photometric measurement of solid state (LED) products m) IS 16107 Luminaires performance n) IS 1293 Plugs and socket outlets of rated voltage upto and including 250 volts and rated current upto and including 16 amperes o) IS 4160 Interlocking switch socket outlet p) IS 374 Electric ceiling type fans and regulators q) IS 2629 Recommended practice for hot dip galvanising of iron & steel r)IS 2603 Method of testing uniformity of coating on zinc coated articles s) IS 3480 Flexible steel conduits for electrical wiring t) IS: 3696Scaffolds & ladders - Code of safety u) IS: 4571 Aluminium extension ladders
2		IS: 10322-Luminaries requirements (Part 1 to 5) (Sections 1 to 5). IS: 1293 3 pin plugs. IS: 371 Ceiling roses. IS: 3854 Switches for domestic and other similar purposes. IS: 5216 Guide for safety procedures and practices in electrical works. IS: 732 Code of practice for Electrical wiring installations. (System voltage not exceeding 650 Volts) IS: 3043 Code of practice for earthing. IS: 1944 Code of practice for lighting of public thoroughfares. IS: 5571 Guide for selection of electrical equipment for hazardous areas. IS: 800 Code of practice for use of structural steel in general building construction. IS: 2633 Methods of testing uniformity of coating on zinc coated articles. IS: 6005 Code of practice for phosphating iron and steel. IS: 3646 Code of practice for Interior Illumination part I, II and III
C. TECHNICAL PARAMETERS / DESIGN FEATURES		
Lighting Concept: Types of supplies considered (other than AC Normal)		
1	AC emergency	NO
2	DC emergency	YES
EQUIPMENT DETAILS		
1	LUMINAIRES, LAMPS & ACCESSORIES	
a	Technical particulars of Lighting fixtures	As per Annexure-B
b	Type of false ceiling for recessed LED luminaire	After Award of Contract
c	Degree of protection for drip proof luminaires	Outdoor: Min IP65 and weather Proof Indoor: Surface / pendant mounting :IP65 & IP67 Recess mounting (false ceiling): IP21.
d	Hazardous area classification of flameproof lighting fixtures	Zone-2, Group IIA/IIB of hazardous area as per IEC-60079
e	Type of LED Lamps	Cool Daylight


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2	Emergency Lighting Unit		
a	Lamp type		LED
b	Nos. of Lamp		2
c	Lamp wattage		6
d	Lumen output of lamp at rated voltage		To be furnished by vendor
e	Type of battery		Ni-Cd
f	AH capacity of battery		To be furnished by vendor
g	Battery voltage		9 V
h	Battery backup time		4 Hrs
i	In-built charger		YES
3	Exit Sign		
a	Lamp type		LED
b	Nos. of Lamp		1
c	Lamp wattage		12
d	Lumen output of lamp at rated voltage		To be furnished by vendor
e	Type of battery		Ni-Cd
f	AH capacity of battery		To be furnished by vendor
g	Battery voltage		To be furnished by vendor
h	Battery backup time		4 Hrs
4	Junction Box (other than Street Light Junction box)		JB-F Type: Provided with four (4) way stud type terminals for terminating upto 2 nos. 2.5 mm ² copper wire on each terminal, suitable for outdoor installations. JB-FE Type: Same as JB-F but with an additional epoxy coating of 50 micron thickness.
a	Enclosure material		Thermoplastic / thermosetting / FRP type.
b	Enclosure thickness		3 mm
c	Degree of protection		IP-65 for indoor & outdoor
5	Industrial/ Welding Receptacle		
a	Enclosure material		CRCA sheet steel with electrostatic powder coating
b	Enclosure thickness		2 mm (min)
c	Process of galvanization		Hot dip galvanized
d	Weight of zinc (Thickness)		460 g/m ² (65 micron)
e	Degree of protection		IP-55
f	other details		Industrial (20/32A) Receptacle (RA1/RA3 TYPE): (i) 20/32A, 230V/415V, 1-phase/3-phase, 2/4 pole, 3/5-pin (third/5th pin scrapping earth) porcelain, metal clad socket with a metallic cover tied to it. (ii) Rotary, heavy duty 20/32A switch conforming to applicable standard. (iii) Shrouded, die-cast aluminium plug. (iv) It shall be combined interlocked weather proof industrial unit. (v) Mechanical interlock shall be provided as follows : <input type="checkbox"/> Switch can be put ON only when plug is fully engaged. <input type="checkbox"/> Plug can be withdrawn only when switch is in OFF position. <input type="checkbox"/> Cover can be opened only when switch is in OFF position. (vi) The arrangement should ensure that water does not enter the plug when socket is ON. (vii) Loop-in loop-out terminals shall be provided inside the box suitable for 4 mm ² Cu wire./3.5CX25 mm ² XLPE Aluminium cable. <u>Welding (63A) Receptacle (RC TYPE):</u> (i) 63A, 415V, 3-phase-neutral earth, metal clad socket with cover (ii) Rotary, heavy duty 63A switch conforming to applicable standard. (iii) Shrouded, die-cast aluminium plug (iv) It shall be combined, interlocked weather proof industrial unit. (v) Mechanical interlock shall be same as that are applicable for RA type receptacles (vi) The receptacle boxes shall be suitable for entry and exit of 3.5CX50 mm ² XLPE Aluminium 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.

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6	Decorative Receptacle	
a	Enclosure material	CRCA sheet steel
b	Enclosure thickness	2 mm
c	Surface treatment	Galvanized
d	Process of galvanization	Hot dip galvanized
e	Weight of zinc (Thickness)	460 g/m ² (65 micron)
f	Degree of protection	IP-20
g	other details	(i) RB TYPE: 16A, 230V, 1-phase, 2 pole, 3-pin, third pin grounded socket with integral piano key type switch, flush mounted on decorative bakelite (6 mm thick)/ perspex (3 mm thick) sheet as cover of the boxes. Suitable for 25mm conduit entry, (ii) Loop-in loop-out terminals shall be provided. These will be located in office areas.
7	Switch Box	
a	Enclosure material	Galvanized MS Sheet.
b	Enclosure thickness	1.6mm MS sheet with 3mm thick decorative, Perspex cover.
c	Degree of protection	IP-20
d	Switchboard types	(i) Type SWB1 - Switch board with 2 no. 5A switch, JB type SW1. (ii) Type SWB2 - 3 nos. 5A switches, 1 No. 5A socket, JB type SW2. (iii) Type SWB3 - 5 nos. 5A switches, 1 No. 5 A Socket, 1 No. fan regulator, JB type SW3. (space provision shall be kept for fan regulator in switch boxes) (iv) Type SWB4 - 7 nos. 5A switches, 1 No. 5A Socket, 3 nos. fan regulator, JB type SW4.(space provision shall be kept for fan regulator in switch boxes) JB-SW1/2/3/4 Provided with stud type terminals including spare terminal, each terminal suitable for terminating upto two nos. of 2.5 mm ² copper wires.
8	Flexible conduit	
a	Type	Electrogalvanized cold rolled annealed conduit with PVC coating
b	Size	20 mm dia
c	Standard length	25 to 50 m
9	Cable Glands	By vendor for all incoming and outgoing cables/wires
a	Type	Double compression screw type
b	Material	Tinned Brass
c	Nickel Plating provided	YES
d	Flameproof glands with flameproof equipment	YES
10	Cable Lugs	By vendor for all incoming and outgoing cables/wires
a	Type	Crimping type/ ring type
b	Material	Tinned copper
11	LADDERS	
a	Type	Both (Free standing and Wheel Mounted)
b	Material	Aluminium
c	Duty	Medium
d	Surface treatment	Galvanized
12	CEILING FAN	
a	Type	Copper wound single phase motor, aerodynamically designed well balanced Aluminium blades (3 nos.), down rod, die cast Aluminium housing, capacitor, suspension hook, canopies etc.
b	Finishing	Finished in stove enamelled white or with electro static powder coating
c	Power factor	min. 0.9 (except for hazardous and flameproof areas)
d	Voltage	240V +/- 10%, 50Hz, AC
e	Insulation	Class 'E' or better
f	Sweep	1200MM sweep with Stepped electronic regulator
4.0	PERFORMANCE PARAMETERS	
4.1	Vendor shall ensure satisfactory performance for lighting system designed by them at site. In the event of non satisfactory performance i.e. if the desired lux levels are not demonstrated at site, bidder shall supply (free supply without any cost to BHEL) additional lighting fixtures to achieve the desired lux levels as per specification requirement	
5.0	INSPECTION/TESTING	
5.1	As per standard Quality Plan (000-0-999-QOE-S-062) (enclosed with technical specification)	
5.2	TYPE TEST	
5.2.1	All equipment to be supplied shall be of type tested design. During detailed engineering, the contractor shall submit for Owner's approval the reports of all the type tests as listed in this specification and carried out within last ten years from the date of techno commercial bid opening. These reports should be for the test conducted on the equipment similar to those proposed to be supplied under this contract and the test(s) should have been either conducted at an independent laboratory or should have been witnessed by a client.	
5.2.2	However, if the contractor is not able to submit report of the type test(s) conducted within last ten years from the date of techno commercial bid opening, or in the case of type test report(s) are not found to be meeting the specification requirements, the contractor shall conduct all such tests under this contract at no additional cost to the owner either at third party lab or in presence of client/ owners representative and submit the reports for approval.	

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5.2.4	LED Fixtures type test reports to be submitted for one rating each of following type of LED Fixtures: 1. High Bay Fixture 2. Well glass fixture (if applicable) 3. Street Light Fixture 4. Surface mounted type fixture 5. Recessed mounted type fixture	
5.2.5	All acceptance and routine tests as per the specification and relevant standards shall be carried out. Charges for these shall be deemed to be included in the equipment price.	
5.2.6	Selection of samples for Type test, acceptance test, routine tests and acceptance criteria for all the items shall be as per relevant IS.	
5.2.7	Type test reports for LED as per standards for following shall be submitted for Approval: 1. Visual and Dimension check 2. Proof of procurement of LEDs 3. Safety tests a) Marking b) Construction c) Provision for Earthing d) External and Internal wiring e) Protection against electrical shock f) Endurance and Thermal g) Insulation resistance & electrical strength h) Resistance to heat fire & tracking i) Resistance to Humidity 4. Fire Retardant test 5. Performance tests (electrical, Photometric color and Life) 6. Burn-in Test 7. Power Cycling 8. Temperature rise test 9. Emission Tests a) Radiated & conducted emission b) Harmonics & flickers 10. Immunity tests	
5.2.8	In addition, following test reports to be submitted for LED chip/LED luminaire: a) LED parameters like Lumen per watt, CRI, Beam angle from manufacturer b) LM 80/IS: 16105 report. c) LM 79/IS: 16106 report.	

D. PACKING

1	PACKING	<p>a. The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.</p> <p>b. Lighting Fixtures, Lamps, Receptacles, Switchboards, 24V Supply modules, 24V sockets, Junction Boxes, Exit signs shall be clean and dry prior to packaging.</p> <p>c. All items specified at sl. No. (b) above shall be supplied in packed cartons. The tapes used for packing shall not bleed, leave residue, or damage the item when removed.</p> <p>d. Fixtures & other lighting material shall be wrapped in weather proof material such as polythene sheets, air bubble sheets/ thermocol etc. The lighting fixtures shall be placed in a corrugated paperboard/ fibreboard container/ mono carton.</p> <p>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.</p> <p>f. The dimensions of cartons shall be as per manufacturer's recommendations.</p> <p>g. For items like step ladder, wheel mounted ladder and flexible conduits, packing shall be as per manufacturer standard.</p> <p>h. Containers adequate for storing 100% of P.O. quantity material at site are to be supplied. Vendor shall furnish suitable justification to purchaser during detailed engineering for the number and size of containers being supplied.</p>
		<p>The contractor shall wrap, pack and crate all plant included in the work or part thereof, suitable for shipment to a tropical location, facilitating proper handling and protection from damage in rail, truck, ocean or air shipment as applicable. An approved drying agent, such as Silica Gel, shall be packed in containers or packages holding plant which may be adversely affected by moisture or excessive humidity.</p> <p>All packing crates shall be clearly marked before shipping to indicate the contract number, shipping address, volume, weight, name, number and unit number of the contents, slinging and weight bearing points.</p> <p>All plant parts shall be marked to facilitate erection. Each packing crate shall contain a packing list in a waterproof envelope. Parts shall be described and also identified by their numbered marking in the packing list.</p> <p>Three copies of the packing list shall be forwarded to the purchaser prior to dispatch. The ownership of packaging materials shall be of Employer. All wooden packaging crates and steel support structures shall be dumped to the designated area within 5kms of the power house as per the direction of Engineer in charge.</p>

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ANNEXURE-A

PERFORMANCE GUARANTEES TO BE DEMONSTRATED AT SITE

AVERAGE LUX LEVEL & TYPE OF FIXTURES

S. No.	LOCATION	AVERAGE LUX LEVEL	TYPE OF LIGHTING FIXTURES
1.0	GENERAL AREAS		
1.1	Store	150	Industrial type LED fixture
1.2	Changing rooms, washrooms and toilets	150	Industrial type LED fixture
1.3	Staircases	150	Industrial type LED fixture
1.4	All lift landing	150	Industrial type LED fixture
1.5	Pantry/canteen	150	Industrial type LED fixture
1.6	MATs, interconnecting tunnel, inspection gallery of Dam	200	Industrial Well Glass LED fixture / Street Light LED fixture/Flood light LED Fixture
1.7	Cable tunnel , ventilation tunnel, escape tunnel, Adit-2 of HRT, Bus duct tunnel	100	Industrial Well Glass LED fixture / Street Light LED fixture/Flood light LED Fixture
2.0	OFFICE AREAS		
2.1	Offices	300	Decorative recessed mounted LED fixture
2.2	Conference room	300	Decorative recessed mounted LED fixture
2.3	Data processing areas	300	Decorative recessed mounted LED fixture
2.4	Control room	300	Decorative recessed mounted LED fixture
3.0	EQUIPMENT AREAS		
3.1	Power house machine hall, service bay area	300	Industrial medium / high bay LED fixture
3.2	High and low voltage switching installations in building	200	Industrial type LED fixture
3.3	DG set room	200	Industrial type LED fixture
3.4	Battery room	200	Industrial type corrosion proof LED fixture
3.5	LTAC Area	200	Industrial type LED fixture
3.6	Mechanical equipment areas	200	Industrial type LED fixture
3.7	Drainage / dewatering gallery and sump	100	Industrial type waterproof LED fixture
3.8	Blower room	200	Industrial type LED fixture / medium bay LED fixture
3.9	GIS building	200	Medium bay LED fixture
3.9	Transformer cavern	200	Well glass LED fixture / Medium bay LED fixture/Flood light LED fixture
3.10	Turbine pit	200	Industrial type LED fixture with anti-vibration pad
3.11	BFV house	200	Well glass LED fixture / Medium bay LED fixture
3.12	Surge shaft building	200	Industrial type LED fixture
3.13	Dam complex building	200	Industrial type LED fixture
3.14	Workshop building	200	Well glass LED fixture / High bay LED fixture
4.0	OUTDOOR AREA		
4.1	Surge shaft area	20	Well glass LED fixture / Street Light LED fixture
4.2	Various approach road	20	Street Light LED fixture
4.3	TRT area	20	Industrial type Flood Light LED fixture
4.4	Dam area	20	Street Light LED fixture / Industrial type Flood Light LED fixture
4.5	Pot head yard	50	Street Light LED fixture / Industrial type Flood Light LED fixture
4.6	Surge shaft building	20	Industrial type LED fixture
5.0	DC EMERGENCY		LED Downlighter / Bulkhead / Recessed type
6.0	TOWER MAST	30	LED

LED* : Minimum 10% of total fixtures with minimum restriking time shall be provided

Notes:

- Decorative type fixtures to be provided for false ceiling areas.
- High bay fixtures shall have vibration damper.

LIGHTING & LV POWER SERVICES IN DIFFERENT AREAS

S. No.	AREA	ACN	DCE	5/15A Socket	20A Socket
1	Power House Complex (Machine area / Control Room)	Y	Y	Y*	Y
2	Transformer Cavern	Y	Y	-	Y
3	BFV House	Y	Y	-	Y
4	Service Bay	Y	Y	-	Y
5	Tunnels	Y	Y	-	-
6	Switchgear Rooms	Y	Y	-	Y
7	Pump Houses	Y	-	-	Y
8	DG Room / Blower Room	Y	Y	-	Y
9	Surge Shaft Area	Y	Y	-	Y
10	Dam Complex building	Y	Y	-	Y
11	Road	Y	-	-	-
12	Toilets, pantry, store other utility area	Y	-	Y*	-
13	Staircase	Y	Y	-	-
14	Drainage Gallery & inspection gallery of dam	Y	-	-	-
15	Outdoor area	Y	-	-	-
16	Workshop Building	Y	-	-	Y**

LEGEND:

ACN:

AC Normal Lighting

DC Emergency Lighting

Y:

YES

Y*:

YES, in control room, offices, stores, pantry, toilets

63A and 32A three-phase industrial receptacle (1 no. of each on Turbine floor and MIV floor each) shall be provided.

