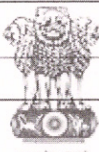

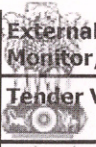


Government eProcurement System		eProcurement System Government of India																			
		Tender Details																			
		Date : 29-Apr-2025 05:07 PM																			
 Print																					
<b>Basic Details</b>																					
Organisation Chain	Indian Institute of Technology Ropar																				
Tender Reference Number	IITRPR/ENM/T/25/39																				
Tender ID	2025_IITRP_858247_1	Withdrawal Allowed	Yes																		
Tender Type	Open Tender	Form of contract	Item Rate																		
Tender Category	Services	No. of Covers	2																		
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No																		
Payment Mode	Offline	Is Multi Currency Allowed For BOQ	No																		
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No																		
<b>Payment Instruments</b>		<b>Cover Details, No. Of Covers - 2</b>																			
Offline	<table border="1"> <thead> <tr> <th>S.No</th> <th>Instrument Type</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>R-T-G-S</td> </tr> <tr> <td>2</td> <td>NEFT</td> </tr> </tbody> </table>	S.No	Instrument Type	1	R-T-G-S	2	NEFT	<table border="1"> <thead> <tr> <th>Cover No</th> <th>Cover</th> <th>Document Type</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Fee/PreQual/Technical</td> <td>.pdf</td> <td>Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along w</td> </tr> <tr> <td>2</td> <td>Finance</td> <td>.xls</td> <td>Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along w</td> </tr> </tbody> </table>		Cover No	Cover	Document Type	Description	1	Fee/PreQual/Technical	.pdf	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along w	2	Finance	.xls	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along w
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<b>Tender Fee Details, [Total Fee in ₹ * - 590]</b>		<b>EMD Fee Details</b>																			
Tender Fee in ₹	590	EMD Amount in ₹	9,31,601																		
Fee Payable To	Payable To IIT Ropar Revenue Account	EMD Exemption Allowed	No																		
Fee Payable At	Payable At Ropar	EMD Fee Type	fixed																		
Tender Fee Exemption Allowed	No	EMD Percentage	NA																		
		EMD Payable To	Payable To IIT Ropar Revenue Account																		
		EMD Payable At	Payable At Ropar																		
<b>Work / Item(s)</b>																					
Title	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along with allied services at IIT Ropar																				
Work Description	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along with allied services at IIT Ropar																				
Pre Qualification Details	Please refer Tender documents.																				
Independent	NA																				

 <b>Government eProcurement System</b>					
<b>External Monitor/Remarks</b>					
<b>Tender Value in ₹</b>	4,65,80,053	<b>Product Category</b>	AMC/ Maintenance Contracts	<b>Sub category</b>	CAMC and Operation
<b>Contract Type</b>	Rate Contract	<b>Bid Validity(Days)</b>	90	<b>Period Of Work (Days)</b>	NA
<b>Location</b>	IIT Ropar	<b>Pincode</b>	140001	<b>Pre Bid Meeting Place</b>	NA
<b>Pre Bid Meeting Address</b>	NA	<b>Pre Bid Meeting Date</b>	NA	<b>Bid Opening Place</b>	IIT Ropar
<b>Should Allow NDA Tender</b>	No	<b>Allow Preferential Bidder</b>	No		

**Critical Dates**

<b>Publish Date</b>	29-Apr-2025 05:00 PM	<b>Bid Opening Date</b>	14-May-2025 11:05 AM
<b>Document Download / Sale Start Date</b>	29-Apr-2025 05:00 PM	<b>Document Download / Sale End Date</b>	13-May-2025 06:00 PM
<b>Clarification Start Date</b>	NA	<b>Clarification End Date</b>	NA
<b>Bid Submission Start Date</b>	29-Apr-2025 05:00 PM	<b>Bid Submission End Date</b>	13-May-2025 06:00 PM

**Tender Documents**

NIT Document	S.No	Document Name	Description	Document Size (in KB)	
	1	Tendernotice_1.pdf	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along with allied services at IIT Ropar	1054.06	
Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	Grid.pdf	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along with allied services at IIT Ropar	1038.40
	2	BOQ	BOQ_902328.xls	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along with allied services at IIT Ropar	251.00

**Tender Inviting Authority**

<b>Name</b>	Registrar
<b>Address</b>	Registrar IIT Ropar Punjab



File No.IITRPR/ENM/T/25/39

Dated :- 29/04/2025

भारतीय प्रौद्योगिकी संस्थान रोपड़, आईआईटी रोपड़ के 11/433 केवी सब स्टेशन के व्यापक वार्षिक रखरखाव अनुबंध और संचालन के लिए प्रक्रिया में है।

Indian Institute of Technology Ropar is in the process for a comprehensive annual maintenance contract and operation of 11/433 KV Sub Station of IIT Ropar.

कार्य का नाम <b>Name of work</b>	<b>Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS'S and PSS along with allied services at IIT Ropar</b>
अनुमानित लागत <b>Estimated Cost</b>	Rs. 4,65,80,053/- (Per Annum)
बयाना जमा करने के लिए जमा राशि <b>Earnest Money Deposit to be submitted</b>	Rs. 9,31,601/-

निविदा दस्तावेज केंद्रीय सार्वजनिक खरीद पोर्टल <http://eprocure.gov.in/eprocure/app> से डाउनलोड हो सकते हैं। ई-प्रोक्योरमेंट में पंजीकृत नहीं होने वाले इच्छु बोलीदाताओं को वेबसाइट <http://eprocure.gov.in/eprocure/app> के माध्यम से भाग लेने से पहले पंजीकरण करना चाहिए। पोर्टल नामांकन मुफ्त है बोलीदाताओं को सलाह दी जाती है 'आनलाइन बोली के निर्देश' पर दिए गए निर्देशों के माध्यम से जाने की सलाह दी जाए।

Tender Documents may be downloaded from Central Public Procurement Portal <http://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

निविदाकर्ता वेबसाइट पर निविदा दस्तावेज का उपयोग कर सकते हैं (एनआईसी साइट में खोज के लिए, कृपया निविदा खोज विकल्प और 'आईआईटी' टाइप करें। उसके बाद, सभी आईआईटी रोपड़ निविदाओं को देखने के लिए "गो" बटन पर क्लिक करें) उपयुक्त निविदा का चयन करें और उन्हें सभी प्रासंगिक सूचनाओं से भरें और वेबसाइट पर <http://eprocure.gov.in/eprocure/app> पूरा निविदा दस्तावेज अगले पृष्ठ में दिए गए कार्यक्रम के अनुसार आनलाइन जमा करें।

Tenderers can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Ropar tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <http://eprocure.gov.in/eprocure/app> as per the schedule given in the next page.

कोई मैनुअल बोली स्वीकार नहीं की जाएगी। सभी कोटेशन (दरसूची) (तकनीकी और वित्तीय दोनों) को ई-प्रोक्योरमेंट पोर्टल में जमा करनी चाहिए।

No manual bids will be accepted. All quotation (both Technical and Financial should be submitted in the E-procurement portal).

(कुलसचिव / Registrar)

<b>SCHEDULE</b>		
Name of Organization	Indian Institute of Technology Ropar	
Quotation Type (Open/Limited/EOI/Auction/Single/Global)	Open	
Quotation Category (Services/Goods/works)	Services	
Type/Form of Contract (Work/Supply//Service/Buy/Empanelment)	Services	
Product Category (Civil Works/Electrical Works/HVAC Works /Fleet Management/ Computer Systems/Lab Equipment)	Electrical Works	
Date of Issue/Publishing	29/04/2025 (17:00 Hrs)	
Document Download/Sale Start Date	29/04/2025 (17:00 Hrs)	
Document Download/Sale End Date	13/05/2025 (18:00 Hrs)	
Last Date and Time for Uploading of Bids	13/05/2025 (18:00 Hrs)	
Date and Time of Opening of Technical Bids	14/05/2025 (11:05 Hrs)	
Tender Fee/EMD	Rs. 590/- (For Quotation Fee) <b>Rs.9,31,601 /-</b> (For EMD)	
	(To be paid through RTGS/NEFT. IIT Ropar Revenue Account Bank details are as under:	
	Name of the Bank A/C	: IIT Ropar Revenue Account
	SBI A/C No.	: 37360100716
	Name of the Bank	: State Bank of India
	IFSC Code	: SBIN0013181
	MICR Code	: 140002008
	(This is mandatory that UTR Number is provided in the on- line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II)	
No. of Covers (1/2/3/4)	2	
Bid Validity days (180/120/90/60/30)	90 days (From last date of opening of tender)	
Address for Communication	Estate and Maintenance Section, 2nd Floor, East Wing, M. Visvesvaraya Building, Indian Institute of Technology Ropar, Rupnagar – 140001	
Contact No.	01881-235102,5104	
Email Address	enm.office@iitrpr.ac.in,	

**Registrar**

## आनलाइन बोली (बिड) के लिए निर्देश / Instructions for Online Bid Submission:

व्यय विभाग के निर्देशों के अनुसार, यह निविदा दस्तावेज केंद्रीय सार्वजनिक प्रापण पोर्टल (यूआरएल: [URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)) पर प्रकाशित किया गया है। बोलीदाताओं को मान्य डिजिटल हस्ताक्षर प्रमाणपत्र का उपयोग करते हुए सीपीपी पोर्टल पर इलेक्ट्रॉनिक रूप से अपनी बोलियों की सॉफ्ट प्रतियां जमा करना आवश्यक है। सीपीपी पोर्टल पर पंजीकरण करने के लिए निविदाकर्ताओं की सहायता करने के लिए नीचे दिए गए निर्देशों तात्पर्य है, सीपीपी पोर्टल पर आवश्यकताओं के अनुसार अपनी बोलियां तैयार करें और अपनी बोलियां आनलाइन जमा करें।

As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

अधिक जानकारी सीपीपी पोर्टल पर आनलाइन बोलियां जमा करने के लिए उपयोगी हो सकती है।

More information useful for submitting online bids on the CPP Portal may be obtained at:

<http://eprocure.gov.in/eprocure/app>

### पंजीकरण / REGISTRATION

- 1) बोलीदाताओं को “नामांकन के लिए यहां क्लिक करें” लिंक पर क्लिक करके सेंट्रल पब्लिक प्रोक्योरमेंट पोर्टल (यूआरएल: <http://eprocure.gov.in/eprocure/app>) के ई-प्रोक्योरमेंट मॉड्यूल पर भर्ती करना आवश्यक है। सीपीपी पोर्टल पर नामांकन नि:शुल्क है।

Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)) by clicking on the link “Click here to Enroll”. Enrolment on the CPP Portal is free of charge.

- 2) नामांकन प्रक्रिया के भाग के रूप में, बोलीदाताओं को अपने खाते के लिए एक अद्वितीय उपयोगकर्ता नाम चुनना होगा और एक पासवर्ड प्रदान करना होगा।

As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

- 3) बोलीदाताओं को सलाह दी जाती है कि पंजीकरण प्रक्रिया के भाग के रूप में अपना वैध ईमेल पता और मोबाइल नंबर पंजीकृत करें। इनका उपयोग सीपीपी पोर्टल से किसी भी संचार के लिए किया जाएगा।

Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

- 4) नामांकन पर, बोलीदाताओं को सीसीए इंडिया द्वारा मान्यता प्राप्त किसी प्रमाणन प्राधिकरण द्वारा जारी किए गए अपने मान्य डिजिटल हस्ताक्षर प्रमाण पत्र (कक्षा द्वितीय या कक्षा III प्रमाण पत्र के साथ महत्वपूर्ण उपयोग पर हस्ताक्षर करने) की आवश्यकता होगी। (जैसे सीफी/टीसीएस/एनकोड/ई-मुद्रा आदि), इनके प्रोफाइल के साथ

Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.

- 5) केवल एक मान्य डीएससी एक बोलीदाता द्वारा पंजीकृत होना चाहिए। कृपया ध्यान दें कि निविदाकर्ता यह सुनिश्चित करने के लिए जिम्मेदार है कि वे अपने डीएससी को दूसरों को उधार नहीं देते हैं जिससे दुरुपयोग हो सकता है।

Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.

- 6) बोलीदाता फिर अपने यूजर आईडी / पासवर्ड और डीएससी/ईटीकेन के पासवर्ड को दर्ज करके सुरक्षित लॉग-इन के माध्यम से साइट पर लॉग आन करता है।

Bidder then logs in to the site through the secured log-in by entering their userID / password and the password of the DSC / eToken.

### निविदा दस्तावेजों के लिए खोजना / **SEARCHING FOR TENDER DOCUMENTS/**

- 1) सीपीपी पोर्टल में निर्मित विभिन्न खोज विकल्प हैं, ताकि बोलीदाओं को कई मापदंडों से सक्रिय निविदाएं खोज सकें। इन मापदंडों में निविदा आईडी, संगठन का नाम, स्थान, तिथि, मूल्य आदि शामिल हो सकते हैं। निविदाओं के लिए उन्नत खोज का एक विकल्प भी है, जिसमें बोलीदाता कई नामों को जोड़ सकते हैं जैसे संगठन का नाम, अनुबंध का स्थान, स्थान, सीपीपी पोर्टल पर प्रकाशित निविदा की खोज के लिए तारीख, अन्य कीवर्ड आदि।

There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.

- 2) बोलीदाताओं ने एक बार निविदाएं चुनी हैं जिसमें वे रुचि रखते हैं, उसका वे आवश्यक दस्तावेज / निविदा कार्यक्रम डाउनलोड कर सकते हैं। ये निविदाएं “मेरी निविदाएं” फोल्डर में ले जाई जा सकती हैं। इससे सीपीपी पोर्टल को बोलीदाताओं को एसएमएस / ई-मेल के माध्यम से सूचित किया जा सकता है, यदि निविदा दस्तावेज में कोई शुद्धि जारी की गई है।

Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

- 3) बोलीदाता को प्रत्येक निविदा को निर्दिष्ट अद्वितीय निविदा आईडी का नोट बनाना चाहिए, अगर वे हेल्पडेस्क से कोई स्पष्टीकरण / सहायता प्राप्त करना चाहते हैं।

The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

### बोली की तैयारी / **PREPARATION OF BIDS**

- 1) बोलीदाता को अपनी बोलियां जमा करने से पहले निविदा दस्तावेज पर प्रकाशित किसी भी शुद्धि को ध्यान में रखना चाहिए।

Bidder should take into account any corrigendum published on the tender document before submitting their bids.

- 2) कृपया बोली के भाग के रूप में जमा किए जाने वाले दस्तावेजों को समझन के लिए निविदा विज्ञापन और निविदा दस्तावेज ध्यान से देखें। कृपया उन अंकों की संख्या पर ध्यान दें जिन में बोली दस्तावेज जमा करना है, दस्तावेजों की संख्या- जिसमें प्रत्येक दस्तावेज के नाम और सामग्री शामिल हैं, जिन्हें प्रस्तुत करने की आवश्यकता है। इनमें से कोई भी विचलन बोली को अस्वीकार कर सकता है।

Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

- 3) बोलीदाता, अग्रिम में, निविदा दस्तावेज/ अनुसूची में बताए अनुसार प्रस्तुत करने के लिए बोली दस्तावेज तैयार करना चाहिए और आम तौर पर, वे पीडीएफ/एक्सएलएस/आरएआर/डीडब्ल्यूएफ स्वरूपों में हो सकते हैं। बोली दस्तावेजों को 100 डीपीआई के साथ काले और सफेद विकल्प स्कैन किया जा सकता है।

Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.

- 4) मानक दस्तावेजों के एक ही सेट को अपलोड करने के लिए आवश्यक समय और प्रयास से बचने के लिए जो प्रत्येक बोली के भाग के रूप में जमा करने के लिए आवश्यक हैं, ऐसे मानक दस्तावेज अपलोड करने का प्रावधान (जैसे पैन कार्ड कॉपी, वार्षिक रिपोर्ट, लेखा परीक्षक प्रमाणपत्र आदि) बोलीदाताओं को प्रदान किया गया है। ऐसे दस्तावेजों को अपलोड करने के लिए बोलीकर्ता उनके लिए उपलब्ध "मेरा स्पेस" क्षेत्र उपयोग कर सकते हैं। बोली जमा करते समय ये दस्तावेज सीधे "मेरा स्पेस" क्षेत्र में जमा किए जा सकते हैं, और उन्हें बार-बार अपलोड करने की आवश्यकता नहीं है इससे बोली जमा प्रक्रिया के लिए आवश्यक समय में कमी आएगी।

To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use the "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for the bid submission process.

### बोली जमा करना / SUBMISSION OF BIDS

- 1) बोलीदाता को बोली प्रस्तुति के लिए अच्छी तरह से साइट पर लॉग इन रना चाहिए ताकि वह समय पर बोली अपलोड कर सके अथवा फिर बोली प्रस्तुत करने के समय से पहले। अन्य मुद्दों के कारण किसी भी देरी के लिए बोलीदाता जिम्मेदार होगा।

Bidders should log into the site well in advance for bid submission so that he/she uploads the bid in time i.e. on or before the bid submission time. Bidders will be responsible for any delay due to other issues.

- 2) बोलीदाता को निविदा दस्तावेज में दर्शाए अनुसार एक-एक करके आवश्यक बोली दस्तावेजों को डिजिटल हस्ताक्षर और अपलोड करना होगा।

The bidder has to digitally sign the bid document and upload the required bid documents one by one as indicated in the tender document.

- 3) बोलीदाता को निविदा शुल्क/ ईएमडी को भुगतान के लिए “आन लाइन” के रूप में भुगतान विकल्प चुनना होगा और उपकरण का विवरण दर्ज करना होगा। जब भी, ईएमडी / निविदा शुल्क की मांग की जाती है, बोलीदाताओं को टेंडर शुल्क और ईएमडी अलग-अलग आरटीजीएस के माध्यम से आन लाइन पर भुगतान करने की आवश्यकता होती है।

Bidder has to select the payment option as “on-line” to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever an EMD / Tender fee is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS.

- 4) एक मानक BoQ प्रारूप को सभी बोलीदाताओं द्वारा भरने के लिए निविदा दस्तावेज प्रदान किया गया है। बोलीदाताओं को इस बात का ध्यान रखना चाहिए कि उन्हें आवश्यक प्रारूप में अपनी वित्तीय बोली जमा करनी चाहिए और कोई अन्य प्रारूप स्वीकार्य नहीं है। बोलीकर्ताओं को BoQ फाइल को डाउनलोड करने, इसे खोलने और अपने संबंधित वित्तीय उद्धरण और अन्य विवरण (जैसे बोलीदाता का नाम) के साथ सफेद रंगीन (असुरक्षित) कोशिकाओं को पूरा करना आवश्यक है। कोई भी अन्य कक्ष नहीं बदला जाना चाहिए। एक बार विवरण पूरा हो जाने पर, बोलीदाता को इसे सहेजना होगा और इसे आनलाइन जमा करना होगा, बिना फाइल नाम बदले। यदि BoQ फाइल को बोलीदाता द्वारा संशोधित किया गया है, तो बोली को खारिज कर दिया जाएगा।

A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

- 5) सर्वर का समय (जो बोलीदाताओं के डैशबोर्ड पर प्रदर्शित होता है) बोलीदाताओं द्वारा बोलियों को खोलने के लिए समय सीमा को संदर्भित करने के लिए मानक समय के रूप में माना जाएगा। बोलीदाताओं को खोलना आदि। बोलीदाताओं को बोली प्रस्तुत करने के दौरान इस समय का पालन करना चाहिए।

The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

- 6) बोलीदाताओं द्वारा प्रस्तुत सभी दस्तावेज पीकेआई एन्क्रिप्शन तकनीकों का उपयोग करके एन्क्रिप्ट किया जाएगा जिससे डेटा की गोपनीयता सुनिश्चित हो सके। दर्ज किए गए डेटा को अनाधिकृत व्यक्तियों द्वारा बोली खोलने के समय तक नहीं देखा जा सकता है। बोलियों की गोपनीयता को सुरक्षित सॉकेट लेयर 128 बिट एन्क्रिप्शन तकनीक का उपयोग कर रखा जाता है। संवेदनशील क्षेत्रों का डेटा संग्रहण एन्क्रिप्शन किया जाता है।

All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.

