



Name of work : Misc. Capital works in operational and non-operational area at Dehradun Airport. (SH:- Replacement of defective LT cable of different locations in operational area at Dehradun Airport.)

DRAFT NIT

(TENDER REF. NO. AAI/DDN/ENGG-ELECT/MISC. LT
CABLE/eNIT-04/2022-23)

Asstt. Mgr. (Engg-E)
AAI, Dehradun Airport

Asstt. Gen. Mgr.(Engg-E)
AAI, Dehradun Airport

**JOLLY GRANT AIRPORT
DEHRADUN 248140**

INDEX

Name of Work: Misc. Capital works in operational and non-operational area at Dehradun Airport. (**SH:-** Replacement of defective LT cable of different locations in operational area at Dehradun Airport.)

THE DETAILS OF TENDER DOCUMENT ARE GIVEN BELOW:

THIS e-TENDER DOCUMENT CONTAINS **213** PAGES ONLY EXCLUDING COVER PAGE & INDEX PAGE AS DETAILED BELOW.

SL.NO.	DESCRIPTION	PAGENO.		
			FROM	TO
1	Web NIT	e-NIT	1	12
2	PQ Proforma / Check List	CL	1	5
3.	Notice Inviting e-Tender	NIT	1	8
4.	General Conditions of Contract	GCC	1	150
5.	Addendum/ Amendments	ADD	1	4
6.	Proforma	PR	1	4
7.	Special Conditions of Contract	SCC	1	6
8.	Technical Specifications	TS	1	15
9.	List of Approved Makes	LAM	1	7
10.	Bill of Quantities	BOQ	1	2
	TOTAL			213

Asstt. Mgr. (Engg-E)
AAI, Dehradun Airport

Asstt. Gen. Mgr.(Engg-E)
AAI, Dehradun Airport



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA
अभियान्त्रिकी विभाग (विद्युत)
ENGINEERING WING (ELECTRICAL)

सन्दर्भ सं. : भाविप्रा/डीडीएन/अभि.वि./मिस्क. एलटी केबल /ईएनआईटी-4/2022-23
Ref No.: - AAI/DDN/ENG-G-ELECT/Misc. LT Cable/ eNIT- 4 /2022-23/

दिनांक 05.07.2022
Date: - 05.07.2022

ई-निविदा आमंत्रण सूचना (2 बीओटी-2 एन्वेलप ओपन निविदा)

(टेन्डर आईडी – 2022_AAI_-----_1)

NOTICE INVITING e-TENDER (2 BOT – 2 Envelope Open Tender)

(Tender ID – 2022_AAI_-----_1)

1. अध्यक्ष विमानपत्तन प्राधिकरण की ओर से सहायक महाप्रबन्धक (अभि.वि.), भाविप्रा, देहरादून हवाई अड्डा, देहरादून- 248140 द्वारा ई-निविदा पोर्टल के माध्यम से रु 14,09,190 /- (Including Operational Charges but Excluding GST and contingency) अनुमानित लागत के देहरादून विमानपत्तन पर परिचालन तथा गैर परिचालन क्षेत्र में विविध पूंजीगत कार्य के सम्बन्ध (उपशीर्षक : देहरादून विमानपत्तन पर परिचालन क्षेत्र में विभिन्न स्थानों के लिए दोषपूर्ण एलटी केबल के प्रतिस्थापन हेतु।) के कार्य हेतु योग्य ठेकेदारों से मुहर बंद दर की निविदाएं आमंत्रित की जाती है जिसकी कार्य पूर्णता की अवधि 03 माह है। फर्मों की पूर्ण योग्यता अनुमानित लागत Rs. 16,62,844/- (Including Operational Charges & GST but Excluding contingency) के आधार पर तय की जाएगी।

Item rate tenders are invited through the e- tendering portal by Assistant General Manager (Engg-E), AAI, Dehradun Airport, Dehradun - 248140, on behalf of Chairman, AAI from the eligible contractors for the work of "Misc. Capital works in operational and non-operational area at Dehradun Airport. (SH:- Replacement of defective LT cable of different locations in operational area at Dehradun Airport.)." at an estimated cost of Rs. 14,09,190 /- (Including Operational Charges but Excluding GST and contingency) with period of completion 03 Months. The pre-qualification of the firms shall be done based on estimated cost of Rs. 16,62,844 /- (Including Operational Charges & GST but Excluding contingency)

निविदा प्रक्रिया ई-पोर्टल के यू.आर. एल पता <https://etenders.gov.in/eprocure/app> or www.aai.aero पर आनलाईन होगी। इच्छुक बोलीदाता टेंडर दस्तावेज डाउनलोड कर देख सकते हैं।

The tendering process is online at e-portal URL address <https://etenders.gov.in/eprocure/app> or www.aai.aero. Aspiring bidders may download and go through the tender document.

इच्छुक निविदाकर्ता को सलाह दी जाती है कि वे "CPP-portal" पोर्टल में जाकर खुद को पंजीयन कर अपना 'Login ID' एवं 'Password' प्राप्त कर लें। CPP-portal <https://etenders.gov.in/eprocure/app> or www.aai.aero पर Login करने के पश्चात् पोर्टल के होम पृष्ठ पर उपलब्ध 'निर्देशों' को अच्छी तरह पढ़ लें। साथ ही वे अपना डिजिटल सिग्नेचर प्रमाणपत्र (डी.एस.सी.) प्राप्त कर लें जो कि निविदा जमा करने के लिए अनिवार्य तौर पर आवश्यक है। इस प्रक्रिया के लिए सामान्यतः तीन दिनों का समय लग सकता है। निविदाकर्ता भाविप्रा सहायता डेस्क 'aai.aero/tender/e-tender/help desk support' के माध्यम से भी सहायता ले सकते हैं।

Prospective Tenderers are advised to get themselves register at CPP-portal, obtain 'Login ID' & 'Password' and go through the instructions available in the Home Page after log in to the CPP-portal <https://etenders.gov.in/eprocure/app> or www.aai.aero They should also obtain Digital Signature Certificate (DSC) in parallel which is essentially required for submission of their application. The process normally takes 03 days' time. The tenderer may also take guidance from AAI Help Desk Support through path aai.aero/tender/e-tender/help desk support.

(i) तकनीकी सहायता के लिए हेल्प डेस्क से संपर्क करें | 24X7 समय के लिए हेल्प डेस्क का विवरण निम्न है :-

For any technical related queries please call the Helpdesk. The 24x7 Help Desk details are as below: -

Tel: 0120-4200462, 0120-4001002, 0120-4001005, and 0120-6277787, International Bidders are requested to prefix 91 as country Code.

Note- Bidders are requested to kindly mention the URL of the Portal and Tender Id in the subject while emailing any issue along with the Contact details. For any issues/ clarifications relating the tender(s) published kindly contact the respective Tender Inviting Authority.

Tel:0120-4001002, 0120-4001005, 0120-6277787, E-Mail: support-eproc@nic.in

2. For any Policy related matter / Clarifications Please contact Dept of Expenditure, Ministry of Finance. **E-Mail: cPPP-doe@nic.in**

3. For any technical Issues / Clarifications relating to the publishing and submission of AAI tender(s)

a. In order to facilitate the Vendors / Bidders as well as internal users from AAI, Help desk services have been launched between 0800-2000 hours for the CPPP under GePNIC <https://etenders.gov.in>. The help desk services shall be available on all working days (Except Sunday and Gazetted Holiday) between 0800-2000 hours and shall assist users on issues related to the use of Central Public Procurement Portal (CPPP).

b. Before submitting queries, bidders are requested to follow the instructions given in “Guidelines to Bidders” and get their computer system configured according to the recommended settings as specified in the portal at “System Settings for CPPP”.

4. CPP पोर्टल के फंक्शन बाबत किसी तकनीकी सहायता हेतु भा. वि. प्रा. से निम्नानुसार सभी कार्यदिवस पर संपर्क कर सकते हैं।

For any further technical assistance with regard to functioning of CPP portal, the bidder may contact to the following AAI help desk numbers on all working days only between

SL. No.	Support Persons	Escalation Matrix	E-Mail Address	Contact Numbers	Timings*
1.	Technical Help Desk Team	Instant Support	eprochelp@aai.aero	011-24632950, Extn-3512	0800-2000 Hrs. (Mon-Sat)
2.	Sh. Sanjeev Kumar, Sr. Mgr.(IT)	After 4 Hrs. of Issue	etendersupport@aai.aero or sanjeevkumar@aai.aero	011-24632950, Extn-3523	0930-1800 Hrs. (Mon-Fri)
3.	Sh. Dharmendra Kumar Jt.GM (IT)	After 12 Hrs.	dkumar@aai.aero	011-24632950, Extn-3527	0930-1800 Hrs. (Mon-Fri)
5.	General Manager (IT)	After 03 Days	gmitichq@aai.aero	011-24657900	0930-1800 Hrs. (Mon-Fri)

The Helpdesk services shall remain closed on all Govt. Gazetted Holidays.

बोलीदाताओं से आग्रह है कि वे अपने पोर्टल का URL एवं टेंडर ID को विषय में रखकर अपने issues को ई मेल करें |

Bidders are requested to kindly mention the URL of the Portal and Tender ID in the subject while emailing any issue along with the contact details.

5. The above mentioned help desk numbers are intended only for queries related to the issues on e-procurement portal and help needed on the operation of the portal. For queries related to the tenders published on the portal, bidders are advised to contact concerned Bid Manager of AAI.

निविदा शुल्क 1180/- (जीएसटी सहित) जोकि नॉन रिफंडेबल है, सी पी पी पोर्टल पर पेमेंट गेटवे के द्वारा “भारतीय विमानपत्तन प्राधिकरण” के पक्ष में ऑनलाइन भुगतान करना होगा। निविदा शुल्क को ऑनलाइन जमा करने की रिसिप्ट को निविदा दस्तावेज में निर्दिष्ट।

Tender Processing fee of Rs.1180 (i/c GST) Non-refundable will be required to be paid online (using SBI/other banks/NEFT/RTGS mode) through Payment Gateway on CPP Portal in favor of Airports Authority of India Dehradun. The scan copy of receipt of online fee deposit against Tender processing fee must uploaded in CPP portal.

6. निम्न दो लिफाफे का निम्नलिखित अनुसूची के अनुसार निविदाकर्ता द्वारा पोर्टल पर ऑनलाईन जमा किया जाएगा:-

Following 2 envelopes shall be submitted through online at CPP-portal by the tenderer as per the following schedule: -

क्रिटिकल डाटा शीट / CRITICAL DATA SHEET

प्रकाशित करने की तिथि / Publishing Date	05/07/2022
निविदा दस्तावेज डाउनलोड/बिक्री प्रारम्भ की तिथि Bid Document Download / Sale Start Date	05/07/2022
स्पष्टीकरण की तिथि आरम्भ/Clarification Start Date	05/07/2022
स्पष्टीकरण की अंतिम तिथि/Clarification End Date	15/07/2022 up to 1500 hrs.
निविदा जमा करने की तिथि/Bid Submission Start Date	05/07/2022
निविदा जमा करने की अंतिम तिथि/Bid Submission End Date	26/07/2022 up to 1800 hrs.
निविदा खोलने की तिथि (बोली-I)/ Bid Opening Date(Envelope-I)	28/07/2022 at 1100 hrs.
निविदा खोलने की तिथि (बोली-II)/Bid Opening Date(Envelope-II)	To be informed on CPP Portal later.
निविदा शुल्क/ Tender Fee	Rs. 1180/- (i/c GST) Non-refundable drawn in favor of "Airports Authority of India" payable at Dehradun.
बयाना राशि/EMD	Rs. 28,184/- online deposited EMD fee receipt / Bank Guarantee in favor of "Airports Authority of India" payable at Dehradun.

लिफाफा-I / निविदा शुल्क:- निविदा शुल्क, ईएमडी, तकनीकी बोली और पूर्व योग्यता और एएआई की निविदा शर्तों की बिना शर्त स्वीकृति की स्कैन की गई कॉपी।

Cover / Envelope -I):- Tender Processing fee, EMD, Technical Bid and Pre-Qualification and Unconditional Acceptance of AAI's Tender Conditions.):- Bid containing following

A. निविदा प्रसंस्करण शुल्क |Tender Processing fee.

- I. निविदा प्रसंस्करण शुल्क हेतु ऑनलाइन डिपॉजिट की रिसिप्ट की स्कैन की गई कॉपी।
Scanned Copy of receipt of online deposit against Tender Processing Fee.
- II ईएमडी हेतु ऑनलाइन डिपॉजिट की रिसिप्ट या बीजी की स्कैन की गई कॉपी (परिशिष्ट आईए के अनुसार)। लेटर ऑफ अंडरटेकिंग के साथ।
(परिशिष्ट एक्सआईए के अनुसार)
Scanned Copy of receipt of online deposit or BG against EMD (as per Appendix-IA) along with letter of undertaking (as per Appendix-XIA).
- III भाविप्रा के निविदा शर्तों के अनुसार बिना शर्त स्वीकृति पत्र के साथ प्रस्तुत करना होगा। (ANNEXURE-I प्रोफार्मा निविदा दस्तावेज के पृष्ठ क्र. PR-1 पर दिया गया है)।
Unconditional Acceptance of AAI's Tender Conditions (ANNEXURE-I at Performa Page PR-1 of Tender Document) and scanned copy on e-Tender Portal.

B- तकनीकी बोली में निम्नलिखित शामिल है: Technical Bid containing the following :-

लिफाफा-I B:- (पूर्व अर्हता तथा तकनीकी बोली):- ठेकेदारों एवं फर्मों का अर्हता जरूरतें।

ठेकेदारों एवं फर्मों का अर्हता जरूरतें

Qualifying requirements of contractors / firms.

- i) एएआई की निविदा शर्तों की बिना शर्त स्वीकृति की स्कैन की गई प्रतिलिपी।
Scanned copy of Unconditional Acceptance of AAI's Tender Conditions

- ii) निविदाकार/ठेकेदार के पास स्थाई लेख संख्या (पैन) होना चाहिए |
Agency should have Permanent Account Number (PAN).
- iii) कम्पनी के लेटर हेड पर ब्लैकलिस्टिंग/डिबारमेन्ट के संबंध में अडरटेकिंग की स्कैन की गई प्रतिलिपि।
Scanned copy of 'Undertaking' regarding Blacklisting/Debarment on Company's Letter Head.
- iv) निविदाकार/ठेकेदार के पास वैध विद्युत ठेकेदारी लाइसेंस होना चाहिए।
Agency should have valid Electrical Contractor's License
- v) काम की आवश्यकता के अनुसार टेंडर को इंजीनियर इन चार्ज (ईआईसी) के परामर्श से समय अवधि के भीतर लक्ष्य प्राप्त करने और कार्य पूर्ण करने के लिए पर्याप्त संयंत्र और मशीनरी तैनात करनी चाहिए। निविदाकर्ता कम्पनी के लेटर हेड पर अडरटेकिंग प्रस्तुत करेगा।
Tenderer should deploy sufficient plant and machinery as per the requirement of work in consultation with the Engineer-in-Charge (EIC) to achieve the milestones/targets and overall completion within the time period. Tenderer shall submit scanned copy of 'undertaking' on Company's letter head.
- vi) प्रोप्रीएटी फर्म के अलावा अन्य कम्पनियां ऑथोराइजेशन लेटर/पॉवर ऑफ अटॉर्नी की स्कैन की हुई प्रति के साथ कम्पनी अधिनियम के तहत कम्पनी के निगमन प्रमाण पत्र, CIN/LLPIN कम्पनी के निदेशको का नाम और बोर्ड संकल्प की प्रति पॉवर ऑफ अटॉर्नी का सौंपने का अधिकार के बारे, के साथ प्रस्तुत करेगी।
Companies other than propriety firm shall submit, scanned copy of Authorization Letter/Power of Attorney along with copy of Certificate of incorporation of the company under Companies Act Showing CIN/LLPIN/Name of Directors of the company & copy of Board Resolution regarding Authority to assign Power of Attorney.
- vii) प्रोप्राइटी फर्म ऑथोराइजेशन लेटर /पावर ऑफ अटॉर्नी की स्कैन की हुई प्रति तभी प्रस्तुत करेगा जब निविदा प्रोप्राइटीर के अलावा किसी अन्य व्यक्ति द्वारा जमा की जाती है।
Proprietary firm shall submit scanned copy of Authorization Letter /Power of Attorney only if the tender is processed by a person other than proprietor.

VI. पीक्यू परफॉरमा विधिवत भरे।
PQ Performa duly filled.

- viii) उपयुक्त कक्षा में निविदा जारी करने की तिथि पर एजेंसी के पास वैध पंजीकरण होना चाहिए (पंजीकरण की वित्तीय सीमा को कार्य की अनुमानित लागत के अनुसार एक वर्ष के आनुपातिक मूल्य को कवर करना चाहिए) के पास सीपीडब्ल्यूडी / एमईएस / पी एंड टी / रेलवे / स्टेट पीडब्ल्यूडी / पीएसयू / नगर निगम और दिल्ली, मुंबई, चेन्नई और कोलकाता के विकास प्राधिकरणों और उपयुक्त पैन, ईपीएफ पंजीकरण ईएसआईसी पंजीकरण और जीएसटी पंजीकरण होना चाहिए।

Agency should have valid Registration on the date of issue of tender in appropriate class (financial limit of the registration should cover the proportionate value of one year as per estimated cost of the work) of CPWD / MES /P&T /Railway /State PWD /PSUs /Municipal Corporations & Development Authorities of Delhi, Mumbai, Chennai and Kolkata and having PAN, EPF Registration, ESIC Registration & GST registration. In case of specialized agencies, registration criteria shall not be applicable and only work experience criteria shall be applicable.

- ix) एजेंसी के पास पिछले सात वर्षों 31.03.2022 के तक " विमानपत्तन पर परिचालन क्षेत्र में विभिन्न स्थानों के लिए दोषपूर्ण एलटी केबल के प्रतिस्थापन "(संविदा के किसी चरण के कार्य/आंशिक रूप से पूर्ण किए गए कार्य पर विचार नहीं किया जाएगा। हालांकि पूर्वनिर्धारित चरणबद्ध कार्य जीएसटी के साथ स्वीकार्य होंगे।) के समान प्रकृति के कार्य रु 6,65,138/के कम से कम तीन कार्यों या रु 8,31,422/का कम से कम दो कार्यों या रु 13,30,275/का एक कार्य को सन्तोष जनक रूप के पूर्ण किए जाने का प्रमाण पत्र हो।

Should have satisfactorily completed (Phase / Part completion of the scope of work in a contract shall not be considered, however pre-determined phasing of the work with GST will be accepted) three works, each of Rs. 6,65,138 /- or two works, each of Rs. 8,31,422 /- or one work of Rs 13,30,275 /- in single contract of Similar nature of work "Replacement of defective LT cable of different locations in operational area at Airport." along with work order & schedule. During last seven years ending on 31.03.2022 in India.