Y**: 2 Nos. (63A), 2 Nos. (32A) and 1 No. (20A), three-phase industrial receptacle shall be provided


	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-437-558-E006 Rev. No. 00 Date : 12.09.2024
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ANNEXURE-B: DETAILS OF LIGHTING FIXTURES

S. No.	Type of Luminaire	Description	Total Luminous Flux (Lumen) of Luminaire – Min. Value	Measured Electrical Input Power (Watt) of Luminaire – Max. Value
1	FC02(LED)	Industrial type LED fixture totally enclosed suitable for conduit /surface/ suspended mounting, with integral driver aesthetically designed for Drainage/ dewatering sump & gallery, area under turbine pit and turbine with IP67 protection	2800	38
2	FC26(LED)	Panel 600 mm X 600 mm LED luminaire suitable for recess mounting in false ceiling with integral driver aesthetically designed for Control Room/ Office	3780	42
3	SF63(LED)	Flood light, heavy duty type LED fixture	16920	188
4	SF64(LED)	Flood light, heavy duty type LED fixture	27000	300
5	SF66(LED)	Flood light, heavy duty type LED fixture	45000	500
6	SB02(LED)	Medium Bay Industrial type LED fixture	16920	188
7	SB03(LED)	High Bay Industrial type LED fixture	24750	275
8	SS62(LED)	Street light LED fixture	10080	112
9	FC34(LED)	Decorative, recessed type LED fixture having integral driver. Fixture shall operate on 220V DC input supply. Necessary accessories like DC to AC convertor etc. to be included in fixture, if required.	1260	14
10	FC06 (LED)	Industrial type LED fixture totally enclosed suitable for conduit /surface/ suspended mounting, with integral driver aesthetically designed for Switchgear / Equipment room/ Staircase/ Corridor/battery room with IP65 protection	3780	42
11	FC33 (LED)	Well glass/bulk head dust proof type LED fixture having integral driver. Fixture shall operate on 220V DC input supply. Necessary accessories like DC to AC convertor etc. to be included in fixture, if required.	1260	14

Notes:

- 1) LED must comply all the parameters of IS 16105 or IESNA LM-80-08.
- 2) The Luminaire must comply all the parameters of IS 16106 or IESNA LM-79-08.
- 3) The LED driver should comply to IEC 61347-2-13, IS 15885: Part 2: Sec 13, IEC 62384, IS 16104 and CISPR 15.
- 4) The luminaire complete with all accessories shall comply to relevant specified standards.
- 5) The values of maximum measured electrical input power are specified above for the luminaire (including any accessories like driver module etc). Values of luminous flux and maximum input power shall be measured as per IS 16106 & shall not be subject to any further tolerance.

	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS			Specification No.: PE-TS-437-558-E006
				Rev. No. 00
	DATA SHEET-B			Date : 12.09.2024
(Bidder to fill details of luminaires as per parameters mentioned below and furnish Data Sheet – B along with technical offer)				
S. No.	DESCRIPTION	LUMINAIRE MAKE AND MODEL	MEASURED ELECTRICAL INPUT POWER	TOTAL LUMINOUS FLUX (LUMEN) OF LUMINAIRE -
	MAIN SUPPLY ITEMS		(W) MAX. VALUE	MIN. VALUE
1	Lighting Luminaires			
1.10	Luminaire Type FC02 (LED)			
1.2	Luminaire Type FC06 (LED)			
1.30	Luminaire Type FC26 (LED)			
1.4	Luminaire Type SF63 (LED)			
1.50	Luminaire Type SF64 (LED)			
1.6	Luminaire Type SF66 (LED)			
1.70	Luminaire Type SB02 (LED)			
1.8	Luminaire Type SB03 (LED)			
1.90	Luminaire Type SS62 (LED)			
1.1	Luminaire Type FC33 (LED)			
1.11	Luminaire Type FC34 (LED)			
1.12	Luminaire Type Downlighter (LED)			
NOTE: THE ABOVE LIST IS INDICATIVE, ALL LIGHTING FIXTURES AS PER INDENT BOQ ARE TO BE MADE PART OF THE DATA SHEET-B				

	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-437-558-E006
		Rev. No. 00
		Date : 12.09.2024


COMPLIANCE CERTIFICATE	
1	It is hereby confirm that the technical specification (sheet 1 to 62) 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

	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS				Specification No.: PE-TS-437-558-E006 Rev. No. 00 Date : 12.09.2024
ANNEXURE D : LIST OF DOCUMENTS TO BE SUBMITTED AFTER AWARD OF CONTRACT					
BHEL Drawing No.	Drawing Title	Vendor Sub (Days)*	Bhel comment (Days)	Vendor Sub (Days)#	Bhel and Customer comment/approval (Days)
Primary Documents					
PE-V0-437-558-E101	GA DRAWING AND DATA SHEET OF LIGHTING FIXTURES	21	8	8	18
PE-V0-437-558-E102	GA DRAWING AND DATA SHEET OF MISC. ITEMS	21	8	8	18
PE-V0-437-558-E901	MQP FOR LUMINARIES	21	8	8	18
Secondary Documents Submission schedule shall be same as Primary documents (after receiving input drawing from BHEL)					
PE-V0-437-558-E201	Lighting design calculation of areas as per Annexure-A				
PE-V0-437-558-E301	Lighting layout drawing of areas as per Annexure-A				
PE-V0-437-558-E401	Conduit layout drawing of areas as per Annexure-A				
PE-V0-437-558-E106	MOUNTING ARRANGEMENT LIGHTING FIXTURES				
PE-V0-437-558-E107	MOUNTING ARRANGEMENT OF MISC. ITEMS				
PE-V0-437-558-E108	TYPE TEST REPORTS FOR LIGHTING FIXTURES				
PE-V0-437-558-E109	TYPE TEST REPORTS FOR MISC. ITEMS				
PE-V0-437-558-E109	Field Quality Plan of lighting fixtures				
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					
d) Vendor shall submit the dates for drawing/document submission/BHEL comments/ resubmission after approval of documents.					
e) The list of LDC/LLO/CLO drawings mentioned above is tentative and can change during detailed engineering. (LDC- Lighting Design Calculation, LLO- Lighting Layout Drawing, CLO- Conduit Layout Drawing)					
DRAWINGS & DOCUMENTS TO BE SUBMITTED AS FINAL/AS-BUILT DOCUMENT					
Sl. No.	DOCUMENT TITLE				
1	APPROVED DOCUMENTS				
2	Field Quality Plan of lighting fixtures				

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	REMARKS
ES10	CABLE CLAMPS & CABLE TIES	1	E1045	ELECTROMAC IND.CORPN.	27/28 AF,NEW EMPIRE IND.ESTT., R.KRISHNA MANDIR RD.JB NGR ,ANDHERI(E), MUMBAI-400059	
	CABLE CLAMPS & CABLE TIES	2	I01	INCAB	HARE STREET,KOLKATA,WEST BENGAL-700001	
	CABLE CLAMPS & CABLE TIES	3	N05	NOVOFLEX MARKETING PVT. LTD.	RAIKVA' - 5TH FLOOR, UNIT-6 3A, RAM MOHAN MULICK GARDEN LANE KOLKATA - 700 010	
ES11	CABLE GLANDS	1	E1201	ALLIED TRADERS & EXPORTERS	C-124 A, SECTOR-2, NOIDA -201 301, UTTAR PRADESH, INDIA	
	CABLE GLANDS	2	E1017	ARUP ENGG & FOUNDRY WORKS	391/119,PRINCE ANWAR SHAH ROAD, CALCUTTA-700068	
	CABLE GLANDS	3	E1206	BALIGA LIGHTING EQPT.PVT.LTD.	63A,CP RAMASWAMY ROAD, ALWARPET,P.B.No 6910, CHENNAI-600018	
	CABLE GLANDS	4	E1036	COMMET BRASS PRODUCTS	NUTAN CHEMICAL COMPOUND, WALBHAT ROAD, GOREGAON, MUMBAI-400063	
	CABLE GLANDS	5	DW08	DOWELLS	M/S. DOWELLS ELECTRICALS 47/47A, SATGURU INDUSTRIAL ESTATE. OFF AAREY ROAD, GOREGOAN (EAST). MUMBAI 400 063.	
	CABLE GLANDS	6	E1044	ELECTROMAC INDUSTRIES	27/28AF NEW EMPIRE IND.ESTT., R.KRISHNA MANDIR RD.JB NGR ,ANDHERI(E),MUMBAI-400059	
	CABLE GLANDS	7	I01	INCAB	HARE STREET,KOLKATA,WEST BENGAL-700001	
ES12	CABLE LUGS	1	E1040	DOWELLS	M/S. DOWELLS ELECTRICALS 47/47A, SATGURU INDUSTRIAL ESTATE. OFF AAREY ROAD, GOREGOAN (EAST).	
	CABLE LUGS	2	E1149	UNIVERSAL MACHINES LTD.	4,B.B.D.BAG (EAST) 90,STEPHEN HOUSE,5TH FLR CALCUTTA-700001	
ES19	FLEXIBLE CONDUIT (PVC COATED)	REPUTED MAKE				
ES21	CONTROL SWITCHES/ SELECTOR SWITCH	1	E1076	KAYCEE	KAYCEE INDUSTRIES LTD., C/O-CMS COMPUTERS LTD., 35A, REAR BLDG., KILOKARI, NEW DELHI-110014	
	CONTROL SWITCHES/ SELECTOR SWITCH	2	A35	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	
	CONTROL SWITCHES/ SELECTOR SWITCH	3	G01	ALSTOM LTD	A-7, SEC-65, NOIDA	
	CONTROL SWITCHES/ SELECTOR SWITCH	4	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	
	CONTROL SWITCHES/ SELECTOR SWITCH	5	SRC01	M/s Shrenik & Co.	39A/3, PANCHRATNA INDUSTRIAL ESTATE, SARKHEJ-BAVLA ROAD, CHANGODAR,	
	CONTROL SWITCHES/ SELECTOR SWITCH	6	RE05	RECOM PVT. LTD.	M/S RECOM PVT. LTD.,16A , 2ND FLOOR A, WING RAJ INDUSTRIAL COMPLEX, MILITARY	
ES25	DC SWITCH	1	A35	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	
	DC SWITCH	2	E1076	KAYCEE	KAYCEE INDUSTRIES LTD., C/O-CMS COMPUTERS LTD., 35A, REAR BLDG., KILOKARI, NEW DELHI-110014	
	DC SWITCH	3	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	
ES27	EMER. PORTABLE LTG. SET	1	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	
	GALVANISING	1		Jenco Industrial Corporation	Chincholi Bunder Khkar Road Near Link Road Devruwadi Malad (W) Mumbai 400064	
	GALVANISING	2		National Galvanizing Company	66, Barrackpore Kamarhatt Trunck Road Calcutta-700058	
	GALVANISING	3		Sigma Galvanising Pvt. Ltd.	Plot No.C-169, TTC, MIDC Ind Area Navin Mumbai-400705	
	GALVANISING	4		B.P. Projects PVT LTD	167A, Vivekananda Road Kolkata-700006	
	GALVANISING	5		Standard Galvanisers	Makardah Road, Kabar Para, Bankra, Howarah -711403	
	GALVANISING	6		Steel Products	National Highway No. 6, Chamrail, Kona, Howrah-711114	
	GALVANISING	7		Unitech Fabricators & Engineers Pvt. Ltd.	Village- Ajab Nagar, P.O. -Molla Simlla, P.S. - Singur, Dist - Hoogly, Pin-712223	
	GALVANISING	8		Shivam Engineers & Fabricators	A0-282-284, Industrial Area, South Side of G.T. Road, Ghaziabad, U.P.	
	GALVANISING	9		B.G. Shirke Construction Technology Pvt. Ltd	72-76, Mundhawa, Pune - 401 036	


ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	REMARKS
ES30	GALVANISING	10		Galbro Ispat Galvanizers Pvt. Ltd.	GUT 11 AND 12, OPP. Kudus Steel,Rolling Mill, Wada, Thane , Mumbai	
	GALVANISING	11		Eros Infrastructures Pvt. Ltd.	G-97, MIDC, Bhutibori , Nagpur-441108, Maharashtra	
	GALVANISING	12		Industrial Perforation (India) Pvt. Ltd.	Ganganagr, Katakhal, Kolkata-700132	
	GALVANISING	13		Indmark Formtech Pvt. Ltd.	Phase - 3, E - 11 / 1, M. I. D. C., Chakan, Pune - 410 501, Maharashtra, India.	
	GALVANISING	14		Namdhari Industrial Traders Pvt. Ltd.	Village Latton Dana, Chandigarh Road, Ludhiana	
	GALVANISING	15		Neha Galvaniser	Jalan Industrial Estate, Gate No-1, 1st Right Choise Lane, Near N.G-6, Jangalpur, PO Domjur Howrah - 700071, West Bengal, India	
	GALVANISING	16		Patny Systems (P) Ltd.	Unit-IV, Sy No. -228/9, Plot No. 6, IP Kuchavaram, Toopran(M) Dist.- Medak, Telegana - 502336	
	GALVANISING	17		Parmar Metal Company	Survey No.207,Veraval (Shapar) Dist. Rajkot, India.	
	GALVANISING	18		Rukmani Electrical & Components Pvt Ltd	Urla Industrial Area, Urla Sarora Road, Raipur- 493 221 (Chhattisgarh)	
	GALVANISING			Rukmani Fab & Gal Pvt Ltd	Shankharidaha Baniyarah, Jalan Industrial Complex, Gate no.3, Lane no. 4, Domjur, Howrah , W.B. - 711411	
	GALVANISING	19		DMP Projects Pvt.Ltd.	Dulagarh Industrial Park , PS-Sankrail , Howrah -711302	
	GALVANISING	20		Vinfab Engineers India Private Limited	Gut no. 224/1 &2 Bhiwandi Wada State Highway, Village khupri, Dist. Thane, Maharashtra -421303	
	GALVANISING	21		Saral Projects & Processors	B-1, Industrial Area, Site-II, Amawan Road Rae Bareli	
	GALVANISING	22		Brahampuri Steels Limited	172 (F) Industrial Area, Jhotwara, Jaipur-302013	
	GALVANISING	23		Indiana Gratings PVT. LTD	F-5, MIDC Jejuri, Pune-412 303	
	GALVANISING	24	AT08	M/s AVAIDS TECHNOVATORS PVT. LTD.	131, MATSYA INDUSTRIAL AREA, ALWAR RAJASTHAN	
	GALVANISING	25	RP08	M/s Ratan Projects & Engineering Co. Pvt. Ltd.	VILL Muslim Para, PO- Barunda, P.S – Bagnan, Howrah – 711 303	
ES33	IND.POWER & WLDG SOCKETS	1	C02	CROMPTON GREAVES	3RD FLOOR, EXPRESS BUILDING,9-10, BAHADUR SHAH ZAFAR MARG, NEAR ITO CROSSING,NEW DELHI-110002, INDIA	
	IND.POWER & WLDG SOCKETS	2	E1207	CYCLO ELECTRIC DEVICE & SERV.CO.	: A-3, NEAR ANTHEM BIOSCIENCE, KSSIDC INDUSTRIAL AREA, BOMMASANDRA, BOMMASANDRA INDUSTRIAL AREA, BANGALORE, KARNATAKA 560099	
	IND.POWER & WLDG SOCKETS	3	B04	BCH	20/4, MATHURA ROAD, FARIDABAD - 121006, HARYANA, INDIA	
	IND.POWER & WLDG SOCKETS	4	B02	BEST & CROMPTON	Best & Crompton Engineering Ltd 28C, Ambattur Industrial Estate (North) Ambattur, Chennai - 600 098	BEST & CROMPTON ENGINEERING LTD 28C, AMBATTUR INDUSTRIAL ESTATE (NORTH)
	IND.POWER & WLDG SOCKETS	5	A03	AJMER INDUSTRIES & ENGG. WORKS	AJMER INDL. AND ENGG. WORKS. AJMER HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	
ES35	INDICATING LAMPS	1	B04	BCH	20/4, MATHURA ROAD, FARIDABAD, HARYANA-121006	
	INDICATING LAMPS	2	C01	C&S ELECTRIC LTD.	222, OKHLA IND. ESTATE, PH-III, NEW DELHI-110020	
	INDICATING LAMPS	3	E1050	ESSEN DEINKI	FLAT NO. 502, SKYLINE HOUSE 85, NEHRU PLACE NEW DELHI	
	INDICATING LAMPS	4	E1153	VAISHNO(HOTLINE SWGR.& CONTROL)	G-19, SECTOR - 11, NOIDA - 201301, UTTAR PRADESH, INDIA	
	INDICATING LAMPS	5	A35	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	
	INDICATING LAMPS	6	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	
	INDICATING LAMPS	7	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	
	JUNCTION BOXES (NON FLAME PROOF)	1	J01	JASPER ENGNIREES PVT. LTD.	A-23, SECTOR - 8, NOIDA-201301	
	JUNCTION BOXES (NON FLAME PROOF)	2	EC05	Electro Controls & Devices	M/S ELECTRO CONTROLS & DEVICES, F-41, SITE-C, SURAJPUR INDUSTRIAL AREA GREATER NOIDA, UTTAR PRADESH :201308	