- 7) अपलोड किए गए निविदा दस्तावेज केवल अधिकृत बोलीदाता द्वारा निविदा खोलने के बाद ही पठनीय हो सकते हैं।

The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 8) बोलियों के सफल और समय पर जमा होने पर, पोर्टल सभी प्रासंगिक विवरणों के साथ बोली संख्या, बोली जमा करने की तारीख और समय के साथ बोली सफलतापूर्वक जमा करने का संदेश एवं बोली सारांश प्रदर्शित करेगा।

Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

- 9) कृपया अनुपालन पत्रक की एक पीडीएफ फाइल में सभी प्रासंगिक दस्तावेजों के स्कैन किए गए पीडीएफ को जोड़ दें।

Kindly add a scanned PDF of all relevant documents in a single PDF file of compliance sheet.

### बोलीदाताओं को सहायता / ASSISTANCE TO BIDDERS

- 1) निविदा दस्तावेज से संबंधित कोई भी प्रश्न और इसमें निहित नियमों और शर्तों को निविदा आमंत्रण प्राधिकरण को निविदा के लिए अथवा निविदा में वर्णित प्रासंगिक संपर्क व्यक्ति से संबोधित किया जाना चाहिए।

Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

- 2) आनलाइन बोली प्रस्तुत करने अथवा सामान्य में सीपीपी पोर्टल से संबंधित प्रश्नों की प्रक्रिया से संबंधित कोई भी प्रश्न 24x7 सीपीपी पोर्टल हेल्पडेस्क पर निर्देशित किया जा सकता है। हेल्पडेस्क के लिए संपर्क संख्या 1800 233 7315 है।

Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

### बोलीदाताओं के लिए सामान्य निर्देश / General Instructions to the Bidders

- 1) निविदाएं पोर्टल <http://eprocure.gov.in/eprocure/app> के माध्यम से आनलाइन प्राप्त होगी। तकनीकी बोलियों में, बोलीदाताओं को सभी दस्तावेजों को पीडीएफ प्रारूप में अपलोड करना होगा।

The tenders will be received online through portal <http://eprocure.gov.in/eprocure/app>. In the Technical Bids, the bidders are required to upload all the documents in .pdf format.

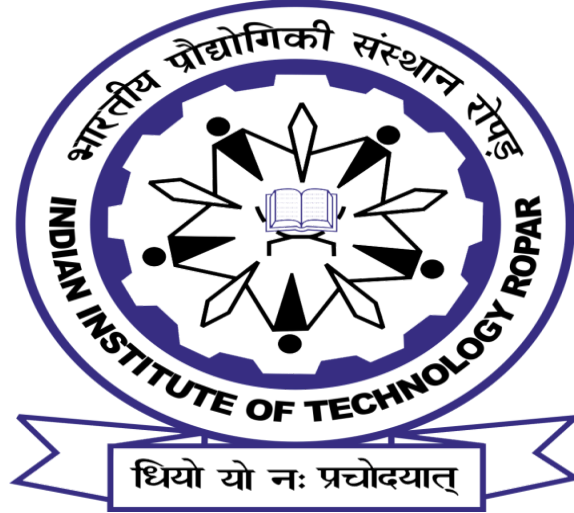
- 2) कंपनी के नाम में स्मार्ट कार्ड/ई-टोकन के रूप में मान्य क्लास II/III डिजिटल हस्ताक्षर प्रमाणपत्र (डीएससी) के पंजीकरण के लिए एक शर्त है और <https://eprocure.gov.in/eprocure/app> के माध्यम से बोली प्रस्तुत करने की गतिविधियों में भाग ले सकते हैं। डिजिटल हस्ताक्षर प्रमाणपत्र पर अधिकृत प्रमाणित एजेंसियों से प्राप्त की जा सकती है, जिनमें से जानकारी "डीएससी के बारे में सूचना" लिंक के तहत वेब साइट <https://eprocure.gov.in/eprocure/app> पर उपलब्ध है।

Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link "Information about DSC".

- 3) निविदाकर्ता को सलाह दी जाती है कि <https://eprocure.gov.in/eprocure/app>. पर ई-प्रोक्योरमेंट के लिए सेंट्रल पब्लिक प्रोक्योरमेंट पोर्टल माध्यम से आनलाइन बोली के जमा करते समय निविदाकार हेतु निर्देशों में उपलब्ध निर्देशों का अनुगमन करें।

Tenderer are advised to follow the instructions provided in the 'Instructions to the Tenderer the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at <https://eprocure.gov.in/eprocure/app>.

**INDIAN INSTITUTE OF TECHNOLOGY ROPAR**



**Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station,  
ESS'S and PSS along with allied services at IIT Ropar.**

NIT NUMBER : IITRPR/ENM/T/25/39  
Issued to : .....

**TO BE SUBMITTED TO:**

**The Registrar  
IIT Ropar  
Rupnagar, Punjab**

## INDEX

**Name of Work:** Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS'S and PSS along with allied services at IIT Ropar

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NIT Amounting to **Rs 4,65,80,053/- (Rupees Four Crore Sixty five thousand Eighty thousand and fifty three Only )** [Certified that this NIT contains pages (94 only) pages + (Part C & BOQ Sample contains (2 only) Pages, Total ( 96 only) pages only]

Note: Price bid should be uploaded in given BOQ\_XXXX.xls format online and not in the technical bid failing which your bid shall stand rejected. However, the price bid is as follows for your reference.

# PART – A

**INDIAN INSTITUTE OF TECHNOLOGY ROPAR  
ESTATE AND MAINTENANCE SECTION**

**TENDER DOCUMENT**

**Name of Work: Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS'S and PSS along with allied services at IIT Ropar**

<b>S. NO.</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
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<b>3</b>	<b>PART-C</b> <b>(BOQ Sample format)</b>	<b>95-96</b>

**Notes: The following will be the part of Contract Agreement:**

1. CPWD General Conditions of Contract of 2023 Maintenance Works modified up to date.
2. CPWD general specification for electrical work Part 4 Sub Station 2013.
3. For details refer to: [www.iitrpr.ac.in/tenders](http://www.iitrpr.ac.in/tenders) and <https://eprocure.gov.in/eprocure/app>.

**Estimated Cost Rs. - 4,65,80,053/- (Rupees Four Crore Sixty five lac Eighty Thousand and Fifty Three Only )**

**Assistant Engineer  
(Electrical)**

**Joint Registrar  
(Estate & Maintenance)**

**INDIAN INSTITUTE OF TECHNOLOGY ROPAR**  
**ESTATE & MAINTENANCE SECTION**

**NOTICE INVITING TENDER**

The Registrar, IIT Ropar invites on behalf of Board of Governors of IIT Ropar sealed percentage rate tender from for the following work: -

**NIT No. IITRPR/ENM/T/25/**

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**Name of work: Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS'S and PSS along with allied services at IIT Ropar**

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- 1. Estimated Cost:--4,65,80,053/-**
- 2. Tender Fees : 500+18%(GST)= 590/- (Non Refundable)**
- 3. EMD : Rs 9,31,601/-**

The bid form and other details can be downloaded from the website

[www.iitrpr.ac.in/tenders](http://www.iitrpr.ac.in/tenders) and <https://eprocure.gov.in/eprocure/app>.

**Registrar**

**INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR TENDRING  
FORMING PART OF NIT AND TO BE POSTED ON WEBSITE**

The Registrar, on behalf of Board of Governors of IIT ROPAR, invites percentage rate tenders from registered contractors in appropriate class in CPWD/ MES/ BSNL /Railways/ State PWDs and Central PSUs for the following work:

S.no	Name of work	Estimated cost put to tender	Tender Fee	Earnest Money Deposit	Period of Completion	Last date for submitting of Bid	Time & date of opening of Tender
1	Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS'S and PSS along with allied services at IIT Ropar	Rs. 4,65,80,053/-	Rs. 590/- (non refundable)	Rs 9,31.601/-	As mentioned in BOQ	Refer Page no. 2 (Schedule)	Refer Page no. 2 (Schedule)

**A. ELIGIBILITY CRITERIA :**

1) Contractors who fulfill the following requirements shall be eligible to apply: -

a) Should have completed the works during last seven years ending on previous day of last day of submission of tender out of which at least one should have been executed in Government Departments as mentioned below:

- . 3 (three) “**similar works**” each of value not less than 40% of the estimated cost put to tender.

OR

- . 2 (two) “**similar works**” each of value not less than 60% of the estimated cost put to tender.

OR

- . 1 (one) similar work of value not less than 80% of the estimated cost put to tender.

**\*Similar works** means “**Operation & Maintenance work of Sub Station work**”

- b) Enlistment contractors of appropriate class in CPWD/MES/ BSNL/ Railways/ PSU/ State PWDs.
- c) Joint ventures are not accepted:

**B. Documents to be submitted with tender:**

- a) Enlistment order of the contractor.
- b) Required experience/completion certificate of similar works.
- c) Certificate of registration for EPF and ESIC.
- d) Copy of GST Registration.
- e) Earnest Money Deposit (NEFT/RTGS in favour of IIT Ropar Revenue Account payable at Ropar/Rupnagar) (Refer Page no.2 (Schedule))
- f) PAN registration with Income Tax Department.
- g) Price quoted for the respective items in words and figures in prescribed format.

Price bid submitted by intending bidders shall be opened only to those tenderers, whose Earnest Money Deposit and other documents placed are found in order.

The tender submitted shall become invalid if:

- a) The tenderers if found ineligible.
- b) The tenderers do not submit all the documents as stipulated in the tender document.
- c) If any discrepancy is noticed in the documents submitted physically in the office of tender opening authority.

**OTHER CONDITIONS:**

- 1) The intending bidder must read the terms and conditions of Form-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- 2) Information and Instructions for bidders posted on the website shall form part of the bid document.
- 3) The agreement shall be drawn with the successful tenderer on prescribed Form No. Form-8 as modified and corrected upto date which is available as a Govt. of India Publication.

Tenderer shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

- 4) Initially the work will be awarded for 1 year which can be further extended for Four years on a year-to-year basis subject to satisfactory performance of the party. Rates must be quoted for Five Years otherwise tender shall be rejected. Rates shall be freezed for Five Years.
- 5) The time allowed for carryout the work will be **12 months** from the date of start as defined in schedule "F" or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender document.

- 6) The bid document consisting of plans, specifications the schedule of quantities of various types of items to be executed and set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website [www.iitrpr.ac.in/tenders](http://www.iitrpr.ac.in/tenders) and [eprocure.gov.in](http://eprocure.gov.in)
- 7) The contractor whose tender is accepted will be required to furnish a **performance guarantee of 5% (Five Percent)** of the tendered amount within the period specified in Schedule F. This guarantee shall be Deposit at Call receipt of any scheduled bank / Banker's cheque of any scheduled bank / Demand Draft of any scheduled bank / Pay order of any Scheduled Bank of any scheduled bank or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form.

**In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, The EMD will be forfeit.**

- 8) The Institute reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed to be suitable by it, if too many bids are received satisfying the laid down criterion.
- 9) The description of the work is as follows:

Copies of other drawings and documents pertaining to the works will be open for inspection by the tenderers at the office of the above mentioned officer.

Tenderers, are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and subsoil (sofar as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to the risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

- 10) The competent authority on behalf of the Director, IIT Ropar does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all of the tenders received without the assignment of any reason.
- 11) All tenders, in which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer, shall be summarily rejected.
- 12) Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
- 13) The competent authority on behalf of the Director, IIT ROPAR reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted.
- 14) The contractor shall not be permitted to tender for works in the IIT ROPAR responsible for award and execution of contracts in which his near relative is posted as Group A Officer in Accounts Section or as an officer in any capacity between the grade of Registrar and Engineer-in-charge (both inclusive).

He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in the IIT ROPAR. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of the concerned Department / termination of the contract from this institute.

- 15) No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of two years after his retirement from government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.
- 16) The tender for the works shall remain open for acceptance for a period of **90 days** from the date of opening of tenders. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at a liberty to forfeit 100% of the said earnest money as aforesaid. Further, the tenderer shall not be allowed to participate in the re-tendering process of the work.

- 17) This Notice Inviting Tender shall form a part of the contract document. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall within **15 days** from the stipulated date of start of the work sign the contract consisting of:-
- a) The notice inviting tender, all the documents including additional conditions, specifications and drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
  - b) Standard CPWD **Form-8** as modified and corrected.
- 18) Tenders with any condition including conditional rebates shall be rejected forthwith. However, tenders with unconditional rebates will be acceptable.
- 19) Tenderers must associate himself, with agencies of the appropriate class eligible to tender for each of the minor components of work.
- 20) Entire work under the scope of composite tender including major and all minor components shall be executed under one agreement.
- 21) Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of work. The Earnest Money will become part of the security deposit of the major components of work.
- 22) The acceptance of the tender shall be conveyed by the **Joint Registrar, IIT Ropar** on behalf of the Director, IIT ROPAR.

**Registrar**  
**For & on behalf of the Board of Governors, IIT Ropar**

**ITEM RATE TENDER AND FOR WORKS CONTRACT**

Tender for work of **“Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS’S and PSS along with allied services at IIT Ropar”**

- (i) To be submitted by **refer page no.2**
- (ii) To be opened **refer page no.2**

Issued to : \_\_\_\_\_

Joint Registrar (E&M), IIT Ropar

**TENDER**

I/We have read and examined the Notice Inviting tender, schedule, A,B,C,D,E & F. Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and rules referred to in the conditions of contract and all other contents in the tender document for the work.

A sum of Rs. 9,31,601/- is hereby forwarded in cash/Receipt Treasury Challan/Deposit at call receipt of a Scheduled Bank/Fixed deposit receipt of Scheduled bank/demand draft of scheduled bank/bank guarantee issued by scheduled bank as earnest money. If I/we fail to furnish the prescribed performance guarantee or fail to commence the work within the prescribed period. . I/we agree that the said Director, IIT, Ropar or his successors in office shall without prejudice to any other right or remedy be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail of commence work as specified, I/we agree that Director, IIT, Ropar or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Schedule ‘F’ and those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12 of the tender form. Further, I/We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the tendering process of the work.

I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information derived therefrom to any person other than a person to whom I/we am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the Institute

I/We undertake and confirm that eligible similar work(s) has/ have not been executed through another contractor on a back to back basis. Further that, if such a violation comes to the notice of the Department, then I/we shall be debarred for tendering in IIT Ropar in future forever. Also, if such a violation comes to the notice of the Department before the date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

Dated

Witness:

Address:

Occupation:

Signature of contractor

Postal Address:\_\_\_\_\_

Email : \_\_\_\_\_

### **ACCEPTANCE**

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Board of Governors, IIT Ropar for a sum of Rs.\_\_\_\_\_.(Rupees \_\_\_\_\_only), The letter referred to below shall form part of this contact Agreement:-

- i)
- ii)
- iii)

Dated:

For on the behalf of Board of Governors, IIT ROPAR  
Signature

## PERFORMA OF SCHEDULES

### SCHEDULE 'A'

#### Schedule of Quantities.

### SCHEDULE 'B'

Schedule of materials to be issued to the contractor:

S.N.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
-NIL-				

### SCHEDULE 'C'

Schedule of Tools and Plants to be hired to the contractor

S.N.	Description of item	Hire charges per day	Place of issue
1	2	3	4
-NIL-			

### SCHEDULE 'D'

Extra schedule for specific requirements / document the work if any

As attached in for tender form

## SCHEDULE 'E'

Reference to General Conditions of contract maintenance work 2023 incorporating amendment up to date of submission of Tender.

<b>Name of Work:</b>	<b>Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS'S and PSS along with allied services at IIT Ropar</b>
<b>Estimated cost of the work:</b>	<b>Rs. 4,65,80,053/-</b>
<b>Earnest Money Deposit</b>	<b>Rs. 9,31,601 /-</b>
<b>Performance Guarantee</b>	5 % of the tendered value of the work
<b>Security Deposit</b>	2.5% shall be deducted from the running bills.

## SCHEDULE 'F'

### General rules and direction:

Officer inviting tender

Joint Registrar (E & M),  
IIT Ropar

### Definitions:

2(i) Engineer-in-Charge

Joint Registrar (E & M)  
IIT Ropar

2(ii) Accepting Authority

Registrar, IIT Ropar

2(iii) Standard Schedule of Rates

Delhi Schedule of Rates 2023 /  
Market Rate as modified &  
corrected upto date

2(iv) Department:

Estate & Maintenance, Indian Institute  
of Technology, Ropar

2(v) Standard contract Form:

GCC 2023, **Form-8** as modified & corrected  
up to date

## Clause 1

i) Time allowed for submission of  
performance guarantee from  
the date of letter of acceptance.

10 days

ii) Maximum allowable extension with late fee @ 0.1% per day of performance guarantee amount beyond the period as provided in (i) above.

3 days

**Clause 2**

Authority for fixing compensation under clause 2

**Registrar, IIT Ropar**

**Clause 5**

Number of days from the date of issue of letter of acceptance for reckoning date of start

10 days

Time allowed for execution of work

As per mention in BOQ

**Authority to decide**

i) Extension of time

**Joint Registrar ( E & M ), IIT Ropar**

ii) Rescheduling of milestones

**Registrar, IIT Ropar**

## **SALIENT/MANDATORY REQUIREMENTS FOR THE TENDER**

### **Comprehensive maintenance contract and operation of 66/11 KV Grid, Sub Station and Compact Substation along with allied services at IIT Ropar.**

- 1 The tenderer is advised to read and examine the tender documents for the work and the set of drawings available with Engineer-in-charge. He should inspect and examine the site and its surroundings by himself before submitting his tender.
- 2 Separate schedule of quantity is included in this tender for Electrical items of work. The contractor shall quote the item rates in figures and words accurately so that There is no discrepancy in rates written in figures and words.
- 3 Time allowed for the execution of work is **12 Months**.
- 4 The contractor(s) shall submit a detailed program of execution in accordance with the master programme / milestone within **7 days** from the date of issue of award letter.
5. Quality of the project is of utmost importance. This shall be adhered to in accordance with the provisions of CPWD specifications and guidelines given in the relevant paras. The contractor shall at all times indemnify and keep indemnified the owner and its officers, servants and agents from and against all third party claims whatsoever (including time not limited to property loss and damage, personal accident, injury or death of/or property or person of any sub-contract and or the servants or agents of the contractor any subcontractor(s) and or the owner and the contractor shall at his own cost and initiative at all times, maintain all liabilities under Workmen's Compensation Act/ Fatal Accident Act, Personal Injuries, Insurance Act and/ or their Industrial Legislation from time to time in force.
6. For electricity requirements of the office, the contractor(s) shall be provided with temporary electric connection at a suitable place by the Institute if possible, on request of the contractor. The required cable and electrical meter shall be arranged by the contractor. The monthly consumption of electricity shall be recovered from the running bills of the contractors on the approved rates of the Institute. The institute cannot be held liable to provide any office or location to set up office.