“निष्पादन कार्यों का मूल्य 7 प्रतिशत वर्ष की साधारण दर पर वास्तविक मूल्य के काम को बढ़ाकर वर्तमान लागत स्तर पर लाया जाएगा, कार्य पूरा होने की तिथि से बोली प्रस्तुत करने की अंतिम तिथि तक गणना कि जायेगी”।

“The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of bid”.

- x) अनुभव के रूप में समान प्रकृति के कार्य का नियोजक का प्रमाण पत्र जिसमें करार के अनुसार कार्य की प्रकृति, कार्य पूर्णता की राशि, कार्य शुरुआत की तिथि, अनुबंध के अनुसार तथा वास्तविक कार्य पूर्ण होने की तिथि, कार्य आदेश संख्या तथा कार्य के संतोषजनक रूप से समाप्ति का प्रमाण पत्र दर्शित होगा। सरकारी/गैर सार्वजनिक क्षेत्र के उपक्रमों में किए गए कार्य का अनुभव प्रमाणपत्र जमा करने वाले प्रतिष्ठान को निर्धारित कार्यों के अनुभव प्रमाण पत्र के दावे के साथ में स्रोत पर कर कटौती का प्रमाण पत्र प्रस्तुत करना होगा।

Client certificate for experience should show the nature of work done, the value of work, date of start, date of completion as per agreement, actual date of completion and satisfactory completion of work. Firm should submit copy of Completion Certificate, Work Order, and Schedule of Quantities towards experience. Firms showing work experience certificate from non-government / non-PSU organizations should submit copy of tax deduction at sources certificate in support of their claim for having experience of stipulated value of work.

- xi) बोलीदाता के पास गत तीन वर्षों में किये गए कार्यों का औसतन वित्तीय टर्न ओवर (जिसकी अंतिम तारीख पिछले साल की 31 मार्च तक होगी) **4.99 लाख** का प्रमाण पत्र हो। आवेदन के साथ लाभ-हानि अकाउंट स्टेटमेंट तथा संक्षिप्त बैलेंस शीट की प्रतिलिपि जमा करना होगा। लगातार तीन वर्षों से घाटा में चलने वाले फर्म का आवेदन स्वीकार नहीं किया जायेगा।

Should have annualized average financial turnover of **Rs. 4.99 Lakh** against works executed during last three years ending 31st March of the previous financial year. As a proof, copy of Abridged Balance Sheet along with Profit and Loss Account Statement of the firm should be submitted along with the application. Firms showing continuous losses during the last three years in the balance sheet shall be Summarily rejected.

- xii) निविदाकारों को यू.डी.आई.एन. से उत्पन्न दस्तावेज जैसे बैलेंस शीट/टर्नओवर सर्टिफिकेट, वर्किंग कैपिटल सर्टिफिकेट (पिछले 5 वित्तीय वर्षों के दौरान किए गए कार्य और वर्तमान कार्य), नेट वर्थ सर्टिफिकेट, गैर-सरकारी के लिए स्रोत पर कर कटौती (टीडीएस) प्रमाण पत्र जमा करना होगा। सी.ए. द्वारा विधिवत प्रमाणित और यू.डी.आई.एन. रखने वाले एन.आई.टी. शर्तों के अनुसार कार्य आदि यू.डी.आई.एन. के बिना बोलीदाताओं द्वारा प्रस्तुत किए गए दस्तावेजों पर विचार नहीं किया जाएगा।

Tenderers will have to submit documents generated from UDIN such as Balance Sheet/Turnover Certificate, Working Capital Certificate (works done during last 5 financial years and work in hand), Net Worth Certificate, Tax Deducted at Source (TDS) for Non-Govt. Certificate has to be submitted. Work as per NIT Conditions duly certified by CA and having UDIN etc. documents submitted by the bidders without UDIN will not be considered.

- xiii) ईएमडी की राशि **Rs. 28,184/-** का ऑनलाइन डिपोजिट की रिसिप्ट / बैंक गारंटी के रूप में केवल राष्ट्रीकृत या किसी अनुसूचित बैंक से स्वीकार की जाएगी (लेकिन सहकारिता या ग्रामीण बैंक से नहीं)

EMD of the value of **Rs. 28,184/-** shall be accepted online through Payment Gateway on CPP Portal /Bank Guarantee form a Nationalized or any scheduled bank (but not from Co-Operative or Gramin bank).

AAI Bank & Account details for preparation of Bank Guarantee are as follows:

Name of Account Holder	: Airports Authority of India
Name of Bank	: State Bank of India
Bank Address	: HIHT Dehradun, Jolly Grant Airport Dehradun 248140 (UK)
IFSC Code	: SBIN0010580
Account No.	: 31869898517

Documents to be uploaded in Envelope-I B: Following digitally signed documents are to be uploaded in Envelope –I B.

- Copy of Registration Documents of contractor.
- Copy of Work Experience documents along with Completion certificates, Award Letters and Schedule of Quantities (SOQ) of requisite value as given above.

- iii. Copy of valid Electrical Contractor's License.
- iv. Copy of Permanent Account Number (PAN).
- v. Copy of GST registration document.
- vi. Copy of EPF & ESIC registration document.
- vii. Scanned Copy of duly filled PQ Performa / Check List.
- viii. Copy of UDIN generated Balance sheets and Profit & Loss accounts as on 31.03.2022, 31.03.2021 and 31.03.2020.
- ix. Power of Attorney / Authorization Letter regarding authority to sign the contract document.
- x. Digitally signed tender document.
- xi. Scanned copy of duly signed **undertaking** as per Annexure-II on page no. **PR2**.
- xii. Scanned copy of duly signed **Undertaking (For GST Compliance)** as per Annexure-III on page no. **PR3**.
- xiii. Scanned copy of affidavit towards **Payment of Minimum Wages & Black list / Debar** as per Annexure-IV on page no. **PR4**.

ईएमडी की वापसी / Refund of EMD

पात्रता/तकनीकी मानदंडों में अर्हता प्राप्त करने में विफल रहने वाले निविदाकारों को ईएमडी की वापसी उनकी अस्वीकृति के 7 दिनों के भीतर शुरू की जाएगी। सभी निविदाकारों के लिए जो अर्हता प्राप्त करते हैं और उनकी वित्तीय बोलियां खोली जाती हैं, एल-1 को छोड़कर ऐसे सभी निविदाकारों की ईएमडी की वापसी वित्तीय बोली खोलने के 7 दिनों की भीतर संसाधित की जाएगी।

The refund of EMD to tenderers, who fail to qualify in the eligibility/technical criteria, shall be initiated within 7 days of their rejection. For all tenderers who qualify and their financial bids are opened, the refund of EMD of all such tenderers except L-1 shall be processed within 7 days of opening of the financial bid.

लिफाफा-II:- सीपीपी पोर्टल के द्वारा वित्तीय ई बोली।

Envelope-II : - The Financial e-Bid through CPP Portal.

सभी दरें प्रदान किए गए प्रारूप में उद्धृत की जाएंगी और कोई अन्य प्रारूप स्वीकार्य नहीं है। यदि निविदा बोली के साथ एक मानक बीओक्यू प्रारूप के रूप में मूल्य बोली दी गई है, तो वही डाउनलोड किया जाना है और सभी निविदाकर्ता द्वारा भरा जाना है। निविदाकर्ताओं को बीओक्यू डाउनलोड करना है और इसे खोलना है और नीले रंग के सैल में (अनप्रोटेक्टेड) उनसे संबंधित वित्तीय उद्धरण और अन्य विवरण (जैसे टेडर का नाम) का नाम पूर्ण करना है। कोई अन्य सैल नहीं बदला जाना चाहिए। एक बार विवरण पूरा हो जॉन के बाद, निविदाकार को फाइल नाम बदले बिना इसे सहेजना चाहिए और इसे ऑनलाइन सबमिट करना चाहिए। यदि बीओक्यू फाइल को निविदाकर्ता द्वारा संशोधित किया जाना पाया जाता है, तो बोली अस्वीकार कर दी जाएगी।

All rates shall be quoted in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the tenderers. Tenderers are required to download the BOQ file, open it and complete the blue coloured (unprotected) cells with their respective financial quotes and other details (such as name of the tenderer). No other cells should be changed. Once the details have been completed, the tenderer should save it and submit it online, without changing the file name. If the BOQ file is found to be modified by the tenderer, the bid will be rejected.

1 .बोली प्रस्तुत करना / Bid Submission:-

निविदाकर्ता केवल सीपीपी पोर्टल: <https://etenders.gov.in/eprocure/app>. पर अपना आवेदन प्रस्तुत करेगा। निविदाकर्ता/ठेकेदार को ऑनलाइन जमा करने के लिए निविदा दस्तावेज में दिए गए निर्देशों का पालन करने की सलाह दी जाती है। निविदाकर्ता को पैरा 2 के अनुसार स्कैन किए गए दस्तावेजों की डिजिटल हस्ताक्षरित फाइल को अपलोड करना है। बोली दस्तावेजों को काले और सफेद विकल्प के साथ 100 डीपीआई के साथ स्कैन किया जा सकता है, जो स्कैन के आकार को कम करने में मदद करता है।

The tenderer shall submit their application only at CPP Portal: <https://etenders.gov.in/eprocure/app>. Tenderer/Contractor are advised to follow the instructions provided in the tender document for online submission of bids. Tenderers are required to upload the digitally signed file of scanned documents as per Para 2. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

ऊपर निर्दिष्ट के अलावा अन्य स्थान पर आवेदन अपलोड करने पर विचार नहीं किया जाएगा। आवेदन की हार्ड कॉपी पर विचार नहीं किया जाएगा।

Uploading of application in location other than specified above shall not be considered. Hard copy of application shall not be entertained.

2. व्यापारिक संबंध रखने वाले एक निविदाकर्ता द्वारा एक से अधिक निविदा प्रस्तुत नहीं की जाएगी। निविदाएं एक निविदाकार या निविदाकारों द्वारा प्रस्तुत नहीं की जाएगी जिनके पास व्यावसायिक संबंध है। किसी भी परिस्थिति में पिता और उसके बेटे या अन्य करीबी रिश्तेदार, जिनके व्यावसायिक संबंध एक दूसरे से हैं (यानि जब एक या एक से अधिक पार्टनर/डायरेक्टर सामान हों) को समान अनुबंध के लिए अलग प्रतियोगियों के रूप निविदा के लिए अनुमति नहीं दी जाएगी। इस शर्त का उल्लंघन होने पर दोनों पक्षों की निविदाओं को निरस्त किया जाएगा।

Not more than one tender shall be submitted by one tenderer having business relationship. Under no circumstances will father and his son(s) or other close relations who have business relationship will one another (i.e. when one or more partner (s)/director(s) are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable to rejection.

3. निविदाकर्ता जिन्होंने सेंट्रल पब्लिक प्रोक्योरमेंट पोर्टल वेबसाइट <http://etenders.gov.in/procurement/app> से निविदा डाउनलोड किया है, किसी भी तरीके डाउनलोड की गई बोली टेम्पलेट सहित निविदा फार्म में छेड़छाड़ /संशोधन नहीं करेगा। यदि किसी को किसी भी तरीके से छेड़छाड़ /संशोधन करते हुए पाया जाता है, तो निविदा को पूरी तरह से खारिज कर दिया जाएगा और निविदाकर्ता को एएआइ के साथ व्यापार करने से प्रतिबंधित किया जाएगा।

Tenderer who has downloaded the tender from Central Public Procurement Portal (CPPP) website <http://etenders.gov.in/procurement/app>, shall not tamper/modify the tender form including downloaded price bid template in any manner. In case if the same is found to be tampered /modified in any manner, tender will be completely rejected and tenderer is liable to be banned from doing business with AAI.

4. निविदा खोलने की प्रक्रिया निम्नलिखित है / Bids Opening Process is as below:-

लिफाफा – I निविदा प्रसंस्करण शुल्क, ईएमडी, तकनीकी बोली और पूर्व योग्यता):

Envelope-I (Tender processing fee, EMD, Technical bid and Pre-qualification):

लिफाफा I- जिसमें पैरा 2 (ए), (बी) और (सी) के अनुसार (निविदाकारों द्वारा अपलोड किए गए) दस्तावेज शामिल हैं, को क्रिटिकल डाटा शीट में उल्लिखित तिथि और समय पर खोला जाएगा।

Envelope-I containing documents as per Para 2 (A), (B) and (C) (uploaded by the tenderers) shall be opened on date & time mentioned in CRITICAL DATA SHEET.

यदि बोली लगाने वाले के पास काम के बोली दस्तावेज से सम्बन्धित कोई प्रश्न है, तो उन्हें स्पष्टीकरण मांगने के लिए सीपीपी पोर्टल पर क्लेरिफिकेशन का उपयोग करना चाहिए। इस संबंध में संचार का कोई अन्य माध्यम स्वीकार नहीं किया जाएगा।

If the bidder has any query related to the Bid Document of the work, they should use 'Seek Clarification on CPP Portal to seek clarifications. No other means of communication in this regards shall be entertained.

यदि लिफाफा 1 में अपने अपलोड किए गए दस्तावेजों में कमी के बारे में निविदाकर्ता से किसी भी स्पष्टीकरण की आवश्यकता है तो, सीपीपी पोर्टल या ईमेल के माध्यम से प्रदान करने के लिए कहा जाएगा। निविदाकर्ता, एएआई द्वारा निर्दिष्ट समय के भीतर, अपेक्षित स्पष्टीकरण/दस्तावेज अपलोड करेगा, विफल होने पर यह माना जाएगा कि बोली लगाने वाले के पास जमा करने के लिए कुछ भी नहीं है और तदनुसार बोली का मूल्यांकन किया जाएगा।

If any clarification is needed from the tenderer about the deficiency in his uploaded documents in Envelope-I, he will be asked to provide it through CPP portal or email if required. The tenderer shall upload the requisite clarification/documents within time specified by AAI, failing which it shall be presumed that bidder does not have anything to submit and bid shall be evaluated accordingly.

निविदाकर्ताओं को उनकी बोलियों की स्वीकृति/अस्वीकृति के बारे में सूचना सीपीपी पोर्टल के माध्यम से दी जाएगी।

The intimation regarding acceptance/rejection of their bids will be intimated to the tenderers through CPP portal.

लिफाफा –II (वित्तीय बोली) / Envelope-II (Financial Bid):

निविदाकर्ताओं, जो की तकनीकी मापदंडों को पूरा करते हैं और आवश्यक अर्हताएँ पूर्ण करते हैं, का लिफाफा –II जिसमें वित्तीय बोली है, को होने पर क्रिटिकल डाटा शीट में उल्लिखित तिथि और समय पर खोला जाएगा। यदि लिफाफा –II (वित्तीय बोली) खोलने की दिनांक और समय को बदलने की आवश्यकता है तो, उसे सीपीपी पोर्टल के माध्यम से सूचित किया जाएगा।

Envelope –II containing financial bid of the tenderers found to be meeting the technical criteria and qualifying requirements shall be opened on date & time mentioned in CRITICAL DATA SHEET. (In case the date and time for opening of Envelope-II (Financial Bid) is required to be changed, the same shall be intimated through CPP Portal).

5. एएआई बिना कोई कारण बताए किसी भी या सभी आवेदनो को स्वीकार या अस्वीकार करने का अधिकार सुरक्षित रखता है।

एएआई बिना किसी कारण बताए किसी भी स्तर पर निविदा प्रक्रिया को बन्द करने का अधिकार रखता है।

AAI reserves the right to accept or reject any or all applications without assigning any reasons. AAI also reserves the right to call off tender process at any stage without assigning any reason

6. एएआई उन कामकाजी एजेंसियों को हटाने का अधिकार सुरक्षित रखता है, जिनकी चल रही परियोजना (कार्य) का प्रदर्शन गुणवत्ता से नीचे है और आमतौर पर खराब है और एएआई या केन्द्रीय/राज्य सरकार के किसी विभाग/पीएसयू/वर्ल्ड बैंक/एडोबी द्वारा निरोधक/अस्थायी/स्थायी डिबारमेन्ट/ब्लैक लिस्टिंग का पत्र जारी किया गया है। एएआई किसी भी स्तर पर एजेंसी द्वारा प्रस्तुत कंटेनर को सत्यापित करने का अधिकार सुरक्षित रखता है (कार्य के पहले या बाद में)। यदि किसी भी स्तर पर, आवेदक द्वारा प्रस्तुत की गई कोई भी जानकारी/दस्तावेज गलत पाए जाते हैं या उनमें कुछ विसंगति है जो फर्म को अयोग्य घोषित करती है तो एएआई निम्नलिखित कार्रवाई करेंगे:

AAI reserve the right to disallow working agencies whose performance at ongoing project (s) is below par and usually poor and has been issued letter of restrain/Temporary / Permanent debarment/black listing by any department of AAI or Central/State Govt. Depts/PSUs/World Bank/ADB etc. AAI reserves the right to verify the credential submitted by the agency at any stage (before or after the award the work). If at any stage, any information / documents submitted by the applicant is found to be incorrect / false or have some discrepancy which disqualifies the tenderer then AAI shall take the following action:

a) निविदाकर्ता द्वारा जमा की गई ईएमडी की पूरी राशि को जब्त की जाएगी।

Forfeit the entire amount of EMD submitted by the tenderer.

b) निविदाकार किसी अन्य उपयुक्त संविदात्मक/ कानूनी कार्रवाई के अलावा, एएआई में निविदा से डिबारमेन्ट के लिए उत्तरदायी होगा।

The tenderer shall be liable for debarment from tendering in AAI, including termination of the contract apart from any other appropriate contractual/legal action.

7. कंसोर्टियम/संयुक्त उद्यम कम्पनियों को अनुमति नहीं दी जाएगी।

Consortium / JV companies shall not be permitted.

8. निविदा स्वीकृति की तिथि पर केन्द्रीय सार्वजनिक क्षेत्र के उपक्रमों को खरीद वरीयता दी जाएगी, जो कि भारत सरकार के प्रचलन निर्देशों के अनुसार लागू होगा।

Purchase preference to Central Public Sector Undertaking shall be applicable as per the directive of Govt.of India prevalent on the date of acceptance.

9. क्योंकि यह कार्य अनुबंध है, इसलिए इस काम में MSME/MSE को दिए गए लाभ प्रदान नहीं किए जाएंगे।

Since it is works contract, hence benefits extended to MSME/MSE shall not be provided in this work.

10. नोट:- हिंदी तथा अंग्रेजी संस्करण में अंतर पाए जाने पर अंग्रेजी संस्करण मान्य होगा |

Note :- If there any discrepancy is observed in Hindi and English version, the English version will be considered.

सहायक महाप्रबन्धक (अभि.-वि) / Assistant General Manager (Engg-E)

कृते :- अध्यक्ष भा.वि.प्रा./For and on behalf of the Chairman

भारतीय विमानपत्तन प्राधिकरण/ Airports Authority of India

Instructions to Bidders for Online Bid Submission

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.