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	REMARKS
ES36	JUNCTION BOXES (NON FLAME PROOF)	3	SRC01	M/s Shrenik & Co.	39A/3, PANCHRATNA INDUSTRIAL ESTATE, SARKHEJ-BAVLA ROAD, CHANGODAR, AHMEDABAD – 382 213	
	JUNCTION BOXES (NON FLAME PROOF)	4	PME-01	M/s PHOENIX MECANO LTD.,	388 BHARE, TALUKA MULSHI, POST GHOTAWADE, PIRANGOOT, INDUSTRIAL AREA, PUNE-412115	
	JUNCTION BOXES (NON FLAME PROOF)	5	ACE01	Adroit Control Engineers Pvt.Ltd.	M/S ADROIT CONTROL ENGINEERS PVT.LTD. PLOT-3, KRISHNA INDL. AREA, SECTOR-25 FARIDABAD – 121004	
	JUNCTION BOXES (NON FLAME PROOF)	6	PME-01	M/s PHOENIX MECANO LTD.,	388 BHARE, TALUKA MULSHI, POST GHOTAWADE, PIRANGOOT, INDUSTRIAL AREA, PUNE-412115	
	JUNCTION BOXES (NON FLAME PROOF)	7	MK01	MIKA ENGINEERS	BRANCH OFFICE : 'D'-101, DHEERAJ HERITAGE RESIDENCY II, SHASTRI NAGAR, SANTACRUZ (W), MUMBAI 400 054.	TYPE-S ONLY
	JUNCTION BOXES (NON FLAME PROOF)	8	PME-01	M/s PHOENIX MECANO LTD.,	388 BHARE, TALUKA MULSHI, POST GHOTAWADE, PIRANGOOT, INDUSTRIAL AREA, PUNE-412115	
	JUNCTION BOXES (NON FLAME PROOF)	9	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	
	JUNCTION BOXES (NON FLAME PROOF)	10	A03	AJMERIA INDUSTRIES & ENGG. WORKS	AJMERIA INDL. AND ENGG. WORKS. AJMERIA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	
	JUNCTION BOXES (NON FLAME PROOF)	11	SB02	S.B. ELECTRICAL ENGINEERING CORPORATION	03, SARDAR GRIHA BUILDING, LOHAR CHAWAL, MUMBAI-400002	
	JUNCTION BOXES (NON FLAME PROOF)	12	RT13	RITTAL INDIA PVT. LTD.	Espire Building ,Level -1 A-41, Mohan Co-Operative Industrial Estate ,Mathura Road, New Delhi -110044	
	JUNCTION BOXES (NON FLAME PROOF)	13	HP08	HPL ELECTRIC AND POWER LTD.	Works Address: Village Shavella, PO:Jabli, Teh- Kasauli, Dist-Solan, Himachal Pradesh-173209	
ES37	JUNCTION BOXES (FLAME PROOF)	1	SS01	SUDHIR SWITCHGEAR	305/6, APEEJAY HOUSE, 130, BOMBAY SAMACHAR MARG, MUMBAI - 400 023.	
ES40	LIGHTING FIXTURES (LED)	1	NE01	Neev Luminaries	B-6/3 Okhla Industrial Area Phase-2 New Delhi 110020	
	LIGHTING FIXTURES (LED)	2	HI01	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA- 201301	
	LIGHTING FIXTURES (LED)	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	
	LIGHTING FIXTURES (LED)	4	SR01	SURYA ROSHNI LIMITED		1
	LIGHTING FIXTURES (LED)	5	P01	PHILIPS	9TH FLOOR,DLF 9B, DLF CYBER CITY, DLF PHASE-III,GURGAON-122002	
	LIGHTING FIXTURES (LED)	6	HP01	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	
	LIGHTING FIXTURES (LED)	7	INS1	INSTA POWER	PLOT NO. - 457 PHASE - V, UDYOG VIHAR, GURGAON - 122016	
	LIGHTING FIXTURES (LED)	8	PT13	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,	
	LIGHTING FIXTURES (LED)	9	HN13	M/s Halonix Technologies Limited	M/s Halonix Technologies Limited B-31 , Phase –II, Noida Distt. Gautam Budh Nagar (U.P.) Pin- 201305	
	LIGHTING FIXTURES (LED)	10	JA13	M/s JAQUAR & COMPANY PVT. LTD.	M/s JAQUAR & COMPANY PVT. LTD. Plot No.3 , Sector M-11, IMT Manesar. Gurgaon- 122050 Haryana	
	LIGHTING FIXTURES (LED)	11	CR13	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-400070	
	LIGHTING FIXTURES (LED)	12	WI13	M/s WIPRO ENTERPRISES PRIVATE LTD.	M/s WIPRO ENTERPRISES PRIVATE LTD. L-8, MIDC Waluj, Aurangabad-431136, Maharashtra, India	

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	REMARKS
	LIGHTING FIXTURES (LED)	13	NI13	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, Ahmedabad	
	LIGHTING FIXTURES (LED)	14	FE13	M/s. Forus Electric Pvt. Ltd.	M/s. Forus Electric Pvt. Ltd. B-313, Okhla Industrial Area, Phase-1, New delhi-110020	
	LIGHTING FIXTURES (LED)	15	OE13	M/s. ORIENT ELECTRIC LIMITED.	C- 130, Sector-63, Noida-201301, Uttar Pradesh, D-209, Sector-63, Noida-201301, Uttar Pradesh	
	LIGHTING FIXTURES (LED)	16	ME13	M/s Mika Engineers	Survey no. 47, shed no. 2, AGHAI, Shahpur-wada road, AGHAI Thane, Maharashtra-421601	
ES41	LIGHTING FIXTURES (FLAME PROOF)	1	HI01	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA- 201301	
	LIGHTING FIXTURES (FLAME PROOF)	2	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	
	LIGHTING FIXTURES (FLAME PROOF)	3	E1206	BALIGA ELECTRICALS	63A,CP RAMASWAMY ROAD, PB NO 6910, CHENNAI-600018	
ES45	LIGHTING SWITCH , SOCKET & S/F UNIT	1	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	
	LIGHTING SWITCH , SOCKET & S/F UNIT	2	E1012	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	
	LIGHTING SWITCH , SOCKET & S/F UNIT	3	E1076	KAYCEE	KAYCEE INDUSTRIES LTD., C/O-CMS COMPUTERS LTD., 35A, REAR BLDG., KILOKARI, NEW DELHI-110014	
	LIGHTING SWITCH , SOCKET & S/F UNIT	4	L01	L&T	32, SHIVAJI MARG, P.O. BOX- 6223, NEW DELHI-110015	
	LIGHTING SWITCH , SOCKET & S/F UNIT	5	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	
	LIGHTING SWITCH , SOCKET & S/F UNIT	6	E1068	INDO ASIAN	B-24, PHASE - II , NOIDA - 201305, U.P.	
ES59	RECEPTACLES - DECORATIVE	1	E1012	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	
	RECEPTACLES - DECORATIVE	2	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	
	RECEPTACLES - DECORATIVE	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	
	RECEPTACLES - DECORATIVE	4	A03	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	
ES61	SWITCH BOX	1	E1012	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	
	SWITCH BOX	2	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	
	SWITCH BOX	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	
	SWITCH BOX	4	A03	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	
	SWITCH BOX	5	SB02	S.B. ELECTRICAL ENGINEERING CORPORATION	03, SARDAR GRIHA BUILDING, LOHAR CHAWAL, MUMBAI-400002	
ES67	RECEPTACLE (FLAME PROOF)	1	E1206	BALIGA ELECTRICALS	63A,CP RAMASWAMY ROAD, PB NO 6910, CHENNAI-600018	
	RECEPTACLE (FLAME PROOF)	2	SS01	SUDHIR SWITCHGEAR	305/6, APEEJAY HOUSE, 130, BOMBAY SAMACHAR MARG, MUMBAI - 400 023.	

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	REMARKS
	RECEPTACLE (FLAME PROOF)	3	FFP01	FCG FLAME PROOF CONTROL GEAR	A1/53, SHAH & NAHAR INDUSTRIAL ESTATE, SITARAM JADHAV ROAD, LOWER PAREL (W), MUMBAI-400 013	
ES68	RECEPTACLE (NON FLAME PROOF)	1	A03	AJMERIA INDUSTRIES & ENGG. WORKS	AJMERIA INDL. AND ENGG. WORKS. AJMERIA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI – 400705.	
	RECEPTACLE (NON FLAME PROOF)	2	C02	CROMPTON GREAVES	3RD FLOOR, EXPRESS BUILDING,9-10, BAHADUR SHAH ZAFAR MARG, NEAR ITO CROSSING,NEW DELHI-110002, INDIA	
	RECEPTACLE (NON FLAME PROOF)	3	E1207	CYCLO ELECTRIC DEVICE & SERV.CO.	: A-3, NEAR ANTHEM BIOSCIENCE, KSSIDC INDUSTRIAL AREA, BOMMASANDRA, BOMMASANDRA INDUSTRIAL AREA, BANGALORE, KARNATAKA 560099	
	RECEPTACLE (NON FLAME PROOF)	4	B04	BCH	20/4, MATHURA ROAD, FARIDABAD - 121006, HARYANA, INDIA	
	RECEPTACLE (NON FLAME PROOF)	5	B02	BEST & CROMPTON	BEST & CROMPTON ENGINEERING LTD 28C, AMBATTUR INDUSTRIAL ESTATE (NORTH) AMBATTUR, CHENNAI - 600 098	
ES69	EMERGENCY LIGHTING UNIT (FIXED & PORTABLE TYPE)- NON FLAME PROOF	1	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	
	EMERGENCY LIGHTING UNIT (FIXED & PORTABLE TYPE)- NON FLAME PROOF	2	PEP05	PROLITE AUTOGLO LIMITED,	PROLITE AUTOGLO LTD 25 SINGH INDUSTRIAL ESTATE NO. 3, RAM MANDIR ROAD., GOREGAON (W), MUMBAI, MAHARASHTRA 400104, INDIA	
ES70	EMERGENCY LIGHTING UNIT (FIXED & PORTABLE TYPE)- FLAME PROOF	1				
ES81	PEDESTAL FAN & CEILING FAN				REPUTED MAKE	
ES82	EXIT SIGN (FLAME PROOF)				REPUTED MAKE	
ES83	EXIT SIGN (NON FLAME PROOF)				REPUTED MAKE	
ES84	LADDER				REPUTED MAKE	
ES87	DICHORIC SPOT LIGHTING FIXTURE				REPUTED MAKE	
ES88	HAND LAMP UNIT				REPUTED MAKE	
ES89	LIGHTING DESIGNER	1	AT13	AVAIDS TECHNOVATORS PVT. LTD.	4A/58, SHANKAR ROAD, NEW DELHI-110060	
	LIGHTING DESIGNER	2	BE13	BAJAJ ELECTRICALS LTD.	801 (8th floor), Rustomjee Aspire, Bhanu Shankar Yagnik Marg, Off Eastern Express Highway Sion (E), Mumbai 400022	
	LIGHTING DESIGNER	3	KS13	KELSATEK SOLUTIONS PVT. LTD.	50/1 4TH FLOOR, CHURCH STREET, BANGALORE-560001	
	LIGHTING DESIGNER	4	SE13	M/s SUMANAM ENGINEERING SERVICES CONSULTANT	1, ADITHYA, KOWDIAR, TRIVANDRUM 695003	
	LIGHTING DESIGNER	5	SM13	SPAN MANUFACTURING COMPANY LTD	27 First Floor, Bhiku Building, Murari Ghag Marg, Prabhadevi, Mumbai-400025	Lighting System designer only for FGD, R&M and Hydro projects
	LIGHTING DESIGNER	6	CL13	CITELUM INDIA PVT. LTD	Y-14A, GREEN PARK MAIN, NEW DELHI-110016	Lighting System designer only for FGD, R&M and Hydro projects
	LIGHTING DESIGNER	7	SR13	M/s SURYA ROSHNI LTD	Padma Tower 1, Rajendra Place, New Delhi-110008	
	LIGHTING DESIGNER	8	HP13	M/s HPL ELECTRIC & POWER PVT. LTD.	WINDSOR BUSINESS PARK, B-1D, SECTOR-10 NOIDA-201301 (UP)	
	LIGHTING DESIGNER	9	ME13	M/s MIKA ENGINEERS.	Survey No.-47,Shed No.-2,Aghai,Shahapur-Wada Road, Village-Aghai, THANE , Pin 421601; MAHARASHTRA	
	LIGHTING DESIGNER	10	FED13	M/s. Forus Electric Pvt. Ltd.	M/s. Forus Electric Pvt. Ltd. B-313, Okhla Industrial Area, Phase-1, New delhi-110020	

NOTE : Make of all the equipment / instrument under this specification shall be subjected to owner's approval in the event of order. Owner reserves the right to accept/ reject any make or sub-vendor and to add new subvendors for the project after award of contract. Approval, rejection or addition of makes shall not have any price implication to the owner after award of contract.

	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>	Hareesh

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	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	
1.3	Castings	Freedom from defects	Major	Visual	Manufacturer Standard	-	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	Manufacturer Standard	-	Manufacturer Standard	Manufacturer 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	Manufacturer Standard	-	Manufacturer Standard	Nominal coating thickness 50 microns or more	Inspection report	√	P/ V *	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 Kumar


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 3 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


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	Manufacturer Standard	-	IS 10322	Approved GA drawing	Certificate of compliance	√	P/V*	V	V
5		Photometry check	Major	Optical	Manufacturer	-	LM79, IS 16106	Approved GA drawing	Certificate of	√	P/V	V	V

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>	MEET SAGAR SINGH RAJPAL	Checked by:	<i>[Signature]</i>	<i>Kundan</i>						
Reviewed by:	<i>[Signature]</i>	HEMA KUSHWAHA	Reviewed by:	<i>[Signature]</i>	<i>Hawa</i>						

	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						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:	22/02/25	MEET SAGAR SINGH RAJPAL	Checked by:	Kundan	Kundan			Reviewed by:			
Reviewed by:	24/02/25	HEMA KUSHWAHA	Reviewed by:	Hairish	Hairish			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	* 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	MEASURE MENT	100%	-	Approved GA drawing	Approved GA drawing	Inspection report		P	V	-	Components shall be of approved Make
2		Paint Shade/ Thickness	Major	VISUAL/ME AS	10%	-	Approved GA drawing	Approved GA drawing	Inspection report		P	V	-	At the time of final Inspection
3		HV/ IR	Major	ELECT.TES TS	100%	-	2KV AC FOR 1 MINUTE	2KV AC FOR 1 MINUTE	Inspection report		P	V	-	
4		Degree Of Protection	Major	TEST	1 Sampl e/Type	-	IS:2147	IS:2147	TEST CERT.	√	P	V	-	
5		Special tests if any, explosion proof etc.	Major	TEST	1 Sampl e/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					
ENGINEERING			QUALITY		
	Sign & Date	Name		Sign & Date	Name
Prepared by:	<i>[Signature]</i> 22/02/24	MEET SAGAR SINGH RAJPAL	Checked by:	<i>[Signature]</i>	Kundan
Reviewed by:	<i>[Signature]</i> 22/2/24	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:			

	MANUFACTURER/ BIDDER/ SUPPLIER NAME & ADDRESS		STANDARD QUALITY PLAN					S.E.C. 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	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	

NOTES:

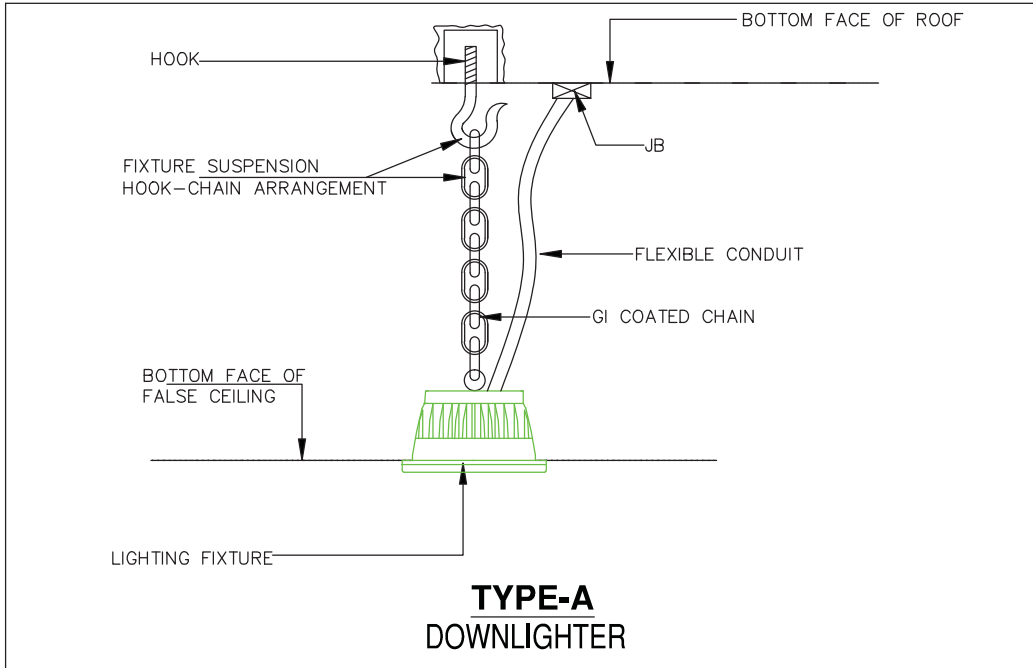
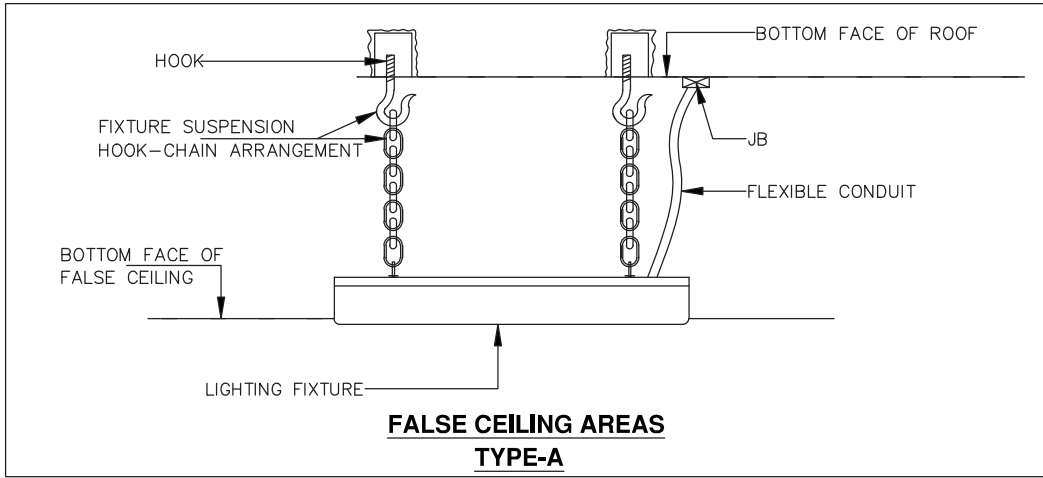
1. P/V/- means test will be performed either by lighting fixture supplier or their sub-vendor and verified by lighting fixture supplier
2. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
3. Items like ceiling fans, emergency lighting unit, flexible 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