7. The rates of CAMC and Operation charges shall be inclusive of all taxes, duties octroi, works contract tax, cartage loading, GST and any other statutory taxes complete in all respects, valid for a period of five years from the date of award of contract.
8. The safety of the operation of the Sub-Stations shall be the responsibility of the successful contractor.
9. Substation may be inspected during working hours on any day if required by the bidders.
10. The Contractor will maintain all records of the complaints in a register and get it countersigned by IIT Ropar on a weekly basis.
11. Bid security of the unsuccessful bidders will be returned to them.
12. In the event of any breach of the terms of the contract, the contractor shall have to bear the penalty specified in the present terms. However, upon a material breach of the contract terms which is not remedied by the contractor within 7 days, IIT Ropar shall be entitled to terminate the present contract without any notice. The contractor shall be required to make good any damage incurred by IIT Ropar.
13. The material parts being replaced shall be of OEM authorized makes and specifications.
14. The contractor will be liable to handover the substation in running condition with all the equipment serviceable at the end of contract or termination of contract.
15. During the process of overhauling or routine maintenance if any modification / improvement of the system is required, it has to be cleared by the Engineer in-charge in writing.
16. The agreement will be valid for Comprehensive AMC of Substation incorporated in the contract document. This should be strictly adhered to. The AMC contract shall remain valid initially for a period of one year and it may be further extended/ renewed annually up to five years on the same terms and conditions. The contract once awarded can be terminated by the IIT Ropar after serving one month's notice to the contractor.
17. The service provider shall at his own risk and cost ensure that their employees deployed to carry out the work of IIT Ropar are insured against all risks that may be associated with the job.

18. If rain water enters substation / generator rooms etc. the draining out of water and keeping the substation / generator room clean and dry is in the scope of the contractor.
19. Labour Laws: The contractor will follow all labour laws / acts of Central Govt., Local Govt. applicable from time to time. He should maintain a proper attendance register and record of wages paid to the workers and these documents should be submitted to IIT Ropar on demand along with a record of complaints and whenever asked. He will obtain the necessary Labour license required for engaging labour at site. The bidder should note that wages paid to the workers by the contractor should not be less than minimum wages notified by the Chief Labour Commissioner (Central) from time to time for their respective category. The agency shall comply with all Acts, Laws and Regulations applicable to the area with regard to performance of the work and including, Minimum Wages Act, 1948, Contract Labour (R&A) Act, 1970, Workmen's Compensation Act, 1923 Industrial Dispute Act, 1947 and take such steps as may be deemed necessary in this regard.

It will be solely the contractor's responsibility to face any consequences arising out of non compliance of various labour laws. The contractor shall keep IIT Ropar in indemnified and if IIT Ropar has to incur some expenditure due to nonpayment of wages to the labour or non compliance of various labour laws by contractor, the same will be recovered from contractor's bill or from performance security or any other amount due, along with 10% on account of departmental charges.

20. Force Majeure: Neither party shall bear responsibility for the complete or partial nonperformance of any of its obligations (except for failure to pay any sum which has become due on account of receipt of goods under the provisions of the present contract), if the non-performance results from such Force Majeure circumstances as Flood, Fire, EarthQuake, Pandemic and other acts of God as well as War, Military operation, blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after signing of the present contract. In such circumstances the time stipulated for the performance of an obligation under the present contract is extended correspondingly for the period of time of action of these circumstances and their consequences.

21. The Contractor should impart training on emergency procedures and basic maintenance of substations to technicians specified by the Institute.
22. Arbitration: In the unfortunate situation if any disputes, disagreement and controversies arising in any manner, which cannot be settled by mutual agreement between the two parties, shall be resolved through arbitration. The number of arbitrators shall be ONE, shall be appointed by the Director, IIT Ropar. The decision of the sole arbitrator shall be final and binding to both the parties. All provisions of Arbitration and Conciliation Act 1996 (with amendments) shall apply and the legal place of arbitration shall be IIT Ropar, Rupnagar, Punjab. The language of arbitration proceedings shall be English. The Court which have jurisdiction in the matter is District Court, Rupnagar, Punjab.

## INTEGRITY AGREEMENT

This Integrity Agreement is made at ..... on this ..... day of ..... 20.....

BETWEEN

IIT ROPAR represented through its Registrar, (Hereinafter referred as the 'Principal/ Owner', which expression shall unless repugnant to the meaning or context here of include its successors and permitted assigns)

AND

..... (Name and Address of the Individual/ firm/ Company) through ..... (Hereinafter referred to as the (Details of duly authorized signatory) "Bidder/Contractor" and which expression shall unless repugnant to the meaning or context here of include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No. ....)

(hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational

procedure, contract for .....(Name of work)

hereinafter referred to as the "Contract".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

## Article 1: Commitment of the Principal/Owner

1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

(a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

(c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

## Article 2: Commitment of the Bidder(s)/Contractor(s)

1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.

b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. 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 cartelize in the bidding process.

c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/ forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

### Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the

Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

1. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/ determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

2. Forfeiture of EMD/ Guarantee/ Security Deposit: If the Principal/ Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/ Contractor.
3. Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/ Owner will inform the same to law enforcing agencies for further investigation.

#### Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country conforming to the anti corruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statements on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

#### Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/ sub-vendors.

- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

#### Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority.

#### Article 7- Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is an agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

## Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contract documents with regard to any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....  
(For and on behalf of Principal/Owner)

.....  
(For and on behalf of Bidder/Contractor)

WITNESSES:

1. ....  
(signature, name and address)

2. ....  
(signature, name and address)

Place:

Dated :

## **CONTRACT AGREEMENT**

(ON RS.100 NON-JUDICIAL STAMP PAPER\*)

(\*= To be purchased and submitted by the Contractor.)

THIS AGREEMENT is made on \_\_\_\_\_ **2024**..... Between **Joint Registrar (E&M), Indian Institute of Technology Ropar, Punjab** (hereinafter referred to as “Client” which expression shall include his successors and assigns), and whose principal place of office is at IIT Ropar, Rupnagar Punjab India 140001 of the One Part,

### **AND**

**M/s**.....having its registered office at.....(Hereinafter referred to as “the Contractor”) which expression shall unless excluded by or repugnant to the context be deemed to include his successors, heirs, executors, administrators, representatives and assigns) of the other part for

- I. **WHEREAS** the Client invited bids through open tender, vide Notice Inviting Tender dated .....for the work of “**Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS’S and PSS along with allied services at IIT Ropar**” under **Tender No.**
- II. **AND WHEREAS** the Contractor submitted his bid vide..... in accordance with the bid documents and represented therein that it fulfills all the requirements and has resources and competence to provide requisite services to the Client
- III. **AND WHEREAS** the Client has selected **M/s**.....as the successful bidder (“the Contractor”) pursuant to the bidding process and negotiation of contract prices, awarded the **Letter of Acceptance (LoA) No. ....**, to the Contractor on ..... for a total sum of ..... [Rupees ..... Only].
- IV. **AND WHEREAS** the Client desires that the “**Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS’S and PSS along with allied services at IIT Ropar**” as defined in the Bidding Document) be provided, performed, executed and completed by the Contractor, and wishes to appoint the Contractor for providing requisite services to the Client.
- V. **AND WHEREAS** the Contractor acknowledges that the Client shall enter into contracts with other contractors / parties **Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS’S and PSS along with allied services at IIT Ropar** for its office in cases the Contractor falls into breach of the terms and conditions as stipulated in the Tender Document and shall waive its claim whatsoever in this regard.

VI. **AND WHEREAS** the terms and conditions of this Contract have been fully negotiated between the Client and the Contractor as parties of competent capacity and equal standing.

VII **AND WHEREAS** the Contractor has fully read, understood and shall abide by all the terms and conditions as stipulated in the Tender Documents for **Comprehensive maintenance contract and operation of 66/11 KV Grid Sub Station, ESS'S and PSS along with allied services at IIT Ropar** for Client's office, failing which the Contract is liable to be terminated at any time, without assigning any reasons by the Client.

VIII. The Client and the Contractor agree as follows:

1. In this Agreement (including the recitals) capitalized words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

- (a) Notice Inviting Tender Form 6, Form No. 7, Performa of Schedules.
- (b) The Letter of Intent /Acceptance (LoI/A) issued by the Client.
- (c) Price Schedule
- (d) Performance Bank Guarantee.
- (e) Integrity Pact.
- (f) The Addenda, if any, issued by the Client.
- (g) Any other documents forming part of this Contract Agreement till date.
- (h) Charges – Schedule annexed to this Article of Agreement
- (i) Supplementary Agreements executed from time to time.

3. Any changes/modifications/amendments required to be incorporated in the Contract Agreement at a later stage shall be discussed and mutually agreed by both the parties and such supplementary agreements shall be binding on both the parties and shall form the part of this contract agreement.

4. This Contract shall be governed by and construed in accordance with the laws of India. Each Party hereby submits to the jurisdiction as set out in the Dispute Resolution Procedure in the Conditions of Contract.

IX. **IN WITNESS WHEREOF** the parties hereto have caused this Agreement to be executed in accordance with the laws of India on the day, month and year indicated above.

Signed on behalf of the Contractor

**(Authorised Signatory)**

Signed on Behalf of the Institute

**(Joint Registrar, IIT ROPAR)**

<b>&lt;On Organization Letterhead&gt;</b>		
<b>(For Works Contracts, including Turnkey contracts)</b>		
<b>&lt;CERTIFICATE&gt;</b>		
Tender No. :- ..... Date:- .....		
I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries and hereby certify that this bidder is not from such a country and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.		
<b><u>OR (whichever is applicable)</u></b>		
I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries and hereby certify that this bidder is from _____(Name of Country) and has been registered with the Competent Authority and will not subcontract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I also certify that this bidder fulfills all the requirements in this regard and is eligible to be considered.		
<i>(Copy/ evidence of valid registration by the Competent Authority is to be attached)</i>		
<b>Signature of Bidder/ Agent</b>		
Name: _____		
Designation: _____		
Organization Name: _____		
Contact No. : _____		

(To be given on Company Letter Head – For tender value below Rs.10 Crores)

(To be given by Statutory Auditor/ Cost Auditor/ Cost Accountant/ CA for tender value above Rs.10 Crores)

To,  
The Registrar,  
Indian Institute of Technology Ropar  
Rupnagar, Punjab - 140001

Subject: - **Declaration of Local Content**

Tender Reference No: \_\_\_\_\_

Name of Tender/ Work: \_\_\_\_\_

1. We hereby declare that an item offered has \_\_\_% local content (DPIIT OM No. P-45021/2/2017-PP (BEII) dated 16.09.2020) & (DPIIT OM No. P-45021/102/2019-BE-II-Part(1) (E-50310) dated 04.03.2021)

2. Class of Supplier: ☐ Class - I ☐ Class - II

*“Local Content”* means the amount of value added in India which shall be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

“\*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.”

Yours faithfully,

(Signature of the bidder, with Official Seal)

**<TO BE PROVIDED BY OEM ON LETTERHEAD>**

(To be given on Company Letter Head – For value below Rs.10 Crores)

(To be given by Statutory Auditor/ Cost Auditor/ Cost Accountant/ CA for value above Rs.10 Crores)

To,  
The Registrar,  
Indian Institute of  
Technology Ropar  
Rupnagar, Punjab -  
140001

Subject: - **Declaration of Country of Origin of Goods**

Tender Reference No:

\_\_\_\_\_

Name of Tender/ Work: \_\_\_\_\_

1. Country of Origin of Goods being offered: \_\_\_\_\_ (OM  
No. 6/18/2019-PPD dated 23.07.2020)

“\*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.”

Yours faithfully,

(Signature of the bidder, with Official Seal)

# PART - B

## **SPECIAL CONDITIONS**

1. In the Contract (as hereinafter defined) the following definitions words and expressions shall have the meaning hereby assigned to them except where the context otherwise required.
  - i) “Institute/Department” shall mean the Indian Institute of Technology, Ropar (IIT Ropar)
  - ii) The “President” shall mean the Board of Governors, IIT ROPAR.
  - iii) The term “Director General of Works” shall mean the Director, IIT Ropar.
  - iv) “Superintending Engineer” shall mean the Registrar of the Institute, who as overall In charge and head of the administration shall direct the contract.
  - v) The “Engineer-in-charge”, who shall administer the work, shall be the Joint Registrar ( E & M ) , IIT Ropar.
  - vi) “Accepting authority” shall mean the Registrar, IIT ROPAR on behalf of the Director.
  - vii) “Site Engineers” shall mean the AEE (Civil)/AE (Electrical)/ Junior Engineer (Civil)/Junior Engineer (Electrical) appointed by the Estate & Maintenance department.
  - viii) No labour huts/ jhuggis shall be allowed to be constructed in the campus except for the security persons at work site with proper sanitation arrangements after due approval of the Registrar.
  - ix) Any damage caused to the existing roads, power cables, telephone cables, water lines and structures by the contractor’s equipment, shall have to be made good by the contractor at his own cost.
  - xv) Existing drains, pipes, cables, over-head wires, sewer lines, Lan cable, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
  - xvi) No payment shall be made to the contractor for any damage caused by rain, snowfall, floods, earthquake or any other natural causes whatsoever during execution of work. The damages of the work will be made good by the contractor at his own cost and no claim on this account shall be entertained.

- xvii) For construction works which are likely to generate malba/rubbish to the tune of more than a tempo/truck load, the contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at their own cost to the notified/specified dumping. The malba / rubbish shall be required to be removed from site of work on daily basis, if the same is not removed a token penalty of Rs. 250/- per day shall be levied till the removal of malba. This shall be recovered from the bill. The contractor should not throw the malba from higher floors directly on the ground. It should be brought down through the staircase by the workers or proper chute should be installed for this purpose.

## **2. DUTIES & POWERS:**

- (i) The duties of the Site Engineer(s) are to watch and supervise the works and the workmanship employed in connection with the works, and to test and examine any materials to be used. He shall have no authority to relieve the contractor of any of his duties or obligations under the contract nor, except as expressly provided here under, to order any work involving delay or any extra payment by the Institute, nor to make any variation in the works.
- (ii) The Engineer-in-charge, from time to time in writing, delegates to the Site Engineer(s) any of the powers and authorities vested in them. Any written instruction or written approval given by the Site Engineer(s) to the contractor within the terms of such delegation (but not otherwise) shall bind the contractor and the Institute as though it had been given by the Engineer-in-charge provided always as follows:
  - a) Failure of the Site Engineer(s) to disapprove any work or materials shall not prejudice the power of the Engineer In-charge to subsequently disapprove such work or materials and to order the pulling down, removal or breaking up thereof.
  - b) If the contractor is dissatisfied by reason of any decision of the Site Engineer(s), he shall be entitled to refer the matter to the Engineer-in-charge, who shall thereupon confirm reverse or vary such decision.

## **3. ASSIGNMENT & SUBLETTING:**

The contractor shall not assign the contract or any part thereof or any benefit or interest therein or thereunder without the written consent of the Engineer In-charge. The whole of the works included in the contract shall be executed by the contractor except where otherwise provided in the contract. The contractor shall not sublet any part of the works without the written consent of the Engineer In-charge and such consent, if given, shall not relieve the contractor from any liability or obligation under the contract, and he shall be responsible for the acts, defaults and neglects of sub-contractor, his agents, servants or workmen, as if they were the acts, defaults or neglects of the contractor provided always that the provision of labour contracts on a piece work basis shall not be deemed to be a subletting under this clause.

4. **PROPOSED ACTION IN CASE OF AN ACCIDENT AT SITE:**

- i. In case of any serious accident at work site, the Institute may cause an enquiry / investigation into the accident and depending on the outcome of such enquiry / investigation, the institute may take such action against the contractor as may be deemed fit and appropriate in the discretion of the Director, IIT Ropar which may also lead to termination of the contract, and / or forfeiture of the security deposit made by the contractor, and / or the contractor may be may be debarred from applying for future works in the campus for a specified period.

5. **LOCATION**

The location of work is at Electrical Substation 66/11 KV Grade, Sub-Station-1, 2, 3 4, 5, 6, 7 & 3 Nos. of compact substation in the IIT Ropar permanent campus, Rupnagar, Punjab. The Contractor will be required to operate under the climatic conditions as prevailing for the entire year.

6 **RELATED DOCUMENTS**

These additional specifications are to be read in conjunction with the specification given in the tender. In case any item/items or part thereof are not covered under these specifications, the same shall be carried out as per relevant part of the **CPWD General Specification for Electrical Works amended up to date-CPWD Part-I 2013, HVAC-2017,Part-IV 2013 (Sub stations), Part-V 2020 (Wet Riser & Sprinkler System ), Part-VII 2013 (D.G Set ), Part-VIII-2013 (Gas Based Extinguishers ),**Relevant Indian Electricity Rules and Indian Electricity Act amended up to date; Relevant BIS specifications amended up to date; NBC 2016 amended up to date and ECBC-2017 amended up to date and as per direction of Chairperson IT.

These additional specifications are to be read in conjunction with above and in case of variations; specifications given in this additional condition shall apply. However, nothing extra shall be paid on account of these additional specifications and conditions, as the same are to be read along with the schedule of quantities for the work.

7 **Terminology**

The definition of terms used in these specifications shall be in accordance with relevant IS. All components shall conform to relevant Indian Standard Specifications, International Standards and shall bear the stamp of the testing laboratory wherever existing and amended to date.

## **8 Order of Preference:**

In case of discrepancy, if any, between the description of items as given in the Schedule of quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

- i. Schedule of quantities
- ii. Special Conditions
- iii. Technical specifications specified in the tender
- iv. General Conditions of Contract for CPWD Works
- v. Drawings
- vi. CPWD General Specifications
- vii. Relevant IS or any other international code in case IS code is not available.
- viii. Manufacturer's Catalogue, Specifications and Recommendations.

The work shall be carried out in a location, and working time may be restricted by the client, claims for idle labour(s) will not be entitled. The Bidder should in his own interest visit the site and get themselves familiarized with the site condition.

## **9 Completeness of the tender, submission of programme, approval of drawings and commencement of work**

### **I. Completeness of the tender: -**

All sundry equipments, fittings, assemblies, accessories, hardware items, foundation bolts, supports, termination lugs for electrical connections, cable glands, junction boxes and all other items which are useful and necessary for proper assembly and efficient working of the various equipments and components of the work shall be deemed to have been included in the tender, irrespective of the fact whether such items are specifically mentioned in the tender or not.

### **II. Safety Codes and Labour Regulations**

In respect of all labour employed directly or indirectly, for the execution of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provision, B.I.S. recommendations, factory act, and workmen's compensation act. CPWD code and instructions issued from time to time. Failure to provide such safety requirements would make the bidder liable for penalty. In addition the Chairperson IT,

shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost incurred thereon from the contractor.

The contractor shall provide necessary barriers, signals and other safety measures wherever necessary so as to avoid accidents. He shall also indemnify IIT Ropar against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident occurred or damage incurred or claims arising there from during the execution of work. The contractor to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.

**10 General security restrictions are given as under:**

- a. No inflammable materials shall generally be stored at site of work.
- b. The movement of trucks and vehicles will be regulated in accordance with rules and regulations as approved by competent authorities.
- c. The contractor shall inform in advance, the truck registration number, ownership of the trucks, names and address of the drivers and labour for necessary action by the security agency.
- d. Due to the site conditions, no space for construction of storage facilities and stay of site staff may be allowed. However, engineer-in-charge may consider the request given by the contractor with proper justification.
- e. Names and addresses of labourers/staff along with identity proof and residence address proof etc. working at site shall be furnished in advance for security verification for issue of passes.
- f. The labourers/staff should not be changed too frequently once the verification of the character and antecedents is done.
- g. As and when there will be security requirements, certain additional restrictions can be proposed as per the requirement of the situation.
- h. **IDENTITY CARDS:-** The identity cards will be issued to the workmen employed by the contractor after proper police verification for which Contractor shall submit a list of worker's to be deployed on site of work. The cost of photos would be borne by the contractor. They will be required to carry the identity- cards with them during their working inside the building.