More information useful for submitting online bids on the CPP Portal may be obtained at: <http://etenders.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the Procurement module of the Central Public Procurement Portal (URL: <http://etenders.gov.in/eprocure/app>) by clicking on the link “**Online bidder Enrollment**” on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique user name and assign a password for their accounts.
- 3) 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) 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/ nCode/ eMudhra etc.), with their profile.
- 5) 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 DSC's to others which may lead to misuse.
- 6) Bidder then logs into the site through the secured log-in by entering their user ID/password and the password of the DSC/ e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) 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, where in 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) 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) 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.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) 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) 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/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) 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 “My Space” or “Other Important Documents” are 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 bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should login to the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as “online” to pay the tender fee/EMD as applicable and enter details of the instrument.
- 4) Bidder should be submitted receipt of EMD as per e-NIT
- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white coloured (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.
- 6) 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.
- 7) 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. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to a symmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 8) The uploaded tender documents become readable only after the tender opening by the Authorized bid openers.
- 9) Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), 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.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) 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) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24 x 7 CPP Portal Helpdesk.

[CPP under GePNIC HelpDesk Services](#)

1) For any technical queries related to CPP portal, please call the Helpdesk Tel: 0120-4200462, 0120-4001002. Mobile: 918826246593

E-Mail: support-eproc@nic.in

Note- Bidders are requested to kindly mention the URL of the Portal and Tender Id in the subject while emailing any issue along with the Contact details. For any issues/clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority / Bid Manager.

2) For any Issues/Clarifications relating to the publishing and submission of AAI tender(s)

a. In order to facilitate the Vendors/ Bidders as well as internal users from AAI, Helpdesk services have been launched between 0800 - 2000 hours for the CPP under GePNIC <https://eprocure.gov.in>. The help desk services shall be available on all working days (Except Sunday and Gazetted Holiday) between 0800 – 2000 hours and shall assist users on issues related to the use of Central Public Procurement Portal (CPP).

b. Before submitting queries, bidders are requested to follow the instructions given in “Guidelines to Bidders” and get their computer system configured according to the recommended settings as specified in the portal at “System Settings for CPP”.

3) In case of any issues faced, the escalation matrix is as mentioned below:

SL No.	Support Persons	Escalation Matrix	E-Mail Address	Contact Numbers	Timings*
1.	Help Desk Team	Instant Support	eprochelp@aai.aero	011-24632950, Ext-3512 (Six Lines)	0800-2000Hrs. (MON-SAT)

*The Helpdesk services shall remain closed on all Govt. Gazetted Holidays.

4) The above mentioned help desk numbers are intended only for queries related to the issues one – procurement portal and help needed on the operation of the portal. For queries related to the tenders published on the portal, bidders are advised to contact concerned Bid Manager of AAI.

ANNEXURE-A**PQ PROFORMA / CHECK LIST**

(To be submitted by applicant along with Tender Application)

Name of work: Misc. Capital works in operational and non-operational area at Dehradun Airport. (SH:- Replacement of defective LT cable of different locations in operational area at Dehradun Airport.)

Ref. No.	Details of Bidder & Qualifying Criteria	Particulars	Remarks on Uploaded documents
1	2	3	4
1.	Name and address of the firm / Email Address & Telephone No.	Name: Address: Email id: Contact No.	
2.	<u>Details of Registration</u>		Enlistment /Registration Certificate of the Agency/Firms
(i)	(a) Organizations/Deptt: (b) Class of Registration & Upper Tendering Limit (c) Valid upto :	Self-attested copy uploaded YES/NO
(ii)	Whether applying as specialized agency		YES / NO
3.	Permanent Account No. (PAN)		Copy of PAN card uploaded YES/NO
4.	GST Registration No. and valid upto		Signed scanned copy uploaded YES / NO
5.	EPF Registration No.		Self –attested copy of EPF indicating validity date, name (office) and registration no. uploaded YES / NO
6.	ESIC Registration No.		Self –attested copy of ESIC indicating validity date, name (office) and registration number uploaded. YES / NO
7.	Electrical Contractor's License No. & Valid Upto		Self –attested copy of Electrical License indicating validity date, name and address uploaded. YES / NO

8.	Certificate from clients of having satisfactorily completed Three works, each of Rs. 6,65,138/- or two works, each of Rs. 8,31,422/- or one work of Rs. 13,30,275/- in single contract of similar nature of work “ Replacement of defective LT cable of different locations in operational area at Airport ” during last seven years ending on 31.03.2022 in India.	Details of the Three/Two/One work(s) as applicable	
WORK NO. 1			Copy of certificate Uploaded
(a)	Name of Client		YES/NO
(b)	Name of Work		YES/NO
(c)	Stipulated Date of Completion		YES/NO
(d)	Actual Date of Completion		YES/NO
(e)	Completion Cost		YES/NO
(f)	Work Order/ Agreement No		YES/NO
(g)	Copy of Work Order with BOQ		YES/NO
(h)	TDS Amount, if applicable		YES/NO
(i)	TDS Certificate		YES/NO
WORK NO. 2			
(a)	Name of Client		YES/NO
(b)	Name of Work		YES/NO
(c)	Stipulated Date of Completion		YES/NO
(d)	Actual Date of Completion		YES/NO
(e)	Completion Cost		YES/NO
(f)	Work Order/ Agreement No		YES/NO
(g)	Copy of Work Order with BOQ		YES/NO
(h)	TDS Amount, if applicable		YES/NO
(i)	TDS Certificate		YES/NO

WORK NO. 3			
(a)	Name of Client		YES/NO
(b)	Name of Work		YES/NO
(c)	Stipulated Date of Completion		YES/NO
(d)	Actual Date of Completion		YES/NO
(e)	Completion Cost		YES/NO
(f)	Work Order/ Agreement No		YES/NO
(g)	Copy of Work Order with BOQ		YES/NO
(h)	TDS Amount, if applicable		YES/NO
(i)	TDS Certificate		YES/NO
10.	TURNOVER: (Annualized average financial turnover equivalent to Indian Rupees 4.99 Lakh during the last three years.) Balance Sheet Profit & Loss	Year INR (inLacs) 2019-20 2020-21 2021-22 Average :	Copy of Annual report i.e. Abridged balance sheet and profit & loss a/c for the last three year Self-attested copy uploaded YES / NO
11	T&P List		Signed scanned copy uploaded YES/NO
12.	(a) EMD paid		YES / NO
	(b) If seeking for exemption of EMD, enclose documents in support.		Scanned of NSIC / MSME valid Registration Certificate uploaded and also hard copy of the same deposited to the Bid Manager. YES / NO
	(c) Bank Draft/Banker's Cheque / Bank Guarantee	DD / BC No: Date: Amount:	Scanned copy of Bank Draft/Banker's Cheque/ Bank Guarantee uploaded and also hard copy of the same alongwith Letter of understanding from the Depositor to Bank to be deposited to the Bid Manager before due date. YES / NO
13.	Unconditional Acceptance of AAI's Tender Conditions as per Annexure -		Scanned copy of duly signed and stamped unconditional acceptance

C-Nil

I-Nil

O-Nil

Ow-Nil

	I (For Envelope-I)		letter uploaded on CPP Portal- YES / NO
14.	Declaration for genuineness of documents	Agency has to submit a declaration as provided in check list along with the application for genuineness of documents submitted	Signed scanned copy uploaded YES / NO
15.	Whether experience from private clients?	Non Govt. / Non PSU organizations	Scanned TDS Certificates of stipulated value of works from clients copy uploaded YES / NO
16.	PQ Performa / Check List		Signed scanned copy uploaded YES / NO
17.	Tender Fees		YES / NO
		DD / BC No: Date: Amount:	Scanned copy of Tender Fee uploaded on CPP Portal.
18.	Undertaking as per Annexure - II		Scanned copy of duly signed and stamped Undertaking uploaded YES / NO
19.	Undertaking (for GST Compliance) as per Annexure - III		Scanned copy of duly signed and stamped Undertaking (for GST Compliance) uploaded YES / NO
20.	Affidavit towards Payment of Minimum Wages& Black list / Debar as per Annexure - IV		Scanned copy of duly signed and stamped Affidavit towards payment of minimum wages& black list/debar uploaded YES / NO
21.	Details of any other information whether firm is MSME.		Confirm copy of registration document enclosed. Yes / No. YES / NO
22.	Digitally signed Tender Document		YES / NO
23.	Price /Financial E-Bid		Uploaded BOQ file duly filled in required parameter.
24.	Details of any other information		

DECLARATION FOR GENUINENESS OF DOCUMENTS

I, (_____) hereby declare that the documents submitted/enclosed are true and correct. In case any document at any stage found fake/incorrect, my EMD shall be forfeited.

Place: _____

Date: _____

Signature of the contractor/
Authorized Signatory with rubber stamp

AIRPORTS AUTHORITY OF INDIA
NOTICE INVITING TENDER

1. Item rate e-tenders are invited on behalf of the Airports Authority of India for the work as mentioned **at Page No.130 of GCC**. The estimated cost of the work is mentioned **at Page No 130 of GCC**. This estimate, however, is given merely as rough guide.
2. The Tenders shall be in the prescribed Form.
3. The works are required to be completed within the period as mentioned **at Page No. 132 of GCC**.
4. Not more than one tender shall be submitted by a contract or by a firm of contractors. No two or more concerns in which an individual is interested as proprietor and/or partner shall tender for the execution of same works. If they do so, all such tenders shall be liable to be rejected.
5. The Accepting Authority as mentioned at **Page No. 131 of GCC** shall be the Accepting Officer here in after, referred to as such for the purpose of this contract.
6. **Tender documents may be downloaded from CPP portal: <http://etenders.gov.in/eprocure/app>**. To participate in the tender/to submit the tender document, the Bidders must pay stipulated tender fee in the form of Demand Draft drawn in favour of Airports Authority of India payable at Dehradun.
7. Bidders 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 (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require, working conditions including space for stacking of materials, installation of T&P, rates of various materials to be incorporated in works, conditions affecting accommodation and movement of labours etc. and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or effect their Tender. A bidder 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.

8. Submission of a Tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the works to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by Airports Authority of India, local conditions, local material rates and other factors bearing on the execution of the works.
9. All rates shall be quoted in Indian Rupees in the **CPP portal:** <http://etenders.gov.in/eprocure/app..>
10. In the case of item rate Tenders only rates quoted shall be considered. Any Tender containing percentage below/above the rates quoted is liable to be rejected.
11. Tenders shall be uploaded by bidder up to the date and time as mentioned in **Critical Dates on Page No. eNIT-3** and shall be opened on the date and time as mentioned **therein**.
12. Earnest Money of stipulated amount receipt as mentioned at **Page No. 130 of GCC** should be uploaded on CPP Portal from nationalized bank but not from cooperative/Gramin bank as per proforma on ~~Appendix – I & IA on Pages 92 to 94 of GCC.~~
13. Notification of Award of contract will be made in writing to the successful Bidder by the Accepting Authority or his representative. The contract will normally be awarded to the qualified and responsive Bidder offering lowest evaluated bid in conformity with the requirements of the specifications and contract documents and the Accepting Authority shall be the sole judge in this regard. The Accepting Authority does not bind himself to accept the lowest or, any tender or to give any reason for his decision.
 - a. A responsive **bidder** is one who submits the financial bid and accepts all terms and conditions of the tender document.
 - b. A **major modification** is one which affects in anyway the quality, quantity and period of completion of the work or which limits in any way the responsibilities or liabilities of the Bidder or any right of AAI, as

C-Nil

I-Nil

O-Nil

Ow-Nil

required in the specifications and contract documents. Any modification in the terms and conditions of the Tender which are not acceptable to AAI shall also be treated as a major modification.

- c. A Bidders shall submit a responsive bid, failing which his Tender will be liable to be rejected.
- d. The Accepting Authority reserves to himself the right of accepting the whole or any part of the Tender and Tenderer shall be bound to perform the same as this quoted rates.
- e. A tender is determined as not responsive, if tender is submitted incomplete, annexure is not filled up, unconditional acceptance letter, power of attorney, ~~and integrity pact~~ not found in proper form, such tenders are liable to be rejected by AAI.
- f. Once the tenderer has given unconditional acceptance to AAI's tender conditions in its entirety, he is not permitted to put any remark(s)/condition(s) except unconditional rebate on quoted rates, if any in/along with tender enclosed in Financial Bid. All rates shall be quoted in the price bid section (Envelope-II).
- g. In case the condition 13(f) mentioned above is found violated after opening Technical Bid, the tender shall be summarily rejected and AAI shall, without prejudice to any other remedy, be at liberty to forfeit the 10% of said earnest money.
- h. Only those tenderers who are meeting the eligibility criterion spelt out in Notice inviting e-tender and their Envelope-I is accepted by AAI their (Envelope-II) shall be opened. The Pre-qualification documents of Technical Bid documents will be examined and their techno-commercial bid shall be evaluated to determine whether they are complete, meets tender requirements, free from computational errors, whether the data have been properly filled up, and whether there requisite documents as detailed have been submitted in conformity to the Tender specifications, drawings and conditions.
- i. In case tenderer submits manufacturer's technical catalogue in the Technical Bid the same will be considered only for reference. Hence tenderer shall fill up the technical data with due care.

14. On acceptance of Tender earnest money will be treated as part of the security deposit.
15. Airports Authority of India will return the earnest money where applicable to every unsuccessful bidder except as provided in the Tender documents.
16. Canvassing in connection with Tenders is strictly prohibited and the Tenders submitted by the Tenderers who resort to canvassing will be liable to rejection.
17. The Bidders shall not be permitted to tender for works in Airports Authority of India Engineering Department, responsible for award and execution of contracts, in which his near relative is posted as Manager Finance & Accounts or Sr. Officer or as an engineer in any capacity. 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 Airports Authority of India. Any breach of this condition by the contractor would render him liable to be debarred from Tendering for next 2 years.
18. The contractors shall give a list of AAI employees related to him.
19. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of Airports Authority of India/Govt. of India is allowed to work as a contractor for a period of two years of his retirement from Airports Authority of India/Government service, without the previous permission of Airports Authority of India/Govt. of India. The contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Airports Authority of India/Govt. of India as aforesaid be for submission of the Tender or engagement in the contractor's service.
20. The Tender for works shall remain open for acceptance for a **period of 90 (ninety) days** from the date of opening of financial bid. If any bidder withdraws his Tender before the said period or makes any modifications in the terms and conditions of the Tender which are not acceptable to the Department, then Airports Authority of India shall without prejudice to any other right or remedy, be at liberty to forfeit the full said earnest money absolutely.

21. On acceptance of the Tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge, shall be communicated to the Engineer-in-Charge.
22. If at any stage, any information/documents submitted by the applicant is found to be incorrect/false or have some discrepancy which disqualifies the firm then the AAI shall take the following action:
 - a) Forfeit the **entire amount of EMD** submitted by the firm.
 - b) The agency shall be liable for restrained from tendering in AAI, apart from any other appropriate contractual/legal action.
23. The site for the work may be made available in full or in part as per the NOTAM and as decided by Engineer-In-Charge.
24. Last date and time of Submission of E-bids (Envelope I, II) as per **eNIT**.
25. **MODE OF SUBMISSION OF TENDERS:**

Following 2 envelopes shall be submitted through online at CPP portal by the bidder.
26. **Envelope – I:** Containing the scanned copy of Unconditional Acceptance of AAI's Tender Conditions, copy of payment receipt towards Tender Fee and EMD mentioned at page no. **eNIT-3**.
27. **Envelope- I:** Prequalification Documents & Technical Bid containing documents as mentioned as per **eNIT**
28. **Envelope-II:** The Financial Bid through CPP portal only.
29. **Clarifications:**
 - 29.1 If the bidder has any query related to the Tender Document of the work they should use 'Clarification' tab in CPP-tendering portal to seek clarifications. No other means of communication in this regards shall be entertained. Last date and time for making query is as per Page **eNIT-2**.

29.2 If any clarification is needed by AAI from the bidder about the deficiency in his uploaded documents in Envelope-I, Envelope-II and Envelope-III, they will be asked to provide it through CPP-tendering portal. The bidder shall upload the requisite clarification/documents within specified time of receipt of such request from AAI, failing which tender will not be considered for the subsequent stages.

29.3 Once the bidder has submitted the digitally signed documents as per NIT along with unconditional acceptance as an attachment, he is not permitted to upload any additional file or put any remark(s)/conditions(s) in/along with the Tender Document.

30. In case condition 29 above is found violated, the tender shall be rejected.

31. **Bids Opening Process:**

a. **Envelope-I:** Envelope-I shall be opened on the date as mentioned in **Critical Date Sheet at page no. eNIT-3**. The intimation regarding acceptance/rejection of their bid will be intimated to the contractors/firms through CPP-tendering portal only.

b. **Envelope-I:** The date of opening of PQ /Technical bids of those contractors/firms found to be meeting the qualifying requirements as per Envelope-I, shall be put in tendering portal later on.

c. **Envelope -II:** The date of opening of the financial bids of the contractors/firms found to be meeting the qualifying requirements and technical criteria as per Envelope-II, shall be put in CPP-tendering portal later on.

d. The successful Tenderer/contractor, on acceptance of his Tender by the Accepting Authority, shall within 15 days from the date of award of work sign the contract consisting of Notice inviting Tenders, General conditions of contract, special/additional condition, General and technical specifications, Tender conditions as issued at the time of invitation of Tender and acceptance thereof with any correspondence leading there to.

32. **~~SUBMISSION OF BANK GUARANTEE~~**

~~The agency shall advise the branch of the bank Issuing Bank Guarantee to send the original Bank Guarantee directly to the Airports Authority of India (AAI) under Registered Post (A.D) / Speed Post. However, in exceptional~~

~~cases as in case of EMD, where the guarantee is to be handed over to the Contractor for any genuine reasons, the branch shall immediately send by Registered Post (A.D) / Speed Post a stamped duplicate copy of the guarantee directly to the AAI with a covering letter with request to compare the same with the original received from their Contractor and confirm that it is in order. The agency shall also advise the Issuing bank branch to incorporate the address etc. of the Regional/Controlling Branch of the issuing Branch in a suitable space in the Bank Guarantee. Letter of Undertaking from the Depositor to Bank to be submitted along with Bank Guarantee to Airports Authority of India in the Performa as per **Appendix – I & XI-A on page 92 & 110 of GCC.**~~

~~The agency shall also advise the issuing bank branch that whenever any letter is issued by AAI to the concerned Bank Branch for confirmation of having issued the guarantee, Branch must send the confirmation letter to the concerned authorities promptly.~~

33. All applicable taxes, duties, levies royalty, Construction Employee Welfare Cess or any other duty levied by Custom Authorities in respect of import or any materials or any other tax on material, labour, services or contract in respect of this work contract including payment to local/Govt./Statutory authorities as applicable, shall be payable by the contractor and Airports Authority of India will not entertain any claim whatsoever in this respect. Construction Employee Welfare Cess will be deducted at the time of making payment of running account bill as per prevailing rate soft he respective states. Nothing extra will be paid by AAI in this respect. GST shall be paid to the contractor for any taxable supply/service against a valid tax invoice as per terms & conditions of the contact.
34. Tenderer should download the Tender Document or any other file or “Amendments/Corrigendum” which are uploaded in the CPP-tendering portal and upload the digitally signed files of the same in CPP-tendering portal. If files were found to be uploaded in sections other than specified above, tenders will be summarily rejected.
35. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other form at is acceptable. If the price bid has been given as a standard BOQ form at with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the Blue 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 file name. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

36. Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), 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.