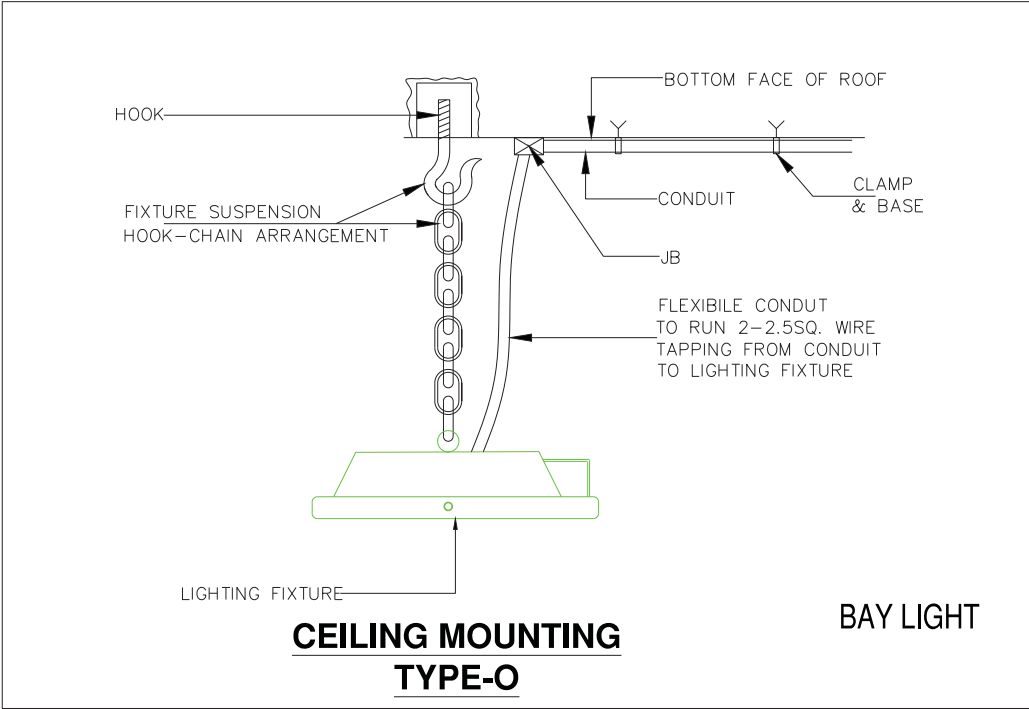
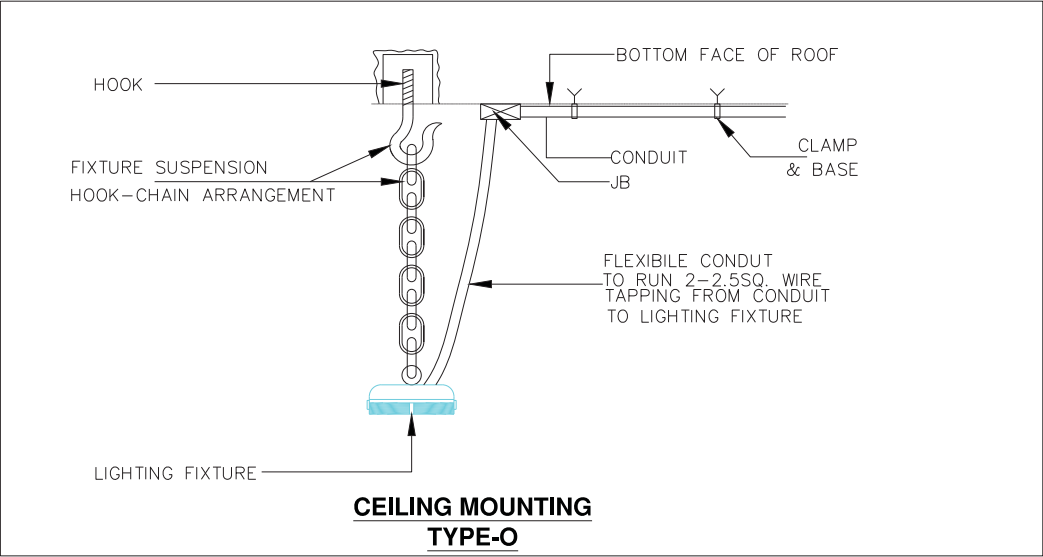
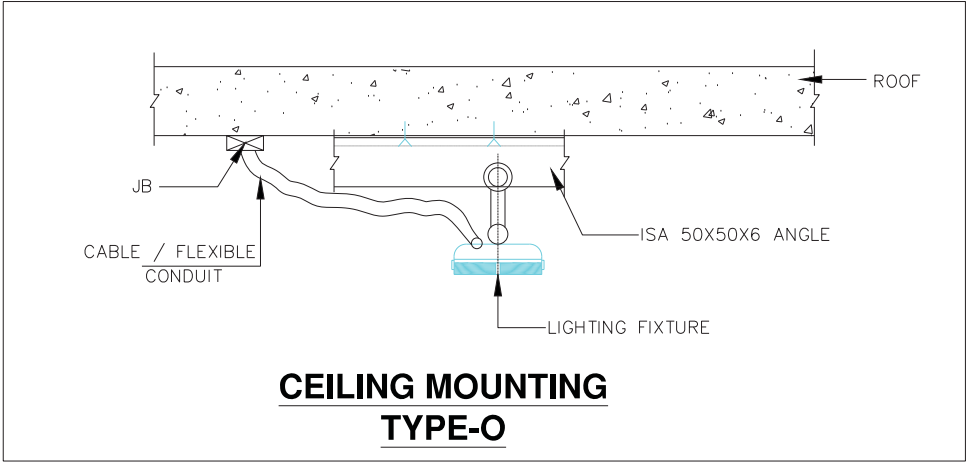
BHEL						BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING			QUALITY			Sign & Date		Doc No.			
Prepared by	Sign & Date	Name	Checked by	Sign & Date	Name	Seal		Reviewed by	Sign & Date	Name	Seal
Reviewed by			Reviewed by					Approved by			

641863/2024/PS-PEM-EL

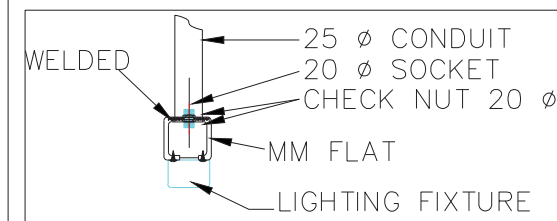
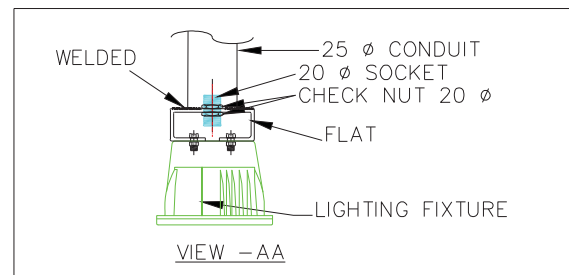
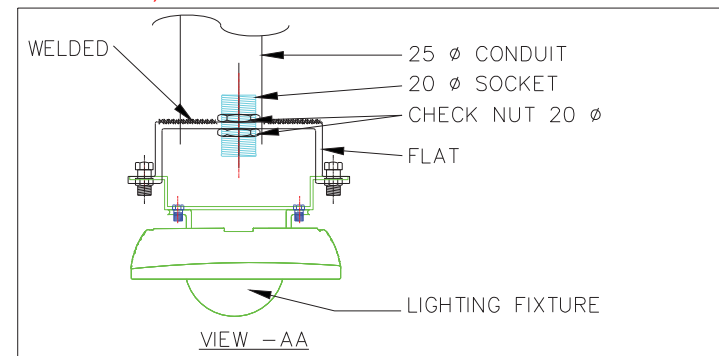
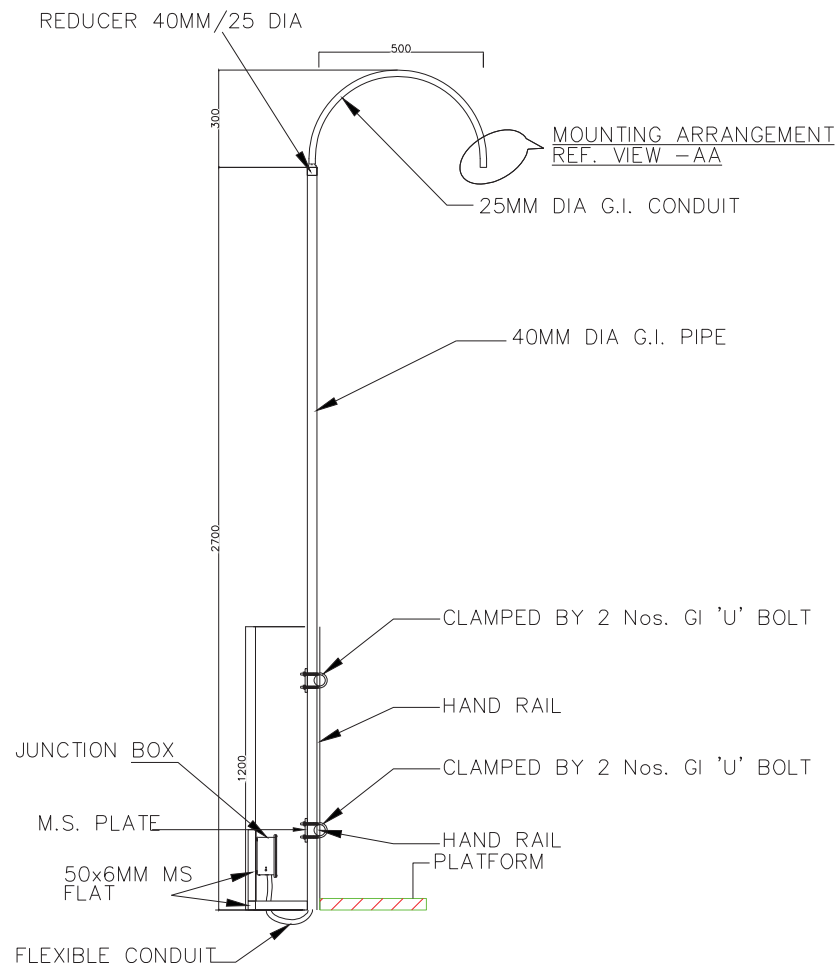


This is aTypical mounting arrangement dwgs/ details for guidance only. Final Mounting arrangment dwg shall be made by the successful bidder during detailed Engineering. It is to be noted that GI Conduit 20mm Dia and Flexible PVC Coated Conduit, Structural Steel shall be provided by BHEL. Balance all 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.

- 2. In Lighting layout, Mounting arrangement also shown. If any Descrepancy 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.

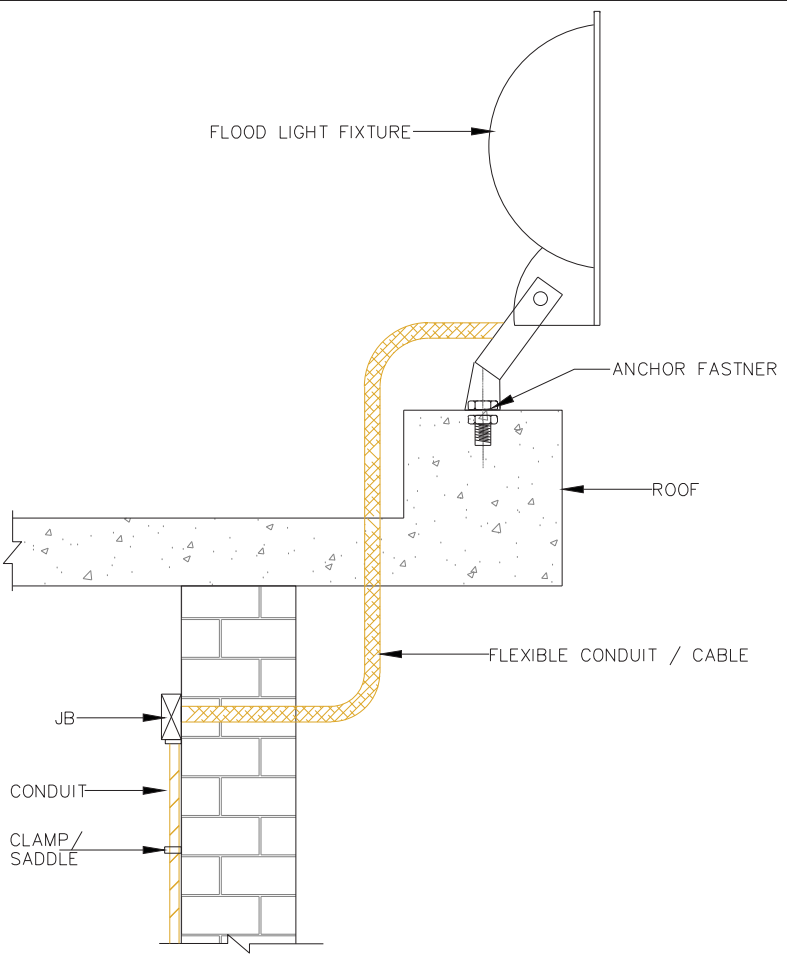


- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Descrpeency found on both documents than Consult with Design incharge/Site Incharge.
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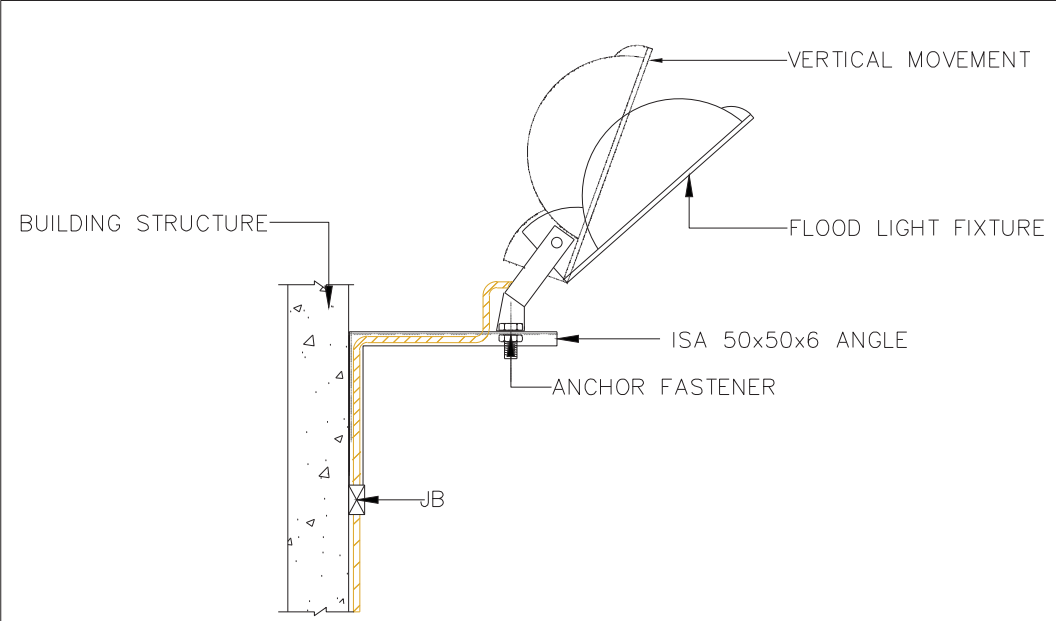


General Notes:

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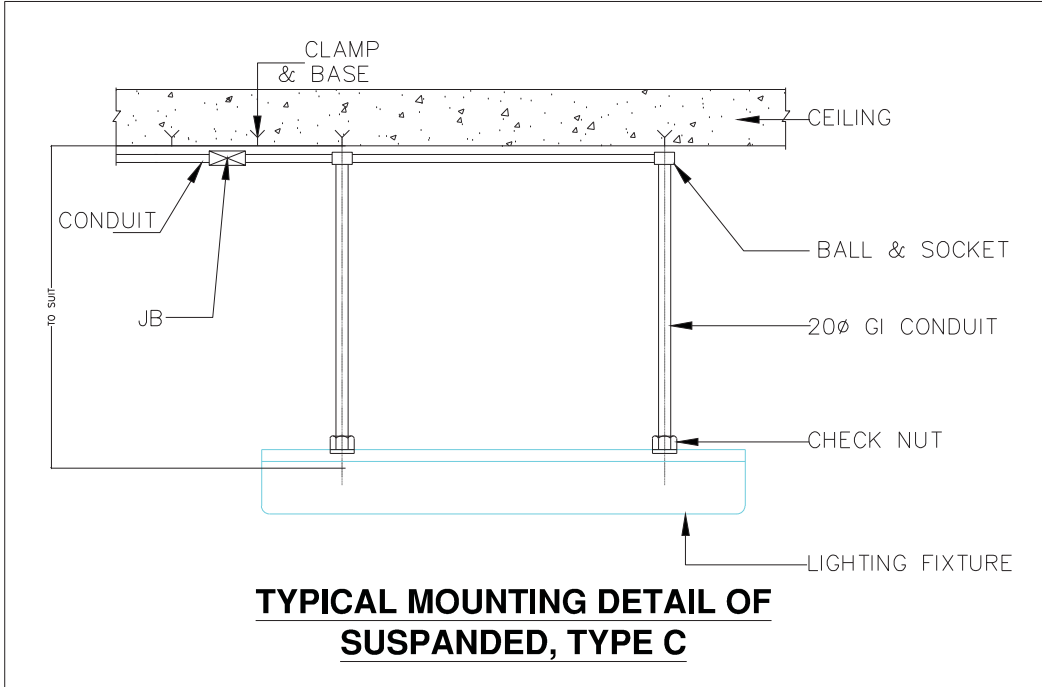
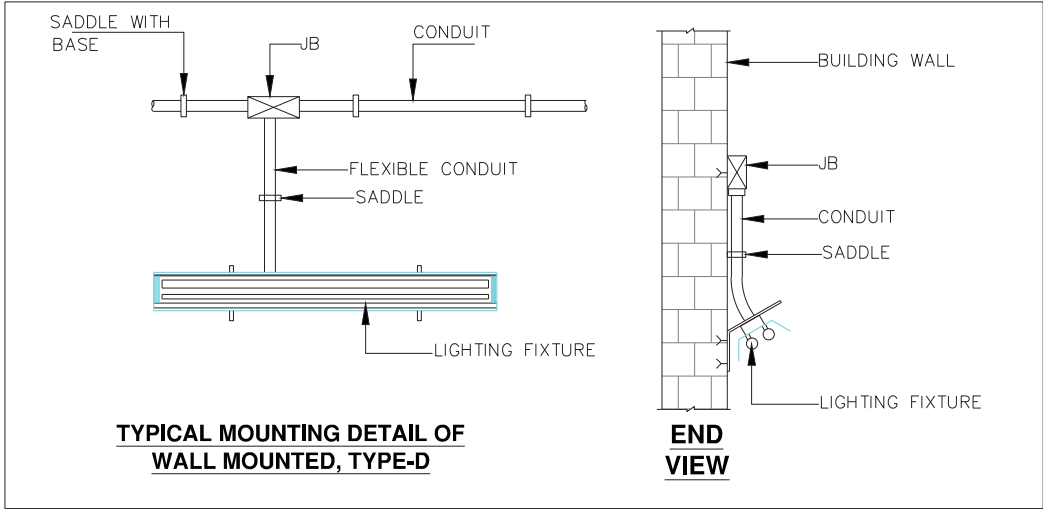


**ROOF MOUNTING
TYPE-P**

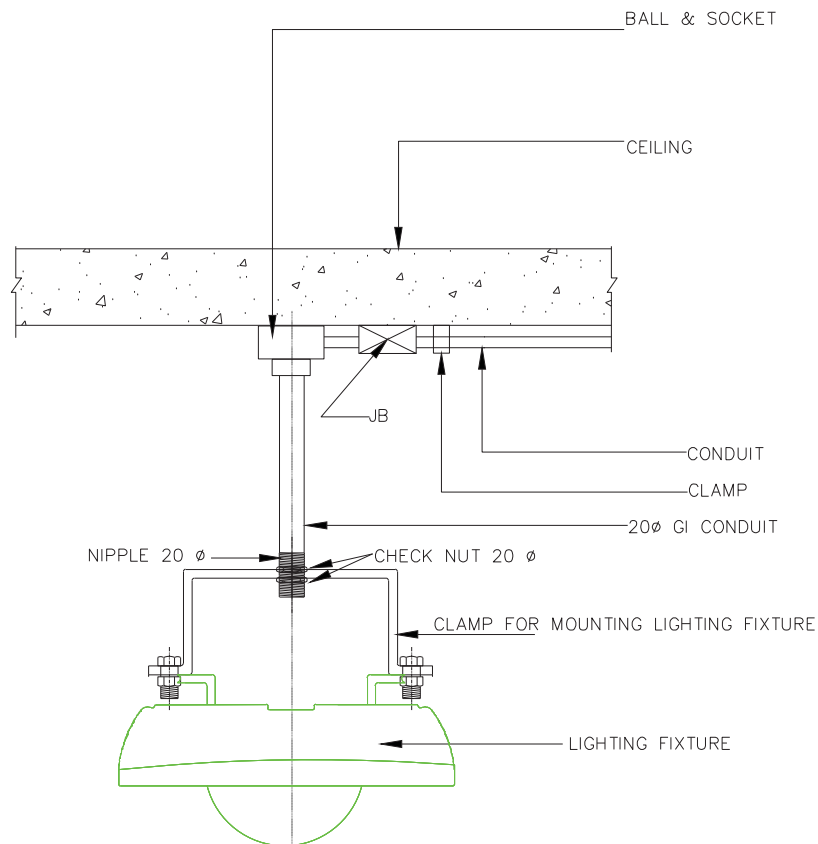


**COLUMN MOUNTING
TYPE-Q**

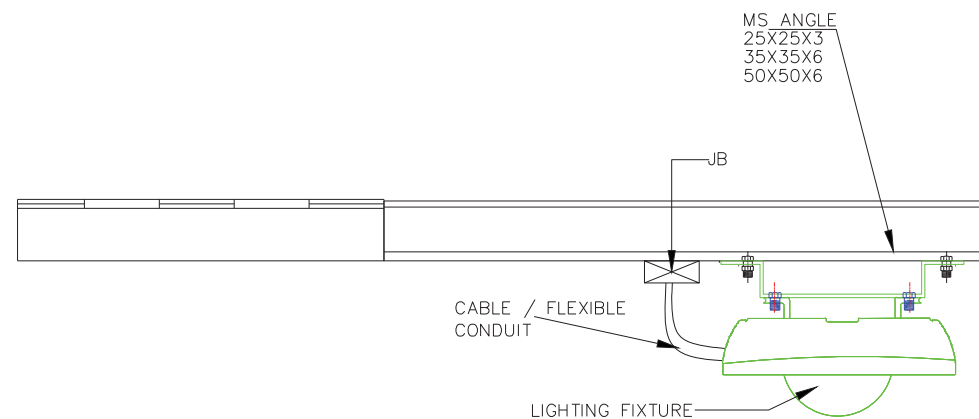
- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site Incharge.
 3. Quantity and Material shown in drawings are indicative 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.



- 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 Descrepancy found on both documents than Consult with Design incharge/Site Incharge.
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 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.



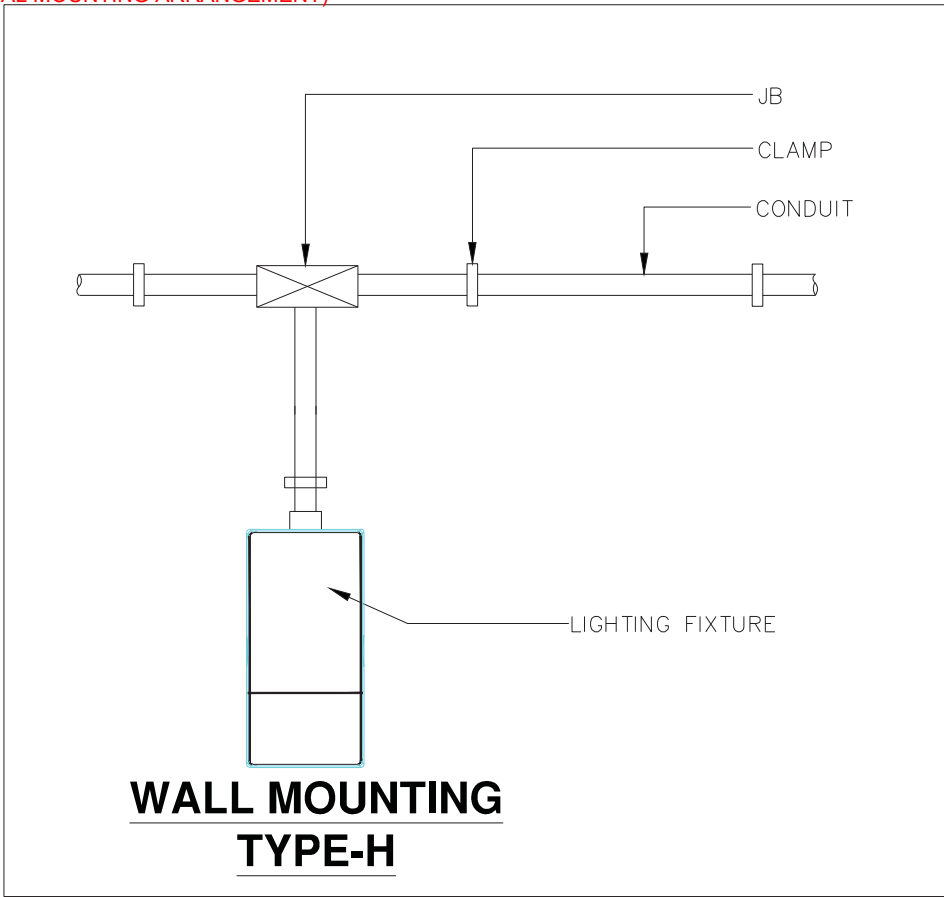
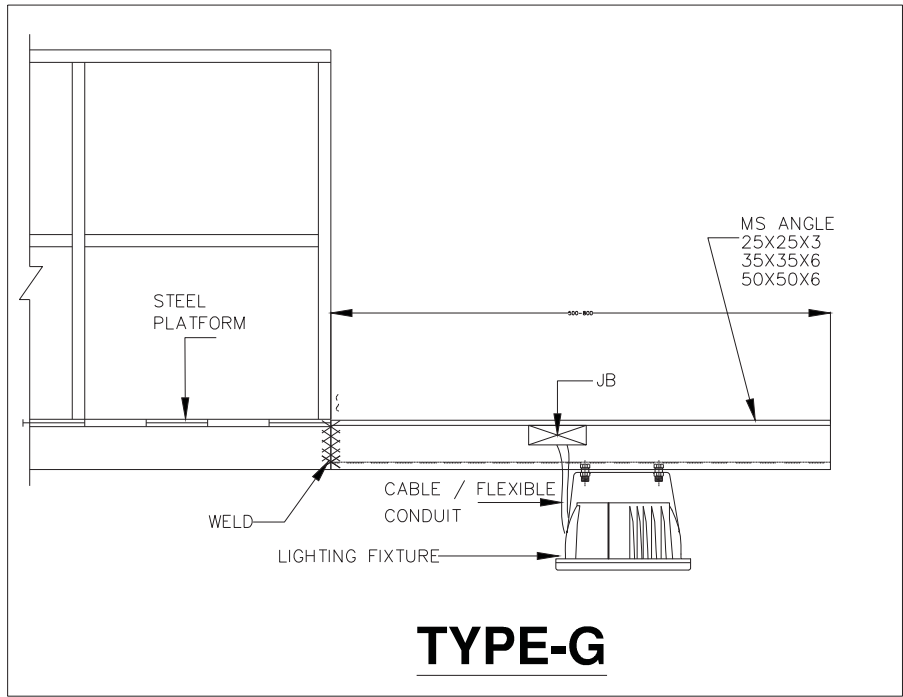
SUPPORTED FROM CEILING
TYPE-F



SUPPORTED FROM CHANNEL/
STRUCTURAL STEEL
TYPE-G

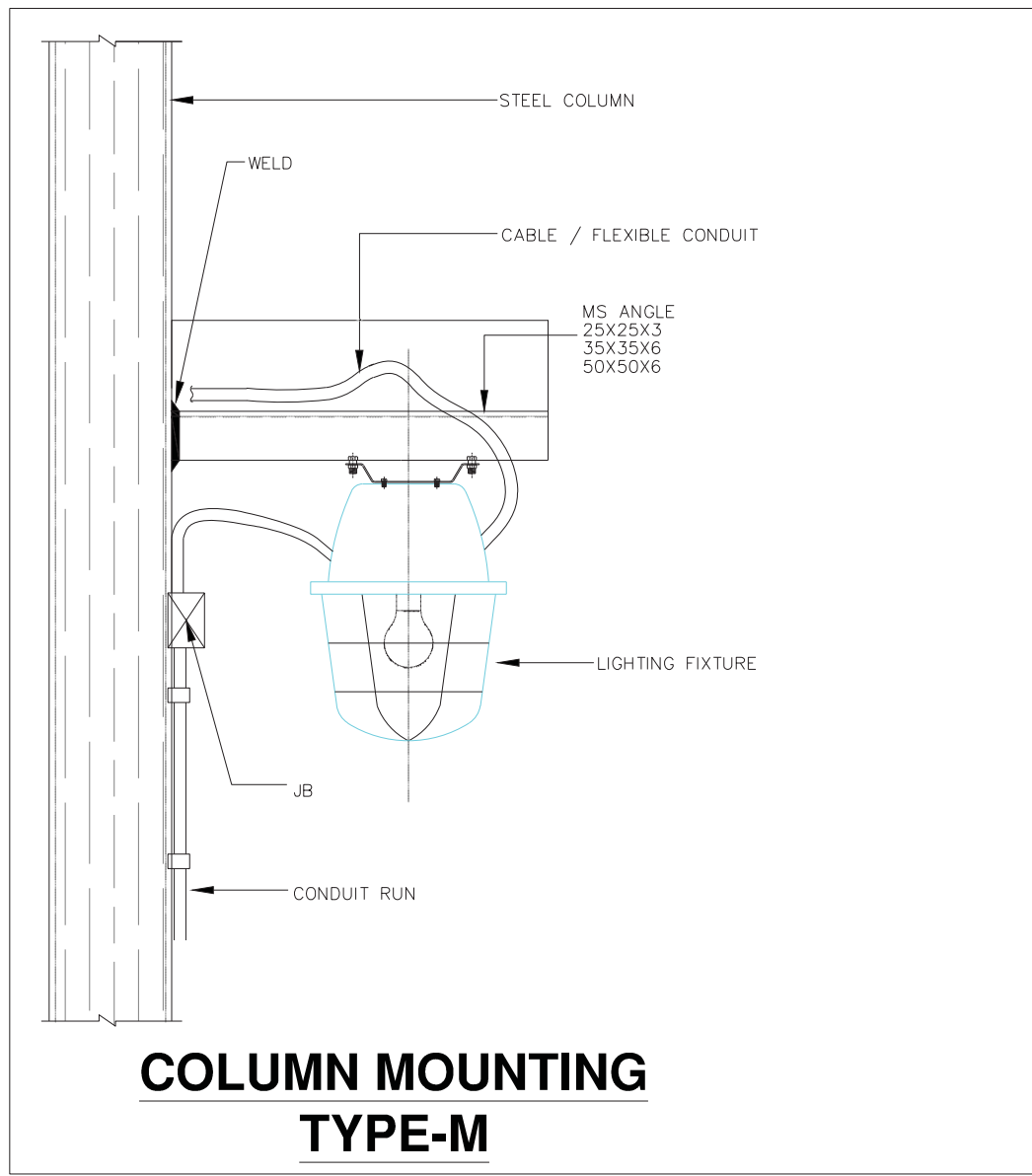
General Notes:

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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.

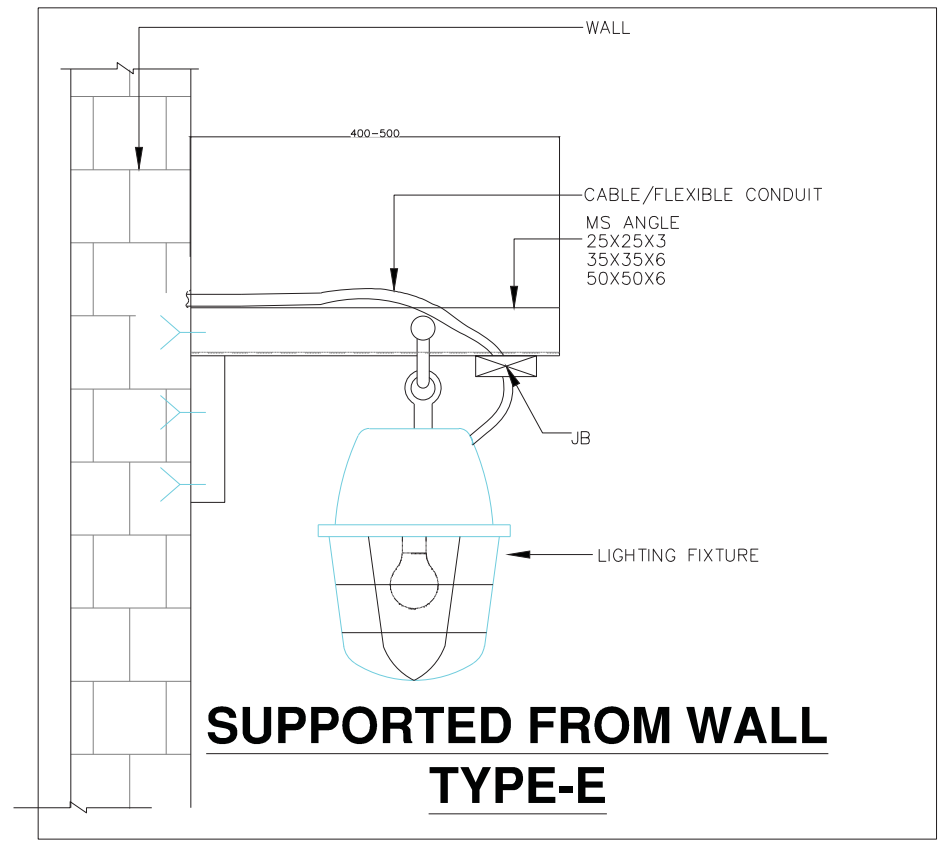


General Notes:

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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.