- i. The bidder must visit the site and must get himself acquainted with the proposed site of work, study specifications and conditions carefully before tendering rates. Nothing extra shall be paid on account of compliance of any of these clauses.

#### **11 Works to be arranged by the department**

Unless otherwise specified in the tender documents: Space for accommodating all the equipment and components involved in the works, shall be arranged by the Department. However, arrangements to make it lockable and its watch & ward shall be made by the contractor himself.

#### **12 Works to be done by the contractor**

Unless otherwise mentioned in the tender documents, the following works shall be done by the contractor and therefore, their cost shall be deemed to be included in their tendered cost- whether specifically indicated in the schedule of work or not: -

- a. Suspenders, brackets and supports for suspending lights and cables etc.
- b. Sealing of all floor slab/wall openings provided by the Department or made by the contractor for laying pipes & cables from fire safety points of view.
- c. Painting of all exposed metal surfaces of equipment and components with appropriate colour as per relevant part of bid document.
- d. Making openings in the wall/floors/slabs or modifications in the existing openings wherever provided for cable/cable tray etc. Opening in the slab/retaining walls/brick wall etc. shall be made by means of core cutting machines only.
- e. All electrical works including cable/wires, earthing etc. beyond power supply made available by the department.
- f. Making good all damages caused to the structure during installation and restoring the same to their original finish.
- g. Approval from Local Body as may be required as per local by-laws. The cost penetrating for approval shall be paid by the contractor. (The contractor's responsibility shall be limited to the work executed by him). Nothing will be paid extra to the contractor.
- h. The water and power supply for installation, testing and commissioning of the complete installation shall be made available by the contractor themselves.

### **13 Rates**

The rate quoted by bidder, shall be firm and inclusive of all taxes including GST, duties and levies, EPF/ ESIC and all charges for packing, forwarding insurance, freight and delivery, installation, testing, commissioning etc. at site including temporary constructional storage, risks, overhead charges, general liabilities / obligation etc. No separate reimbursement shall be made on this account. However, statutory deductions shall be made from the bills, as per rule. The rates quoted by the bidder shall also be inclusive of all this, nothing extra shall be paid on this account.

It will be the responsibilities of the contractor to provide EPF / ESIC and other facilities to their employees as per current labour laws.

### **14 Taxes and duties**

The tender is for entering into an item rate works contract. The rates quoted shall be inclusive of all manpower, design, materials, prevailing taxes, duties, levies, Cess, freight and delivery, labour for installation, testing, commissioning etc. at site including temporary constructional storage, risks, overhead charges, general liabilities / obligation etc. No separate reimbursement shall be made on this account. Statutory deduction on account of GST, Income Tax, Labour Welfare Cess etc, as applicable on Original work, (Except credit items) shall be made at source from each running /final bill payment. A certificate of TDS shall be issued by the department to the contractor.

### **15 Execution**

#### **a. Machinery for Erection**

All tools and tackles required for unloading/handling of equipment and materials at site, their assembly, erection, testing and commissioning shall be the responsibility of the contractor.

#### **b. Dispatch of Materials to Site and their Safe Custody**

The contractor shall dispatch material to site in consultation with the Engineer-in-Charge. The arrangement to make it lockable/secure by means of partitions, locks etc. shall be the responsibility of the contractor. Watch and ward however, shall be the responsibility of the contractor. Program of dispatch of material shall be framed keeping in view the building progress. Safe custody of all machinery and equipment supplied by the contractor shall be the responsibility of the contractor till final taking over by the department.

**c. Extent of Work**

The work shall comprise of entire labour including supervision and all material necessary to meet a complete installation and such tests and adjustment and commissioning, as may be required by the department. The term complete installation shall not only mean major items covered by the specification but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in detail in the tender documents in connection with this contract.

**d. Compliance with Regulations and Indian Standards:**

All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:

- a. Factories Act.
  - b. Indian Electricity Rules.
  - c. B.I.S. & other standards as applicable.
  - d. Workmen's compensation Act.
- e. Statutory norms prescribed by local bodies like CEA, PSPCL, and Local Bodies etc.
- f. Nothing in this specification shall be construed to relieve the successful bidder of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.
- g. Successful bidder shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the bidder. Failure to provide such safety requirements would make the bidder liable for a penalty of Rs. 500/- for each default. In addition, the department will be at liberty to make arrangements for the safety requirements at the cost of the bidder and recover the cost thereof from him.

#### **h. Indemnity**

The successful bidder shall at all times indemnify the department, consequent on this works contract. The successful bidder shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful bidder in so far as the latter is responsible. The successful bidder shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful bidder on account of the above.

#### **i. Coordination with other Agencies**

The contractor shall coordinate with all other agencies involved at the site of work so that the work of other agencies is not hampered due to delay in his work. The work, which directly affects the progress of work of other agencies, shall be given priority.

#### **j. Quality of Materials and Workmanship**

- i. The components of the installation shall be such design so as to satisfactorily function under all conditions of operation.
- ii. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
- iii. All equipment and material to be used in work shall be manufactured in factories of good repute having excellent track record of quality manufacturing, performance and proper after-sales service.
- iv. All equipment and materials installed at various substations the same make to be used in the work shall be brand new having its date of manufacturing not more than 6 months old from the date of delivery at site with manufacturer's certificates, warrantee cards, technical catalogues, instructions, manuals and wiring diagrams etc.

#### **16 Inspection of materials and equipments:**

- a. Materials and equipment to be used in the work shall be inspected by the departmental officers. Such inspection will be of following categories:
  - a. Inspection of materials / equipment to be witnessed at the Manufacturer's premises in accordance with relevant BIS / Agreement Inspection Procedure.
  - b. To receive materials at site with Manufacturer's Test Certificate(s)

- c. To inspect materials at the authorized dealer's warehouse to ensure delivery of genuine materials at site.
  - d. To receive materials after physical inspection at site.
  - e. Adequate care to ensure that only tested and genuine materials of proper quality are used in work shall be ensured by the firm. The firm shall ensure that:
- b. Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.
- i. As and when the order is placed for the fittings / fixtures, cables, switchgears, poles, rising main, other main items etc, its copy shall be endorsed to the Engineer-in-charge.
  - ii. The firm will be required to procure material like light fittings, exhaust fans, MCB's & DB's, switches & sockets, wires & cables, conduits and switchgears etc directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as installed at site previously. The same make of the material will be accepted. Proof in this regard shall be submitted by the contractor if required by the department.
  - iii. Inspection at the factory or at the warehouse of the manufacturer, as required, shall be arranged by the firm for a mutually agreed date. Certificate for genuineness of the fittings shall have to be provided duly signed by the manufacturer's officer not below the rank of Regional Manager.
  - iv. Delivery of material shall be taken up only with the consent of the department, after clearance of the material.
  - v. Department shall reserve the right to waive inspection in lieu of a suitable test certificate, at its discretion.
  - vi. The contractor shall give a trial run of the equipment and machinery for establishing its capability to achieve the specifications within laid down tolerances to the satisfaction of the Engineer-in-charge before commencement of work.

## **17 Final inspection and testing**

- i. Final Inspection and testing will be done by the Engineer in charge or his representative as per details indicated in the relevant section of Technical Specifications.

- ii. The installation will be offered for inspection by local bodies, if required. The contractor or his representative shall attend such inspection of the Local Fire authority, Local Body etc, if any and extend all test facilities as are considered necessary, rectify and comply with all observations of the Local Fire authority, Local Body etc, if any, which are part of the agreement and arrange for obtaining necessary clearance certificate in favor of department. In case a contractor fails to attend the inspection and make desired facilities available during inspection, the department reserves the right to provide the same at the risk and cost of the contractor and impose penalty for the same. The installation will be accepted by the department only after receiving clearance from Local Fire authority, Local Body etc, for the work executed by the contractor under the agreement. Nothing shall be paid extra to the successful bidder.

## **18 Guarantee**

The contractor shall guarantee the complete system to maintain the specified conditions under all conditions of ambient temperature.

- a. The contractor shall guarantee the complete system to maintain the specified conditions under all conditions of ambient temperature.
- b. All equipments shall be guaranteed for a period of at-least One year or as per Manufacturer's standard whichever in more, from the date of acceptance and taking over of the installation by the department against unsatisfactory performance and/ or breakdown due to defective design, material, manufacture, workmanship or installation. The equipment or component or any part thereof so found defective during the guarantee period shall be repaired or replaced free of cost to the satisfaction of the Engineer in charge . In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be done by the department at the risk and cost of the contractor. The decision of Engineer-in-Charge in this regard shall be final.
- c. The items shall have warranty of 1 year by the OEM from the date of installation/ as per as policy of the company.

## **19 Terms of payments:**

Following payment terms shall be applicable.

- a. No advance payment shall be made.

- b. Monthly/Quarterly payment will be made against running bills. The attendance sheet of the deployed staff must be submitted.
- c. The Substation no's may be increased or decreased, and CAMC charges will be paid accordingly.

## **20 Special condition for safety at the work site**

The contractor will identify one of the supervisors for taking care of implementation of Safety systems. The Contractor should follow the following General Guidelines governing the safety rules as laid down under:

- a. Smoking is strictly prohibited at the workplace.
- b. Nobody is allowed to work without wearing a safety helmet. Chinstrap of the safety helmet shall be always on. Drivers, helpers and operators are no exception.
- c. No one is allowed to work at or more than three meters height without wearing a safety belt and anchoring the lanyard of safety belt to firm support preferably at shoulder level.
- d. No one is allowed to work without adequate foot protection. Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping, welding and gas-cutting. For other jobs as and when site safety co-coordinator insists eye protection has to be provided.
- e. All safety appliances like Safety shoes, Safety gloves, Safety helmet, Safety belt, Safety goggles etc. shall be arranged before starting the job.
- f. All excavated pits shall be barricaded & barricading to be maintained till the backfilling is done. Safe approach is to be ensured in every excavation.
- g. Adequate illumination at the workplace shall be ensured before starting the job at night.
- h. All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.
- i. Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.
- j. Material shall not be thrown from elevated positions. If required, the area shall be barricaded and one person shall be posted outside the barricading for preventing the trespassers from entering the area.

- k. Other than electricians no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.
- l. All temporary electrical connections shall be made using 3 or 5 core cables, having an earth wire.
- m. Inserting of bare wires for tapping the power from electrical sockets is completely prohibited.
- n. A tools and tackles inspection register must be maintained and updated regularly.
- o. Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work every day.
- p. All the unsafe conditions, unsafe acts identified by contractors, reported by site supervisors and / or safety personnel to be corrected on priority basis.
- q. No children shall be allowed to enter the workplace.
- r. All the lifting tools and tackles shall be stored properly when not in use.
- s. Return cables shall be used for earthing. Lamps shall be used on Return cables to ensure proper earthing for welding works.
- t. All the pressure gauges used in gas cutting apparatus shall be in good working condition.
- u. Connectors and hose clamps are used for making welding hose connections.
- v. Proper junction boxes must be used for tapping of power for temporary use.

## **21 Quality assurance plans:**

### **a. internal & external electrical work:**

- i. For Internal and External electrical works, the bidder should have a valid electrical contractor license from competent authority in the name of the contractor.
- ii. Electrical agencies shall submit the fortnightly labour report.
- iii. Sample materials like pipe, conduits, wires, of each size etc. may be tested in the laboratory approved by Engineer -in charge, as and when desired by Engineer-in-charge. All the materials intended to be used in the work shall be approved by Engineer-In-Charge before use at site.
- iv. Fish wire shall be provided in each conduit where wiring is not carried out.
- v. Extra item, substitute item, deviation etc. shall be carried out only with written permission of competent authority.

- vi. Necessary documents of handing / taking over of the installation will be duly signed by the parties namely E&M IIT Ropar and the main contractors.
- vii. The contractor shall be responsible for removal of all defects in the work during the defect liability/guarantee/warranty period. The department shall carry out routine maintenance only. However, if any failure is noticed during this period which is attributable to poor quality of material and bad workmanship, the contractor will be required to rectify the same at his own cost, failure of which the department will be at liberty to get the defects rectified at the risk & cost of the contractor. The contractor will also be required to carry out his own inspection/testing during the guarantee/warranty period and attend to any defect taking place during this period.
- viii. Material required for the work shall be brought at site at the appropriate time keeping in view the requirement of material depending on progress of the work.
- ix. The work shall be carried out as per direction of Engineer in charge and CPWD specifications for Electrical Works.
- x. Taxes, levies etc. as applicable shall be deducted from the contractor's bill. No Road Permit or other forms shall be issued by the Department. The rates quoted shall be inclusive of all taxes, duties, levies, EPF & ESIC, T & P and petty items like including log book, complaint register duster, Mobil oil, test lamp, stationary items etc. and no extra payment will be charged by the successful bidder.
- xi. The materials supplied shall be new (Manufactured not earlier than 6 months before the date of tender opening) and ISI marked wherever applicable. Test certificate / reports and warranty certificates as required shall be provided by the agency to the entire satisfaction of Engineer-in-charge, AE(E)/JE(E) before bill submission for payment.
- xii. The labour deployed site for execution of work shall take all safety precautions and the contractor shall be responsible for compliance of all labour regulations, liabilities and safety measures. If the Institute is not satisfied with the performance of labour, then alternate staff is to be provided immediately.
- xiii. All required documents shall be provided for verification of the staff deployed at site for execution of work.

- xiv. The contractor shall be required to possess during the full currency of the contract a valid license for employing contract labour from the appropriate licensing authority under the contract labour (Regulation and abolition) act 1970. The contractor shall be solely responsible for compliance of various statutory obligations (including the financial liabilities) under contractor labour regulation & abolition Act. Minimum wages act etc. and other applicable laws and rules framed thereunder from time to time. Contract workers are to be paid not less than fair wages which means wages fixed by CLC, Govt. of India under the provisions of the Minimum Wages Act. Wages due to the worker shall be paid to him directly by the contractor through Bank or ECS or Online transfer to his bank account and receipt of wages shall be attested by the worker concerned.
- xv. The contractor will have to arrange his own T & P required for the work. The department will not arrange any T & P and nothing shall be paid on this account. The Site service personnel should possess the following:
1. Line Tester, Test Lamp
  2. Spanner Kit.
  3. Crimping Tools
  4. MultiMeter & Tong Tester
  5. Lux Meter (Digital)
- xvi. No residential accommodation shall be provided to any of the staff engaged by the contractor. The contractor shall also not be allowed to erect any temporary set up for staff in the campus.
- xvii. Safety codes and Labour Regulations:- In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for safety provision as per the statutory provisions, B.I.S. recommendations, factory act, workmen's compensation act, CPWD code and instruction issued from time to time. Failure to provide such safety requirements would make the bidder liable for penalty as per Part-A for each default. Safety of the staff employed will be the responsibility of the contractor. IIT,Ropar will not be responsible for any mishap, injury / accident or death of the staff. No claim in this regard shall be entertained / accepted by the department.

- xviii. Contractor shall be fully responsible for any damages caused to the government. property or allottees property by his or his labour during the carrying out the work. All such damages shall be rectified by the contractor at his own cost, failing which the same will be rectified by Engineer In charge and the expenditure incurred shall be recovered from the contractor bill. The watch and ward of installation shall be the responsibility of the contractor.
- xix. Contractors are requested to inspect the site before quoting their rates for the tender; later on no further claims in this regard shall be entertained.
- xx. The staff engaged has to be courteous and maintain good behavior at site. Any person found discourteous or misbehaved shall have to be replaced within 48 hours, failing which, JR(E&M) IIT Ropar has the power to cancel the contract, and the contractor shall have no claim of compensation. Decision of the Director shall be final and binding on the contractor. The contractor shall submit the name, address & character certificate of the worker/ staff employed by them at the site of work to the JR(E&M) IIT Ropar before start of the work.
- xxi. The staff of the contractor shall maintain the complaint register, logbooks, job diary, maintenance records and registers, which will be supplied by the contractor. The staff should wear clean uniforms and badges (Name plate)/Identity Card to be supplied by the contractor.

## **22 List of approved makes**

The materials of first quality approved by the OEM are to be used. In case it is established that the OEM-approved brands are not available in the market, the contractor shall submit an alternative proposal for the approval of the engineer in charge. When two or more alternative brands have been mentioned, the brand to be finally used shall be decided by the Engineer-in – charge and as per sample approved before procurement & installation. The contractor must ensure that the defective parts of equipments are replaced with the new part of same make installed at site

## **23. Scope of work:**

### **1.1 Comprehensive maintenance or Maintenance or Preventive Maintenance means**

- All material required for maintenance shall be arranged by contractor at his cost.
- Breakdown maintenance (including material)
- Replacement/ repair of defective equipment/component to make it properly functional without compromising on its performance.
- Replacement of consumable: POL item (except DIESEL), Battery, Filters, Oil, Gas, Chemicals, Fuses, gas/chemical of Fire Extinguishers inside the substations etc.
- Preventive and Routine maintenance to keep the system healthy (including all material)
- Arranging all type of Tools and Plants required
- Carrying out necessary testing of installations as prescribed.

Preventive and Routine maintenance to keep the system healthy (including all material) arranging all types of Tools and Plants required as per as site requirements. The following services shall be provided only through the manufacturer/OEM/ their competent authorized service dealers.

- a) DG Sets
- b) 66/11 KV transformers
- c) 66 KV SF6 Breakers
- d) 66 KV lightning arrestors
- e) 66 KV CT
- f) 66 KV PT
- g) Control and Relay Panels
- h) Protection relays
- i) 11 KV Capacitor Banks
- j) 433 V Capacitor Banks
- k) 11/0.433 KV transformers
- l) 11 KV HT Panels
- m) LT ACBs and Bus Coupler
- n) Floating cum boost charger
- o) Batteries installed at various substations

Cleaning work includes all materials like Brush, room, cloth, chemicals, Soap, duster etc required for cleaning.