37. **Rates to be quoted in the portal, up to two decimal places only.** In case no rate has been quoted for any item/items, it will be presumed that the contractor has included the cost of this/these item(s) in other item(s) and rate for such item(s) will be considered as zero and work will be required to be executed accordingly. Bill of Quantities in the form of excel sheet will be issued on request. So that contractors are able to calculate the total quoted amount easily. This sheet is not required to be submitted/ uploaded in the e-tendering portal along with the tender document.

38. **Purchase Preference to Public Enterprises**

The Accepting Authority reserves to himself the right to allow to the public enterprises purchase preference facilities as admissible under the existing policy of government of India on the date of opening of tender.

39. ~~**Exemption from paying tender fees & Earnest Money Deposit**~~

~~a) Micro and Small Enterprises (MSEs) registered with District Industries Centers or Khadi and Village Industries commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicraft and Handloom or any other body specified by the Ministry of Micro, Small and Medium Enterprises as MSMED Act 2006, for goods produced and service rendered shall be issued Tender Documents free of cost and shall be exempted from paying Earnest Money Deposit (EMD).~~

~~b) Price Preference: The price preference to MSEs shall be applicable as per prevailing government norms/public procurement policy.~~

AMENDMENTS

Clause No. 15 :

Cancellation of Contract in full or in parts : If the contractor

- (a) At any time makes default in proceeding with the works with due diligence and continues to do so after a notice in writing of 7 days from the Engineer-in-charge; or
- (b) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-charge; or
- (c) Fails to complete the works or items of work with individual dates of completion, on or before the date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-charge; or
- (d) Shall offer or give or agree to give to any person in AAI's service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or fore bearing to do or for having done or fore borne to do any act in relation to the obtaining or execution of this or any other contract for AAI; or
- (e) Shall enter into a contract with AAI in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof of have previously been disclosed in writing to the accepting authority/Engineer-in-charge; or
- (g) Shall obtain a contract with AAI as result of ring tendering or other non-bonafide methods of competitive tendering; or

(h) Being an individual, or in a firm, any partner thereof, shall at anytime be adjudged insolvent or have receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any insolvency act for the time being in force or make any conveyance or assignment of his effective or composition or arrangement for force or make any conveyance or assignment of his effective or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or

(i) Being a company, shall pass a resolution of the court shall and order for the liquidation of its affairs, or a receiver or manager on behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or

(j) Shall suffer an execution being levied on his good and allow it to be continues for a period of 21 days; or

(k) Assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the works, shall not be deemed to be subletting) or attempts to assign, transfer or sublet the entire works or any portion thereof without the prior written approval of the Accepting Authority, the Accepting Authority may, without prejudice to any other right to remedy which shall have accrued or thereafter to AAI by written notice cancel the contract as a whole or only such items of work in default from the contract.

The Accepting authority shall no such cancellation have powers to:

- (i) Terminate the rate contract and debar the contractor to quote for any work in AAI for minimum period of two years; and/or
- (ii) Take possession of the site and any material constructional plant implements store etc. thereon; and/or
- (iii) Carry out the incomplete work by any means at the risk and cost of the contractor.

On cancellation of the contract in full or in part the Engineer-in-Charge shall determine what amount, if any, is recoverable from the contractor for completion of the works or part of the works or in case the works or part of the

works in not to be complete the loss or damage suffered by AAI by determining the amount, credit shall be given to the contractor for the value of the work executed by him up to the time of cancellation, the value of contractor's materials taken over and incorporated in the work, and use of tackle and machinery belonging to the contractor.

Any excess expenditure incurred or to be incurred by AAI in completing the works or part of the works or the excess loss or damage suffered or may be suffered by AAI or aforesaid after allowing such credit shall be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient, the Contractor shall be called upon in writing to pay the same within 30 days.

If the contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractor's unused materials, constructional plant, implements, temporary buildings etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter, there be any balance outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract.

Any sums in excess of the amounts due to AAI and unsold materials, constructional plant etc. shall be returned to the contractor, provided always that if cost or anticipated cost of completion by AAI of the works or part of the works is less than the amount which the contractor would have been paid had be completed the works or part of the works, such benefit shall not accrue to the contractor.

Clause No.39 :

Termination of Contract for Death : If the contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the contractor is a partnership concern and one of the partners dies then unless the Accepting Authority is satisfied that the legal representative of the individual contractor or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the contract, the Accepting Authority shall be entitled to cancel the contracts as to its incomplete parts without AAI being in any way liable to payment of any compensation to the estate of the deceased contractor and/or to the surviving partners of the contractor's firm on account of the cancellation of the contract. The decision of the Accepting Authority that the legal representative of the deceased contractor or the surviving partners of the contractor's firm cannot carry out the complete the contract shall be final and binding on the parties. In the event of such cancellation, AAI shall not hold the estate of the deceased contractors and/or the surviving partners of the contractor's firm liable in damages for not completing the contract.

ANNEXURE - I

**ACCEPTANCE LETTER
(Refer of Notice Inviting Tender)**

To

**Asstt. Gen. Mgr. (Engg-E)
Airports Authority of India,
Dehradun Airport,**

ACCEPTANCE OF AAI'S TENDER CONDITIONS

1. The tender documents for the work **"Misc. Capital works in operational and non-operational area at Dehradun Airport. (SH:- Replacement of defective LT cable of different locations in operational area at Dehradun Airport.)** have been sold to me/us by Airports Authority of India and I/we hereby certify that I/we have inspected the site and read the entire terms and conditions of the tender documents made available to me/us in the office of **Asstt. Gen. Mgr. (Engg-E)**, Airports Authority of India, Jolly Grant Airport Dehradun, which shall form part of the contract agreement and I/We shall abide by the conditions/clauses contained therein.
2. I/We hereby unconditionally accept the tender conditions of AAI's tender documents in its entirety for the above work.
3. The contents of Notice Inviting Tender of the Tender Documents have been noted wherein it is clarified that after unconditionally accepting the tender conditions in its entirety, it is not permissible to upload any additional file or put any remark(s)/conditions(s) (except unconditional rebate on quoted rates if any) in/ along with the Tender Document and the same has been followed in the present case. In case, this provisions of the tender if found violated after opening of tender, I/We agree that the tender shall be rejected and AAI shall without prejudice to any other right or remedy be at liberty to forfeit the **10% of earnest money**.
4. **'That, I/We declare that I/We have not paid and will not pay any bribe to any officer of AAI for awarding this contract at any stage during its execution or at the time of payment of bills, and further if any officer of AAI asks for bribe/gratification, I will immediately report it to the Appropriate Authority in AAI'.**
5. The required Earnest Money as specified in should be submitted as per e-NIT.

Yours Faithfully

Date:

(Signature of the tenderer)

C-NIL

I-NIL

O-NIL

OW-NIL

ANNEXURE-II

Undertaking

(To be signed and submitted along with the Tender in Envelope-I B)

I/we, _____
hereby undertake that in case the Registration Certificate no.
_____ dated. _____ issued by _____
and/or other documents submitted by me/us, is found false at any stage, I/we may
be debarred from AAI for taking participation in all future AAI works & any other
suitable action may be taken against our company/firm as deemed fit by AAI.

Signature of Director/Proprietor of the company/firm

ANNEXURE-III

UNDERTAKING
(For GST Compliance)

(To be signed and submitted along with the Tender in Envelope-I B)

I/we, (_____) further undertake that I/we are registered under Goods & Service Tax (GST) and shall comply all the GST provisions and I/we shall pass on all the input credit to AAI. My/Our GST Registration no. is _____. In case of non-compliance of GST provisions and blockage of any input credit, then I/We shall be responsible to indemnify AAI.

Signature of Director/Proprietor of the company/firm

C-NIL

I-NIL

O-NIL

OW-NIL

ANNEXURE - IV

FORMAT FOR AFFIDAVIT

(To be signed and submitted along with the Tender in Envelope-I B)

I _____ (Name), aged _____ years, S/o _____ (Name) Authorized Representative/ Proprietor/ Managing Partner/ Managing Director of _____ (Name of firm) do hereby solemnly affirm and state as follows:

I am competent to swear this affidavit on behalf of _____ (Name of firm).

- a) I state that, in the event of work is awarded to our firm, the wages to be paid to workers engaged shall not be less than the minimum wages determined by appropriate Government Authority from time to time.
- b) I state that, my firm has not been black listed / debarred by AAI or any other government body/ PSU/PSE as on date.

Dated this, the _____ day of _____ month _____ years.

DEPONENT

Note: This affidavit is to be attested by a first class Magistrate/ Notary Public on non-judicial stamp paper of Rs.100/-.

C-NIL

I-NIL

O-NIL

OW-NIL

SPECIAL CONDITIONS OF CONTRACT

GENERAL

1. These special conditions of contract shall be read in conjunction with AAI General Conditions of contract. These conditions of contract are meant to amplify the specifications, schedule of quantities and drawings in addition to those conditions specified as additions or omissions to general conditions of contract, If there are any provisions in the special conditions of contract which are at Variance with provision of General condition of contract (GCC), the provision in these special conditions shall take precedence.
2. The work shall be carried out as per specification and relevant IS Code, CPWD, AAI specifications shall also be applicable.
3. As the work has to be carried out within the restricted area of the airport/Airport premises, contractor should obtain the entry passes from the competent authority if required.
4. AAI reserves the right to inspect or authorize another agency to inspect the materials at site/works. All inspection arrangements shall be the responsibility of the contractor.
5. The tender shall be valid for 03 Months from the date of opening.
6. All materials, tools and tackles, equipments, labour skilled and semi-skilled including their housing, sanitation procurements of foodstuff, medical aid etc. are to be arranged by the contractor. Cost of transportation of labour and material shall have to be borne by the contractor.

SCOPE OF WORK

- (a) Supply and laying of Different sizes of Cables.
- (b) Supply and laying of 63 mm dia HDPE Pipe.
- (c) Supply and Laying of 100 mm dia B Class G.I Pipe.
- (d) Supply of geysers of 25 ltrs and 50 ltrs capacity.
- (e) Supply of national flag.
- (f) Supply of 20 feet folding aluminium ladder.
- (g) SITC of 40 watt solar LED street light.
- (h) Supply of electrical equipments (megger, clamp meter, earth tester, vacuum cleaner etc.)
- (i) Supply of 12 V- 7Ah batteries for lifts.
- (j) Supply of Dragon Search lights.

REGULATIONS AND STANDARDS

The installation shall conform in all respects to Indian Standard Code of Practice. It shall also be in conformity with the current AAI and CPWD specifications so far as these become applicable to the installation. Wherever this specification calls for a higher standard of material and/or workmanship than those required by any of the above regulations then this specification shall take precedence over the said regulation and standards.

FEES PERMITS AND TESTS

The Contractor shall obtain and pay for any fee and permits required for the installation, testing and commissioning of the work. The Engineer-in-Charge shall have full powers to order the materials or work to be tested by an independent agency at the Contractor's expense in order to prove its soundness and adequacy.

ENTRY PASS

The work site lies also in restricted area. The contractor shall apply in writing in advance for issue of necessary entry passed of workman engaged by him. The Airport is an essential service covered under the maintenance of essential service Act and hence disruption of services rendered will be a statutory offence. The police verification from Commissioner of Police should be submitted for each worker for issue of security passes.

SECURITY

The contractor and his employees shall abide by security regulation framed by AAI, BCAS & Police Authorities. Any worker of the contractor, whose presence is found undesirable in AAI premises, shall not be allowed to work in operational area of the Airport; The Contractor shall be fully responsible for the working of his staff.

“If Contractor is found to violate any of security regulations, he shall be black listed and will be subjected to other legal proceedings”.

TENDER INFORMATION

- (i) The tenderer shall obtain information relating to the work entirely at his own expenses and responsibility. The tenderer shall visit the site to familiarize and satisfy himself with actual site conditions, soil conditions, sub soil conditions, access, for the speedy execution of the work.
- (ii) Information, levels and dimensions given on the tender drawing if any, are for guidance only out the tenderer shall make independent inquires and verify the same. No extra claim shall be admissible in case of any deviations or incorrectness of the information indicated on the tender drawings.

RATES, TAXES & DUTIES

All tendered rates should be **inclusive of all taxes excluding GST**. Wherever supplies / services involve imports, the same should be identified separately. Basis Custom Duty will be paid by AAI by utilizing EPCG license/ duty scrip under SEI scheme of Gol. Bill (excluding GST) shall be paid to bidder for any taxable supply / services against a valid Tax Invoice.

The work shall be treated as on works contract basis and rates shall be exclusive of all taxes excluding GST and all incidental charges for items contingent to the work, such as, packing, forwarding insurance, freight and delivery at site for the materials to be supplied by the contractor, watch and ward of all materials at site. AAI does not give any concessional forms / certificates / permits towards any taxes, duties & other levies like customs duty, road taxes / permits, etc.
Price quoted shall be firm throughout out the period of contract.

P.F. Contribution:-

1. The contractor shall register himself with Labour Licensing Authority and obtain Labour License Number in this regard. The payments towards the E.P.F. shall be paid by the contractor directly to the concerned governing bodies as per existing rules and the proof of the statement shall be submitted to AAI on monthly basis. **ESI & EPF amount (contractor's contribution) paid to the statutory authorities by the contractor shall be reimbursed on actual basis on submission of documentary evidence.**
2. Following statutory obligations are required to be ensured for deposit of PF dues in respect of contract labour:
 - a. **Independent contractors with separate PF code Number (Covered Establishment):-**The Contractor's Establishment employing more than 20 persons are under statutory obligations to obtain independent PF code number from PF Authorities for deposit to PF dues (Employees' and employer's contribution) together with EDLI and Administrative charges every month within 15 days of close of the month.
 - b. AAI is required to ensure that the PF dues (including EDLI and administrative charges) in respect workers engaged for AAI works have been deposited by the contractor every month by a separate challan and the documentary evidence in support of such payments along-with employee wise details of the PF contribution (both Employee's share and the employer's contribution) needs to be submitted to the officer in charge for the work/ contract.
3. **Contractors not having PF Code Number (Uncovered Establishment) :**The contractors who are not covered under EPF & MP Act, 1952 but, for AAI "obligation as principal employer, are required to ensure compliance for recovery and deposit of PF dues in respect of contract workers engaged for

AAI work. Hence, such contractors are required to obtain PF code against the work order/contract with AAI for necessary compliance as brought out in Para-1 above

4. **Recovery of Dues from the contractor (Sec-8A of PF & MP Act, 1952)** :In case the contractor fails to comply with the above statutory compliance, the dues on account of PF Contribution (both employer's/ employee's contribution), EDLI and Administrative charges payable to EPFC may be ascertained as per provisions of the Act and recovered from the dues payable to the contractors. Every contractor shall, within seven days of the close of every month submit to the AAI (being principle employer) a statement showing recoveries of contribution in respect of employees engaged by the contractor for AAI works and also furnish such information as AAI is required to furnish to PF Commissioner.

COMPLETENESS OF TENDER

All sundry fittings, assemblies, accessories, hardware items, lamp, gaskets, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender documents or not.

TOOLS FOR HANDLING AND ERECTION

All tools and tackles required for handling of equipments and materials at site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the contractor. All tools shall include necessary test instruments.

MAKE, MODEL, CATALOGUES & DRAWINGS

The Contractor shall submit to the Engineer-in-Charge for his approval the technical details along with Make, Model, Catalogues & Drawings of the items for explanation & shall indicate the features and Sizes of all the equipments and accessories herein.

After obtaining approval from Engineer- in- Charge for a particular make & model, the action for purchase of the same shall be taken up by the contractor.

MANUFACTURE'S INSTRUCTIONS

Where manufacturers have furnished specific instructions, relating to the materials used in this job, covering points not specifically mentioned in these documents these instructions shall be followed in all cases.

INSPECTION, TESTING AND INSPECTION CERTIFICATE

The Engineer-in-Charge / his authorized representative shall inspect the material for routine tests before dispatch at the Contractors premises or works and shall have the power at all reasonable time to inspect and examine the materials and workmanship during its manufacture or erection or if the part of works is being manufactured or assembled at other premises or works, the Contractor shall obtain permission for the AAI to inspect as if the works were manufactured or assembled outside the contractor's own works/premises.

Type test certificate shall be submitted for verification prior to inspection.

The Contractor shall arrange all the materials and labour required for inspection of equipment or for any testing to be carried out at works or at site. The Contractor shall give notice for such inspection/presence for testing to the AAI at least fifteen (15) days in advance.

Not with standing approval of tests or equipment by the AAI, the Contractor shall be required to perform site tests and prove the correctness or ratings and performance of equipment/machinery and materials supplied and installed by him as per the contract specifications and conditions. AAI shall

reserve the right to reject any equipment / machinery / material should it, on tests after erection, be found not to comply with contract specifications.

The contractor shall also have to submit the original TEST CERTIFICATES of the items & material used for the work. However, EIC shall have full power to require the materials or work to be tested by an independent agency at the contractor's expense to prove their soundness & adequacy.

MATERIAL AND EQUIPMENT

All materials and equipment shall be new and of the approved make and design, unless otherwise called for, only the best quality of materials and equipment shall be used. The Contractor shall be responsible for the safe custody of all materials and shall insure it against theft, damage by fire; earthquake etc. A list of items of materials and equipment, together with a sample of each shall be submitted to the Engineer-in-Charge within 15 days of the award of the contract. Any item which is proposed as a substitute, the Contractor shall state the credit, if any due for the AAI in the event the substitute is approved by Engineer-in-Charge in writing and shall be accompanied by all "Technical Data" giving sizes, particulars material is specified, any first class product of a reputed charge and provided it conforms to the requirements of these specifications.

The contractor shall be responsible for safe custody of stores and watch and ward till these are handed over to the authority. Nothing extra is payable on this account. The contractor shall submit the purchase voucher of major items and important material procured for incorporation in work.

AS BUILT DRAWINGS

On completion of work, the contractor shall submit to the Engineer-in-Charge, 3 sets of the work completion certificate i/c completion plan, as built drawings, test reports, earthing details, reports etc.