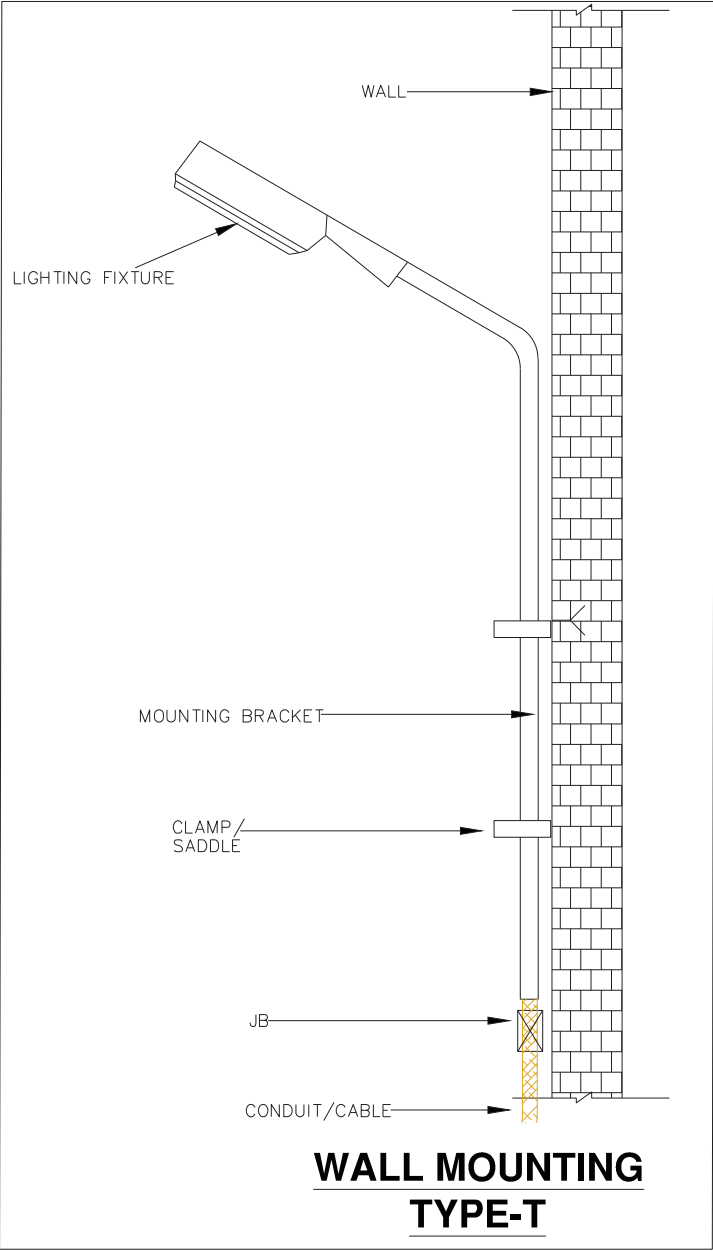
**COLUMN MOUNTING
TYPE-M**



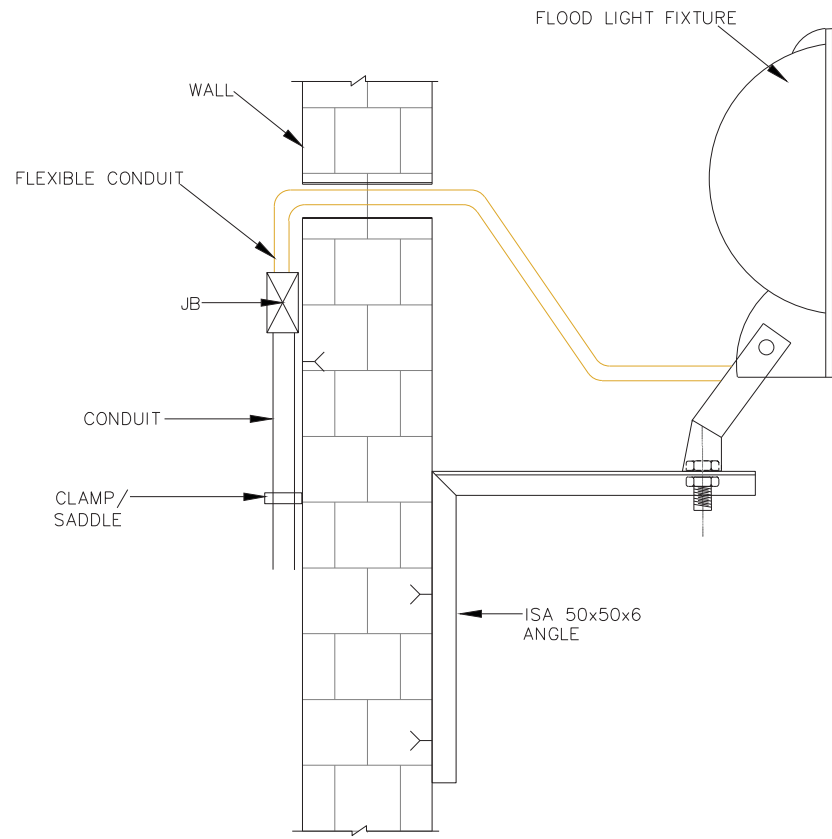
**SUPPORTED FROM WALL
TYPE-E**

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 Descrepancy 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 BQ/TS.



- 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 Descrepency 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 BQ/TS.



**WALL MOUNTING
TYPE-R**

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 Descrepency 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 BQ/TS.

Annexure B (GeM ATC)

4 X 225 MW ARUN-3 HYDRO ELECTRIC PROJECT - "LIGHTING FIXTURES, LAMPS & MISC. ITEMS"

ADDITIONAL TERMS AND CONDITIONS OF GeM NIT – THE SAME SHALL SUPERSEDE TERMS AND CONDITIONS MENTIONED ELSEWHERE IN GEM-NIT

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INTRODUCTION

1. This is a Buyer specific document named Additional Terms & Conditions (ATC). This document is applicable for the enquiry issued on Government e-Marketplace (GeM) portal. These terms and conditions must be read in conjunction with GeM-General Terms & Conditions (GTC).
2. In case of any conflict, terms and conditions stipulated in ATC shall supersede those in GTC on GeM.

INSTRUCTIONS TO THE SUPPLIERS

Suppliers are advised to note the following instructions regarding Bid/Offer submission: -

1. To regularly visit GeM portal to access the tender documents and latest updates about the tender.
2. To study all the tender documents carefully. Any submission of tender by the Supplier shall be deemed to have been done after careful study & examination of the tender documents and with full understanding of the implications thereof. Non-compliance with any of the requirements and instructions in the Tender Enquiry shall be treated as an Incomplete Bid/Offer. Suppliers would be liable for actions as per extant policies/guidelines, if they fail to abide by any of the Policies including the terms and conditions stipulated in this document.
3. Ensure submission of their Bid/Offer on or before the latest due date and time indicated in the tender after taking cognizance of all the tender documents including corrigenda (if any) published against this tender.
4. To submit their Bids/Offer on GeM portal only.
5. Not to send copy of Bid/Offer through any other mode i.e. hard copy and or through email etc. In case Bids/Offer are received through any other mode other than GeM portal from any of the Suppliers against this tender, the same shall be ignored.
6. Incomplete Bid/Offer shall be rejected by giving a suitable cut-off date.

ORDER OF PRECEDENCE

In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following order of precedence:

- i. Amendments to Order/ Contract Purchase Order
- ii. Order/ Contract Purchase Order
- iii. Letter of Intent (LOI)/ Letter of Award (LOA)
- iv. Clarifications agreed between Buyer and Supplier in regards to the tender or the bidding conditions
- v. Corrigenda to NIT, with those of later date having precedence over those of earlier date
- vi. Enquiry letter and annexures except documents listed in point no (vii) to (x) below.
- vii. Technical Specifications
- viii. Additional Terms & Conditions (ATC)
- ix. Special Conditions of Contract (SCC)
- x. GeM General Terms & Conditions (GTC)

DEFINITION OF TERMS

Throughout the Tender Documents including the Enquiry Letter, the following words shall have the meanings assigned to them herein, unless the subject matter or the context requires otherwise : -

- 1 **Owner** shall mean the **Customer** or **Client** for whose project the enquiry is issued by Buyer and shall include its successors and assignees as well as authorized officer(s)/ representative(s).
- 2 **Sub-Supplier** shall mean the person/ firm/ company/ organization to whom any part of the work has been sub-contracted by Seller/Supplier, with the written consent of Buyer, and shall include sub-Contractor's heirs, executors, administrators, representatives and assignees as agreed between Seller/Supplier and Buyer (BHEL).

Note - The Term Supplier is used for Seller/ Bidder/ Vendor/Manufacturer in this document. The term Sub-Supplier is used for Sub-Contractor/ Sub-Vendor in this document.

- 3 **Site** shall mean and include the land and place on which the project station related facilities are to be constructed and any adjacent land which may be allocated or used by *Owner, Buyer or Supplier* in performance of the Order/ Contract.
- 4 **Erection** shall mean include all work required for complete installation, from receiving, unloading, storage, preservation, to fixing & securing the equipment in its space.
- 5 **Commissioning** shall mean successful/ satisfactory completion of Trial Operation and readiness of the contracted/ ordered package / plant and materials unit wise/ set wise/ individual sub-system etc. including associated stand by for commercial use. This will include all consumables and inputs required for pre-commissioning.
- 6 **Inspection Agency (IA)** shall mean person(s) authorized by Buyer / Owner to inspect the stores as per Order/ Contract at Supplier's / Sub-Supplier's works. Suppliers to raise inspection call on BHEL - Quality Surveillance System (<https://cqir.bhel.in>).
- 7 **Month** shall mean calendar month and **Week** shall mean 7 days.
- 8 **Services** shall include Engineering, Study, Calibration, Type Test, Supervision of Erection and/or Commissioning, Installation Check, PG Test, Demonstration, Operation & Maintenance (O&M), Annual Maintenance of Contract (AMC), etc.
- 9 **Performance Guarantee Test** shall mean a test to be conducted by the Supplier at Site and witnessed by Owner/ Buyer, as per procedure submitted by the Supplier and approved by Owner/ Buyer describing the objective of the test, detailed procedures to test the guaranteed parameters, obligations as per the order/ contract, results presentation procedure and verification & acceptance criterion.

TERMS & CONDITIONS

1	BID SECURITY/ EARNEST MONEY DEPOSIT (EMD)
1.1	EMD amount shall be Nil for this tender.
1.2	<p>Modes of Deposit: EMD shall be accepted only in the following forms:</p> <ul style="list-style-type: none"> (i) Electronic Fund Transfer credited in BHEL account (before tender opening): BHEL PEM account details is given at the link https://pem.bhel.com/Documents/VendorSection/BHELBANKER.pdf (ii) Banker's cheque/ Pay order/ Demand draft, in favour of BHEL (along with offer) (iii) Fixed Deposit Receipt (FDR) (iv) Bank Guarantee from any of the Scheduled Banks (v) Insurance Surety Bonds <p>Scanned copy of EMD shall be uploaded by Supplier in the online bid and hard copy of the same (excluding EFT at pt.1.2(i)) shall have to be submitted to the Buyer within 7 (Seven) working days of bid opening, failing which the bid shall be rejected by giving a suitable cut-off date.</p>
1.3	The EMD shall remain valid for a period of 45 (forty five) days beyond the final bid/offer validity period. The EMD shall also be extended in case of extension of bid/offer validity.
1.4	<p>Forfeiture and Release/Return of EMD:</p> <ul style="list-style-type: none"> i) A Supplier's EMD will be forfeited if the Supplier withdraws or amends its/his tender or impairs or derogates from the tender in any respect within the period of validity of the tender or if the successful Supplier fails to furnish the required performance security within the specified period mentioned in the Tender. ii) EMD by the Buyer shall be withheld in case any action on the Supplier is envisaged under the provisions of extant "Guidelines on Suspension of Business Dealings with Suppliers/ Contractors" of BHEL and forfeited/ released based on the action as determined under these guidelines placed at https://www.bhel.com/supplier-registration. iii) Bid securities of the unsuccessful Suppliers shall be returned to them at the earliest after expiry of the final bid validity period and latest by the 30th day after the award of the contract. However, in case of two packet or two stage bidding, Bid securities of unsuccessful Suppliers during first stage i.e. technical evaluation shall be returned within 30 days of declaration of result of first stage i.e. technical evaluation. iv) Bid security shall be refunded to the successful Supplier on conclusion of the Order/ receipt of a performance security (if applicable).
1.5	EMD shall not carry any interest.
2	PART-II BID OPENING IS SUBJECT TO FOLLOWING CONDITIONS:
	<ul style="list-style-type: none"> i) Qualification of Technical PQR. ii) Techno-commercial compliance to the NIT (Bid).

	<p>iii) Mandatory conformance to applicable Govt. of India rules/ guidelines/ notifications/ circulars as issued or amended time to time.</p> <p>iv) Approval of vendor by end customer</p>
3	REGISTRATION IN BHEL-PEM
	<p>It is strongly recommended that suppliers get themselves registered in BHEL-PEM as a "Regular Supplier". Regular Suppliers for the package are informed about the floated tender enquiries by BHEL-PEM. Suppliers to apply online through registration portal available at www.pem.bhel.com - <u>Vendor Section - Online Supplier Registration</u>. All credentials and/or documents duly signed and stamped related to registration can be uploaded & submitted online through the website.</p>
4	TECHNICAL PQR
	<p>a) — Technical PQR: Not Applicable b) Technical PQR – Applicable</p> <p>i) Supplier has to provide the details as per TECHNICAL PQR in its Offer. Supplier to note that bids of only those Supplier(s) shall be evaluated who meet the Pre-Qualifying requirements.</p> <p>ii) This item/package /system falls under the list of items defined in para 3 of ministry of finance guideline dated 20.09.16 (Procurement of items related to Public safety, Health, Critical Security operations & Equipment's etc.) & hence criteria of prior experience/Turnover shall be same for all the Suppliers including Start-up/MSME.</p>
5	FINANCIAL PQR
	<p>a) Financial PQR: Not Applicable b) — Financial PQR: Applicable</p> <p>Supplier has to provide the details as per FINANCIAL PQR in its Offer. Supplier to note that bids of only those Suppliers shall be evaluated who meet the Pre-Qualifying requirements.</p>
5A	Above terms of BHEL PQR(s) shall prevail in conflict (if any).
6	INTEGRITY PACT (IP)
6.1	<p>a) IP: Not Applicable</p> <p>b) IP: Applicable</p>
6.2	<p>IP is a tool to ensure that activities and transactions between the Company and its Suppliers are handled in a fair, transparent and corruption free manner. A panel of Independent External Monitors (IEMs) have been appointed by BHEL with the approval of CVC.</p> <p>a. — Shri Otem Dai, IAS (Retd.), IAS (Retd.) — iem1@bhel.in b. — II. Shri Bishwamitra Pandey, IRAS (Retd.) — iem2@bhel.in c. — III. Shri Mukesh Mittal, IRS)Retd.) — iem3@bhel.in</p> <p>The IP (format as enclosed) is to be submitted (duly signed by authorized signatory) along with techno-commercial bid. Only those Suppliers who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this pact would be a preliminary qualification.</p>

~~Please refer Section 8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the any of the IEMs mentioned above. All correspondence with the IEMs shall be done through email only.~~

~~“No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department officials whose contact details are provided below.”~~

7 PQR DOCUMENTS VERIFICATION

Suppliers to ensure that Third party / Customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document / certificate issuing authority in the format given below. Suppliers to furnish latest verification details for checking veracity of document(s) by the Buyer. In case the same is found not available, Buyer has right to reject such document(s) from evaluation: -

Sl. No.	Project Name	Customer Name, Contact Address, Phone No. & Email ID	Contract/ Order No.	Value of Contract/ Order	Brief of Work	Completion Date

8 CONFLICT OF INTEREST

A Supplier shall not have conflict of interest with other Suppliers. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. **The Supplier found to have a conflict of interest shall be disqualified.** A Supplier may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) they have controlling partner (s) in common; **or**
 - b) they receive **or** have received any direct or indirect subsidy/ financial stake from any of them; **or**
 - c) they have the same legal representative/agent for purposes of this bid; **or**
 - d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Supplier; **or**
 - e) Supplier participates in more than one bid in this bidding process. Participation by a Supplier in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from. one bidding manufacturer in more than one bid; **or**
 - f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:
 - f.i. The principal manufacturer directly or through one Indian agent on his behalf; and
 - f.ii. Indian/foreign agent on behalf of only one principal,

or
 - g) A Supplier or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid,
- or**

	h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Suppliers must proactively declare such sister/ common business/ management units in same/ similar line of business.
9	LIMIT FOR SUPERVISION OF E&C CHARGES
	NA
10	DETAILED PRICE BREAK-UP
	<p>Suppliers to mention freight percentage for all the items as part of un-priced bid to be submitted along with their Techno-Commercial offer. Detailed Price Break-up shall be submitted by Supplier within Three (03) working days of Reverse Auction.</p> <p>Evaluation will be done on L1 (Total cost to BHEL basis, including GST). Incomplete offer or part offer of NIT BOM/BOQ shall be summarily rejected. Being export job, GST percentage shall be 0.1% for supply portion of this tender, accordingly, GST @0.1% is to be considered by vendors in their Single quoted (F.O.R) prices. However, GST percentage shall be 18% for Service (Supervision of E&C) portion of the tender.</p> <p>Following GOI notifications shall be applicable for GST for exports of goods : (i) Notification No. 41/2017- Integrated Tax (Rate) dt. 23.10.2017 regarding IGST @0.1% (ii) Notification No. 41/2017- Central Tax (Rate) dt. 23.10.2017 regarding CGST @0.05% (iii) Notification no. 1663 dt. 16.11.2017 regarding SGST @0.05% (pages 266 to 271). Accordingly, GST @0.1% shall be applicable for this tender.</p> <p>Bidders to inform freight percentage for all the items along with their Techno-Commercial offer. Detailed Price Break up shall be reverse calculated based on GST percentage @0.1% and freight percentage as furnished by bidder for Order Placement.</p> <p>If Price Break-up is not furnished within 03 working days, Buyer shall proceed ahead with its Price Break-up, which shall be binding on the Supplier.</p>
11	PRICES
	Prices shall be FIRM for the entire scope of work in line with the tender documents and subsequent clarifications / confirmations till completion of Order / Contract.
12	DELIVERY SCHEDULE & CONTRACT VALIDITY
12.1	1. Delivery Schedule <p>a) Lot-I Supply : Within Four (04) months from the approval of last applicable primary drawing/document for the released items or BHEL manufacturing clearance whichever is later, subjected to drawing/document submission/re-submission schedule as stipulated below in Annexure-D, delay in initial submission (if any) of last submitted applicable primary drawing/document and/or delay in re-submissions of last applicable approved primary drawing/document (with reduction of overlapping period) shall be reduced from delivery period of four months.</p>

Delivery of subsequent lots : Within Four (04) months from approval of last applicable primary drawing/document (of items released first time in present lot only) or lot clearance by BHEL, whichever is later. This is subjected to drawing/document submission/re-submission schedule as stipulated **below in Annexure-D**, delay in initial submission (if any) of last submitted applicable primary drawing/document and/or delay in re-submissions of last applicable approved primary drawing/document (with reduction of overlapping period) shall be reduced from delivery period of four months.