- 1.2 Energy and water conservation is the theme of the campus hence all the equipment shall be operated and maintained in energy and water efficient manner to get optimum performance.
- 1.3 At the end of Comprehensive maintenance contract the contractor shall handover all the equipment in healthy and full functional condition failing which defective equipment shall be got made functional at risk and cost of contractor

#### **24. METHODOLOGY AND STAFF:**

- 1.1. **Power Supply:** Unless otherwise specified, power supply for legitimate use shall be available free of cost for execution of the work.
- 1.2. **Water Supply:** The water supply for testing and commissioning of the complete installation shall be made available by the Department free of charge to the contractor. Potable water for use of staff or contractors during duty hours shall also be provided by the Department free of cost.
- 1.3. **T&P:** No T & P shall be supplied by the department. The contractor shall arrange all the necessary T&P, including specialized equipment, testing equipment etc. for the work and nothing extra shall be paid by the department. The movable T&P shall be kept in tidy condition and shall have proper look. In case the Engineer in charge feels that T & P being used are not proper, the same shall have to be replaced by the contractor immediately.
- 1.4. It is mandatory that contractors will provide trained staff at site who will be able to perform prescribed O&M functions. Since the firm will be doing the maintenance and/ or operation of critical services like sub-station, standby power, H.T. Power and L.T. distribution, Street lighting and compound lighting etc. responsible and trained persons should be deputed as required at site who could take initial steps under emergency situations.
- 1.5. For operation, preventive and routine maintenance purposes, Contractor shall depute at site one Manager with at least 10 years of experience (once a week) in addition to the minimum operational staff mentioned below for each item of SOQ. In the event of non- deputation of required operational staff, recovery at rates mentioned shall be effected from monthly bill:

Sr. No.	STAFF REQUIRED				
	ITEM DESCRIPTION	SITE ENGINEER	SUPERVISOR	WIREMEN CUM OPERATOR	KHLLASI
1	66 KV Sub Station 1 No. DG Set and PSS KV School 1 No. DG Set( In three shifts round the clock)	1 No in general Shift	1 No in general shift	3 Nos.	1 Nos.
2	Sub Station Equipments and 3 Nos. DG Sets at Substation No.1 (In three shifts round the clock) and SubStation Equipment and 3 Nos. DG Sets at Sub Station No. 2 (In three shifts round the clock)			3 Nos. 3 Nos.	1 Nos.
3	SubStation Equipment and 3 Nos. DG Sets at Substation No.3 (In three shifts round the clock) and SubStation Equipment and 2 Nos DG Sets at Sub Station no. 4 (In three shifts round the clock.)			3 Nos. 3 Nos	1 Nos.
4	SubStation Equipments 2 Nos. DG Sets and PSS Data Center at Sub Station no. 5 (In three shifts round the clock) and SubStation Equipments 2 Nos. DG Sets and PSS Data Center at Sub Station no. 6 (In three shifts round the clock)			3 Nos 3 Nos	1 Nos
5	Sub Station Equipments 2 Nos. DG Sets and PSS Sports Field at Sub Station no. 7 (In three shifts round the clock )			3 Nos	1 Nos
6	Street Lighting and compound lighting (In two Shifts 9 AM to 5 PM and 2 PM to 10 PM)			2 Nos.	1 Nos.
7	Reliever manpower			5 Nos.	2 Nos.
	<b>Total No. of staff required</b>			<b>31 Nos.</b>	<b>08 Nos.</b>
	<b>Recovery rate (Rs.) per day for each person not deputed/ absent</b>	<b>Rs. 2,000</b>	<b>Rs. 1,000</b>	<b>Rs. 750.00</b>	<b>Rs. 500.00</b>

1.6. The staff mentioned above are minimum, in case the quantum of work is more and pending for more than permissible time, the contractor will arrange the extra persons for setting right the complaints in time without any extra charges. The decision of Engineer-in-Charge regarding requirement of additional person shall be final & binding upon the contractor.

- 1.7. In case of faults beyond the capacity of the staff provided as above, the contractor shall immediately provide extra specialized workforce so as to attend to the fault in minimum reasonable time or as instructed by the Engineer-in-charge during the validity of contract. The required additional staff shall be deputed by the contractor for breakdown and comprehensive maintenance purposes. In case of any breakdown, the contractor shall replace the faulty part/rectify the defect at the earliest even for standby units, In any case normal services /comfort level should not be disturbed. In case the contractor fails to provide satisfactory service, appropriate recovery as mentioned in the specific conditions for each service shall be made from the monthly bill.
- 1.8. Wherever a contractor has to engage a specialized firm/OEM, they shall make sure that they depute their Engineer, and the work carried out by them is comprehensively controlled and assured with respect to quality, coordination and delivery.
- 1.9. The firm/ contractor shall have to abide by the Security Rules imposed by concerned Authorities. Proper discipline shall have to be maintained at site of work. The character and antecedents of staff engaged on work shall be verified through Police from time to time as required by the authorities. The staff shall not be changed without the consent of the Engineer in charge once the verification of character & antecedents is done.
- 1.10. At some occasion due to VIP visit / inspection, restriction may be imposed for working in certain areas, no claim whatsoever on account of loss of time and labour shall be entered in this regard.
- 1.11. Shutdown for maintenance shall be taken with prior approval of the Engineer incharge.
- 1.12. The workers engaged by the firm should maintain proper discipline and good behavior with occupants. The firm shall remove such workers from the site whose behavior is found improper. The decision of engineer-in-charge in this regard shall be final.
- 1.13. Agency has to observe all the labour rules and regulations in-force and must be registered with EPFO, ESIC, BOCW and the Labour department.
- 1.14. The agency has to supply details of all the workers (Name and address etc.) i/c EPF & ESI A/c No. engaged by him and get it approved from the Engineer in charge in the staff register before deployment at site. The staff registers shall be maintained as per detail attached. Any staff deployed without approval & entry in the staff register shall be treated as poor performance on the part of the agency.
- 1.15. The contractor will issue necessary ID cards to the labour. The list of labourers along with their full particulars and identity proof shall also be given by the contractor to Engineer-in-Charge.

- 1.16.No space shall be available for temporary houses of labour. Labour engaged shall not be permitted to stay in the campus beyond duty hours, they have to make their own arrangement for stay, outside the campus.
- 1.17.The contractor agrees that it shall at all times indemnify IIT Ropar against all claims for compensation under the provisions of any law for the time being in force or in respect of any person employed by it in carrying out the contract. Such staff shall have no right to claim employment in IIT Ropar.
- 1.18.Any accident or damage during maintenance/operation will be the responsibility of the contractor and IIT Ropar will not be liable for any claim, compensation, penalty etc. on this account or on account of non-observance of any other requirement of law relevant to this work shall be the responsibility of the contractor.
- 1.19.The department shall be at liberty to terminate the contract in between also if the performance of the contractor is found unsatisfactory or otherwise without assigning any reason and the decision of the Engineer-in-charge in this respect shall be final and binding on the contractor and no claim of the contractor of being put to loss by the department because of premature termination of the contract shall be entertained by the department.

### **ATTENDING COMPLAINTS AND PREVENTIVE MAINTENANCE**

- 1.20.Firm should have a round the clock contact telephone number. In case of Emergency, contractor and site engineer/ supervisor shall be made available at site on short notice and make all efforts to make the situation normal at the earliest.
- 1.21.The agency will display on a board in the substation room/ Fire Control room important telephone numbers and the duty chart of the workers engaged by him, as per requirement of engineer-in-charge.
- 1.22.A complaint register shall be maintained at designated locations/control room and shall be kept up to date by the firm and the same shall be available for checking & verification. The redressal of complaint shall be recorded in the form of complaint diary & special equipment job card etc. The complaints shall mostly be received on telephone/intercom systems, these complaints shall be recorded and monitored by Supervisor of contractor.
- 1.23. Contractor may note that various other agencies may also be working at the site simultaneously. Hence proper arrangement be made by the contractor, safety and security of material kept at site as well as erected material.
- 1.24. Contractor shall make a detailed monthly maintenance activity schedule and the same shall be submitted to the department during the last week of the previous month. Department may insist on re-planning some or all activities.

- 1.25. Contractor shall obtain all local / statutory approval required as per rule. Nothing shall be paid extra to the successful bidder.
- 1.26. Contractor shall develop the maintenance schedule / log chart, and get those approved from the department. As most of the Equipment are supposed to be controlled and monitored through BMS, logs may be kept electronically and transferred to Engineer in charge on daily, weekly, monthly, quarterly, yearly basis suitable, as per direction joint Registrar (E&M) in charge of maintenance or whenever asked by the engineer-in-charge the contractor has to provide the details.
- 1.27. At the start of the contract the firm in consultation as prescribed in CPWD specification with the AE (E) concerned shall prepare a programme for preventive maintenance to be carried out in the Performa below. The record of preventive maintenance carried out shall be submitted as per service report (Part 'B') at the end of each month.

<b>Probable date of preventive maintenance</b>	<b>Brief Description of equipment/ installation</b>	<b>Preventive maintenance work to be carried out</b>	<b>Remarks</b>
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- 1.28 Record of preventive maintenance and testing of equipment etc. carried out has to be readily available at site, failing which firm shall be liable for non execution of its liability under contract. If felt necessary, the Engineer-in-Charge has power to modify preventive /testing schedules.
- 1.29 The firm shall maintain a staff movement register and T&P movement register. No staff/T&P shall move out of campus without entry in the staff and T&P movement register and movement shall be only for work pertaining to this contract during duty hours. Any violation of this clause shall amount to poor performance.
- 1.30 All the register shall be in duty bond. No spiral binding shall be allowed. All the agency of registers shall be machine numbered and should have a minimum 100 pages.
- 1.31 All the records pertaining to this contract are the property of the department and the agency has to submit the same to the engineer-in-charge on expiry/termination of contract.
- 1.32 The dismantled material shall be retained by the contractor and for disposal of all types of dismantled material, the contractor shall comply with CPCB norms and all other statutory regulations.

## **2. QUALIFICATIONS OF STAFF ETC:**

- 2.1. I ) For all services, skilled worker shall possess Electrical workman permit/workman's competency certificate/Electrical workman's license (Certificate of competency class3

II) OR any other equivalent certificate with at-least two years' experience.

- 2.2. Persons employed for substation work shall have necessary permit/ license to work on HT voltage as per local bylaws/Local Electricity Board.
- 2.3 The experience certificate of maintenance persons shall be submitted at the time of taking over of maintenance by the agency/at the time of deployment of staff.
- 2.4 The supervisor deployed shall be Diploma in Electrical engineering with 5-year experience in maintenance of similar type of work and having knowledge of computer operation.
- 2.5 The Site Engineer deployed shall be Graduate in Electrical engineering with 3-year experience in maintenance of similar type of work and having knowledge of computer operation

### **3. Conformity with statutory Acts, Rules, Standards and codes**

- 3.1 All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 amended to date. They shall also conform to CPWD General Specifications for Electrical works, Part-I: Internal, 2013, Part-II: external, 1994 and Part IV (Sub-Station) 2013, Part VII (DG Sets) as amended to date.
- 3.2 **Safety Codes and Labour Regulations:** In respect of all labour employed directly or indirectly on the work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provision, B.I.S. recommendations, factory act, workmen's compensation act, Contract clauses as per General Conditions of CPWD Contract, and instructions of engineer in charge. Failure to provide such safety requirements would make the tenderer liable for penalty. In addition the Engineer-in-charge shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost incurred thereon from the contractor.
- 3.3 The contractor shall provide necessary barriers, signals and other safety measures while executing the job etc. or wherever necessary so as to avoid accidents. He shall also indemnify IIT Ropar against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian laws and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident occurred or damage incurred or claims arising there from during the execution of work. The contractor to cover all the risk. No extra payment would be made to the contractor due to the above provisions thereof.

### **4. COMPENSATION FOR DEFICIENCY IN SERVICE:**

- 4.1. In case of absence of a worker from the duty recovery shall be made per day per person per shift as specified. (Staff employed of less than the prescribed qualifications shall be treated as absent). The decision of the Joint Registrar (E & M ) in this regard shall be final and binding. In case of frequent absence of workers

from duty, this shall be sole ground for poor performance on part of the agency. The decision of the Engineer in charge, shall be final and binding as regard to treating the absence of workers as poor performance.

- 4.2. The firm shall maintain a shift attendance register which can be inspected at any time by the AE/JE. The workman shall not leave the duty point till his reliever has reported for duty. The worker shall mark his presence by signature & indicating time of both arrival & departure in the attendance register/log book. Non marking of attendance in an appropriate manner shall be treated as absence of workers.
- 4.3. In addition to above any delay in rectifying the fault within stipulated period in other electro mechanical services, compensation shall be as per the Following TABLE

S. No.	ACTIVITY	RECOVERY
	<b>(A) 66/11 KV Substation</b>	
1	Any major equipment viz Transformer, SF6 Circuit breaker, Isolator, CTs, PTs, OLTC, C&R Panel, Capacitor bank, and 11 KV HT VCB Panel defective, floating cum boost charger, nifes protection	Rs. 5000/- per complaint per day after one day.
2	Power supply output not available from 66 KV Substation due to any fault/breakdown on the part of contractor	Rs. 1000/- per default after 1 hour.
3	Non maintaining of Power Factor of 0.95	Amount of Penalty levied by PSPCL
	<b>(B) 11/0.433 KV Substation and DG Set</b>	
1	Any major equipment viz Transformer, 11 KV HT VCB Panel ACB/MCCB of LT Panels, HT /LT Cable Fault	Rs. 2000/- per complaint after one day.
2	One out of 21 D G Set faulty. Two or more out of 21 DG Sets faulty	Rs. 1000/- per day after 1 day. Rs. 5000/- per D G Set per day after I day.
3	If Electrical supply is not available either through main or standby source	Rs. 1000/- per complaint after 1 hours
	<b>(C) STREET LIGHTING AND COMPOUND LIGHTING</b>	
1	Non-working of Street Light Fitting/Post Top Lantern /Flood Light fitting due to any reason	Rs. 100/- per fitting per day

## **5. Terms of Payments:**

Following payment terms shall be applicable.

- i) No advance payment shall be made.
- ii) Quarterly payment, after verifying, as contracted in SOQ shall be made. SD, Income Tax, WCT, Labour Cess and other statutory recoveries as applicable shall be deducted from RA bills or final bill of maintenance. However, a certificate of TDS shall be issued by the department to the contractor.
- iii) Service tax shall be payable by the contractor to the concerned department on demand, same shall be reimbursed to him by the Engineer-in-Charge on production of proof of payment, after satisfying that it has been actually and genuinely paid by the contractor.

## **6. TERMINATION OF CONTRACT:**

- 6.1. Right is reserved by IIT Ropar for terminating the contract by giving one week notice due to serious default. This includes major breakdown or accidents due to negligence on the part of the firm, failure to attend breakdown, disobedience and abandoning the site etc. In such a case full performance guarantee shall be forfeited by IIT Ropar. The decision of Registrar IIT Ropar in this regard shall be final and binding.
- 6.2. Right is reserved by IIT Ropar for closure of the contract at any time by giving one month notice for reasons not attributed to the firm. The decision of the Registrar shall be final and binding on the contractor for closure of contract and for which contractor shall not have any claim on account of pre closure.
- 6.3. IIT Ropar reserves the right to carry out any work at risk and cost of the agency, if the agency fails to perform any duty within the time frame as mentioned in the agreement or within a reasonable time period decided by Engineer-in Charge, in case, no time frame is mentioned in the agreement.
- 6.4. If the firm fails to rectify the initial faults in all the electro mechanical services indicated at the time of handing over within specified time reckoned from the date of taking over of maintenance, IIT Ropar reserves the right to terminate the contract without any further notice and/ or to carry out the work at risk and cost of the agency.

## **PART C: SCOPE of MAINTENANCE OF EACH SERVICE AND SCHEDULES ETC.**

The scope etc mentioned in this part is **only indicative and not exhaustive**, the details shall be worked out by Contractor and Engineer in Charge as per broader meanings of items in SOQ and as per good engineering and maintenance practices.

## **66 KV and 11 KV SUB- STATION**

### **SCOPE OF MAINTENANCE**

- Ensuring that 66/11 KV Transformers, 66 KV SF6 Circuit breakers, 66 KV Isolators, 66 KV CTs, 66 KV PT, C&R Panels, 11 KV Capacitor bank, 11 KV H.T. Panels, float cum boost charger, 66 KV Switchyard overhead conductor/bus as well as connecting power /control cables, constituting the substation are maintained in healthy & working conditions.
- Ensuring that 11 KV H.T. Panels, 11/0.433 KV Transformers, LT panels, Capacitor panels and outdoor structure as well as connecting cables/ducts, constituting the substation are maintained in healthy & clean conditions.
- Monitoring on continuous basis power factor & peak load and ensuring that these are maintained within limits to avoid penalty or overloading
- To perform maintenance tasks as per given schedule
- To disconnect total electric supply and or individual loads in case of an emergent situation to avoid damage.
- To ensure continuous power supply and in case of breakdown take steps to ensure restoration at the earliest.
- The testing of relays shall be done once a year from local Electricity board/reputed agency/ authorized agent of manufacturer/competent engineer in presence of engineer-in-charge of IIT Ropar and the results shall be submitted to Engineer-in-Charge. The charges will be borne by the Contractor.

A) This specification covers the maintenance of 66/11 KV Sub-station at IIT Ropar involving routine work like cleaning, sweeping etc. in control room building, and substation premises also. Non-Shut Down and Shut Down jobs & also attending the normal breakdowns of CT, PT & LA etc. as per following specifications-

### **ROUTINE WORKS: -**

#### **1. Maintenance of all the rooms of control room building.**

Regular Cleaning, sweeping of all the rooms of control room building office building, store building etc. Regular cleaning also covers the job of regular toilet cleaning. Cleaning of different panels and equipment of all the rooms, sweeping and cleaning of the surrounding area of the Control Room building is also in this scope. All the work shall be carried out strictly as per instruction of Engineer In-charge.

#### **2. Maintenance of different type of Battery set & chargers etc.**

The Following work has to be done for proper maintenance of battery set and charger-

- i) Regular cleaning of different type of battery sets and including replacement when required.
- ii) Apply petroleum jelly on battery terminals after cleaning of terminals by brush.
- iii) Routine checking of voltage reading of all battery sets and entered in the battery reading register.

- iv) Routine checking of boost and float charging of Battery chargers.
- v) Checking the healthiness/capacity of battery sets at regular intervals by switching off the chargers.
- vi) Any other work as per site requirement or as per direction of site In-charge.

### **3. Routine Maintenance (Cleaning, sweeping, uprooting of bushes & Grass Cutting) of Switch Yard, drains, trenches & CC roads etc.**

Cleaning of switchyard and Substation premises by cutting/uprooting of bushes, grass, weed, small trees & sapling of girth up to 5 cm. above ground level as well as removal of rubbish, foreign material, waste paper material etc. and throwing approx 50 meters away from switchyard premises. Cleaning and sweeping of CC roads of switchyard and substation premises. Cleaning of drains/trenches by removing all sludge/plants/grass/mud. Disposal of waste material outside the switch-yard and Substation area. All the work shall be strictly carried out as per site In-charge.

### **SCOPE OF ROUTINE MAINTENANCE**

- 1.0 All six monthly / yearly checks and maintenance of following equipment by the authorized engineer of manufacturer and qualified staff is covered under the scope of work.
  - a. Transformer
  - b. Isolators
  - c. CTs & PTs
  - d. SF6 circuit breakers
  - e. Control and Relay equipment
  - f. Capacitor banks
  - g. Battery and Battery Charger
  - h. Nifes/NGR
- 2.0 In case of any breakdown or repair of any substation equipment the additional visit of suitable personnel of the Manufacturer is also included. The charge will be borne by the contractor.
- 3.0 All the repairs of misc. nature which are not covered under the guarantee of. Individual equipment for smooth functioning of substation. Scope of routine maintenance includes complete maintenance as per the standard schedule.
- 4.0 Contractor is to depute/hire the authorized personnel to carry out above mentioned checks and maintenance as and when required and as per standard schedule.
- 5.0 Contractor shall maintain the record of checks of all individual equipment of the substation and all entries To be signed by the authorized representatives of the client.
- 6.0 The annual dehydration of the transformer along with topping up of deficient oil shall be the responsibility of the contractor and covered under the scope of this item along with the cost of material. The dielectric capacity of transformer oil should also be tested by authorized agencies.
- 7.0 Misc. materials and consumables such as fuses, grease, cleaning materials and

other sundry items are to be provided by the contractor for the routine upkeep and maintenance of substation.

- 8.0 Calibrations of all relays at the substation is also covered and to be done by the authorized and experienced Personnel.
- 9.0 For daily and other checks the contractor has to employ a suitable number of qualified staff at general shifts who shall work in coordination with the operation staff of the Substation.
- 10.0 Contractor has to maintain a master log book with complete record of maintenance and checks carried out in respect of all individual equipment date wise and duly authenticated by authorized representative of substation staff.