RESTRICTED WORKING HOURS DUE TO OPERATIONAL REASONS

1. Work shall be carried out in accordance to flight schedule of Aircraft movement. Airlines are likely to make change in the schedule from time to time and the same being operational requirement will take precedence over working hours for the present work.
2. Generally one hour before arrival of flight and up to one hour after departure of flight, the runway is to be made available for operations. The availability of the working hours may be further restricted on some occasions due to non-scheduled flights and VIP movements or any other operational reasons.
3. A tenderer shall plan for timely completion of the work keeping in view the restricted working hours due to operational reasons as stated above and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
4. The contractor shall be arranged necessary Security Passes for his staff at his own cost. The work site is at operational area of the Airport. If contractor is found to violate any security regulations, he shall be blacklisted & will be subjected to other legal proceedings.

DEFECTS LIABILITY PERIOD

- a) Defect liability period shall be for the period of 12 (Twelve) months.
- b) Any parts found defective during DLP shall be replaced by the manufacturer/agency without any charges whatsoever. The services of contractors/OEM personnel, if requisitioned during this period, for such work shall be made available free of any cost till remedial of defects in spite of nos. of visit to site.
- c) It shall be liability of the contractor to repair, strengthen or reconstruct at his own expense any portion of the work which has shown damages or any defect arising out of any bad workmanship or defective material being used for the work. In the case of rectification not being commended by the contractor within 7 days from the date of notice from the Engineer-in-charge, the Engineer-in-charge reserves the right to get the repair work executed at the risk and cost of the contractor.

- d) Any faulty components replaced renewed or repaired under the guarantee clause shall also be guaranteed for a period of 06 months from the date of such replacement or renewal or repair or until the end of the defect liability period whichever is later. If any defect be not remedied within the said period of notification, AAI may proceed to do the work at Contractor's risk, acceptance and without prejudice to any other rights which the AAI may have on the contractor in respect of such character as may affect the replacement or renewals of such defect. The release of security deposit will be after defects liability period. However, in case of the extended guarantee period for the defective equipment/component, the Engineer-in-charge shall ascertain the consequential cost in respect of such equipment/component & shall release the Security Deposit after withholding the consequential cost. This withheld amount shall be released on completion of such extended guarantee period.

MEASUREMENTS

The measurement shall be made as per BOQ, Specifications & conditions for items, also guidelines as given in CPWD specifications.

TERMS OF PAYMENT

The payment will be released by AAI subject to the submission of the following

Documents:-

- Delivery challan and GST invoice.
- Packing list.
- Test Certificate to confirm that the materials meets the contract specification an relevant standards in all respects.
- Monthly Challans of E.P.F. and E.S.I. deposits.

For Imported Item

- a) 70% of item rate on pro-rata basis on delivery of material at site in good condition and accepted by AAI, less customs duty paid by AAI.
- b) The balance amount for these items shall be paid after deduction of the payments already made under (a) above on successful completion of installation, testing and commissioning of these equipment.
- c) The payment towards customs duties and other levies imposed by Custom authorities at the port of entry in India shall be made by AAI directly to Custom authorities. However, contractor is to ensure that duties are correctly assessed by customs authorities failing which excess payment made in this case will be recovered from the contractor.
- d) The rate quoted for all items (Imported and Indigenous) shall be in Indian Rupees only and exclusive of all taxes, duties, i/c GST, applicable customs duties, installation, testing & commissioning charges, Freight & Insurance, In Land transportation, incidental charges etc. In case of imported, the rate quoted shall be inclusive of all taxes and levies of the country of origin also.
- e) The imported material shall be imported in the name of Airports Authority of India (AAI) to avail benefits of SERVED FROM INDIA SCHEME and insurance policy shall be in the name of AAI. The successful tenderer shall not make payment to customs authority directly for items mentioned above, as AAI has Customs duty entitlement certificates issued under the "SERVED FROM INDIA SCHEME" by the Director General of Foreign Policies under foreign trade policy act 2011. Hence, the contractor is required to make all documentation for importing in such a way which is acceptable to Customs Authorities for utilizing the entitlement certificate by AAI. The amount of customs duty entitlement certificate used/ issued under this scheme will be deducted from contractor's bill. In case the Custom duty entitlement certificate under the above mentioned scheme is not accepted for any reason by the Custom Authorities, the Custom duty shall be paid by the Contractor to the Custom Department directly. In the event of contractor paying customs duty directly to custom department, the contractor shall submit the proof of customs duty paid for imported items to AAI.
- f) The contractor shall open & arrange LC through any Indian National Bank for import of imported

items. The LC shall be opened for the FOB amount of import items. The contractor shall ensure timely opening of LC and a copy of LC shall be submitted to AAI.

- g) The contractor shall arrange import license i/c High Sea Shipment Agreement in the name of AAI, if required, to import equipment/components with no extra cost to AAI.
- h) All items shall be fully insured by the contractor. The cost of Insurance and Freight shall be paid by the contractor. The documents in support of insurance policy shall be submitted to AAI as well as the supplier before shipment.

For indigenous items

A) For Supply, Installation, testing and commissioning items.

- a) 70% of item rate on pro-rata basis on delivery of materials at site after acceptance by AAI.
- b) 20% of item rate on installation.
- c) 10% of item rate on Testing and Commissioning.

B) For Installation, testing and commissioning items.

- i) 80% of item rate on installation of equipments/ cables.
- ii) 20% of item rate on Testing and Commissioning.

C) For Supply items.

- i) 90% of item rate on pro-rata basis on delivery of materials at site after acceptance by AAI.
- ii) 10% of item rate on Testing and Commissioning.

D) For Supply and Fixing items.

- i) 85% of item rate on pro-rata basis on delivery of materials at site after acceptance by AAI.
- ii) 15% of item rate on fixing.

Standard Deductions in the Bill

- i. Security deposit (10% of work done value) shall be deducted as per General Conditions of contract on imported and indigenous items in Indian Rupees if SD in the form of Bank Guarantee/FDR not provided.
- ii. Income Tax deductions etc. shall be made from all payments made to the Contractor as per the rules and regulations in force in accordance with the Income Tax Act prevailing from time to time.
- iii. Labour cess as per rules and regulations in force shall be deducted from the bills of the contractors and deposited with designated authorities.

Final Bill Payment

The total amount of final bill worked out at the accepted tender rates, if found to be more than the amount worked out at the quoted rate of second lowest or other bidders, the contractor shall be paid the lowest of all the bidders.

TECHNICAL SPECIFICATIONS FOR MISCELLANEOUS ITEMS

SECTION-1

TECHNICAL SPECIFICATIONS OF LT-CABLES

1.1. SCOPE :

The specification covers design, manufacture, shop testing, packing and delivery of 1100 Volts grade, Aluminum conductor, XLPE insulated PVC sheathed multi core power cables by road / rail to the designated site.

1.2. STANDARDS :

Unless otherwise specified elsewhere in this specification, the rating as well as performance and testing of the LT cables shall conform to the latest revisions available at the time of placement of order of all the relevant standards as listed in, but not limited to Annexure-I.

1.3. GENERAL TECHNICAL REQUIREMENTS:

1.3.1. ARMoured CABLES :

1100 Volts Grade L.T. cable with stranded H2/H4 grade aluminum conductor, color coded, laid up, with fillers and/or binder tape where necessary provided with extruded PVC inner sheath, single galvanized round steel wire / strip armored and provided with PVC outer sheath. Both inner and outer sheath shall be of Type ST-2 as per IS: 5831-1984 and cable shall be conforming to IS: 7098 (Part 1) - 1988 (amended up to date) and bearing ISI mark. In case of single core cable armoring shall be of aluminum.

1.3.2. INSULATION, INNER SHEATH AND OUTER SHEATH :

Insulation, inner sheath and outer sheath shall be applied by separate extrusion. Inner sheath shall be applied by extrusion only. Bedding of PVC tape for inner sheath is not acceptable. Color of outer sheath shall be black. The quality of insulation should be good and insulation should not be deteriorated when exposed to the climatic conditions.

1.3.3. SEQUENTIAL MARKING OF LENGTH ON CABLE :

Non erasable Sequential Marking of length shall be provided by embossing on outer sheath of the cable for each meter length.

1.3.4. CONTINUOUS A.C. CURRENT CAPACITY:

Continuous A.C. current capacity shall be as per Table given below.

Conductor sizes in sq.mm.	Continuous A.C. current capacity in Amps.	
	When laid direct in the ground 30° C.	When laid in air 40° C.
70 sq.mm	165	175
95 sq mm	200	224
120 sq mm	225	240
150 sq mm	255	305
185 sq mm	285	315
240 sq mm	325	385
300 sq mm	370	410
400 sq mm	425	470

1.3.5. SHORT CIRCUIT CURRENT

Short circuit current of LT cable shall be as per Table given below.

Duration of Short Circuit in sec	Area of Al. conductor	Short circuit current in kA
T	A	$I=0.094 \times A/\sqrt{t}$
1	70 sq.mm	6.58
1	95 sq.mm	8.93
1	120 sq.mm	11.28
1	150 sq.mm	14.10
1	185 sq.mm	17.39
1	240 sq.mm	22.56
1	300 sq.mm	28.20
1	400 sq.mm	37.60

1.4. TESTS :

(a) TYPE TESTS:

All the type tests in accordance with IS: 7098 (Part 1) - 1988 (amended up to date) shall be performed on cable samples drawn by purchaser. Type tests are required to be carried out from the first lot of supply on a sample of any one size of cable ordered. In case facilities of any of the type tests are not available at the works of the supplier, then such type test shall be carried out by the supplier at the independent recognized laboratory at the cost of supplier. Sample for the type test will be drawn by the purchaser's representative and the type test will be witnessed by him.

(b) ROUTINE TESTS:

All the Routine tests as per IS: 7098 (Part 1) - 1988 amended up to date shall be carried out on each and every delivery length of cable. The result should be given in test report. The details of facility available in the manufacturer's works in this connection should be given in the bid.

(c) ACCEPTANCE TESTS:

All Acceptance tests as per IS-7098 (Part-I) 1988 as amended up to date including the optional test as per clause no 15.4 and Flammability Test as per clause No. 16.3 shall be carried out on sample taken from the delivery lot.

The following additional acceptance test should be carried out on PVC compounds used for outer sheath, as per IS: 5831 - 1984 (amended up to date).

1.5. TESTING FACILITIES AND DETAILS OF EQUIPMENTS:

The supplier / tenderer shall clearly state as to what testing facilities are available in the works of manufacturer and whether the facilities are adequate to carry out type, routine and acceptance tests mentioned in IS: 7098 (Part 1) - 1988 (amended up to date) on the cable including test as per clause No.5.4 of specification. The facilities shall be provided by the bidder to purchaser's representative for witnessing the tests in the manufacturer's works.

PACKING AND MARKING:

(a) Up to 120 sq. mm. Size :

Cables shall be supplied in continuous standard length of 500 meters with plus minus 5% (five percent) tolerance wound on non returnable wooden drums of good quality or on non-returnable steel drums without any extra cost to the purchaser.

(b) Above 120 sq.mm. size :

Cables shall be supplied in continuous standard length of 250 meters with plus minus 5% (five percent) tolerance wound on non returnable wooden drums of good quality or on non-returnable steel drums without any extra cost to the purchaser.

1.6. NON STANDARD LENGTH:

5% (five percent) of the ordered quantity of respective size shall be acceptable in non-standard length which shall not be less than 100 meters in length.

The following particulars shall be properly legible embossed on the cable sheath at the intervals of not exceeding one meter throughout the length of the cable. The cables with poor and illegible embossing shall be liable for rejection.

- a) Manufactures name.
- b) Voltage grade.
- c) Year of manufacture.
- d) Successive Length.
- e) Size of cable
- f) ISI mark

Packing and marking shall be as per clause No. 18 of IS 7098 (part-I)/1988 amended up to date.

Supplier should provide statistical data regarding cables of all sizes viz.-

- 1) Weight of one meter of finished product of cable of various sizes and ratings.
- 2) Weight of one meter of bare conductor used for cables of various sizes & ratings.

SECTION-2
TECHNICAL SPECIFICATION FOR LAYING OF CABLE

2. Laying direct in ground

2.1. General

This method shall be adopted where the cable route is through open ground, along runway/ roads/ lanes, etc., and where no frequent excavations are likely to be encountered and where re-excavation is easily possible without affecting other services.

2.2. Trenching

2.2.1. Width of trench

The width of the trench shall first be determined on the basis indicated herein. The minimum width of the trench for laying a single cable shall be 35 cm. Where more than one cable is to be laid in the same trench in horizontal formation, the width of the trench shall be increased such that the inter-axial spacing between the cables, except where otherwise specified, shall be at least 20 cm. There shall be a clearance of at least 15 cm between axis of the end cables and the sides of the trench. It will be advantageous to lay main and standby cables in separate trench.

2.2.2. Depth of trench

The depth of the trench shall not be less than 0.75mtr for LT cables.

2.3. Excavation of trenches

The trenches shall be excavated in reasonably straight lines. Wherever there is a change in the direction, a suitable curvature shall be adopted. Where gradients and changes in depth are unavoidable, these shall be gradual. The bottom of the trench shall be level and free from stones, brick bats etc. The excavation should be done by suitable means – manual or mechanical. The excavated soil shall be stacked firmly by the side of the trench such that may not fall back into the trench.

2.4. Laying of cable in trench

The trench shall then be provided with a layer of clean, dry sand cushion of not less than 8 cm in depth before laying the cables therein. After the cable is laid a covering of dry sand of not less than 17 cm of sand shall be provided. Care shall be taken to lay the GI earth wire before the protective cover is laid. Unless otherwise specified, the cables shall be protected by second class brick of nominal size 22cmx11.4cmx7cm or locally available size, placed on top of the sand (or, soil as the case may be). The bricks shall be placed breadth-wise for the full length of the cable. Where more than one cable is to be laid in the same trench, this protective covering shall cover all the cables and project at least 5cm over the sides of the end cables. The trenches shall be then back-filled with excavated earth, free from stones or other sharp edged debris and shall be rammed and watered, in successive layers not exceeding 30cm depth.

2.4.1. Testing before laying

At the time of issue of cables for laying, the cable shall be tested for continuity and insulation resistance.

2.5. Testing before covering

The cables shall be tested for continuity of cores and insulation resistance and the cable length shall be measured, before closing the trench. The cable end shall be sealed /covered.

2.5.1. Laying in pipes/closed ducts

In locations such as road crossing, entry in to buildings, paved areas etc. cables shall be laid in pipes or closed ducts. Metallic pipe or RCC shall be used as protection pipe for cables.

2.5.2. Road crossing

The top surface of pipes shall be at a minimum depth of 0.5m from the pavement level when laid under roads, pavements etc. The number of pipes to be laid should include sufficient number of spare pipes for future use.

2.6. Laying in open ducts

Open ducts with suitable removable covers (RCC slabs or chequered plates) are generally provided in sub-stations, switch rooms, plant rooms, workshops etc., for taking the cables. The cable ducts should be of suitable dimensions for the number of cables involved. Laying of cables with different voltage ratings in the same duct shall be avoided. Where it is inescapable to take HV & MV cables in same trench, they shall be laid with a barrier between them or alternatively, one of the two (HV/MV) cables may be taken through pipe(s). Splices or joints of any type shall not be permitted inside the ducts. The cables shall be laid directly in the duct such that unnecessary crossing of cables is avoided. Cables shall be fixed with clamps on the walls of the duct or taken in hooks/brackets/troughs in ducts. The size and material of saddles/clamps shall be as given under laying on surface.

2.7. Laying on surface

This method may be adopted in places like switch rooms, CCR room, rising (distribution) mains in buildings etc. This may also be necessitated in the works of additions and/or alterations to the existing installation, where other methods of laying may not be feasible. Cables may be laid in surface by any of the following methods as specified:-

2.8. Directly clamped by saddles or clamps.

Supported on cradles.

2.9. Laid on troughs/trays duly clamped.

The saddles and clamps used for fixing the cables on surface shall be 1 mm thick with fixing interval of 45 cm for cable of overall diameter up to 26 mm and 3mm thick 25mm wide with fixing interval of 60 cm for cable of overall diameter up to 45 mm. For cable of overall diameters above 45 mm the clamps shall be minimum of 3 mm thick 40 mm wide and fixing interval 60 cm. Additional clamping shall be provided at 30 cm from the center of bend on both sides. Saddles shall be secured with screws to suitable approved plugs. Clamps shall be secured with nuts on to the bolts, grouted in the supporting structure in an approved manner. In the case of single core cables, the clamps shall be of non-magnetic

material. A suitable non-corrosive packing shall be used for clamping un-armoured cables to prevent damage to the cable sheath. Cables shall be fixed neatly without undue sag or kinks. All MS components used in fixing the cables shall be either galvanized or given a coat of red oxide primer and finished with 2 coats of approved paint.

2.10. Laying on cable tray

2.10.1. This method may be adopted in places like indoor substations, CCR rooms, generator rooms etc., or where long horizontal runs of cables are required within the building and where it is not convenient to carry the cable in open ducts. The cable trays may be either of perforated sheet type or of ladder type. The width of cable tray shall be chosen, so as to accommodate all the cables in one tier plus 30 to 50% additional width for future expansion. This additional width shall be minimum 100 mm. The overall width of one cable

2.10.2. Tray shall be limited to 800 mm. All cable trays should be galvanized type. The cable tray shall be bonded to the earth terminal of the switchboards. The cable tray suspender should be 10 mm dia. galvanized rod or 25mmx5mm GI flat as per BOQ.

2.10.3. The thickness of cable tray shall be 1.6 mm for width up to 300 mm and 2 mm for width more than 300 mm.

2.10.3.1. Factory fabricated bends, reducers, tee/cross junctions, etc., shall be provided as per good engineering practice. The radius of bends, junctions etc., shall not be less than the minimum permissible radius of bending of the largest size of cable to be carried by the cable tray.

2.10.3.2. The cable tray shall be measured on unit length basis, along the center line of the cable tray, including bends, reducers, tees, cross joints, etc., and paid for accordingly.

2.11. Testing & Commissioning

2.11.1. Installation shall be tested and commission for day to day use after completion of job and system should be operated continuously for one and half hours for proper operation. Insulation resistance of the cable shall be tested with 500 / 100 volt megger. Minimum acceptable resistance to ground is 50mega ohms.

2.11.2. Aluminium tags with name and size of cable marked over the tags to be provided at an interval of 10 meter over the length of cable for proper identification. Nothing extra will be paid for this work and its cost is deemed to be included in the quoted rates itself.