ANNEXURE D : LIST OF DOCUMENTS TO BE SUBMITTED AFTER AWARD OF CONTRACT					
BHEL Drawing No.	Drawing Title	Vendor Sub (Days)*	Bhel comment (Days)	Vendor Sub (Days)#	Bhel and Customer comment/approval (Days)
Primary Documents					
PE-V0-437-558-E101	GA DRAWING AND DATA SHEET OF LIGHTING FIXTURES	21	8	8	18
PE-V0-437-558-E102	GA DRAWING AND DATA SHEET OF MISC. ITEMS	21	8	8	18
PE-V0-437-558-E901	MQP FOR LUMINARIES	21	8	8	18
Secondary Documents		Submission schedule shall be same as Primary documents (after receiving input drawing from BHEL)			
PE-V0-437-558-E201	Lighting design calculation of areas as per Annexure-A				
PE-V0-437-558-E301	Lighting layout drawing of areas as per Annexure-A				
PE-V0-437-558-E401	Conduit layout drawing of areas as per Annexure-A				
PE-V0-437-558-E106	MOUNTING ARRANGEMENT LIGHTING FIXTURES				
PE-V0-437-558-E107	MOUNTING ARRANGEMENT OF MISC. ITEMS				
PE-V0-437-558-E108	TYPE TEST REPORTS FOR LIGHTING FIXTURES				
PE-V0-437-558-E109	TYPE TEST REPORTS FOR MISC. ITEMS				
PE-V0-437-558-E109	Field Quality Plan of lighting fixtures				
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					
d) Vendor shall submit the dates for drawing/document submission/BHEL comments/ resubmission after approval of documents.					
e) The list of LDC/LLO/CLO drawings mentioned above is tentative and can change during detailed engineering. (LDC- Lighting Design Calculation, LLO- Lighting Layout Drawing, CLO- Conduit Layout Drawing)					
DRAWINGS & DOCUMENTS TO BE SUBMITTED AS FINAL/AS-BUILT DOCUMENT					
Sl. No.	DOCUMENT TITLE				
1	APPROVED DOCUMENTS				
2	Field Quality Plan of lighting fixtures				

b) Mandatory Spares : Mandatory Spares shall be supplied within Four (04) months from BHEL Manufacturing Clearance. Separate manufacturing clearance shall be accorded for mandatory spares.

c) Services (if applicable) like supervision of E&C, PG test, Installation Check, Demonstration Test etc.: Vendor to depute its service engineer for respective site activity within 30 days from BHEL's intimation (for deputing service engineer) for such site activity.

	<p>2. Delivery period for sake of GeM bid shall be chosen as 365 days from PO date. However, this period shall not be considered for Delivery and Delay analysis purpose. For Delivery and delay analysis purpose, delivery schedule mentioned above shall be considered.</p> <p>3. Supplier to start manufacturing/supply only after getting the applicable engineering Drgs. /docs approved from Buyer/ Owner. Drawings /documents submission/re-submission schedule shall be as indicated in technical specification which shall be used for progress monitoring purpose and required course correction, if any.</p> <p>4. The delivery date specified is for completion of the deliveries. Deliveries to start progressively so as to meet the completion schedule. The delivery conditions specified are for contractual purposes. However, to meet project requirement, the Buyer may ask for early deliveries without any compensation thereof.</p>
12.2	<p>1. Validity of Contract (PO rates, terms and conditions): Supplier has to make supply of goods/services as per the delivery time mentioned above. However, due to unavoidable circumstances where there is delay in providing inputs/ clearances from the Buyer (inputs, engineering approvals, deputing inspector for inspection, issuance of MDCC and/or any hold put by the Buyer for whatever reasons during execution of contract etc.) delivery time extension is admissible as per point no.3 below. In such situation it shall be obligatory on part of the Supplier to execute the contract at PO rates, terms and conditions provided inputs/ clearances have been accorded within validity of contract. Validity period for various activities shall be as defined below: -</p> <p>1.1 Validity of the contract for main supply including quantity variation/subsequent lot:</p> <p>Contract shall be valid for 365 days (C days) from the PO date. However, delay at Supplier's end (if any) shall be added to the validity period and contract validity shall get extended by the delay period at Supplier's end.</p> <p>For example: Original Delivery period for main supply : A (in days) Delay at Supplier's end: B (in days beyond "A" days) Contract validity: C+B (in days) Supplier to note that B is the Supplier delay days beyond original contractual delivery period for main supply /extended delivery period owing to time taken by BHEL.</p> <p>1.2 Validity of the contract for Supply of Mandatory Spares/ Services (other than PG test) applicable in the contract: Validity of contract for supply of mandatory spares/ services applicable in the contract shall be one year over and above contractual validity period for main supply including quantity variation as specified at point no. 1.1 above.</p> <p>1.3 Validity of contract for Performance Guarantee (PG) test: Validity of contract for PG test shall be till completion of the PG Test.</p> <p>2. Main supply/Lot-I including quantity variation, mandatory spares/ services applicable in the contract released/ cleared for manufacturing within contractual validity period, to be supplied by Supplier at PO rates, terms and conditions.</p> <p>3. Execution of the contract quantities released beyond contract validity period shall be decided on mutual consent basis at PO rates, terms and conditions.</p>

13	DELIVERY ADDRESS, TERMS OF DELIVERY AND INSURANCE
	<p>13.1 Terms of delivery shall be F.O.R. dispatch station. All dispatches shall be through Road Carriers on Freight Pre-Paid basis. E-way Bill will be arranged by Supplier as per GST law.</p> <p>13.2 Material is to be delivered by vendor at the following address in Biratnagar (Nepal):</p> <p>BHEL Intermediate Transshipment Store, C/o Mr. Suresh, M/s CJ Darcl, Ward No. 3, Gokuwa Chowk, Budhiganaga Gaupalika, District Morang, Biratnagar, Nepal</p> <p>Contact person of M/s CJ Darcl: Suresh: Mob. 07022176323</p> <p>Exporter shall be BHEL and Custom clearance for across border movement shall be in BHEL's scope.</p> <p>Vendors to quote freight charges considering the above-mentioned delivery address for this tender.</p> <p>Please note that all the custom formalities shall be done at Jogbani border (India), So documents are to be handed over to M/s CJ DARCL at JOGBANI.</p> <p>13.3 Unloading of items at delivery point shall be in the scope of Buyer.</p> <p>13.4 Transit Insurance shall be in the Supplier's account.</p>
14	DOCUMENTS FOR DISPATCH
	<p>Supplier to submit copy of following documents by e-mail immediately on dispatch:</p> <ul style="list-style-type: none"> i) Tax Invoice/ e-Invoice (as applicable), ii) LR, iii) Packing List, iv) Insurance Intimation, v) E-way bill (as applicable), vi) Copy of BHEL MDCC
15	PAYMENT TERMS
	<p>15.1 Payment of Main Supply including Mandatory Spares : 100% Payment shall be released against Consignee Receipt-cum-Acceptance Certificate (CRAC)/MRC (Material Receipt Certificate) on submission of bills.</p> <p>15.2 Payment of Service (Supervision of E&C) Charges : 100% payment shall be released after successful completion of the activity on pro rata basis against CRAC/ certification by Buyer's Site or Engineering (as applicable) on submission of bills.</p>

15.3 Documents for Payment :

a) For Supply including Mandatory Spares (if any):

- i) Original Tax Invoice/e-Invoice (as applicable),
- ii) Packing List,
- iii) LR/Receipted LR,
- iv) CRAC/MRC (issued by project site engineer of Buyer/Owner),
- v) Guarantee Certificate,
- vi) E-way bill (as applicable),
- vii) Copy of valid Insurance document and Intimation,
- viii) Proof for submission of Performance Security (if applicable),
- ix) Copy of BHEL MDCC,
- x) PVC Calculation & copy of all applicable indices (if PVC is applicable)

b) For Services (Supervision of E&C) :

- i) Original Tax Invoice/e-Invoice (as applicable) &
- ii) CRAC/certification by Buyer's Site or Engineering (as applicable)

15.4 Payments to Supplier's shall be released only after:

- a) Supplier has declared such invoice in GSTR-1 as per the relevant GST Act.
- b) The tax component charged by the Supplier in the invoice matches with the details uploaded by the Supplier in GSTR-1 and GST liability is discharged through GSTR 3B.

In case, any GST credit is delayed/denied to the Buyer due to non/delayed receipt of goods and/or tax invoice or expiry to timeline prescribed in the relevant GST Act for availing such ITC, or any other reasons not attributable to the Buyer, tax amount shall be recovered from the Supplier along with interest levied/ leviable on the Buyer.

15.5 RXIL is an initiative instituted by Govt. of India for MSMEs. PEM strongly advise all the MSME suppliers to get themselves registered on RXIL(TreDs) for faster payments.

15.6 Time line for Payment : Payment shall be made within timeline as mentioned below from the date of issue of consignee receipt-cum-acceptance certificate (CRAC)/MRC/Completion of Services certified by Buyer's Site/Engineering.

- a) Within 45 days for Supplier qualified and registered as Micro or small enterprises as per MSMED Act
- b) Within 60 days for Supplier qualified and registered as Medium enterprises as per MSMED Act
- c) Within 90 days for suppliers other than (a) & (b) above

The supplier shall ensure submission of complete documents along with the bill. In case of incomplete documents, the bill shall be rejected, and next due date shall start from the date of closure of discrepancy by the Supplier.

Provision of payment outside GeM shall be utilized.

15.7 Notwithstanding anything to the contrary contained in any other document comprising the contract, no interest shall be payable by the Buyer to the Supplier on any money or balances including but not limited to the security amount, Performance Security amount, bank guarantee

	amount, EMD, retention money, any bills or any amount withheld which may become due owing to difference or misunderstanding or any dispute between the Buyer and the Supplier, or any delay on the part of Buyer in making periodical or final payment or any other aspects incidental thereto.
16	PERFORMANCE SECURITY
16.1	<p>Applicable</p> <p>Supplier may opt any of the following for submission of Performance Security: -</p> <p>I. Initially 10% of the contract value (Total Order value excluding PVC). 5% of the contract value (excluding PVC) will be released after completion of Main Supply based on certification by PG. However, balance 5% of the contract value (excluding PVC) will be released on completion of all contractual obligations, including guarantee/warranty obligations based on certification by PG.</p> <p style="text-align: center;">Or</p> <p>II. 5% of the contract value (total Order value excluding PVC). Additional 5% of the contract value (excluding PVC) will be deducted & retained from first bill & subsequent bill(s) of the same contract (in case the value of first bill is less than 5% of the contract value). The retention amount will be released after completion of Main Supply based on certification by PG. However, balance 5% of the contract value (excluding PVC) will be released on completion of all contractual obligations, including guarantee/warranty obligations based on certification by PG.</p> <p>This percentage supersedes the GeM enquiry SD/Performance Security percentage.</p> <p>BG format shall be as per GeM. Further, in case of BG is submitted from private banks, a clause shall be incorporated in the bank guarantee (BG) that it can be enforced by being presented at any branch of the bank located in the Delhi-NCR.</p>
16.2	<p>Modes of Deposit: Supplier has to furnish Performance Security in the following forms:</p> <ul style="list-style-type: none"> (i) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL. (ii) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL. (iii) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL). (iv) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL). (v) Insurance Surety Bond. <p>BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.</p>

16.3	Performance Security is to be furnished within 14 days from the date of PO/LOA and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations. Initial validity of Performance Security shall be as per GeM Bid. However, Performance Security validity is to be extended based on the actual delivery of package.
16.4	Performance Security value can be proportionately reduced after completion of Guarantee Period Unit-wise/ Stage-wise/Set-wise/Scope wise (Main Supply/Mandatory spares/Services excluding PG test) subject to the units/sets/stages/Scope (Main Supply/Mandatory spares) being explicitly specified in delivery terms in the contract. However, Performance Security for the last unit/set/stage will be released only after completion of all contractual liability or guarantee period, whichever is later.
16.5	<p><u>Forfeiture and Release/Return of Performance Security:</u></p> <ul style="list-style-type: none"> i) The Performance Security will be forfeited and credited to BHEL's account in the event of a breach of contract by the Supplier. ii) Performance Security shall be refunded to the Supplier without interest, after he duly performs and completes the contract in all respects but not later than 60 (Sixty) days of completion of all such obligations including guarantee/warranty under the contract. iii) If Performance Guarantee (PG)/ Demonstration Test and handing over of the system/ package (if applicable), as per Order/ Contract is not conducted up to 36 months from supply completion for reasons not attributable to the Supplier then Performance Security for total contract shall be released on submission of undertaking by the Supplier that Performance Guarantee (PG)/ Demonstration Test and handing over of the system/ package shall be conducted as and when required by Buyer.
16.6	The Performance Security shall not carry any interest.
17	LIQUIDATED DAMAGES (LD):
	<p>Timely dispatch/delivery and completion of other schedules as stipulated in Order/Contract shall be the essence of Order/Contract. If the Supplier fails to complete the dispatch/delivery and other schedules within the time period stipulated in Order/Contract, or within any extension of time granted by the Buyer, it shall be lawful for Buyer to recover damages for breach of Order/Contract and hereunder.</p> <p>17.1 Buyer reserves the right to recover from the Supplier, as agreed liquidated damages and not by way of penalty, a sum equivalent to half ($\frac{1}{2}$) percent of the total main supply contract value excluding GST per week or part thereof, subject to a maximum of ten (10) percent of the total of main supply contract price excluding GST, if the Supplier fails to deliver any part of the ordered goods/stores within the period stipulated in the Order/ Contract.</p> <p>17.2 LD on service (Supervision of E&C) portion where delivery for services are defined separately in the Order/Contract. LD shall be applicable @ $\frac{1}{2}$ percent, of the total service contract value excluding GST per week or part thereof. However, total LD (supply and services) shall be limiting to 10% of cumulative total contract value (supply +services) excluding GST.</p>

	<p>17.3 LD on mandatory spares portion where delivery for mandatory spares is defined separately in the Order/Contract. LD shall be applicable @ ½ percent, of the total of mandatory spares contract value excluding GST per week or part thereof, limiting to 10% of total contract value of mandatory spares excluding GST.</p> <p>17.4 In case of any amendment/ revision, LD shall be linked to the amended/ revised contract value and delivery date(s).</p> <p>17.5 LR/RR date for indigenous supplies shall be treated as the date of dispatch for levying LD. However, if date of receipt at site for indigenous supply is beyond the maximum validity of E-way bill as per extant govt. GST law then such excess period shall also be considered for LD purpose irrespective of the dispatch date.</p> <p>17.6 If Order/ Contract involves two or more Units/Lots/Sets/ Stages, then Liquidated Damages shall be levied on order/ contract value excluding GST of the delayed Unit/Lots/Sets/ Stage, provided delivery stipulated in the Order/ Contract is Unit/Lots/Sets/ Stage wise and total LD amount shall be limited to 10% of total Order/ amended Order value excluding GST of delayed Unit/Lots/Sets/ Stage.</p> <p>17.7 The sum specified above is not a penalty but a genuine pre-estimate of the loss/ damage which will be incurred by the Buyer directly or indirectly on account of delay in delivery of material/equipment/services on the part of the Supplier and the said amount will be deductible without proof of actual loss or damage caused by such delay.</p>
18	GUARANTEE TERMS
	<p>18.1 Guarantee Period (Unit-wise, Lots-wise, Stage-wise, Set-wise, System-wise - as applicable) for Supply package shall be Thirty-Six (36) months from the date of last dispatch.</p> <p>18.2 All Shortages/damages in sound cases shall be replenished free of cost by the Supplier, as early as possible however, not exceeding more than 45 days from the time of reporting the shortage/damage.</p> <p>18.3 For shortages/damages during transit, Supplier shall supply replacements free of cost as early as possible, within 45 days from the time of reporting the defect/ loss/ rejection etc. by the Buyer/ Owner/ Site.</p> <p>18.4 For shortages/damages during handling at site, Supplier shall supply replacements, as early as possible, at the old contractual rates upon intimation to Supplier within 45 days from the time of reporting the defect/ loss/ rejection etc.</p> <p>18.5 All replacements and repairs during the guarantee period shall be delivered and completed promptly and satisfactorily within a period of 45 days from the time of reporting the defect/ loss/ rejection etc. Damaged items/parts can be taken back by Supplier on his own cost with the permission of Owner.</p> <p>18.6 All the replaced and replenished plant/ equipment/ stores shall also be guaranteed as per PO terms.</p>