### **General Maintenance and Operations:**

- a. SubStation Operation: Operate and maintain 11KV/.433 KV Sub Stations including associated equipment up to Main LT Panel at every building block in the institute.
- b. Maintenance Tasks: Conduct routine checks, preventive and predictive maintenance, as well as troubleshooting of electrical faults.
- c. Cleanliness: Perform cleaning and deseeding tasks to maintain a safe and organized environment.
- d. Condition Monitoring: Provide condition monitoring support to ensure equipment reliability.
- e. Emergency Support: Offer emergency call services and assistance during critical activities.
- f. Comprehensive Oversight: Beyond the specific tasks outlined address any related activities necessary for achieving the contract's objectives.

### **Routine Equipment Maintenance:**

- a. Monitoring and Observation: Continuously monitor equipment parameters, promptly taking remedial action as needed.
- b. Data Logging: Maintain detailed logs of equipment status and parameters, enhancing transparency and accountability.
- c. Panel and Equipment Upkeep: Ensure the cleanliness and proper upkeep of control and relay panels and equipment.
- d. System Checks: Regularly check indications and annunciation systems in all electrical panels and switchgear
- e. Earth Connection: Inspect and maintain earth connections to ensure electrical safety.

### **Battery Maintenance:**

- a. Daily, Weekly and Monthly Upkeep: Implement a structured maintenance regimen for generator batteries, including cleaning and inspection.
- b. Peripheral Lights: Maintain Peripheral and tower lights for safety and visibility.
- c. Power Supply Restoration: Swiftly restore the power supply in case of interruptions.

**Transformers:**

- a. Cooling System and oil Leakage: Address cooling system faults and oil leakage, ensuring equipment integrity.
- b. Periodical Maintenance: Perform routine maintenance, including topping up, cleaning and inspection.
- c. Overhauling and Testing: Conduct overhauls and periodic testing to ensure transformer performance.
- d. Insulation Resistance Measurement: Regularly measure insulation resistance to assess equipment health.
- e. Phase Marking and Oil Sampling: Phase marking for identification and regular oil sampling for testing.

**Circuit Breakers:**

- a. Cleaning, Tightening and Inspection: Ensure the cleanliness and integrity of circuit breakers including tightness checks.
- b. Contact Resistance Checks: Verify contact resistance for reliable operation.
- c. Operation Testing: Test breaker operation and its response to various conditions.
- d. Time Testing: Conduct time testing to ensure proper opening and closing.
- e. Pressure testing: Conduct a gas pressure test.

**LTAC & LTDC Power Distribution & Control System:**

- a. Troubleshooting and Rectification: Address electrical faults in the system promptly.
- b. Accessory Replacement: Replace, fix and reconnect various control and measuring accessories.
- c. Battery Support: Assist in capacity tests and battery maintenance.

**Miscellaneous Jobs:**

- a. Identification and Marking: Properly label equipment for clear identification.
- b. Cable Management: Lay, Fix and terminate power supply and control cables as required.
- c. Control Circuitry and Protection: Check control circuitry and protection systems, including relay and energy meter replacement.
- d. Breakdown Maintenance: Address overhead electrical line issues resulting.
- e. Additional Tasks: undertake any necessary tasks not explicitly mentioned to ensure the sub station's successful operation.

**Maintenance of Log Books and Reading Books:**

- a. Maintenance of Daily Log Books:

The Contractor is required to maintain a detailed daily log book for each substation or as directed by the engineer in charge, recording all activities at the substation, ensuring accuracy for transparency, troubleshooting and compliance with maintenance standards.

b. Maintenance of readings:

The Contractor must meticulously record reading from HT/LT panels DG Sets and wherever required in the format directed by the Engineer in charge.

**Statutory Approvals, Government Agency Coordination and Compliance:**

The Contractor shall encompass within their scope all tasks related to obtaining statutory approvals, coordinating with government agencies such as PSPCL and ensuring compliance regulations throughout the AMC duration. Nothing shall be paid extra to the Successful contractor.

**SHUTDOWN WORKS: -**

**1. Maintenance of Transformers.**

- i) Checking of oil level in Main & OLTC Conservator tank and filling if found low.
- ii) Checking of oil level in HT/LT bushings.
- iii) Checking and rectification of minor oil leakage/seepage from various places of T/F's.
- iv) Checking and Tightening of all bush in Checking of auto/manual operation of cooling fans.
- v) Checking of cooling fans & rectification of fault if found.
- vi) Checking of working of On load tap changer & rectification of fault if found.
- vii) Checking of the cubical heater and replacing it if found defective.
- viii) Cleaning of bushing polyclone insulator by CTC & checking of damage.
- ix) Testing of insulation resistance with the help of megger.
- x) Checking of neutral and body earthing.
- xi) Checking of BDV of Transformer oil and performed de-hydration as per as specification.
- xii) Cleaning of the Transformer body.
- xiii) Checking all connections in cubical and apply CRC on all connections.
- xiv) Lubrication of all moving parts if required.
- xv) Checking of WTI & OTI capillary pockets.
- xvi) Checking the working of WTI & OTI.
- xvii) Checking of earth resistance.
- xviii) Taking of oil samples in bottles and sealing etc. for testing by PSPCL or authorized agency.
- xix) Any other work as per site requirement or as per direction of site In charge including repair/replacement of all types of spare parts.

**2. Maintenance of Circuit Breakers.**

- i) Checking of air pressure leakage.
- ii) Checking of gas pressure leakage.
- iii) Cleaning of the polycone insulator by CTC and checking of damage.
- iv) Checking and tightening of clamps.
- v) Checking & tightening of cable connections in cubical.
- vi) Checking of AC & DC supply of CB's.
- vii) Checking and tightening of structure nuts & bolts.
- viii) Checking and tightening of earthing.
- ix) Apply CRC on all connections in the cubical.

- x) Checking local/remote operation.
- xi) Checking of the tripping/closing system.
- xii) Taking of timings of breaker by timer and contact resistance by CRM.
- xiii) Taking measurement of earth resistance.
- xiv) Any other work as per site requirement or as per direction of site In charge including repair/replacement of all types of spare parts.

### **3. Maintenance of Isolators.**

- i) Cleaning of the polycone insulator by CTC and checking of damage.
- ii) Checking and tightening of clamps.
- iii) Replacement of rusted nut/bolts if found.
- iv) Checking of male/female contacts and replacing if found damaged/defective.
- v) Apply petroleum jelly between male/female contacts.
- vi) Checking the earth link and its jaws.
- vii) Lubrication of all moving parts.
- viii) Alignment of isolator and earth link.
- ix) Checking the driver motor in the cubical.
- x) Checking and tightening of all connections in the cubical.
- xi) Apply CRC on all connections in the cubical.
- xii) Any other work as per site requirement or as per direction of site In charge including repair/replacement of all types of spare parts.

### **4. Maintenance of CT/PT/LA.**

- i) Checking of oil level & filling if found low.
- ii) Checking of oil leakage and rectification if found.
- iii) Cleaning of the polycone insulator by CTC and checking of damage.
- iv) Checking and tightening of clamps.
- v) Replacement of rusted nut/bolts if found.
- vi) Checking and tightening of earthing.
- vii) Checking the surge counter.
- viii) Taking readings of the surge counter.
- ix) Any other work as per site requirement or as per direction of site In charge including repair/replacement of all types of spare parts.

### **5. Maintenance of Auxiliary Transformers.**

- i) Checking of oil level in Conservator tank and filling if found low.
- ii) Checking and rectification of minor oil leakage/seepage from various places of T/F.
- iii) Checking and Tightening of all bushing clamps.
- iv) Cleaning of bushing polycone insulator by CTC & checking of damage.
- v) Testing of insulation resistance with the help of megger.
- vi) Checking of neutral and body earthing.
- vii) Checking of BDV of Transformer oil and performing dehydration as per specification.
- viii) Cleaning of the Transformer body.
- ix) Checking and maintenance of fuse set.
- x) Checking of earth resistance.

Any other work as per site requirement or as per direction of site In charge including repair/replacement of all types of spare parts.

**6. Replacement of Damaged/Burnt/ Defective 66 KV different type of jaw, Blades, Connectors and clamps etc of 66 KV & 11 KV Breaker/ Isolator/CT/PT/LA/NIPES/NGR/Bus Bar etc.**

Replacement of Damaged/burnt/defective 66 KV & 11 KV different type of jaw, blades, connectors and clamps including opening of existing Damaged/burnt/defective jaw, blades, connectors and clamps and fixing of new jaw/blade/connector/clamp with proper alignment if required. Complete work as per site requirement or as per direction of site In charge.

**7. Replacement of Damaged/Burnt/ Defective 66 KV different type of isolator etc.** Replacement of Damaged/Burnt/Defective different type of isolator including shifting of conductor from store to site, opening of existing damaged/burnt/defective jumpers, cutting of jumper & fixing of new jumper as required on existing place with proper clamping and shifting of balance material from site to store. Complete work as per site requirement or as per direction of site Incharge.

**8. Cleaning of trenches and drainage system of substation premises and switchyard.**

Cleaning of trenches and drainage system of substation premises and switchyard as per requirement and instruction of Site Engineer.

**BREAK-DOWN WORK**

1. **Replacement of Defective/Damaged CT:-** The work includes opening/dismantling of existing defective/damaged 66 KV CT after opening of existing isolator, cable connections & earthing, shifting to store from site, shifting of new 66/ 11 KV CT from store to site, erection of new CT's including cabling, earthing & isolating. Complete work as per site requirement or as per direction of site Incharge.
2. **Replacement of Defective/Damaged PT:-** The work includes opening/dismantling of existing defective/damaged 66/11 KV PT after opening of existing isolator, cable connections & earthing, shifting to store from site, shifting of new 66/11 KV PT from store to site, erection of new 66/11 KV PT including cabling, earthing & isolating. Complete work as per site requirement or as per direction of site Incharge.
3. **Replacement of Defective/Damaged LA:-** The work includes opening/dismantling of existing defective/damaged 66/11 KV Lightning arrester after opening of existing isolator, surge counter & earthing, shifting to store from site, shifting of new 66/11 KV Lightning arrester from store to site, erection of new 66/11 KV Lightning arrester including fixing of surge counter, earthing & isolating. Complete work as per site requirement or as per direction of site In charge.

Note: Attending the breakdown in both time day & night or as per decision of engineer-in-charge or its authorized representative subject to the site condition and natural calamity.

**T&P :-**

All the T&P required for proper completion of above works shall be arranged by the contractor such as oil testing set, Timer, CRM, Earth Resistivity Tester, Thermovision camera, Megger, gas leakage detector, pulley block, blower, rope and ladder etc.

**MATERIAL :**

The entire consumable items like conductor, different types of jaws, blades, connectors & clamps, CTC, CRC, Petroleum Jelly, electrolyte, Rust cleaner, lubricants, Transformer oil, silica gel & lighting material for day-to-day maintenance will be in contractor scope. Consumable items like washing & cleaning material (detergent powder, surf, vim, phenyl, harpic, naphthalene, odonil, broom, wiper, polish, Colin, old dhoti, duster, cloth etc.) shall be provided by the contractor for proper completion of work.

**WATER AND ELECTRICITY: -**

For proper completion of contract water and electricity shall be provided by the department free of cost.

**TASKS TO BE PERFORMED WITHIN FIRST 15 DAYS**

- a. Identify a person(s) with necessary competence to be responsible for substation maintenance.
- b. The person(s) deputed for a substation job should know how to treat the person suffering from electric shock/burn etc.
- c. Be able to operate a fire extinguisher.
- d. Make himself familiar with the distribution scheme, the switches controlling various loads and also importance.
- e. Clearly understand what is to be done in case of an emergency. This should be done in consultation with the Engineer-in-charge.
- f. Carry out general inspection with a view to identify shortcomings if any in the substation installation.
- g. Check all the switches and meters for proper operation.
- h. Check availability and working of fire extinguishers at earmarked locations. In case of any if-repairable damage the fire extinguisher shall be replaced by the agency.
- i. Check operation of all the safety devices like relays and fuses.
- j. Check the earthing system for the proper earth values & continuity of the earthing system.
1. Check oil level in all the equipment's to ensure proper levels.
- m. Check power factor meter, maximum demand meter for proper functioning.
- n. Check the tripping of the HT panel i.e. batteries etc, for proper functioning.
- o. Check all the electrical connections for proper tightness.

All the results of above inspections to be recorded and brought to be notice of Engineer-in- charge specially highlighting shortcoming for necessary action.

**MAINTENANCE SCHEDULE TO BE FOLLOWED**

1. **Daily checks:** Check all the equipment's installed in the sub-station
  - i. Any abnormal heating.
  - ii. For any abnormal noise.
  - iii. Any breakage/oil leakage in the equipment installed.
  - iv. Any inflammable material like oil, broken furniture, packing etc. is stored in the sub-station. If fire hazardous material stored, it has to be removed immediately.
  - v. The colour of the silica gel in the breather attached to the oil type transformer. Colour should be blue and if required, change the same.
  - vi. Proper working of the instruments.
  - vii. In case of outdoor installation, inspect for any abnormality.
2. Read the servicing schedule (finalized in consultation with Engineer-in-charge) kept in the substation room of HT Panel, Transformer and LT panels with a view to alert the authorities concerned in advance of the due date of maintenance activity.
3. Check power factor and maximum demand meters to ensure that the values are within permissible limits.
4. Maintain the sub-station log book as per Proforma attached: Frequency of reading will be hourly round the clock
5. Ensure that the HT tripping circuit and batteries are in healthy condition.
6. Check proper functioning of the relay installed in the HT Panel.

#### **SIX MONTHLY TESTING SCHEDULE:**

1	Oil Testing	In the month of May and November
2	Earthing systems check	In the month of May and November
3	Relay and other Protection devices working by means of secondary Injection Kit	In the month of May
4	Insulation measurement of the system i.e. HT cables, LT cables, Transformer, LT Panel	In the month of February and August
5	ON/OFF operation of all ACB/ VCBs/ Circuit Breakers? isolators /Switches including cleaning and lubricating of operating mechanism wherever required, particularly in case of outdoor installation.	(At least twice a year i.e. February & August).

**NOTE:** - If anything, adverse is noticed during the daily check, the matter will be reported to the Engineer-in-charge and wherever necessary corrective measures should be taken immediately

## **MATERIALS**

1. **All the materials and Labour required for carrying out Routine and Breakdown maintenance shall be arranged by Contractor.**

## **DIESEL ENGINE SETS (SCOPE OF MAINTENANCE)**

1. Ensuring that the DG set installation is kept in clean and healthy working condition.
2. Testing the system (by operating one set out of two sets of each substation in rotation everyday) for 10 minutes for operating fitness.
3. The DG Set set should be run every second day for about 5 to 10 minutes to ensure that it is in perfect working condition & entry made in log book as test running
4. Carrying out various servicing & maintenance activities and tests as defined.
5. The contractor shall arrange inspection of installation by authorized Engine service dealer and shall submit its health check report to IIT Ropar. (April and October).
6. The engines have to be operated whenever required and staff should be available round the clock for the same.
7. All control devices including their functioning is to be checked monthly in the presence of engineer-in-charge or his authorized representative.

## **(TASKS TO BE PERFORMS WITHIN FIRST 15 DAYS)**

1. Inspect the installation for any shortcoming which is to be recorded and brought to the notice of Engineer-in-charge.
2. Check the safety devices as well as operating switches for their proper functioning. Any defective item to be attended on priority basis.
3. The system should be brought into working condition if this is not the case on priority.
4. Identify qualified persons responsible for maintenance and operation of DG Set.
5. The person (s) should familiarize themselves with the installation, load distribution and working of DG set. Need for a watch to keep various parameters in permissible limits and responding to various alarms should be clearly understood.
6. Inspect the DG room for proper ventilation. Steps for improvement, if required, should be discussed with the Engineer-in-charge.
7. The engine capacity vis-a-vis the loads being supplied should be checked to ensure that there is no mismatch.
8. Check the earthing system for proper values. The results of inspection as above should be recorded in the register and brought to the notice of the Engineer-in-charge.

## **(MAINTENANCE SCHEDULE TO BE FOLLOWED)**

### **Daily-**

1. Check the availability of diesel and fill the HSD in the tank whenever required.
2. Check the level of water/coolant in the radiator.
3. Check the state of the battery, terminals for cleanliness & level of water.

4. Check the lubricating oil level.
5. The DG set should be run every second day for about 10 minutes to ensure that it is in perfect working condition.
6. Ensure cleanliness of the EA room.
7. Check airline connections and air breather for cleanliness.
8. Maintain the Log book as per Proforma as attached.

#### **PERIODICAL MAINTENANCE:**

1. Proper working of safety devices and alarms should be ensured on a monthly basis.
2. In case of any safety & operating parameter is not within permissible limit/range or around the border value (decision of Engineer-in-charge is Final) i.e. Lube oil pressure, lube oil Temperature, water temperature, exhaust temp., etc., then remedial action shall be initiated by the agency.
3. Oil change, filter change shall be done as per manufacturer's recommendation.
4. The contractor will be ensured for maintenance of DG Set for smooth operations twice in a year.

#### **(MATERIALS)**

1. Diesel oil for DG sets shall be supplied by the IIT Ropar. However, the contractor shall keep the record of HSD issued and its consumption and submit the same along with its bill
2. All other material such as spare and consumable of engine, alternators or AMF Panel etc. shall be in the scope of contractor.
3. The requirement of diesel for DG Sets will be provided to the contractor by providing the request to the engineer-in-charge.

#### **STREET LIGHTING AND COMPOUND LIGHTING**

Daily Checks Checking of all street light, compound light and flood light fittings of the campus to identify the defective/non-working fixture and rectify the defect whatsoever to make them functional.

Supply and replacement of defective spare parts/components such as drivers, connectors, MCBs, MCCBs, Contactors, Timers, wires and cables i/c replacement of fixture if so required shall be in the scope of contractor to keep the street light 100% functional. In case of damage of any fitting or pole due to some mechanical damage, the same shall be rectified by the contractor with the same existing make installed at site.

Note :- The Successful Contractor has to maintain the electrical supply from 66/11 KV SubStation to 11/433 kv Sub Station and 11/433 kv Sub Station to Main LT Panel at every building block in the institute. In case of failure of any parts/ equipment/ items , the same make of parts/ equipment/ items shall be installed by the contractor as per the satisfaction of the Engineer in charge.

**(SPECIAL CONDITIONS RELEVANT TO PARTICULAR JOB/PARTICULAR SITE**

1. In case of fire, the maintenance staff of the firm shall organize First Aid operations. Sufficient First Aid material shall always be kept with the firm. He will also inform the control room in-charge/ Fire brigade immediately.
2. Arrange inspection of experts if desired by engineer-in-charge to identify persistent problems.
3. Failure of system during fire will invite action as per clauses of agreement.

Details of the staff employed by the agency for the above said work:

Name & photographs of the employee	Building allotted	Trade	Qualification	Issue Card/ Date	Permanent Address	Date of termination	Reason of termination	Sign of staff	Sign of Contractor

Name of Agency:  
Agreement No.