SPECIFICATION FOR G.I. PIPE

Nominal Bore (in mm)	Outside Diameter (in mm)		Thickness (in mm)	Mass of Screwed & Socketed tube (kg/m)
	Maximum	Minimum		
100	115	113.10	4.5	12.50

TECHNICAL SPECIFICATION FOR NATIONAL FLAG

FLAG:

Supply of national flag of size 20' x 30' in 100% knitted Polyester (140gsm), with super-strong nylon webbing on all 3 sides & rope/toggle sleeve for each Airport. Flag shall confirm the **Flag Code of India, 2002 (as per sample based)**

TECHNICAL SPECIFICATION FOR THE TELESCOPIC WHEELED LADDER

- i) Closed height - 12 feet.
- ii) Extended height - 20 feet.
- iii) Material - Aluminum I Section & steps of aluminum corrugated heavy tubing with platform.
- iv) Safety ring, railing, pushing handle, lock, pulley, rope fitted with locking device.
- v) Wheel of 12" x 2" at front side, rubber shoes fitted at the top and bottom ends to make ladder non-slippery.
- vi) Sides channel sizes-75x35x3.8mm, and upper corner thickness-6.5mm
- vii) Steps 26mm square non-slip corrugated tubing.
- viii) Raw material shall be used confirming to IS 733-1983 with up-to-date amendments.

TECHNICAL SPECIFICATION FOR DRAGON LIGHT

- Dual Charging 220V AC & 6V DC solar rechargeable
- Range 1 KM
- Material: Tough high grade waterproof ABS body
- 10 Watt LED lamp
- Penetration range in FOG and smoke area 200 Feet
- Special features search light
- 4.5 AH sealed maintenance free SLA battery
- Warranty- Minimum 1 year
- Frequency 50 Hertz (HZ)
- Input Power Supply- 220 V
- IP rating: IP67
- Mode of operations: 3 modes (High beam, Low beam and Auto-flasher)

SECTION-3

TECHNICAL SPECIFICATION FOR HDPE PIPES

The HDPE pipe shall be ISI marked of IS 4984:1995 with material grade of PE 63 & ISI marked with a wall thickness as per IS 4984.

A. Marking -

HDPE pipe shall have manufacturer's trade name & ISI mark & code on the outer sheath at regular interval. The HDPE pipe shall also have sequential numbering at 1 mt interval indicating the length of the pipe.

B. Tough & Strong -

The pipes shall bear high impact resistance and are thus strong and resilient to withstand static and dynamic loads due to internal cable pressure as well as external (soil) pressures. Rough handling, traffic loads and even freezing conditions do not cause the pipe to break or crack.

C. Smooth Inner Surface -

In addition to the smooth external surface, the HDPE pipes have an extremely smooth inner surface too, thus offering very low frictional resistance to cable. Further, the non-adhering characteristic of HDPE pipe shall allow smooth in & out of cable inside the pipes.

D. Flexible -

HDPE pipes shall be extremely flexible and bend without cracking. This property enables long lengths of the small diameter pipe to be transported as coils thus saving on joints.

E. Inert To Chemicals -

The pipes possess excellent resistance to chemicals making them suitable for handling most of the corrosive acids and also alkalis when buried in soil even also in open surfaces.

F. Non-Hazardous -

HDPE pipe shall have property of being non-toxic and inert & non-hazardous.

G. Corrosion Resistant -

HDPE pipe shall be resistance to electrolytic as well as galvanic corrosion.

H. High Electrical Resistance -

The dielectric strength of HDPE shall be very high and no stray electrical currents can be transmitted from outside.

SECTION-4

DIGITAL CLAMP METER

1. **SCOPE:** The specification covers design, manufacture assembly, testing at manufacturer's works before dispatch and delivery for Nigam's stores of AC (TRMS) digital tong tester for site testing.
2. **GENERAL DESCRIPTION:** The digital AC clamp-on meter (tong tester) measurement should be hand – held, light in weight, having data hold and peak hold function with over range indication etc. The range selection should have both auto as well as manual selection function. The metallic part should not remain exposed. The low battery warning indication shall be display if the battery voltage falls low and need replacement. The over range indication shall be provided. The response time of approximately 2 seconds. The metallic part should not remain exposing. The measurement on the current shall be through clamp to accommodate cable having dia. 40 mm (Min.). The equipment should remain healthy and shall work reliably / accurately even in high voltage switch yard where electromagnetic interference present. Hand-held digital clamp meter, light in weight having measurement of current, voltage, power, resistance with data hold function to freeze the reading. The meter shall be having following range, display 3*1/2 digit LCD.
3. **TECHNICAL PARAMETERS:** The tong tester shall have the following parameters:
 - (a) **AC Current Measurement:** 0-20/50/500 /1000 Amp
 - (b) **AC/DC Voltage Measurement:** 0 to 300 V / 600 V.
 - (c) **Power Measurement:** (i) Active Power: 7.5KW - 600KW (10HP-800HP)
Unit measurement - KW and HP.
(ii) Power Factor: 0.7 Lag – (Unity) - 0.7 Lead.Bidders should also confirm Accuracy of Tong Tester for lower range of power-factor below 0.7.
 - (d) **Resistance Measurement:** 400 Ohms to 4 K-Ohms.**ACCURACY:** (i) For AC current $\pm 2\%$ reading with resolution of 0.01 upto 100 A, 0.01 upto 500 / 1000 A.
(ii) For AC /DC voltage $\pm 1.5\%$ reading with resolution of 0.01 upto 100 V, 0.1 upto 600 V.
(iii) For Resistance $\pm 1\%$ reading with resolution of 0.01 Ohm upto 400 Ohms, 0.1 Ohm upto 4 K Ohms.
(iv) For Power (KW / HP) $\pm 2\%$ reading with resolution of 1 Watt.

DIGITAL EARTH TESTER

- 1.1 The Digital Earth Tester is required for the measurement Resistance of Earth under the following conditions.
- 1.2 a) Measurement of earth resistance in difficult situations, where noise is present in the earth.
- 1.3 b) Measurement of Earth Resistance for large complex earthing systems.
- 1.4 c) Accurate measurement of Earth Resistance in sub-station site where variation of soil resistivity values will be large.

2.0 CONSTRUCTIONAL FEATURES:

a) Digital Earth Tester shall be robust, compact instrument designed for measuring electrode resistance. The instrument should have facility to measure Ground Resistance by standard

Fall of Potential method using 3 terminal method by Current and Potential spikes. The equipment must also enable to measure the 2 terminal measurement.

b) The instrument also includes a voltmeter to allow you to measure the ground voltage.

c) To allow accurate testing in noisy environments the instrument should be capable of rejecting noise.

2.2 The equipment must be compact and must come with carrying case for spike & wire and other measuring accessories.

The main technical parameter and features shall be as follows:

Sl. No.	Particular	Parameter
1	Earth resistance range	0 ohm to 500 ohm
2	Resolution	0.01 ohm
3	Resistance Accuracy	2% \pm 2 digits
4	Voltage Measurement	0 to 100V AC
5	Power supply	Suitable Internal standard battery
6	Environmental Protection	IP54
7	Safety Standard	IEC-1010 (EN 01010) or equivalent standard
8	Operating Temperature	0 to + 50°C
9	Voltage Withstand	In the event of a system fault, the instrument should withstand 240 V AC applied between any two terminals.

4.0 The equipment must be supplied along with Hard carrying case, Stakes and wire kit & all accessories for Digital Earth Resistance instrument.

5.0 TESTING AND CALIBRATION: Each Digital Earth Resistance Tester shall be supplied duly tested /calibrated from the NABL accredited government laboratory. Certificate of such lab should be supplied with each Digital Earth Resistance Tester.

6.0 SAMPLE: The supplier shall have to submit sample with manual and complete Accessories of Digital Earth Resistance Tester along with bid documents. Sample verification for Technical requirement will be carried out at Hi-Tech Lab, PGVCL, Rajkot before opening of price bid. The manufacturer must have at least 3 authorized service centers in India with proper setup and audited operations since past 3 years.

DIGITAL INSULATION TESTER:

CE mark conforming to latest EN 61010-1:2010

- EN 61326-1:2005, CAT IV 600V, IP54 protection.
- Overload protection 1200V for all ranges.
- Guard Terminal to minimize surface leakage.
- Selectable voltage facility - 50V, 100V, 250V, 500V and 1000V.
- Insulation resistance range up to 2 G-Ohm, Auto AC/DC 600V measurement.
- Live circuit detection up to 600V AC/DC.
- Low resistance measurement up to 100 Ohm with continuity testing.
- Temporary storage for minimum of 10 readings.
- NO-GO test facility.
- Pre-selectable Timer facility, Mains Eliminator.
- Auto power-off facility.

TECHNICAL SPECIFICATIONS:

Sl. No.	Parameters	Specifications
1	Insulation Range	100 k Ω to 1 T Ω
2	Short circuit current	1.4 mA \pm 0.5 mA
3	Maximum load capacitance	5 μ F
4	Frequency measurement	45 Hz to 65 Hz
5	Voltage range	25V to 600 V A.C. or D.C. with accuracy of 3%
6	Power supply	220- 240 V, 50 Hz mains power
7	Guard	2% error guarding 5 M Ω leakage on 100 M Ω load. This should be proved
8	Operating temperature range	Up to +55 $^{\circ}$ C
9	Insulation protection	IP40
10	Safety Protection Insulation	Cat III 600 V
11	Voltage accuracy (at terminals)	should be less than or equal to 5% Accuracy for \geq 1000 V
12	Insulation accuracy	Up to 1 G Ω : All ranges \pm 5% \pm 2 digits Over 1 G Ω : 5000 V \pm 5% \pm 0.04% per G Ω 2500 V \pm 5% \pm 0.08% per G Ω 1000 V \pm 5% \pm 0.2% per G Ω 500 V \pm 5% \pm 0.4% per G Ω 250 V \pm 5% \pm 0.8% per G Ω

TECHNICAL SPECIFICATION OF VACUUM CLEANER:

Sl. No.	Parameters	Specifications
1	Weight	6 kg
2	Container volume, net	10 L
3	Rated input power	1,100 W
4	Container volume, gross	15 L
5	Container volume, net, water	8 L
6	Tool dimensions (length)	360 mm
7	Tool dimensions (height)	440 mm
8	Filter surface area	2,300 cm ²
9	Max. airflow rate (turbine)	53 L/s
10	Max. vacuum pressure (turbine)	270 mbar
11	Wheels, number	4

TECHNICAL SPECIFICATIONS OF SOLAR STREET LIGHT SYSTEM:

Sl. No.	Parameters	Specifications
	ILLUMINANT	
1	LED max. output	40W
2	LED max. light lux	4400-4800lm
3	Colour temperature	5.600k to 6.500k
4	Autonomous time with full battery max.	75h
5	LED life	>50,000h
6	State-of-the-art LED	Insect-neutral light
7	Material	Anti-corrosion Aluminium Alloy
8	IP rating	IP67
	PHOTOVOLTAICS	
9	Module	Monocrystalline silicon cells
10	Open circuit voltage Voc	21V
11	Max. voltage Umpp	17V
12	Short circuit current Isc	4.76A
13	Maximum power current Ipm	4.41A
14	Max. power Pmax	75W
15	Tolerance Pmpp	+/- 5%
16	Level of effectiveness of solar cells (moulded)	17%
17	IP rating	IP67
18	Warranty	Minimum 5 years
	BATTERY	
19	Capacity	Lithium battery (LiFeP04) 48Ah/12.8v
20	Voltage	12V
21	Battery life	approx. 5-6 year
22	Operating temperature	-20°C~+70°C
23	Miscellaneous	Battery also charges on cloudy days
24	Battery Backup	>12 hours
25	Warranty	Minimun 5 years
26	IP rating	IP67

Note: An undertaking shall be obtained from fitting manufacturer regarding confirmation about use of said make LED's in their fitting.

TECHNICAL SPECIFICATIONS FOR GEYSER:

Sl. No.	Parameters	Specifications
	For 25 Liter	
1	Wattage	2000W
2	BEE rating	5 Star
3	Waterproof Degree	IPX-4 protection
4	Warranty	Comprehensive warranty: Minimum 2 years (Heating element: Minimum 4 years, Inner container: Minimum 7 years)
5	Material	High grade ABS
6	Storage Capacity	25 Liter
7	Voltage rating	230V
8	Frequency	50Hz
9	Rated water pressure	8 bar
10	Installation type	Wall mount
11	Special Features	Temperature setting knob, Whirl flow technology, Thermal cut off, Multifunctional safety valve, etc.
	For 50 Liter	
1	Wattage	2000W
2	BEE rating	5 Star
3	Waterproof Degree	IPX-4 protection
4	Warranty	Comprehensive warranty: Minimum 2 years (Heating element: Minimum 4 years, Inner container: Minimum 7 years)
5	Material	High grade ABS
6	Capacity	25 Liter
7	Voltage rating	230V
8	Frequency	50Hz
9	Rated water pressure	8 bar
10	Installation type	Wall mount
11	Special Features	Temperature setting knob, Whirl flow technology, Thermal cut off, Multifunctional safety valve, etc.

TECHNICAL SPECIFICATION FOR BATTERY:

Sl. No.	Parameters	Specifications
1	Nominal Voltage	12V
2	Capacity (20 hr. rate)	7 Ah
3	Chemistry	Lead Acid
4	Technology	SLA
5	Charge Voltage (Cycle use)	14.0 – 14.4 V
6	Charge Voltage (Standby use)	13.0 – 13.4 V
7	Maximum charge current	2.3 A
8	Terminal	T2
9	Warranty	Minimum 1 year

LIST OF APPROVED MAKES FOR ELECTRICAL WORKS

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)	CATEGORY OF TEST CERTIFICATE / INSPECTION
A. PANEL, SWITCHGEARS AND RELATED ITEMS:			
1	LT PANELS (TTA) (FOR INCOMER ABOVE 250 AMPs)	CAT-A&B EAP/ TRICOLITE/ SUDHIR/ L&T/ ADLEC/ LEGRAND/ ABB/ C&S/ SIEMENS/ NEPTUNE/ MEpowerR/ SCHNEIDER/ RITTAL/ RR ISPAT/ ADVANCE/ KEPL/ PEATON / RISHA/ STERLING GENERATORS/ HAROLD/ NITYA / TRISQUARE/ SPC ELECTROTECH /BCH/ MILESTONE / GEPOWER (SPECTRA)* / UNILEC* / JACKSON* / GODREJ* / INCOTECH* subject to having valid CPRI/ ERDA Certificate of required Fault Level & IP Level protection.	CATEGORY - 1
2	LT PANELS (PTTA) (FOR INCOMER UP TO & BELOW 250 AMPs)	CAT-A EAP/ TRICOLITE/ SUDHIR/ L&T/ ADLEC/ C&S/ SIEMENS/ NEPTUNE/ PYROTECH/ MEpowerR/ SCHNEIDER/ HENSEL/ ENGINEERS & ENGINEERS/ ADVANCE/ KEPL/ PEATON/ RISHA / STERLING GENERATORS/ HAROLD / NITYA/ TRISQUARE/ CMKL/ SPC ELECTROTECH /BCH/ MILESTONE / GODREJ / GEPOWER (SPECTRA)* / UNILEC* / JACKSON* / INCOTECH* subject to having valid CPRI/ ERDA Certificate of required Fault Level & IP Level protection.	CATEGORY - 1
3	AIR CIRCUIT BREAKERS	CAT-B DIGIDRIVES/ AMBIT/ ELINS/ JAKSON/ ZENIYA/ EVA & ALL MAKES IN CAT-A CAT-A L&T/ LEGRAND/ ABB/ C&S/ SIEMENS/ HAVELLS/ SCHNEIDER/ GE POWER* CAT-B CHINT & ALL MAKES IN CAT-A	CATEGORY - 2
4	MOULDED CASE CIRCUIT BREAKERS (MCCB)	CAT-A L&T/ LEGRAND/ ABB/ C&S/ SIEMENS/ ANDREW YULE/ HAVELLS/ SCHNEIDER / BENLO / INDO ASIAN / HPL / GE POWER* CAT-B CHINT/ GE POWER*/ STANDARD */ BCH* & ALL MAKES IN CAT-A	CATEGORY - 2
5	CHANGE OVER SWITCH/ FUSE DISCONNECTOR SWITCH/ SWITCH FUSE UNITS	CAT-A&B SOCOMEC/ L&T/ LEGRAND/ C&S/ SIEMENS/ BENLO / HPL / HH ELCON* / INDO ASIAN*/ HAVELLS* / GE POWER* / ABB* / STANDARD* / SCHNEIDER*	CATEGORY - 2
6	AMMETER/ VOLTMETER/ KWH/ KVAH/ PF/ FREQUENCY METER/DIGITAL INTELLIGENT MULTI FUNCTIONAL METER/ TRIVECTOR METER	CAT-A&B MEGGER/ FINDER/ RISHABH/ L&T/ SIEMENS/ NEPTUNE/ SCHNEIDER/ SOCOMEC / BENLO/ HPL / AE*/ MECO* / IMP*/ UNIVERSAL* / TRINTY* / BHEL*/ ELMEASURE* / CONSERVE* / HPK*/ HAVELLS*/ SIMCO* / JAIPUR METERS*/ INDIA METER* /AREVA*/ MOTWANI* / SECCURE*/ SUNCO*	CATEGORY - 3
7	SELECTOR SWITCH, PUSH BUTTON SWITCH / EMERGENCY SWITCH	CAT-A L&T/ C&S/ SIEMENS / EATON / BCH / KAY CEE* / GE POWER* / SCHENIDER* / ROCKWELL (ALLEN BRADLEY)* / TEKNIC* CAT-B HENSEL/ HAGER & ALL MAKES IN CAT-A	CATEGORY - 4
8	CT's / PT's	CAT-A MEGAWIN/ SELEC/ NEWTEK ELECTRICALS/ AE* / KAPPA* / UNIVERSAL* / KAYCEE* / IMP*/ C&S* / L&T*/ MECO*/ KAPCO*/ CROMPTON GREAVES* / PRAGATI* / INSTRANS* CAT-B ANANT POWER/ HAGER & ALL MAKES IN CAT-A	CATEGORY - 3
9	PROTECTIVE RELAYS (ALL TYPE)	CAT-A CG POWER (CGPSL) / L&T/ C&S/ SIEMENS/ MEGAWIN/ AREVA* / ABB* / EASUN REYROLLE* CAT-B ALL MAKES IN CAT-A	CATEGORY - 2
10	CONTACTORS	CAT-A L&T/ LEGRAND/ ABB/ TDK(EPCOS) / C&S/ SIEMENS/ ANDREW YULE/ HAVELLS/ SCHNEIDER/ GE POWER* / BCH* / TC* CAT-B CHINT & ALL MAKES IN CAT-A	CATEGORY - 3
11	TIMERS/ TIME SWITCH	CAT-A FINDER/ L&T/ LEGRAND/ ABB/ C&S/ SIEMENS/ SELEC/ BCH / INDO ASIAN*/ SCHNEIDER* / ADVANI ORLIKON* / GE* CAT-B HAGER & ALL MAKES IN CAT-A	CATEGORY - 3
12	HRC FUSES	L & T/ GE POWER / SIEMENS / ABB / C&S/ INDO ASIAN/ HAVELLS/ STANDARD	CATEGORY - 4
13	LED INDICATION LAMPS	CAT-A C&S / AE* / VINAY LED* / EASUN* / CONCORD* / KAY CEE*/ SIEMENS* / VAISHNOV* / L&T*/ SCHENIDER*/ ROCKWELL* (ALLEN BRADLEY) / PREFINE* / BCH* (T.S. Authority may add makes considering the local availability and quality. The approved OEM of HT/LT Panel manufacturer). CAT-B HAGER & ALL MAKES IN CAT-A	CATEGORY - 3
B. SUBSTATION RELATED ITEMS.			
14	TRANSFORMER UP TO 500 KVA (DRY/OIL)	CAT-A&B SUDHIR/ ABB/ ANDREW YULE/ SCHNEIDER/ KOTSONS/ VOLTAMP/ CG POWER (CGPSL)/ AREVA* / KIRLOSKAR* / INDO TECH* / BHARAT BIJLEE*/ TELK*/ BHEL*	CATEGORY - 1
15	TRANSFORMER MORE THAN 500 KVA (DRY/OIL)	CAT-A&B SUDHIR/ ABB/ ANDREW YULE/ SCHNEIDER/ KOTSONS/ VOLTAMP/ CG POWER (CGPSL) / AREVA*/ KIRLOSKAR* / SIEMENS* / BHARAT BIJLEE*/ BHEL*	CATEGORY - 1
16	H T PANEL	CAT-A&B EAP / CG POWER (CGPSL)/ TRICOLITE/ SUDHIR/ L&T/ ADLEC/ ABB/ C&S/ NITYA/ PSI/ TRISQUARE / ANDREW YULE/ MEGAWIN/ MEpowerR/ SCHNEIDER/ MILESTONE/ EATON/ ADVANCE/ STERLING GENERATORS/ MEI* / SOUTHERN SWITCH GEARS* / BIECO LAWRIE* / NGEF*/ JYOTI*/ KIRLOSKER* / AREVA* / SIE*/ SIEMENS*/ BHEL*	CATEGORY - 1