19	INSPECTION
	<p>19.1 Buyer and/or Buyer's nominated Inspection Agency shall have at all reasonable times access to Supplier's premises or works and shall have the power at all reasonable times to inspect drawings of any portion of the work or examine the materials and workmanship of the plant/ equipment/ stores during their manufacture, and if part of the plant/ equipment/ stores is manufactured at other premises, the Supplier shall arrange for inspection, examination and testing by the Inspection Agency as if the plant/ equipment/ stores is manufactured on the Supplier's premises. Procedure for approval of works shall be as per the procedure given on https://cqir.bhel.in/Cqir/jsp/Masters/Help_File_for_suppliers.pdf</p> <p>Inspection calls should be raised by the Supplier on BHEL - Quality Surveillance System (https://cqir.bhel.in).</p> <p>Such inspection, examination and testing by itself shall not relieve the Supplier from any obligation under the Order/ Contract.</p> <p>19.2 Supplier shall give Inspection Agency reasonable notice of 15 days of any material being ready for testing and the Inspection Agency shall (unless the inspection of tests is voluntarily waived) attend at the Supplier's premises within seven (7) days of the date on which the material is notified as being ready. Tests are to be performed as per Buyer approved QAP (if applicable).</p> <p>19.3 In case of delay in witnessing of inspection beyond stipulated time (i.e. 7 days from the proposed date of inspection as notified by the Supplier through e-mail/call raised on BHEL - Quality Surveillance System (https://cqir.bhel.in) by the Buyer arising due to reasons not attributable to Supplier, Buyer will extend the delivery period for such delay in witnessing inspection. If the Buyer is not able to witness inspection up to 15 days then in addition to delay beyond stipulated period, 7 days' additional time shall also be given to the Supplier to facilitate for arranging fresh inspection.</p> <p>19.4 Where the Order/ Contract provides for tests/ inspections at the premises or works of the Supplier or any Sub-Contractor, the Supplier, except specified otherwise, shall provide free of charge such assistance, labour, materials, electricity, fuel, water, stores, apparatus, measuring instruments and test equipment including any other facilities as may be reasonably required to carry out such tests efficiently.</p>
20	MATERIAL DISPATCH CLEARANCE CERTIFICATE (MDCC)

	<p>20.1 When the tests have been satisfactorily completed at Supplier's works, the Inspection Agency shall issue an inspection report that effect within seven (07) days after completion of the tests, but if the tests were not witnessed by the Inspection Agency or his representative, the material acceptance report would be issued within seven (07) days after receipt of the test certificates by the Buyer.</p> <p>20.2 Buyer will issue MDCC to the Supplier within 7 days based on inspection report/ test certificates/Certificate of Conformance as applicable. In case of delay in issuance of MDCC beyond 7 days stipulated time (i.e. from the date of receipt of Inspection Report/Test certificates), by the Buyer due to reasons not attributable to the Supplier, Buyer shall extend the delivery period for such delay in issuing MDCC. If the Buyer is not able to issue MDCC up to 15 days then in addition to delay beyond stipulated period, 7 days' additional time shall also be given to the Supplier to facilitate for arranging logistics arrangements.</p> <p>20.3 Supplier shall not dispatch any material before issue of MDCC by the Buyer.</p>
21	PACKING LIST
	<p>Packing shall be in conformity with specifications and shall be such as to ensure prevention of damages, corrosion, deterioration, shortages, pilferage and loss in transit or storage.</p> <p>Suppliers to submit Packing List along with advance set of documents for claiming payment which must indicate:</p> <ul style="list-style-type: none"> i. No. of boxes ii. Packing size. iii. Gross weight and net weight of each package. iv. Contents of the package with cross reference to BoM item code no. or item serial no. v. Quantity of each item separately. <p>The Packing list must cover all the BoM items and supplier to give the following undertaking in the Packing List: "The Packing List provided herewith is as per the BoM approved under Contract No.</p>
22	DELIVERY EXTENSION: EXTENSION OF CONTRACTUAL DELIVERY TIME
	<p>Delivery time mentioned in the NIT includes Engineering completion time (time for drawing/document submission/resubmission by the Supplier and review/approval of the same by the Buyer/Owner), manufacturing, inspection, Packing and dispatch time. Due diligence is to be observed by the Supplier to ensure timely completion of engineering and supply.</p> <p>During the execution of the contract, time loss occurred owing to the reason attributable to the Buyer besides force majeure shall be considered for delivery time extension to the Supplier as given below:</p> <ul style="list-style-type: none"> i) Any Delay in providing comments/ approval on Primary drawing/documents beyond the stipulated time as specified in NIT. ii) Time Loss in approval of the drawing/document as a result of increase in the iteration not attributable to the Supplier (i.e. resubmission owing to end customer comments) as certified by Buyer. Time extension equivalent to the resubmission time noted in the tech. spec and consequential increase in the approval time in lieu of increase in iteration shall be applicable. However, for incomplete re- submission time loss shall be in the Supplier's account.

	<p>iii) Delay in providing engineering input by Buyer.</p> <p>iv) Delay in deputing inspector for inspection and delay in release of MDCC in line with clause no. 20 above.</p> <p>v) Any hold put by Buyer for whatever reasons during execution of contract (within contract validity period), time extension equivalent to hold period shall be admissible. However, in the event hold period continues for more than 30 days then, an additional 15 days for the purposes of mobilization and demobilization of resources shall also be admissible.</p> <p>Supplier to note that Extension in delivery period if any with or without imposition of LD shall be considered after detailed delay analysis based on provisions given above. Supplier to provide dates of drg./doc. submission & re-submission (if any) within 7 days of Cat-I approval. However, no delay analysis will be applicable if supply is completed within delivery schedule as specified in Order/ Contract.</p>
23	BREACH OF CONTRACT, REMEDIES AND TERMINATION
	<p>In case of Breach of Contract, BHEL shall recover 10% of the contract value from the Supplier using following instruments:</p> <p>(i) encashment of security instruments like EMD, Performance Security with PEM against the said contract.</p> <p>(ii) balance amount (if value of security instruments is less than 10% of the contract value) from other financial remedies i.e. available bills of the Supplier, retention amount etc. with PEM.</p> <p>(iii) balance amount from security instruments like EMD, Performance Security and other financial remedies i.e. available bills of the Supplier, retention amount etc. with other units of BHEL.</p> <p>(iv) Any other mode as deemed fit by the Buyer at its sole discretion.</p> <p>(v) if recovery is not possible then legal remedies shall be pursued.</p> <p>However, Supplier shall continue performance of the Order/ Contract, under all circumstances, to the extent not cancelled.</p>
24	SUSPENSION OF BUSINESS DEALINGS
	<p>The "Guidelines on Suspension of Business Dealings with Suppliers/ Contractors" is placed at https://www.bhel.com/supplier-registration and, same shall prevail over Incident Management Policy of GeM.</p>
25	SUPPLIER PERFORMANCE MONITORING AND RATING SYSTEM
	<p>Supplier's performance will be evaluated as per Supplier Performance Monitoring and Rating System of BHEL. Please refer BHEL website www.bhel.com for details.</p>
26	CONFIDENTIALITY
	<p>Supplier shall, at all times, undertake to maintain complete confidentiality of all data, information, software, drawings & documents, etc. belonging to the Buyer and also of systems, procedures, reports, input documents, manuals, results and any other company documents discussed and/ or finalized during the course of execution of Order/ Contract. i.e. Supplier shall in no way share or use such intellectual property of Buyer to promote his own business with others. Buyer reserves the right to claim damages from the Supplier, or take appropriate penal action as deemed fit against the Supplier, for any infringement of the provisions contained herein.</p>

27	INTELLECTUAL PROPERTY & LICENSES
	<p>If any patent, design, trademark, trade secret or any other intellectual property rights apply to the delivery or accompanying documentation/drawings, Buyer or its customer shall be entitled to the legal use thereof free of charge by means of a non-exclusive, assignable, transferrable, sub-licensable, worldwide, perpetual license. All intellectual property rights that arise due to the execution of the delivery by the Supplier and by its employees or third parties involved by the Supplier for the performance of the contract shall be promptly notified by the Supplier to the Buyer and shall be deemed to belong to the Buyer. The Supplier shall be obligated to cooperate with the Buyer and do everything necessary to obtain or perfect the above-mentioned rights in favour of the Buyer.</p> <p>The Supplier represents and guarantees that the delivery does not infringe on any of the intellectual property rights of third parties. In the event a third party makes a claim, the Supplier shall also be obligated to do everything necessary to obtain or establish the alternate acceptable arrangement pending resolution of any (alleged) claims by third parties.</p> <p>The Supplier agrees to indemnify, defend and hold harmless the Buyer, its officers, employees, agents, representatives, successors, assignees or any of the Buyer's customers buying or using the goods or services specified herein, against any actual or alleged infringement of such intellectual property interests, claims by third parties in this regard and shall pay to the Buyer merely on demand without demur and without requiring the Buyer to furnish any proof of such claim, such sum as indicated in the demand towards any liabilities, damages, penalties, injuries, claims, demands, actions, cost and expenses etc. suffered as a result thereof.</p> <p>The Supplier agrees that its liability under this clause shall be unlimited.</p>
28	<p>"For this procurement, the local content to categorize a supplier as a Class I Local Supplier/ Class II Local Supplier / Non Local supplier and Purchase preference to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), (PPP-MII) Order 2017 dt. 16/09/2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT".</p> <p>a) Eligibility of Suppliers : only Class I Local Suppliers/ Class II Local Supplier are eligible to quote against this tender.</p> <p>b) Minimum Local Content required for qualifying a bidder as "Class I Local Suppliers" shall be 60% for this tender.</p> <p>c) The local supplier at the time of tender, bidding or solicitation shall be required to provide a certificate w.r.t. minimum local content, in accordance with para 9 of PP-MII order revision dated 16.09.2020.</p> <p>d) In accordance with para 9 (a) of DPIIT's PP-MII order 2017 revision dated 04/06/2020, only "Class I Local Suppliers/ Class II Local Supplier" at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for the "Class I Local Suppliers/ Class II Local Supplier". They shall also give details of the location(s) at which the local value addition shall be made.</p> <p>The package is non-divisible in nature.</p>

28	Ministry of Finance (MoF) orders no F.No. 6/18/2019-PPD dated 23/07/2020 and clarification dated 24.07.2020 and any subsequent amendments/order shall be applicable for this NIT and compliance of these circulars shall be ensured by bidders. Further, relevant clause of order no. 25-11/6/2018-PG dated 02.07.20 issued by MoP shall also be complied. An undertaking regarding Model Clauses (as applicable from Annexure-III of the said circular) shall be furnished by bidders along with bid documents.															
29	The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/guideline.															
30	In course of evaluation, if more than one bidder happens to occupy L 1 status, effective L 1 will be decided by soliciting discounts from the respective bidders. In case more than one bidder happens to occupy L 1 status even after soliciting discounts, the L1 bidder shall be decided by a toss / draw of lots, in the presence of respective bidder(s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situation shall be final and binding.															
31	<p>Evaluation will be done on L1 (Total cost to BHEL basis, including GST). Incomplete offer or part offer of NIT BOM/BOQ shall be summarily rejected. Being export job, GST percentage shall be 0.1% for supply portion of this tender, accordingly, GST @0.1% is to be considered by vendors in their Single quoted (F.O.R) prices. However, GST percentage shall be 18% for Service (Supervision of E&C) portion of the tender.</p> <p>Following GOI notifications shall be applicable for GST for exports of goods : (i) Notification No. 41/2017- Integrated Tax (Rate) dt. 23.10.2017 regarding IGST @0.1% (ii) Notification No. 41/2017- Central Tax (Rate) dt. 23.10.2017 regarding CGST @0.05% (iii) Notification no. 1663 dt. 16.11.2017 regarding SGST @0.05% (pages 266 to 271).</p> <p>Accordingly, GST @0.1% shall be applicable for this tender.</p> <p>Bidders to inform freight percentage for all the items along with their Techno-Commercial offer. Detailed Price Break up shall be reverse calculated based on GST percentage @0.1% and freight percentage as furnished by bidder for Order Placement</p>															
32	Quantity variation shall be limited to +/-30%, for this tender. This will supersede the GeM qty. variation clause.															
33	<p>Supervision of E & C charges shall be fixed and the same will not be part of evaluation. Separate PO's as applicable for Supervision of E & C charges shall be placed project wise separately outside GeM as per below details : -</p> <table><tr><th>Sl.NO.</th><th>Item Description</th><th>UOM</th><th>QTY.</th><th>Unit Rate</th></tr><tr><td>1</td><td>Charges per visit</td><td>Visit</td><td>2</td><td>20000</td></tr><tr><td>2</td><td>Man days charges</td><td>Days</td><td>8</td><td>5000</td></tr></table> <p>Notes :</p> <p>1. For supervision of E&C, 2 (two) Visits and 8 (eight) Mandays to be considered. The prices shall be inclusive of charges of Airfare (To & Fro), Boarding, Lodging, Medical, Insurance etc.</p> <p>2. Amount payable per visit = Visit charges as per Sl. No 1 above (+) Unit Price for mandays charges as per Sl. No 2 above (x) No. of man-days at site (to be certified by BHEL Site)</p>	Sl.NO.	Item Description	UOM	QTY.	Unit Rate	1	Charges per visit	Visit	2	20000	2	Man days charges	Days	8	5000
Sl.NO.	Item Description	UOM	QTY.	Unit Rate												
1	Charges per visit	Visit	2	20000												
2	Man days charges	Days	8	5000												

	<ol style="list-style-type: none"> 3. The total Mandays mentioned for supervision of E&C also include Mandays of inspection of installation for completeness and correctness of work. 4. Unit rate for 1 and 2 above shall remain firm. Supervision of E&C rate shall not be considered for price evaluation. 5. Nos. of visit and Mandays for supervision of E&C may increase based on project requirement.
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Letter head of Company

Ref.....

Date.....

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

Subject: - Certification regarding local content

Reference: Tender Enquiry No.- **GeM Bid no.**

Name of Package: **LIGHTING FIXTURES, LAMPS & MISC. ITEMS**

Project Name: **4 X 225 MW ARUN-3 HYDRO ELECTRIC PROJECT**

Dear Sir,

We hereby certify that items offered by us for **LIGHTING FIXTURES, LAMPS & MISC. ITEMS** for **4 X 225 MW ARUN-3 HYDRO ELECTRIC PROJECT** meets the requirement of minimum local content in line with aforesaid GeM Bid and the Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 & 16.09.2020.

Local Content -%

We further confirms 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)

Letter head of Company

Ref.....

Date.....

MODEL CERTIFICATE

Reference: Tender Enquiry Ref- **GeM Bid no.**

Name of Package: **LIGHTING FIXTURES, LAMPS & MISC. ITEMS**

Project Name: **4 X 225 MW ARUN-3 HYDRO ELECTRIC PROJECT**

Dear Sir,

This has reference to: -

1. Our Offer for Supply for **LIGHTING FIXTURES, LAMPS & MISC. ITEMS** package for **4 X 225 MW ARUN-3 HYDRO ELECTRIC PROJECT** against above mentioned GEM Tender No.
2. Order dated 23.07.2020 reg. restriction under rule 144 (xi) of GFR issued by Ministry of Finance, Department of Expenditure Public Procurement Division.

I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India. I hereby certify that **M/s**, is not from such a country and is eligible to be considered.

Thanking you.

Yours very truly

.....(authorized signatory of company)

.....(firm name)

Company's Seal/stamp

Letter head of Company

Ref.....

Date.....

Reference: Tender Enquiry Ref- **GeM Bid no.**

Package Name: **LIGHTING FIXTURES, LAMPS & MISC. ITEMS**

Project Name: **4 X 225 MW ARUN-3 HYDRO ELECTRIC PROJECT**

NO COMMERCIAL DEVIATION

Yours very truly

.....(authorized signatory of company)

.....(firm name)

Company's Seal/stamp

Letter head of Company

Ref.....

Date.....

Reference: Tender Enquiry Ref- **GeM Bid no.**

Package Name: ***LIGHTING FIXTURES, LAMPS & MISC. ITEMS***

Project Name: ***4 X 225 MW ARUN-3 HYDRO ELECTRIC PROJECT***

NO TECHNICAL DEVIATION

Yours very truly

.....(authorized signatory of company)

.....(firm name)

Company's Seal/stamp