Complaint received details								Complaint acknowledgement detail		
S. No.	Date	Time	Name & Designation	Building	Nature of Complaint	Staff taking complaint	Complaint Diary/ job Reference	Name of the staff	Technical staff attending complaint	Remarks

**ELECTRICIAN DIARY**

S. NO.	Date	Time	Detail of Repair		Complaint No.			Sign of user
						Name	Sign	

Account of Fuel

NAME OF WORK -

NAME OF AGENCY:-

AGREEMENT NO.: -

LOG BOOK OF GENERATOR  
SET

Date	Time	Start hour meter reading	Stop hour meter reading	Supply Voltage	Current	Frequency Meter.	P.F	Oil Temp.	oil pressure	Battery	Sign of operator on duty	Checked by	Opening	Fuel added	Consumed	Balance

(PLEASE FILL DAILY CHECKS AT 8.00 A.M. ONWARDS ON BACK SIDE AS PER DETAILS) SPECIFIC GRAVITY OF ELECTROLYTE OF BATTERY

Date	DG Set 1		DG Set 2		DG Set 3	
	Cell-1	Cell-2	Cell-3	Cell-4	Cell-5	Cell-6

(TO BE PRINTED ON THE BACKSIDE OF EACH PAGE OF DIESEL SET LOG BOOK) DAILY CHECKS

Each Technician should have own tool bag which consist of the following instruments mention below		
S.no	Name of Tools	Range
1	Digital Multimeter	1mv to 1000 V AC,DC
2	Clamp Meter	Measuring range up to 600 A
3	Screwdrivers	30 cm, Insulated Type, Flat head, Confirming to IS 844-1979
4	Screwdrivers	insulated type, crosshead, Confirming to IS 844-1979
5	Line Testers	Confirming to IS 844-1979
6	Continuity Tester	
7	Adjustable wrench	205mm, confirming to IS 6149-1984 Grade II
8	Combination Pliers	Confirming to IS 6149-1984 Grade II
9	Hammer with a Claw	Confirming to IS 6546-1989
10	Wire Stripper	
11	Wire Crimping Tool	(up to 16 sqmm )
12	Allen Key Set	1.5 mm to 10mm
13	Measuring Tapes	5 Metres
14	Retractable blade	150 mm

Apart from above the following no of Tools to be kept in the inventory		
1	Measuring Tapes	30 Meter -4 No
2	Insulation Resistance Tester	500/1000/2500/5000 Volts, measuring range up to 5 Giga ohms-02 No
3	Earth Resistance Tester	0 to 100 ohms at 0.1 resolution -1 No
4	Hydraulic crimping tool	up to 400 sqmm -1 No
5	Complete socket set	1 No
6	Ring Spanners set	6x 7 to 30x 32-02 Nos
7	Double-ended spanner set	6x 7 to 30x 32-02 Nos
8	Cordless Rotary Hammer Drilling machine	4-22 mm -01 No
9	Corded Rotary Hammer Drilling machine	900-Watt minimum 8-32 mm -01 No

List Of Inventory					
66 KV/11 KV Grid					
S.no	Name of Particulars	Rating	Qty	Unit	Make
1	SF6 Circuit breaker	1600 amp	4	Nos	Schneider
2	DG Set	25 KVA	1		Jackson
3	AMF Panel	433 V 63 amp	2	Nos	Jackson
4	Power Transformer with OLTC	66/11 KV 5/6.25 MVA	2	Nos	Crompton Greaves
5	Power Transformer with OLTC	66/11 KV 5/6.25 MVA	1	Nos	Schneider
6	Distribution Transformer	63 KVA	1	Nos	Recons Power
7	Current Transformer	66 KV, 72.5 KV	15	Nos	Crompton Greaves
8	Potential Transformer	66 KV, 72.5 KV	9	Nos	Mehru
9	ZnO (Gapless)	66 KV, 40 KA	12	Set	Crompton Greaves
10	Isolator with Earth switch	1600 amp, 72.5 KV 31.5 KA	8	Set	Elektrolites
11	HT Panel Board (Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter, Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack)	800-amp VCB	8	Nos	Schneider
12	HT Panel Board (Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter, Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack)	1250-amp VCB	10	Nos	Schneider
13	HT Panel Board (Dummy)	Bus Riser	2	Nos	Schneider

14	NIFPES along with TSPL Transformer explosion and Fire Protection System	63 Ohm	3	Set	TSIPL
15	Battery Bank	20 amp, 220 V	108	Nos	Chhabi
16	Battery Charger	20 amp, 220 V	1	Set	Chhabi
17	DCDB Panel	Incomer 200amp -01 Nos, Outgoing 100-amp -08 Nos	1	Set	Tricolite
18	ACDB Panel	Incomer 100 amp - 1 Nos, Outgoing 32 amp-5 Nos, 16-amp -5 Nos, Incomer 100-amp -01 Nos, Outgoing 32-amp -12 Nos	2	Set	Tricolite
19	Control and Relay Panel	66 KV -01 Nos, Power Transformer -03 Nos	4	Set	ABB
20	Single Bus Bar	66 KV	1	Set	Wolf
21	NGR	63 Ohm	2	Set	RSI Switchgear
22	Capacitor Bank	600 KVAR	3	Set	Epcos
23	Bay Marshalling Kiosks		3	Nos	
24	Gantry Tower		11	Nos	
25	LED Flood Light Fixture	10700 Lumen, IP 65	12	Nos	Wipro
26	Light Pole with Light Fixture	8 Mtr	7	Nos	
27	Feeder Pillar	100 amp	1	Set	Advance
28	RTCC Panel		3	Set	Schneider
29	Battery Packed power Pack	220/110 V	18	Nos	

**Sub Station -01 (11/0.433 KV)**

S.no	Name of Particulars	Rating	Qty	Unit	Make
1	HT Panel Board (Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter, Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack )	11 KV ,1250 amp & 800-amp VCB	4	Nos	Schneider
2	DG Set	500 KVA	2	Nos	Jackson
3	DG Set	500 KVA	1	Nos	Kirloskar
4	AMF Panel	500 KVA	3	Nos	Jackson
5	Transformer	11KV/ 0.433 KV 1250 KVA	2	Nos	Crompton Greaves
6	Incomer ACB	2000 amp ACB	1		Schneider
7	Outgoing Feeder	1250 amp ACB	1		Schneider
8		800 amp ACB	1		Schneider
9		200 amp mccb	2		Schneider
10		800 amp mccb	1		Schneider
11		800 amp ACB	1		Schneider
12		200 amp mccb	1		Schneider
13		100 amp mccb	1		Schneider

14	Bus Coupler	1600 amp ACB	1		Schneider
15	Outgoing Feeder	800 amp ACB	4		Schneider
16	Bus Coupler	2000 amp ACB	1		Schneider
17	Incomer Feeder	2000 amp ACB	1		Schneider
18	Outgoing Feeder	800 amp ACB	1		Schneider
19		250 amp mccb	1		Schneider
20		100 amp mccb	1		Schneider
21		800 amp mccb	1		Schneider
22		400 amp mccb	2		Schneider
23		1250 amp ACB	1		Schneider
24	Incomer ACB	800 amp ACB	1		Schneider
25	Outgoing Feeder	400 amp mccb	3		Schneider
26		250 amp mccb	2		Schneider
27		160 amp mccb	2		Schneider
28		100 amp mccb	1		Schneider
29	Bus Coupler	800 amp ACB	1		Schneider
30	Incomer Feeder	800 amp ACB	1		Schneider
31	Outgoing feeder	800 amp ACB	1		Schneider
32		100 amp mccb	5		Schneider
33		125 amp mccb	1		Schneider
34		400 amp mccb	3		Schneider
35	Bus Coupler	800 amp ACB	1		Schneider
36	Incomer Feeder	1000 amp ACB	1		Schneider
37	Outgoing Feeder	630 amp mccb	2		Schneider
38		160 amp mccb	3		Schneider
39	Capacitor Panel	457.5 kvar	2		Schneider

**Sub Station -02 (11/0.433 KV)**

S.no	Name of Particulars	Rating	Qty	Unit	Make
1	HT Panel Board (Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter, Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack )	11 KV, 1250 amp & 800 amp VCB	5	Nos	Schneider
2	DG Set -01	500 KVA	2	Nos	Jackson
3	DG Set -02	500 KVA	1	Nos	Kirolsar
4	AMF Panel	500 KVA ( 800 amp )	3	Nos	Jackson
5	Transformer	11KV/ 0.433 KV 1000 KVA	2	Nos	Crompton Greaves
6	Transformer	11KV/ 0.433 KV 1000 KVA	1	Nos	Kirloskar
7	Incomer Feeder	1600 amp ACB	1	Nos	Schneider
8	Outgoing Feeder	800 amp ACB	2	Nos	Schneider
9		630 amp mccb	1	Nos	Schneider
10		250 amp mccb	3	Nos	Schneider
11		125 amp mccb	2	Nos	Schneider

12	Bus Coupler	600 amp ACB	1	Nos	Schneider
13	Incomer Feeder	1600 amp ACB	1	Nos	Schneider
14	Outgoing Feeder	800 amp ACB	2	Nos	Schneider
15		630 amp mccb	1	Nos	Schneider
16		250 amp mccb	3	Nos	Schneider
17		125 amp mccb	1	Nos	Schneider
18	Bus Coupler	1600 amp ACB	1	Nos	Legrand
19	Incomer ACB	1600 amp ACB	1	Nos	Legrand
20	Outgoing Feeder	800 amp ACB	1	Nos	Legrand
21		320 amp mccb	3	Nos	Legrand
22		250 amp mccb	8	Nos	Legrand
23		160 amp mccb	3	Nos	Legrand
24		800 amp ACB	1	Nos	Legrand
25		800 amp mccb	1	Nos	Legrand
26	Incomer Feeder	800 amp ACB	1	Nos	Schneider
27	Outgoing Feeder	800 amp ACB	1	Nos	Schneider
28		250 amp mccb	2	Nos	Schneider
29		200 amp mccb	1	Nos	Schneider
30		125 amp mccb	3	Nos	Schneider
31	Bus Coupler	800 amp mccb	1	Nos	Schneider
32	Incomer ACB	800 amp ACB	1	Nos	Schneider
33	Outgoing Feeder	400 amp mccb	2	Nos	Schneider
34		250 amp mccb	4	Nos	Schneider
35		100 amp mccb	3	Nos	Schneider
36		63 amp mccb	1	Nos	Schneider
37	Bus Coupler	1250 amp ACB	1	Nos	Legrand
38	Incomer Feeder	800 amp ACB	1	Nos	Legrand
39	Outgoing Feeder	250 amp mccb	4	Nos	Legrand
40		200 amp mccb	2	Nos	Legrand
41		100 amp mccb	2	Nos	Legrand
42	Capacitor Panel	360 KVAR	3	Nos	Core Metal Krafts Ltd

**Sub Station -03 (11/0.433 KV)**

S.no	Name of Particulars	Rating	Qty	Unit	Make
1	HT Panel Board (Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter, Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack )	11 KV,1250 amp & 800 amp VCB	5	Nos	Schneider
2	DG-1	500 KVA	2		Cumins
3	DG-2	750 KVA	1	Nos	Kirolsakar
4	AMF Panel	750 KVA	1	Nos	Jackson
5	AMF Panel	500 KVA	2	Nos	Jackson
6	Transformer	11KV/ 0.433 KV 1000 KVA	2	Nos	Crompton Greaves

7	Transformer	11KV/ 0.433 KV 1000 KVA	1	Nos	Kirolsakar
8	Incomer Feeder	1600 amp ACB	1	Nos	Schneider
9	Outgoing Feeder	630 amp mccb	3	Nos	Schneider
10		200 amp mccb	1	Nos	Schneider
11		1250 amp ACB	1	Nos	Schneider
12	Bus Coupler	1600 amp ACB	1	Nos	Schneider
13	Incomer Feeder	1600 amp ACB	1	Nos	Schneider
14	Outgoing Feeder	1250 amp ACB	1	Nos	Schneider
15		200 amp mccb	2	Nos	Schneider
16		800 amp ACB	1	Nos	Schneider
17		630 amp mccb	1	Nos	Schneider
18	Bus Coupler	1600 amp ACB	1	Nos	Legrand
19	Incomer Feeder	1600 amp ACB	1	Nos	Legrand
20	Outgoing Feeder	1250 amp ACB	2	Nos	Legrand
21		800 amp ACB	2	Nos	Legrand
22		800 amp mccb	1	Nos	Legrand
23		160 amp mccb	2	Nos	Legrand
24	Incomer Feeder	1250 amp ACB	1	Nos	Schneider
25	Outgoing Feeder	800 amp ACB	1	Nos	Schneider
26		630 amp mccb	2	Nos	Schneider
27		400 amp mccb	1	Nos	Schneider
28		100 amp mccb	2	Nos	Schneider
29	Bus Coupler	1250amp ACB	1	Nos	Schneider
30	Incomer Feeder	1250 amp ACB	1	Nos	Schneider
31	Outgoing Feeder	400 amp mccb	6	Nos	Schneider
32		160 amp mccb	2	Nos	Schneider
33		100 amp mccb	2	Nos	Schneider
34	Bus Coupler	1250 amp ACB	1	Nos	Legrand
35	Incomer Feeder	1250 amp ACB	1	Nos	Legrand
36	Outgoing Feeder	630 amp ACB	2	Nos	Legrand
37		500 amp mccb	1	Nos	Legrand
38	Capacitor Panel	360 KVAR	1	Nos	Core Metal Krafts Ltd

**Sub Station -04 (11/0.433 KV)**

S.no	Name of Particulars	Rating	Qty	Unit	Make
1	HT Panel Board ( Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter,Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack )	11 KV, 800 amp VCB	4	Nos	Schneider
2	DG-1	500 KVA	1	Nos	Kirolsakar
3	DG-2	250 KVA	1	Nos	Kirolsakar
5	Transformer	11KV/ 0.433 KV 630 KVA	2	Nos	Kirolsakar

6	Incomer ACB	1000 amp	2	Nos	Legrand
7	Bus Coupler	1250 amp	1	Nos	Legrand
8	DG Incomer MCCB	400 amp (250 KVA )	1	Nos	Legrand
9	Outgoing Feeder	630 amp mccb	2	Nos	Legrand
10		500 amp mccb	1	Nos	Legrand
11		200 amp	1	Nos	Legrand
12		125 amp mccb	2	Nos	Legrand
13		63 amp mccb	1	Nos	Legrand
14	DG Incomer ACB	800 amp (500 KVA )	1	Nos	Legrand
15	Outgoing Feeder	630 amp mccb	2	Nos	Legrand
16		500 amp mccb	1	Nos	Legrand
17		400 amp mccb	1	Nos	Legrand
18	Capacitor Panel	220 KVAR	2	Nos	Core Metal Krafts Ltd
<b>Sub Station -05 (11/0.433 KV)</b>					
S.no	Name of Particulars	Rating	Qty	Unit	Make
1	HT Panel Board ( Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter, Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack )	800 amp & 630 amp VCB	5	Nos	Schnieder
2	DG Set	1010 KVA	2	Nos	Cumins
3	DG Incomer	3200 amp (1000 KVA) ACB	1	Nos	L & T
4	Light Panel	800 amp ACB	1	Nos	L & T
5	ESS Panel -02	1600 amp ACB	1	Nos	L & T
6	Fire Fighting Panel	630 amp mccb	1	Nos	L & T
7	DG Incomer	3200 amp (1000 KVA) ACB	1	Nos	L & T
8	APFCR Panel	1250 amp ACB	1	Nos	L & T
9	Incomer Feeder	4000 amp ACB	1	Nos	L & T
10	APFCR Panel	800 amp ACB	1	Nos	L & T
11	Light Panel	800 amp ACB	1	Nos	L & T
12	HVAC Panel	3200 amp ACB	1	Nos	L & T
13	Power Panel	3200 amp ACB	1	Nos	L & T
14	Outgoing Feeder	630 amp mccb	1	Nos	L & T
15		125 amp mccb	1	Nos	L & T
16	Transformer	11KV/ 0.433 KV 2000 KVA	2	Nos	Schnieder
17	Bus Coupler	4000 amp ACB	1	Nos	L & T
18	Incomer Feeder	4000 amp ACB	1	Nos	L & T
19	HVAC Panel	3200 amp ACB	1	Nos	L & T
20	ESS Panel	1250 amp ACB	1	Nos	L & T
21	APFCR Panel	800 amp ACB	1	Nos	L & T
22	Outgoing Feeder	630 amp mccb	1	Nos	L & T
23		400 amp mccb	2	Nos	L & T

24	Capacitor Panel	600 KVAR	2	Set	Advance
Sub Station -06 (11/0.433 KV)					
S.no	Name of Particulars	Rating	Qty	Unit	Make
1	HT Panel Board ( Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter,Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack )	800 amp & 630 amp VCB	5		Schneider
2	DG Set	380 KVA	2		Cumins
3	Incomer DG	800 amp ACB	2		L & T
4	Main LT Panel	2000 amp ACB	1		L & T
5	Fire Fighting Panel	630 amp mccb	1		L & T
6	Transformer	11KV/ 0.433 KV 630 KVA	2		Schnieder
7	Incomer DG	2000 amp ACB	1		L & T
8	Outgoing Feeder	2000 amp ACB	1		L & T
9		200 amp mccb	1		L & T
10		400 amp mccb	1		L & T
11		250 amp mccb	1		L & T
12		200 amp mccb	2		L & T
13		160 amp mccb	1		L & T
14	Incomer ACB	2000 amp	2		Advance
15	Bus Coupler	2000 amp	2		Advance
16	Capacitor Panel	300 KVAR	2		Advance
17	Incomer Transformer-01	1250 amp ACB	1		L & T
18	Outgoing Feeder	630 amp mccb	2		L & T
19		200 amp mccb	1		L & T
20		160 amp mccb	1		L & T
21	Incomer Transformer-02	1250 amp ACB	1		L & T
22	Outgoing Feeder	1000 amp ACB	1		L & T
23		630 amp mccb	2		L & T
24		400 amp mccb	3		L & T
25		250 amp mccb	2		L & T
26		160 amp mccb	1		L & T
Sub Station -07 (11/0.433 KV)					
S.no	Name of Particulars	Rating	Qty	Unit	Make
1	HT Panel Board ( Relay, Voltmeter, Master Trip Relay, Multifunction meter, Ammeter,Local Remote Switch, Breaker Control Switch, Emergency Switch, Battery Packed power Pack )	800 amp & 630 amp	4	Nos	Schindler

2	DG Set	380 KVA	2	Nos	Cumins
3	Incomer DG	800 amp (380 KVA )	2	Nos	L&T
4	Outgoing DG	2000 amp	1	Nos	L&T
5	Firefighting Panel	630 amp	1	Nos	L&T
6	Transformer	11KV/ 0.433 KV 1000 KVA	2	Nos	Schnieder
7	Incomer from Transformer 2	2500 amp	1	Nos	L&T
8	Capacitor Panel incomer	800 amp	1	Nos	L&T
9	Outgoing Feeder	630 amp mccb	1	Nos	L&T
10		400 amp mccb	1	Nos	L&T
11		250 amp mccb	6	Nos	L&T
12		160 amp mccb	6	Nos	L&T
13	Incomer from Transformer 1	2500 amp ACB	1	Nos	L&T
14	Incomer DG Panel	2000 amp ACB	1	Nos	L&T
15	Capacitor Panel incomer	800 amp ACB	1	Nos	L&T
16	Outgoing Feeder	250 amp mccb	6	Nos	L&T
17		200 amp mccb	8	Nos	L&T
18		160 amp mccb	6	Nos	L&T
19	Bus Coupler	2500 amp	1	Nos	L&T
20	Capacitor Panel	400 KVAR	2	Nos	Advance
<b>Compact SubStation ( Data Center )</b>					
<b>S.no</b>	<b>Name of Particulars</b>	<b>Rating</b>	<b>Qty</b>	<b>Unit</b>	<b>Make</b>
1	DG	380 KVA	2	Nos	Jackson
2	Incomer DG	800 amp ACB	2	Nos	L&T
3	Transformer	11KV/ 0.433 KV 630 KVA	2	Nos	Sudhir Power
4	Incomer ACB	1000 amp	2	Nos	advance
5	DG Incomer Future	800 amp	2	Nos	L&T
6	Bus Coupler	1000 amp	2	Nos	L&T
7	Capacitor Panel	225 KVAR	2	Nos	advance
<b>Compact SubStation (KV School )</b>					
<b>S.no</b>	<b>Name of Particulars</b>	<b>Rating</b>	<b>Qty</b>	<b>Unit</b>	<b>Make</b>
1	DG	62.5 KVA	1		kirolskar
2	Transformer	11KV/ 0.433 KV 250 KVA	1		Recons Power
3	Incomer ACB	400 amp	1		Schenider
<b>Compact SubStation ( Sports Field)</b>					
<b>S.no</b>	<b>Name of Particulars</b>	<b>Rating</b>	<b>Qty</b>	<b>Unit</b>	<b>Make</b>
1	Ring Main Unit	630 amp VCB	1	Nos	
2	Transformer	11KV/ 0.433 KV 315 KVA	1	Nos	Schneider
3	Incomer ACB	630 AMP FP MCCB	1	Nos	Schneider
4	PDB Panel	630 AMP FP MCCB	1	Nos	Tricolite