(Shatendra Kumar)
AGM (E-E)-NR

(R. N. Shinde)
GM (E-E)-WR

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE / INSPECTION
17	SANDWICH BUS DUCT	CAT-A&B	EAP/ L&T/ LEGRAND/ C&S/ RR KABEL/ EAE/ SCHNEIDER/ GODREJ / POWER DUCTS (TRICOLITE)* / MOELLAR (Imported)* / HONIKOWN (Imported)* / GE POWER*	CATEGORY - 2
18	H.T./L.T.TERMINATION & JOINTING KIT.	CAT-A&B	ANDREW YULE/ COMPAQ / RAY CHEM* / M-SEAL* / CAB SEAL* / DENSON* / MAHINDRA* / BIRLA-3M*	CATEGORY - 3
19	POWER CABLES ABOVE 1.1 KV	CAT-A&B	CRYSTAL/ KEI/ WORLDCAB/ RAVIN/ DYNAMIC/ RHINO/ CMI/ POLYCAB/ UNICAB/ AVOCAB/ GEMSCAB/ HAVELLS/ GLOSTER / UNIVERSAL* (Satna) / CCI* (Bangalore) / RPG* (ASIAN) (Mumbai) / TORRENT* (Nadiad) / NICCO* (Shyam Nagar, WB) / ICL* (Rajpura) / FINOLEX* (Pune) / INDUSTRIAL CABLES* (Rajpura)	CATEGORY - 1
20	POWER CABLES UP TO AND INCLUDING 1.1 KV	CAT-A&B	CRYSTAL/ RALLISON/ KEI / WORLDCAB/ RAVIN/ DELTON/ DYNAMIC/ RHINO/ CMI/ POLYCAB/ UNICAB/ AVOCAB/ RR KABEL/ GEMSCAB/ HAVELLS/ BONTON/ CORDS/ GLOSTER / CCI* (Bangalore) / NICCO* (Shyam Nagar, WB) / UNIVERSAL* (Satna) / RPG* (ASIAN) (Mumbai) / INDUSTRIAL CABLES* (Rajpura) / TORRENT* (Nadiad) / HINDUSTAN VIDYUT PRODUCT LTD* (Faridabad) / FINOLEX* (Pune) / EKTA* (New Delhi) / SKYTONE* (Faridabad)	CATEGORY - 1
21	CONTROL CABLES	CAT-A&B	CRYSTAL/ RALLISON/ KEI/ WORLDCAB/ RAVIN/ DELTON/ TAMRA/ FINECAB/ DYNAMIC/ RHINO/ CMI/ POLYCAB/ UNICAB/ AVOCAB/ RR KABEL / GEMSCAB/ HAVELLS/ BATRA/ CORDS/ GLOSTER / CCI* (Bangalore) / NICCO* (Shyam Nagar WB) / UNIVERSAL* (Satna) / RPG* (ASIAN) (Mumbai) / TORRENT* (Nadiad) / FINOLEX* (Pune) / HINDUSTAN VIDYUT PRODUCT LTD* (HVP) (Faridabad) / LAPP* / ALOKE* (ANKUR TECHNOCRAT)* (Ahmedabad) / EKTA* (New Delhi) / SKYTONE* (Faridabad)	CATEGORY - 1
22	TELEPHONE CABLE	CAT-A&B	RALLISON/ DELTON/ CMI/ POLYCAB/ RR KABEL/ SKYTONE* / NATIONAL* / NICCO*	CATEGORY - 2
23	CO- AXIAL/ INSTRUMENTATION/ FIBER OPTIC/ CAT-6 CABLES	CAT-A&B	RALLISON/ DELTON/ RHINO/ CMI/ POLYCAB/ LEGRAND/ UNICAB/ AVOCAB/ RR KABEL/ GEMSCAB/ CORDS/ SCHNEIDER / BHANSALI* / SKYTONE* / RPG* / UNIVERSAL* / UNIFLEX* / AMP* / AVAYA* / METRO* / SKYLINE* / DELTRON*	CATEGORY - 2
24	CABLE MANAGEMENT SYSTEM (PRE FABRICATED CABLE TRAY/ WIRE MESH SYSTEM ETC.)	CAT-A&B	MEM/ L&T/ LEGRAND / RMCON/ BEC/ RR ISPAT/ RATAN'S/ STERLING DURO/OBO BETTERMANN/ PILCO* / INDIANA* / VENUS* / STEELITE* / SADHANA ENG* / TECHNAD ENG.* / MM ENGG.* / POWER CAB* / NEPTUNE* / RICO STEEL* / PROFAB ENGG.* / SLOTCO*	CATEGORY - 3
25	CAPACITORS	CAT-A&B	SHREEM/ L&T/ LEGRAND/ ABB/ TDK(EPCOS)/ NEPTUNE/ SCHNEIDER / GE POWER* / VOLTAS* / BHEL* / KHATAU ZANKAR* / USHA* / MATRIX*	CATEGORY - 2
26	APFC PANEL	CAT-A	EAP/ TRICOLITE/ SHREEM/ L&T/ ADLEC/ LEGRAND/ EPCOS/ C&S/ NEPTUNE/ SCHNEIDER	CATEGORY - 1
		CAT-B	AMBIT & ALL MAKES IN CAT-A	
27	LIGHTENING PROTECTION SYSTEM	CAT-A&B	ABB/ DEHN/ TERCEL/ ERICO* / PHEONIX* / INDELEC* / DUVAL MASSIAN* / FRANKLIN*	CATEGORY - 3
28	EARTHING SYSTEM (DIGITAL/ CHEMICAL/ PORTABLE EARTHING)	CAT-A&B	JMV/ RATAN'S/ CAPE/ APS/ PROTEC-DHRUVA/ OBO BETTERMANN	CATEGORY - 3
29	SURGE PROTECTION DEVICES	CAT-A	FINDER/ L&T/ LEGRAND/ DEHN/TERCEL / JMV/ MERSEN/ CAPE/ EATON/ PHOENIX CONTACT/ OBO BETTERMANN	CATEGORY - 3
		CAT-B	ALLIED/ PROTEC/ SECOM/ ITE/ CITEL & ALL MAKES IN CAT-A	
30	SCADA (Hardware & Software, Except Computer & Accessories)	CAT-A&B	ABB/ SIEMENS/ SCHNEIDER / ALLEN BRADLEY* / GE FANUC* / JOHNSON CONTROLS* (METASYS MS) / LALNDIS & STEAEFA / HONEYWELL*	CATEGORY - 2
31	SF6 CIRCUIT BREAKER	CAT-A&B	L&T/ ABB/ C&S / BHEL* / CROMPTON GREAVES* / KIRLOSKER* / SIEMENS* / SCHNEIDER*	CATEGORY - 2
32	VACUUM CIRCUIT BREAKER	CAT-A	CG POWER/ L&T/ ABB/ C&S/ ANDREW YULE/ MEGAWIN/ SCHNEIDER/ SIEMENS*	CATEGORY - 2
		CAT-B	CHINT & ALL MAKES IN CAT-A	
33	SERVO STABILIZER	CAT-A	CONSUL NEOWATT/ ANDREW YULE	CATEGORY - 2
		CAT-B	P2 POWER & ALL MAKES IN CAT-A	
34	AUTO TRANSFER SWITCH	CAT-A	SOCOMECC/ L&T/ LEGRAND/ ABB/ HAVELLS/ ASCO (SCHNEIDER)	CATEGORY - 2
		CAT-B	HAGER/ ALL MAKES IN CAT-A	
35	COMPACT SUB STATION	CAT-A&B	L&T/ ABB/ C&S/ SCHNEIDER	CATEGORY - 1
36	EMERGENCY LIGHT - LED (PORTABLE).	CAT-A&B	ABB/ LIFE-GUARD/ PROLITE/ BPL* / SANYO*	CATEGORY - 3
37	CABLES GLANDS		COMET / DOWELL / ELECTROMAC / SIEMENS / BRACO / HMI / MCI / (METAL / CRAFT)	CATEGORY - 3
38	LUGS & THIMBLES		DOWELLS / JOHNSONS/ COMET/ ASCON	CATEGORY - 4
39	SYNTHETIC INSULATING MATS		CPRI certified for required voltage level.	CATEGORY - 2
40	LIGHTNING ARRESTORS	CAT-A&B	JMV/ CAPE/ APS/ PROTEC-DHRUVA/ OBO BETTERMANN/ LAMCO* / ELARO* / ATLAS* / INTERNATIONAL* / AREVA* / OBLUM* / ALPRO* / WS IND* / JAIPURIA* / JAYSHREE*	CATEGORY - 2

(Shalendra Kumar)
AGM (E-E) -NR

(R. N. Shinde)
GM (E-E)-WR

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE / INSPECTION
41	INSULATION TAPE (HT / LT)	CAT-A&B	BENLO/ ANCHOR / BCH	CATEGORY - 4
C DG SETS & RELATED ITEMS				
42	DIESEL ENGINE ABOVE 250 KVA.	CAT-A&B	CUMMINS/ KOEL /CATERPILLAR/ MAHINDRA/ PERKINS/ GREAVES COTTON / ASHOK LEYLAND-BAUDOUIN / MTU* / VOLVO PENTA*	CATEGORY - 1
43	DIESEL ENGINE UPTO AND INCLUDING 250 KVA	CAT-A&B	CUMMINS / KOEL/ CATERPILLAR/ MAHINDRA/ ASHOK LEYLAND / GREAVES COTTON / MTU* / VOLVO PENTA*	CATEGORY - 1
44	ALTERNATOR	CAT-A&B	KIRLOSKAR/ LEROY-SOMER/ STAMFORD/ CROMPTON GREAVES /JYOTI* / NGEF* / KEL*	CATEGORY - 1
45	BATTERIES	CAT-A&B	KIRLOSKAR/ EXIDE* / AMCO* / PRESTOLITE* / AMARON* / GENPRO* / STANDARD FURUKAWA* / LUCAS* / HBL NIFE*	CATEGORY - 3
46	BATTERY CHARGER	CAT-A&B	VERTIV / DELTA	CATEGORY - 2
47	UPS - ABOVE 10 KVA	CAT-A	MICROTEK/ SOCOMEC/ GREEN / NUMERIC/ RIELLO/ AUTOMETERS/ CONSUL NEOWATT/ ABB/ SCHNEIDER / VERTIV (EMERSON) / APC* / DBPOWER*	CATEGORY - 3
		CAT-B	EATON / ALL MAKES IN CAT-A	
48	UPS - UPTO 10 KVA	CAT-A	MICROTEK/ POWER-ONE/ SOCOMEC/ GREEN / NUMERIC/ SCHNEIDER / VERTIV (EMERSON) / DBPOWER* / APC*	CATEGORY - 3
		CAT-B	DELTA / EATON & ALL MAKES IN CAT-A	
D INTERNAL WIRING RELATED ITEMS				
49	MCB/ ISOLATOR/ MCBDB/ RCCB/ RCBO/ ELCB	CAT-A	L&T / INDO ASIAN/ C&S/ LEGRAND / HPL/ BENLO/ ANCHOR / EATON/ GM/ ABB/ MK HONEYWELL/ POLYCARB/ MITSUBISHI/ BCH/ SIEMENS* / SCHNEIDER* / STANDARD* / HAVELLS* / GE*	CATEGORY - 2
		CAT-B	HAGER/ ALL MAKES IN CAT-A	CATEGORY - 2
50	MS CONDUIT	CAT-A	RMCON/ BEC/ SUPER	CATEGORY - 3
		CAT-B	JPC PIPES & ALL MAKES IN CAT-A	
51	PVC CONDUIT	CAT-A	BEC/ AKG/ ANCHOR/ GM/ POLYPACK*/ PRECISION*/ MIHIR*	CATEGORY - 3
		CAT-B	JPC PIPES & ALL MAKES IN CAT-A	
52	INDUSTRIAL SOCKET IN SHEET STEEL ENCLOSURE WITH MCB	CAT-A	C&S/ LEGRAND/ HPL/ NEPTUNE- BALS/ BCH/ INDO ASIAN*/ CROMPTON*/ SCHNEIDER*/ HAVELLS*	CATEGORY - 4
		CAT-B	HAGER/ ALL MAKES IN CAT-A	
53	PVC INSULATED COPPER WIRE	CAT-A	KEI/ PARAMOUNT/ BONTON/ RAJNI GANDHA/ CMI/ ANCHOR / MESCAB/ ALOKE/ GOLD MEDAL/ APAR/ GRANDLAY/ GM/ RALLISON/ BATRA HENLAY/ ZENIUM/ RR KABEL/ BHANSALI/ GLOSTER/ NATCAB/ PARAGON/ BCH/ SKYLINE*/ PLAZA/ V GUARD*/ FINOLEX* / HAVELLS*/ INDO ASIAN*/ CRYATAL*/ POLYCARB*/ KDK EVERSHINE*/ FINECAB*/ CAPCAB*/ STANDARD*	CATEGORY - 2
		CAT-B	GALAXY CONCAB & ALL MAKES IN CAT-A	
54	SWITCHES/ SOCKETS/ TELEPHONE/ TV/ DATA SOCKET/ BOXES (MODULAR/ PIANO TYPE)	CAT-A	BENLO/ INDO ASIAN/ C&S/ SIMON/ ANCHOR/ L&T/ GOLD MEDAL/ LEGRAND/ GM/ HPL/ ABB/ MK HONEYWELL/ POLYCARB/ BCH / SSKAY* / HAVELLS*/ NORTH WEST* / CLIPSAL*/ WESTERN VEGA*	CATEGORY - 3
		CAT-B	HAGER & ALL MAKES IN CAT-A	
E FIRE ALARM EQUIPMENTS.				
55	FIRE / SMOKE DETECTOR	CAT-A	APOLLO/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE/ TYCO SIMPLEX/ G + M SCHRACK/ HONEYWELL/ SYSTEM SENSOR*/ MORLEY IAS*	CATEGORY - 2
		CAT-B	KIDDE (UTC)/ GST (UTC) & ALL MAKES IN CAT-A	
56	FIRE ALARM PANEL / REPEATER PANEL	CAT-A	APOLLO/ AUTRONICA (UTC)/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE /TYCO SIMPLEX/ G + M SCHRACK/ HONEYWELL/SYSTEM SENSOR*/ MORLEY IAS*/ GROUP4*/ MATHER & PLATT*/ MINIMAX*	CATEGORY - 2
		CAT-B	KIDDE (UTC)/ GST (UTC) & ALL MAKES IN CAT-A	
57	HOOTER / MANUAL CALL POINT / RESPONSE INDICATOR	CAT-A	APOLLO/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE / TYCO SIMPLEX/ G + M SCHRACK/ HONEYWELL/ MORLEY IAS*/ SYSTEM SENSOR* / GROUP4* / MINIMAX*	CATEGORY - 2
		CAT-B	GST (UTC) & ALL MAKES IN CAT-A	
58	PA SYSTEM FOR FIRE ALARM SYSTEM	CAT-A&B	APOLLO/ SIEMENS/ BOSCH/ TYCO SIMPLEX/ G + M SCHRACK/ HONEYWELL/ AHUJA*/ PHILIPS*/ MOTWANE*	CATEGORY - 3
59	FIRE SURVIVAL CABLE	CAT-A	CMI/ KEI/ BONTON/ POLYCARB/ BATRA HENLAY/ RR KABEL/ WREXHAM	CATEGORY - 2
		CAT-B	FUSION POLYMER & ALL MAKES IN CAT-A	
60	FIRE ESCAPE / EXIT SIGNAGES	CAT-A	LIFE-GUARD/ PROLITE/ DELITE	CATEGORY - 3
F LED LIGHT FIXTURE AND FANS				
61	TERMINAL/ ANCILLARY/ RESIDENTIAL BUILDING /	AS PER SPECIFICATION		CATEGORY - 2
62	AVIATION WARNING LIGHT /OBSTRUCTION LIGHT (LOW	MANUFACTURERS WHO MEET ICAO REQUIREMENTS		CATEGORY - 3