<b>Sr. No.</b>	<b>Name of Substation</b>	<b>Connected Buildings</b>
1	ESS-1	Boys hostel Suttlej,
2		Boys Beas Hostel
3		Boys Chenab Hostel
4		AC Plant
5		Water Treatment plant
6		Admin Block
7		SPS System
8		Gate Complex
9		Sewerage treatment plant (new)
10		Street Lights
11	ESS-2	Mechanical Dept.
12		Chemistry Dept.
13		Lecture hall
14		Raavi Girl Hostel
15		Dining hall
16		Utility Block
17		Sewerage treatment plant (old)
18		Road Light
19		New Dinning Hall
20		Workshop complex
21	ESS-3	Computer Science Dept.
22		Electrical Dept.
23		Director Residence
24		Road Lights
25		CRF Building
26		Library & Lecture Hall
27		Nitrogen plant
28		Residence T2 Block A, B & Type 4 Block A, B, C
29	ESS-4	Visitor Hostel
30		Residence T5 & T6 Block A
31	ESS-5	Super Academic Block
32	ESS-6	Brahmaputra Hostel
33	ESS-7	Residence T3, A B block, T5, E F G, Girl Hostel T6 B, C D, E, F, G
34	Data Centre compact Sub station	Data centre in Library Building
35	KV School Compact sub station	KV school
36	Sports Field Compact Sub station	Sports Field
37	63 KVA Station T/F	Lighting load of 66 KV
38	66 KV Sub station	All ESS

**ACCEPTABLE LIST OF MATERIALS**  
**LIST OF APPROVED MAKES/AGENCIES**  
**FOR WORKS COVERED UNDER THIS CONTRACT**

- 1) All materials and products used in the work shall conform to the relevant standards/ specifications and shall be of approved make and design. Lists of approved manufacturers/ vendors for Civil works, Plumbing works, Fire fighting & Fire Alarm works, Electrical works etc. is given below. The approval of a manufacturer/ vendor shall be given only after review of the sample/specimen by the Engineer-in-charge. The complete system and installation shall also be in conformity with the "Applicable Codes Standards and Publications".
- 2) List of Approved makes for Products, Materials and specialist agencies is given below. Other equivalent manufacturers may be considered with prior approval; however the decision of the Engineer-in-charge shall be final.

S. No.	ITEM	MAKE
1.	GREY CEMENT	J.P., ACC, LARSEN & TOUBRO, GUJARAT AMBUJA, VIKRAM, BINANI J.K, BIRLA, SHREE OR ANY OTHER BRAND WITH APPROVAL OF ENGINEER-IN-CHARGE.
2.	WHITE CEMENT	JK WHITE, BIRLA WHITE OR EQUIVALENT
3.	<b>REINFORCEMENT/STRUCTURAL STEEL</b>	<b>SAIL, TISCO, RINL, JINDAL</b>
4.	<b>NON STRUCTURAL STEEL</b>	<b>SAIL, TATA, RINL, JINDAL</b>
5.	ANTI-TERMITE TREATMENT	PEST CONTROL INDIA LTD, PEST CON INDIA, PEST CONTROL INCORPORATED, OR ANY OTHER AGENCY TO BE APPROVED BY THE ENGINEER-IN-CHARGE.
6.	CONCRETE ADDITIVE	FOSROC CICO-TL, SIKA, PIDILITE
7.	FLUSH DOORS, SHUTTERS	KUTTY FLUSHDOOR, KITPLY INDUSTRIES (SWASTIK), CENTURY, ANCHOR, MERINO.
8.	PLYWOOD / BLOCK BOARD / SOFT BOARD	ANCHOR, DURO, GREEN LAM, CENTURY, ARCHID PLY,
9.	PRELAMINATED PARTICLE BOARD	ACTION TESA, NOVAPAN, ANCHOR, MERINO, GREEN LAM, CENTURY, ARCHID PLY
10.	VENEERED PARTICLE BOARD	KITPLY, ACTION TESA, GREENLAM MERINO.

11	LAMINATED PARTICLE BOARD/ LAMINATES	KITPLY, ACTION TESA, GREENLAM, CENTURY PLY, MERINO, SUNMICA, FORMICA,GVK
12.	LAMINATES	CENTURY, MERINO, GREEN LAMP, ARCHID LAM
13.	ADHESIVE FOR WOOD WORK	DUNLOP, FEVICOL, VAMICOL, PIDILITE
14.	POLYURETHANE SEALANT	MBT, CHOKSEY, PIDILITE
15.	SILICON SEALANT	DOWN CORNING, ALSTONE OR EQUIVALENT
16	FALSE CEILING- GYPSUM	SAINT GOBAIN, LAFARGE, VANS GYPSUM, INDIA GYPSUM, BERAL GYPSUM, ARMSTRONG
17	FALSE CEILING- METAL	SAINT GOBAIN, ARMSTRONG, DEXTURE, SAS, AURA, LINDNER
18.	POLYETHYLENE BOARD	SUPREME OR EQUIVALENT
19.	ALUMINIUM EXTRUSIONS	JINDAL, HINDALCO, INDALCO OR EQUIVALENT
20.	STAINLESS STEEL	SALEM, JINDAL OR EQUIVALENT
21.	EXPANSION, FASTENERS	FISCHER, HILTI, ANCHORS, AXEL
22.	<b>FLOAT GLASS</b>	MODI GUARD, SAINT GOBAIN, ASAHI, ATUL
23.	CERAMIC TILES	NITCO, KAJARIA, SOMANY, JOHNSON, VARMORA
24.	VITRIFIED PORCELINE TILES	NAVEEN DIAMOND TILES, NITCO, JOHNSON, MARBITO BRAND, RAK, KAJARIA, VARMORA, CT TILES
25.	INTERLOCK TILES/GRASS PAVER BLOCKS/ KERB STONE	DALAL TILES, UNISTONE, MODERN OR EQUIVALENT
26.	TERRAZZO TILES	NITCO, MODERN, A-1, NTC, DALAL TILES OR EQUIVALENT AS PER ISI SPECIFICATION
27.	CEMENT CONCRETE TILES	UNISTONE, ULTRA, DALAL TILES OR EQUIVALENT
28.	HANDMADE CERAMIC TILES	RAJA, ARIHANT, JAIN
29.	ROOF WATERPROOFING	NINA CONCRETE SYSTEM PVT. LTD, C R S ASSOCIATES AND ENGINEERS PVT.LTD, CREATIONS, PIDILITE
30.	PAINT	NEROLAC, JOHNSON & NICHOLSON, BERGER, ASIAN PAINTS, SHALIMAR

31.	TEXTURED COATING	UNITILE, SPECTRUM, HERITAGE OR EQUIVALENT
32.	DOOR FITTINGS	GODREJ, DOORSET, OZONE, INDOBRASS
33.	LOCKS AND HANDLES	EVERITE, GODREJ, HARRISON, INDOBRASS
34.	NON METALLIC COMPOUND	HARDENER FOSROC, S TP, PIDILITE, CICO
35.	ROLLING SHUTTER	RAMA, PRAKASH, SANJEEV OR EQUIVALENT AS PER CPWD SPECIFICATIONS.
36.	DOOR CLOSER	DOORSET, EVERITE, GREEZ, GODREJ
37.	FLOOR DOOR SPRING	D-LINE, OZONE, DOORSET, EVERITE, INDOBRASS
38.	HDF LAMINATED BOARD	ARMSTRONG, BVG, EGO FLOORS, SQUARE FOOT, ACTION TESA
39.	EXPANSION FASTENERS	HILTI, FIHSER, GKW, AXEL
40.	FASTENERS	HILTI, FIHSER, GKW, AXEL
41.	GYPSUM CEILING	INDIA GYPSUM, LAFARGE
42.	CALCIUM SILICATE BOARD FALSE CEILING	AEROLITE, HYLUX
43.	PATCH FITTING	DORMA, GEZE, OZONE OR AS APPROVED
44.	WORKSTATION AND MODULAR FURNITURE	GODREJ, BP ERGO, FEATHERLIGHT, WIPRO
45.	BLINDS	VISTA, MAX, ARMSTRONG
46.	ADHESIVE	FEVICOL, VEMICOL OR EQUIVALENT
47.	FURNITURE HARDWARE	HETTICH INDIA, EBCO, EARL BEHARI
48.	LACQUERED GLASS	SAINT GOBIN, ASAHI, ATUL
49.	MELAMINE POLISH	ASIAN PAINT, BERGER, TIMBER STONE OF ICI DOLEXZ, WUDFINE OF PIDILITE
50.	Sandwich PUF Panel	SINTEX, JINDAL, SYNERGY THYRISLINGTON

### Approved Make List

S.No.	Items	Makes
1	MS Conduit (ISI marked)	BEC/AKG/NIC/Steel craft/M-Key, SK(E.R.W)
2	PVC Conduit and accessories	Polycab/AKG/Asian
3	1.1 KV aluminium armoured XLPE insulated and PVC sheathed Cable (LT cable)	Havells/KEI/Gloster/Grandlay /Plaza/ National/ Paragon
4	FRL SPVC insulated copper conductor stranded flexible wire/control cables	Havells/Finolex/KEI/Grandlay/RRKabel/Gloster/Polycab/Plaza
5	Cable Raceway floor/wall mounted and accessories	Schenider/Legrand/Cooper
6	Modular Switch & Socket	Legrand (Mylus, Arteor)/M.K.(Element)/Schneider (ZenceloIndia)/Havells/ABB/Northwest
7	Metal clad Industrial Socket	Legrand/Siemens/Schneider/C&S/ABB
8	Cat-6 Cable	Beldon/Siemon/Legrand/Penduit( Pannel)
9	Cable Glands	Dowells/Commet/Gripwell/Raychem
10	Crimp Patch Cord	Beldon/Siemon/Legrand/Penuit(Pannel)
11	Protection Device (MCB/RCCB/DB/ELCB)	Siemens(Betagard),/Hager/Schneider/Legrand/ C&S/ ABB Legrand / ABB / L&T /Siemens / Havells / C&S /Schneider / GE / Hagger / Anchor / Standard
12	MCCBs	Siemens(3VA)/L&T/Schneider/Legrand/C&S/ ABB
13	Power contactor	Siemens/L&T/ Schneider/ Legrand/ ABB/C&S
14	Surge Protection Devices	Siemens/L&T/Schneider/Legrand
15	Panel Accessories	Siemens/L&T/Schneider/Legrand/Tecnic/ ABB/ C&S/Neptune
16	Selector Switch	Salzer/Seimens/BCH/ Kacee
17	Auxiliary Relays	Siemens/L&T/Schneider/Legrand/ABB
18	LED/Metal Halide/Fluorescent Internal Lighting Fixture	Philips/Wipro/Havells/Crompton/Decon/Bajaj
19	External Lighting Fixture	Philips/Wipro/Havells/Crompton/Bajaj
20	Emergency Lighting/Exit Sign boards	Philips/Havells/Lighting Technologies/Trilux/Prolite

21	Ceiling Fan(ISI marked & BEE rated 5 star)	Havells/Almonard/Orient/Usha/Bajaj/Crompton
22	Paint	Nerolac/Asian/Berger
23	Advance Lighting Protection System (Early Streamer Emission Type)	LPI(Australia)-by allied power/SGI(Duval Messien/satellite (France)- by SGI/Bradlay (USA)-byJMV/Erico (USA)-by security shoppe/ABB
24	GI Pipe	Tata/Jindal/SAIL
25	Main LT Panels/MCC Panel	(Main LT panel / MCC Panel board should be IEC61439 part-1 and II manufacturer has to produces the relevant test certificate as per IEC code for the same failing which panel shall be rejected). Tricolite/Siemens / Schneider/ Milestone/Neptune.
26	Air Circuit Breaker	Siemens/Schneider/L&T/Legrand/ C&S/ABB
27	Surge Voltage Protection	Siemens/Schneider/L&T/Legrand/ABB
28	Earth fault module	Siemens/Schneider/L&T/Legrand
29	Protection relays	Siemens/Areva/L&T/Legrand
30	CTs and PTs	Kappa/AE/Matrix

31	DigitalMeters	Siemens(PAC)/ Schneider/(conzerv)/Secure Enersol /L&T/Neptune
32	Change Over Switch	L&T/Havells/Socomec/ABB/C&S/HPL
33	Indicating lamps	ESBEE/Schneider/Siemens/Vaishno/Neptune/L &T
34	Power capacitors	Epcos/Neptune/Legrand/ABB/L&T/ Siemens/ CGL
35	AutomaticPowerfactor correction relay/controller	Epcos/Siemens(PAC)/Schneider (Conzerv)/L&T/Neptune/Sigma
36	SealedMaintenanceFree Batteries	Exide/Panasonic/Hitachi/Shinkobe
37	Battery charger	Caldyne/ChhabiElectricals/Statcon/MaxPower
38	CableTrays(Factory Fabricated/Overhead & FloorRaceways	Legrand/MEM/OBO/Milestone/Neptune
39	HDPE underground cable duct	RexPolyextrusion/Tirpura/Plasomatics /Duraline
40	Insulation Mats	DLMiller&Co.Ltd.?PremierPolyfilmLtd./RMG PolyvinylIndiaLtd/Jyoti
41	Smoke/Heatdetectors	Apollo/SystemSensor/ Agni
42	Manual Call point	PRD/System-Tek/Simplex/SystemSensor/Agni
43	Response indicators	PRD/System-Tek/Simplex/SystemSensor/Agni
44	Fire Exit Signs	System-Tek/Simplex/Agni
45	Fire Control Panel	System-Tek/Morley/Agni

46	Speaker/ Hooter	System-Tek/Philips/Agni
47	Occupancy Sensors/Movement Sensor	Legrand/Philips/Wipro
48	Flush type switch/socket	Anchor/Kinjal/SSK/HavellsReo
49	Fuses witches unit/switchfuse unit/HRC fuse	L&T/Siemens/Havells/C&S
50	Exhaust fan	Almonard/Alstom/Crompton/Havells
51	XLPE insulated HT cables	Gloster/KEI/Havells
52	Cablelug	Ascon(Heavygauge)/Jainson/Dowells/Ismael
53	Lamp Holder (Brass)	Kay/SSK/Kinjal
54	Telephone wires/Telephone Cable/jelly filled telephone cables	Finolex/Delton/Havell's/R.R.Kabel
55	Telephone tag blocks	Krone/ Pouyet
56	Telephone outlet	MKElectric/Legrand(Mosaic)/Crabtree (Piccadilly)
57	Graceways	MilestoneEngineering/Legrand/MDS/Neptune SystemsPvt.Ltd./MK
58	PVC raceways	Legrand/MK
59	Electronic ballast	Philips/Wipro/Bajaj/Decon/Crompton/Havells
60	DLP plastic trunking	Legrand/MK
61	Geysers	Recold/Venus/Usha Lexus /Spherehot

62	TowerLight	Ligman/Simes/Bega
63	HT/LT transformers	ABB/Schneider/CGL / Kirloskar/Siemens
64	HTSF-6 circuit breakers/VCB	Siemens/ABB/CGL/Schneider/Areva
65	Programmable Logic Controller(PLC)	Siemens/Allen-Bradley/Schneider
66	Earthing(Chemical Earthing) Plate Earthing	JMV/AsperCPWDNorms
67	Octagonal Pole	Bajaj/ Crompton/ Phillips
68	11kV HT panel Incoming relay	CGL/Schneider/ABB/Siemens

69	Control Relay Panel	CGL/Schneider/ABB
70	Lightning Arrestor	ABB/Alltec/JMV
71	Temp. Gauge	Guru
72	Gate Valve	Leader/Sant
73	Electrical Backup	Sparehot/ Racold
74	PVC Tank	Syntex/ Polycon
75	Thermostat	ISIMarked
76	Flat Collector Plate	Solo crome/Tata BP/ Racold
77	S.S Sheet	Jindal /National
78	HT/LT cable joints (Straight through/outdoor/indoor)	3M/Denson/MSeal/Raychem/Cabseal
79	Alternator	STAMFORD/CromptonGreaves/Kirloskar
80	DG Set-Engine	Sterling & Wilson/Caterpillar/ComminsPower/eneration/Kirloskar
81	Makes of accessories of HT/ LT Panel/Transformers	As per standard practice of manufacturer.
82	Bus Trunking	C&S/ L&T/Schneiderasper standard practice of OEMmanufacturer/ channel partner
83	HT Panel 11 KV	ABB/Schneider/CGL (Crompton GreavesLtd.)
84	Bus Duct	Neptune/Milestone/Tricolite
85	Switch Fuse Unit (HRC Type)	Schnider/GE/L&T/Siemens/C&S/Havells/MD S
86	Selector Switch	Salzer- L & T /Kaycee

# PART – C

**Note:** Price bid should be uploaded in given BOQ\_XXXX.xls format online and not in the technical bid failing which your bid shall stand rejected. However, the price bid is as follows for your reference.

Validate

Print

Help

Item Wise BoQ

Tender Inviting Authority: Indian Institute of Technology Ropar

Name of Work: Comprehensive Maintenance Contract and operation of 66/11 KV Grid Sub Station, ESS and PSS along with allied services at IIT Ropar

Tender No: IITRPR/ENM/T/24/39

Name of the Bidder/ Bidding Firm / Company :								
<p align="center"><b>PRICE SCHEDULE</b> <b>(DOMESTIC TENDERS - RATES ARE TO GIVEN IN RUPEES (INR) ONLY)</b> <b>(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )</b></p>								
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Estimated Rate inclusive of GST and other taxes Rs. P	TOTAL AMOUNT including Taxes Rs. P	TOTAL AMOUNT In Words
1.01	1 No. of 66/11 KV Grid, 07 Nos. of 11/0433 KV Electrical Substation ESS 1,2,3,4,5,6,7 & 3 Nos. of Packaged Substation(KV School, Sports field and Data center) including street lights, Cable and allied equipment. The manpower consist of Sub Station Engineer - ..... No. (To be filled by bidder), Supervisor - ..... No., Electrician - ..... No. & Khallasi - ..... No.							
1.02	For 1st year	item1	12.00	month	INR		0.00	INR Zero Only
1.03	For 2nd year	item1	12.00	month	INR		0.00	INR Zero Only
1.04	For 3rd year	item1	12.00	month	INR		0.00	INR Zero Only
1.05	For 4th year	item1	12.00	month	INR		0.00	INR Zero Only
1.06	For 5th year	item1	12.00	month	INR		0.00	INR Zero Only
Total in Figures							0.00	INR Zero Only
Quoted Rate in Figures				Select		%	0	Zero Only
Quoted Rate in Words	INR Zero Only							