(Shalendra Kumar)
AGM (E)-NR

(R. N. Shinde)
GM (E-E)-WR

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE / INSPECTION
63	LAMPS FOR FITTING (NON - LED)	PHILLIPS/ GE/ BAJAJ/ OSRAM/ WIPRO/ CROMPTON/ THORN/ SCHREDER/ REGENT/ REGGIANI/ TRILUX/ GEWISS/ REGIOLUX/ AECC/ LIGHT(DURLU MY) C&S GROUP/ SOLAR/ HAVELLS/ HALONIX/ ORTON/ SURYA		CATEGORY - 4
64	CEILING/ WALL FAN	CAT-A&B	ANCHOR/ HALONIX/ GM/ RR/ ORIENT* / GEC* /POLAR* /USHA* / CROMPTON* / BAJAJ* / KHAITAN* / ALMONARD*/ HAVELLS*	CATEGORY - 2
65	EXHAUST/ FRESH AIR FAN	CAT-A&B	ANCHOR/ HALONIX/ GM/ RR/ GEC* /CROMPTON* / KHAITAN* / ALMONARD*/ BAJAJ*	CATEGORY - 2
G	AIRCONDITIONING AND FIRE FIGHTING ACCESSORIES.			
66	G I / M S PIPES	CAT-A&B	PRAKASH SURYA/ ITL-INDUS/ BEC/ RR ISPAT/ JINDAL STAR/ TATA* /HSL* / SAIL*	CATEGORY - 2
67	VALVES (BUTTERFLY/ SLUICE/ CHECK/ NRV/ FOOT/ GATE/ GLOBE ETC.)	CAT-A	ZOLOTO/ CRANE / JOHNSON CONTROL / DANFOSS/ VTM/ EMERALD/ ADVANCE / CASTLE / SANT / KIRLOSKAR* / LEADER* / KILBURN*/ AUDCO*/ SARKAR* /DIVINE* / C&R*	CATEGORY - 2
		CAT-B	VENUS & ALL MAKES IN CAT-A	CATEGORY - 2
68	SUCTION / POT / Y- STRAINER	CAT-A&B	VTM/ ANERGY/ EMERALD / SANT / LEADER*	CATEGORY - 2
69	SPRINKLER / FLEXIBLE CONNECTION FOR SPRINKLER	CAT-A&B	LIFE-GUARD/ EXFLAME/ SAFEFIRE/ TYCO / AQUAMIST/ NEWAGE/ SPRAY SAFE* / HD*	CATEGORY - 2
70	FIRE HYDRANT LANDING VALVES/ FIRE BRIGADE CONNECTION.	CAT-A	FIRESHIELD/ LIFE-GUARD/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ TYCO/ NEWAGE / MINIMAX* / SAFEX* / VIJAY* / SAFE GUARD*	CATEGORY - 2
		CAT-B	VENUS & ALL MAKES IN CAT-A	CATEGORY - 3
71	INSTALLATION VALVE (ISI MARKED)	CAT-A&B	LIFE-GUARD/ TYCO/ SPRAY SAFE*/ HD*	CATEGORY - 3
72	FIRE HOSE PIPES/ FIRST AID HOSE REEL	CAT-A&B	FIRESHIELD/ LIFE-GUARD/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ CHEMGAURD/ SKUM / NEWAGE / MINIMAX* / SAFEX*	CATEGORY - 2
73	BRANCH PIPE, NOZZLE AND COUPLINGS	CAT-A	FIRESHIELD/ LIFE-GUARD/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ TYCO/ ANSUL/ GRINELL/ NEWAGE / MINIMAX* / SAFEX*	CATEGORY - 2
		CAT-B	VENUS & ALL MAKES IN CAT-A	CATEGORY - 2
74	FIRE EXTINGUISHERS	CAT-A&B	KANEX/ FIRESHIELD/ LIFE-GUARD/ SUPREMEX/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ ANSUL/ SKUM/ CHEMGAURD / MINIMAX* / SAFEX* / SAFEGUARD*	CATEGORY - 2
75	FIRE SUPPRESSION SYSTEM	CAT-A	LIFE-GUARD/ SUPREMEX/ SHOOTFIRE/ ANSUL/ LPG/ HYGOOD	CATEGORY - 2
		CAT-B	FOAMTECH / FIRE TREX & ALL MAKES IN CAT-A	CATEGORY - 2
76	DIESEL ENGINE DRIVEN PUMP FOR FIRE FIGHTING	CAT-A	MAHINDRA/ CATERPILLAR/ ASHOK LEYLAND* / KIRLOSKAR OIL*	CATEGORY - 2
		CAT-B	GRUNDFOS & ALL MAKES IN CAT-A	
77	PUMPS/ SUBMERSIBLE/ SEWAGE PUMPS (VERTICAL/ HORIZONTAL)	CAT-A&B	GRUNDFOS/ ANDRITZ/ XYLEM/ AQUA _ANS/ KSB / KIRLOSKAR* / BEACONS* / MATHER & PLATT* / CROMPTON* / WASP*/ JYOTI* / BE *I VOLTAS* /GREAVES* / AMRUT*/ PEC*/ SUGUNA*/ CALAMA*(for Pumps Only)	CATEGORY - 2
78	MOTORS	CAT-A&B	BHARAT BIJLEE/ GRUNDFOS/ BCH/ KIROLSKAR* / ALSTOM* / SIEMENS* / JYOTHI* / ABB* / CROMPTON* / NGEF*	CATEGORY - 2
79	MOTOR/ PUMP STARTER	CAT-A	ABB/ C&S/ SIEMENS/ SCHNEIDER/ L&T/ BENLO/ GRUNDFOS/ PHOENIX CONTACT/ BCH/ EATON/ CUTLER HAMMER* / GE POWER* / ABS*	CATEGORY - 2
		CAT-B	VIDHYUT CONTROL/ MOTOVARIO & ALL MAKES IN CAT-A	CATEGORY - 3
80	SINGLE PHASING PREVENTOR/ OVER LOAD PROTECTION UNIT	CAT-A	SELEC/ BCH/ L&T* / GE POWER* / SIEMENS* / MINILEC* / ABB*	CATEGORY - 2
		CAT-B	HAGER / ALL MAKES IN CAT-A	CATEGORY - 2
81	PRESSURE SWITCH	CAT-A&B	DANFOSS/ EMERALD/ SWIZER*	CATEGORY - 2
82	G I SHEETS.	CAT-A&B	RUSKIN TITUS/ JINDAL / TATA* / HSL* / SAIL*	CATEGORY - 2
83	GRILLS /DIFFUSERS.	CAT-A	RUSKIN TITUS/ CARYAIRE/ MAPRO/ GREENHECK/ CRYSTAL/ AIRMASTER*/ VINAYAGA* /CORPORATION* / AJANTA* / RAVI STAR*	CATEGORY - 3
		CAT-B	TRISTAR/ CONAIRE/ CARYAIRE & ALL MAKES IN CAT-A	
84	INSULATION MATERIAL (a) Rock Wool/ Glass Wool / Nitrile Rubber (b) XLPE/EPDM	CAT-A	TWIGA / ARMAFLEX / ALP AEROFLEX / K-FLEX / LLOYDS/ INSUFLEX/ PILKINGTON*/ BEARDSSELL*	CATEGORY - 3
		CAT-B	PARAMOUNT & ALL MAKES IN CAT-A	CATEGORY - 3
		CAT-A	TROCELLEN/ ALP AEROFLEX/ INSUFLEX / K-FLEX	CATEGORY - 3
		CAT-B	PARAMOUNT & ALL MAKES IN CAT-A	CATEGORY - 3
85	PRE-FABRICATED GI DUCT	CAT-A	ROLASTAR/ DUCTOFEB/ ADVANCE/ WAVES/ ZECO	CATEGORY - 3
		CAT-B	REFROTECH & ALL MAKES IN CAT-A	
86	FIRE DAMPERS	CAT-A	MAPRO/ GREENHECK / RUSKIN / CARYAIRE	CATEGORY - 2
		CAT-B	TRISTAR/ CONAIRE & ALL MAKES IN CAT-A	CATEGORY - 2
87	AIR CURTAINS.	CAT-A&B	MITZVAH/ TECHNOCRAT/ ALMONARD* / BECON* / TECHNOMECH* / RUSSEL* / AERODYNAMICS*	CATEGORY - 2
88	MODULATING MOTOR	CAT-A	ANERGY/ SIEMENS/ GRUNDFOS/ HONEYWELL*/JOHNSON */STefa CONTROL* /RAPID COOL*	CATEGORY - 2
		CAT-B	CONAIRE & ALL MAKES IN CAT-A	

(Shalendera Kumar)
AGM (E-E)-NR

(R. N. Shinde)
GM (E-E)-WR

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE / INSPECTION
89	MODULATING/ SOLENOID/ BALANCING VALVE FOR AHU	CAT-A&B	DANFOSS/ VTM / ANERGY/ SIEMENS/ CASTLE / SANT/ ADVANCE/ AZBIL/ JOHNSON CONTROL* / RAPID COOL* / HONEYWELL*	CATEGORY - 2
90	REFRIGERENT VALVE	CAT-A&B	BRASMATIC / SANT	CATEGORY - 2
91	FILTERS	CAT-A	HUMIDIN/ DYNA* / KIRLOSKAR* / PUROMATIC* / PURAFILL* / THERMODYNE* / PURE AIR*	CATEGORY - 3
		CAT-B	USHA FILTERS & ALL MAKES IN CAT-A	
92	THERMOSTAT	CAT-A	FINDER/ / DANFOSS/ HONEYWELL* / JOHNSONS* / LANDIS & STEAEFA* / PENN* / INDFOSS* / ESCORTS* / DASSPASS* / SWIZER*	CATEGORY - 3
		CAT-B	ALL MAKES IN CAT-A	
93	HP /LP /OFF SWITCH THERMOSTATS / HUMIDISTATS STRIP HEATERS.	CAT-A&B	DANFOSS/ ANERGY	CATEGORY - 3
94	ENERGY SAVING DEVICES	CAT-A&B	P2 POWER/ FINDER/ TDK(EPCOS)	CATEGORY - 3
95	THERMOMETERS	CAT-A&B	WIKI/ EMERALD/ JAPSIN* / FIEBIG* / GURU*	CATEGORY - 3
96	PROPORTIONAL THERMOSTATE		HONEY WELL / JOHNSONS / LANDIS & STEAEFA	CATEGORY - 3
97	PRESSURE GAUGE		H.GURU / FIEBIG / JASPIN / BESTOBELL / GENERAL INSTRUMENTS	CATEGORY - 3
98	BUILDING MANAGEMENT SYSTEM (Hrardware & Software, Except Computer & Accessories)	CAT-A&B	JOHNSON CONTROL/ DELTA (LOYTEC) / L&T/ TRANE/ TRIDIUM/ SIEMENS/ AZBIL/ HONEYWELL	CATEGORY - 3
99	VFD DRIVE	CAT-A&B	DELTA/ L&T/ BHARAT BIJLEE / GRUNDFOS/ MITSUBISHI/ SCHNEIDER /ABB / DANFOSS / ALAN BRADLEY*/ SIEMENS*	CATEGORY 3
100	FIRE DAMPER MOTORS		BALEMO /JUVANTO / SIEMENS	CATEGORY - 2
101	MIXING VALVE WITH MOTOR		SIEMENS / JHONSON CONTROL /HONEYWELL /RAPID COOL	CATEGORY - 2
H A/C PLANTS, A/C UNITS & EQUIPMENTS.				
102	A/C UNITS (SPLIT/ WINDOW/ CASSETTE/ TOWER TYPE)	CAT-A&B	HITACHI/ SAMSUNG/ CARRIER/ HAIER/ LG / BLUE STAR/ DAIKIN/ MITSUBISHI*/ VOLTAS*(Split AC Only)	CATEGORY - 2
103	PRECISION AIR CONDITIONING	CAT-A&B	STULZ/ CLIMAVENTA/ SWEGON BLUE BOX/ VERTIV/ SIDWAL	CATEGORY - 3
104	PACKAGED AIRCONDITIONER	CAT-A	HITACHI/ TRANE/ CARRIER/ SIDWAL/ LG / VOLTAS* / BLUESTAR*	CATEGORY - 2
		CAT-B	DAIKIN & ALL MAKES IN CAT-A	
105	CHILLERS / A.C. PLANTS	CAT-A	DAIKIN/ KIRLOSKER/ TRANE/ LG/ YORK / CLIVET/ BLUE STAR/ CLIMAVENETA/ DUNHAMBUSH/ VOLTAS/ CARRIER	CATEGORY - 1
		CAT-B	CRISTOPIA & ALL MAKES IN CAT-A	
106	AIR HANDLING UNITS (AHU)	CAT-A	EDGE TECH/ STULZ/ TRANE/ CARRIER / HUMIDIN/ ZECO/ WAVES/ CRYSTAL	CATEGORY - 1
		CAT-B	TRISTAR & ALL MAKES IN CAT-A	
107	FAN COIL UNIT (FCU)	CAT-A	EDGE TECH/ DAIKIN / TRANE/ YORK / CARYAIRE/ CARRIER	CATEGORY - 2
		CAT-B	TRISTAR & ALL MAKES IN CAT-A	
108	VRV/ VRF AIRCONDITIONING SYSTEM	CAT-A&B	HITACHI/ SAMSUNG/ CARRIER/ HAIER/ VOLTAS/ LG/ DAIKIN/ TRANE/ BLUE STAR/ TOSHIBA/	CATEGORY - 2
109	COOLING TOWER UP TO 200 TR.	CAT-A&B	BELL/ MIHIR* / PAHARPUR* / ADVANCE* / SOUTHERN COOLING TOWERS*	CATEGORY - 2
	COOLING TOWER ABOVE 200 TR.	CAT-A&B	BELL/ MIHIR* / PAHAR PUR* / ADVANCE*	CATEGORY - 2
110	FAN (AXIAL FLOW / INLINE / VENTILATION / PROPELLAR)	CAT-A	WOLTER/ AIRFLOW/ GREENHECK/ RR/ ELTA / CRYSTAL/ NICOTRA/ GEC* / ALMONARD* / KHAITAN* / ACCEL* / CROMPTON*	CATEGORY - 2
		CAT-B	CARYAIRE & ALL MAKES IN CAT-A	
111	R O SYSTEM /WATER SOFTENING PLANT	CAT-A	ZERO B	CATEGORY - 3
		CAT-B	VENZA & ALL MAKES IN CAT-A	CATEGORY - 3
112	WATER COOLER	CAT-A&B	ZERO B/ SIDWAL	CATEGORY - 3
I PA SYSTEM				
113	AMPLIFIERS	CAT-A&B	YAMAHA / NEXO/ HEINRICH/ HONEYWELL/ BOSCH* / BOSE*	CATEGORY - 2
114	ANNOUNCEMENT MICROPHONES /CAR CALL CONSOLES	CAT-A&B	YAMAHA / NEXO/ HEINRICH/ HONEYWELL/ BOSCH* / BOSE*	CATEGORY - 2
115	CONTROLLERS	CAT-A&B	YAMAHA / NEXO / HEINRICH/ HONEYWELL	CATEGORY-3
116	SPEAKER	CAT-A&B	YAMAHA / NEXO/ HEINRICH/ HONEYWELL/ APOLLO/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE/ BOSE*	CATEGORY -3
J MISCELLANEOUS ITEMS.				
117	CCTV CAMERA	CAT-A&B	SIEMENS/ TYCO- ILLUSTRATE / HONEYWELL/ BOSCH* / ULTRAK*/ PELCO*	CATEGORY - 2
118	DVR	CAT-A&B	SIEMENS/ TYCO- ILLUSTRATE/ HONEYWELL/ BOSCH* / ULTRAK*/ PELCO*	CATEGORY - 2
119	LCD/LED/PLASMA MONITOR	CAT-A&B	SAMSUNG / LG / SONY/ JVC / PANASONIC/ BOSCH / ULTRAK/ PELCO	CATEGORY - 2

(Shateendra Kumar)
AGM (E-E)-NR

(R. N. Shinde)
GM (E-E)-WR

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)	CATEGORY OF TEST CERTIFICATE / INSPECTION
120	COMPUTER/PC/ACCESSORIES	HP/DELL/WIPRO/IBM	CATEGORY - 2
121	HAND DRIER	CAT-A&B TECHNOCRAT/ ANAND AUTOMATIC SYSTEM*/ KOPAL*	CATEGORY - 3
122	HDPE/ DOUBLE WALL CORRUGATED HDPE PIPE	CAT-A&B NARAYANI POLYPIPER/ BEC/ GEMINI/ GANGOTRI / TELEREX / DURALINE / HIMALYAN*	CATEGORY - 3
123	HDPE TANK	ISI MARK	CATEGORY - 3
124	AUTOMETIC GLASS DOOR	CAT-A&B AUTOINGRESS/ NEPTUNE (FAAC)/ GODREJ	CATEGORY - 3
125	BOLLARD	CAT-A&B BROSIS/ NEPTUNE (FAAC)	CATEGORY - 3
126	BOOM BARRIER	CAT-A&B AUTOINGRESS/ BROSIS/ NEPTUNE (FAAC)	CATEGORY - 3
127	TROLLY GATE	CAT-A&B AUTOINGRESS	CATEGORY - 3
128	TYRE KILLER	CAT-A&B BROSIS/ NEPTUNE (FAAC)	CATEGORY - 3
129	POLES/ HIGH MAST/ DECORETIVE POLES	CAT-A RR ISPAT/ SGS / VALMONT/ BAJAJ / SUMIP CAT-B TWINKLE & ALL MAKES IN CAT-A	CATEGORY - 3
130	SMU / STRING COMBINER BOX	CAT-A&B HENSEL / ADVANCE	CATEGORY - 3
131	SOLAR INVERTER	CAT-A&B SUNGROW/ DELTA/ POWER ONE & ANY MANUFACTURER APPROVED BY MNRE/ BIS.	CATEGORY - 2
132	SOLAR MODULES	CAT-A&B JAKSON ENGINEERS / HHV SOLAR TECHNOLOGIES (HHV ST) & ANY MANUFACTURER APPROVED BY MNRE/ BIS	CATEGORY - 2
133	DC CABLES	CAT-A&B KEI/ BONTON/ CMI/ ALOKE/ APAR/ BHANSALI/ GLOSTER	CATEGORY - 2
134	ALUMINIUM LADDERS/ HYDRAULIC LADDERS	CAT-A SUMER CAT-B PARAS / VARDHMAN & ALL MAKES IN CAT-A	CATEGORY - 2
135	DASH FASTNERS	CAT-A&B HILTI/ MUNGO	CATEGORY - 4
K	GROUND LIGHTING ITEMS		
	FOR CAT-III LIGHTING SYSTEM, ONLY FAA CERTIFIED INSET LIGHT, CCR, ISOLATING TRANSFORMER, PLUG & RECEPTACLES AND AGL CABLE SHALL BE USED AS PER AVAILABILITY.		
136	ELEVATED RUNWAY/ TAXIWAY/ APPROACH LIGHT FITTINGS	MANUFACTURERES WHO MEET ICAO REQUIREMENT FOR ISO CANDELA AS SPECIFIED IN ANNEXURE - 14.	CATEGORY - 1
137	LED BASED TAXIWAY FITTINGS (INSET/ ELEVATED)	MANUFACTURERES WHO MEET ICAO REQUIREMENT FOR ISOCANDELA AS SPECIFIED IN ANNEXURE - 14.	CATEGORY - 1
138	INSET TYPE LIGHT FITTINGS	MANUFACTURERES WHO MEET ICAO REQUIREMENT FOR ISOCANDELA AS SPECIFIED IN ANNEXURE - 14.	CATEGORY - 1
139	PAPI	AMA / MANUFACTURES WHO MEET ICAO REQUIREMENT	CATEGORY - 1
140	LENSES/FILTERS	THORN/ IDAM-OY/ CEGELEC/ ADB/ ERNI/ YOUYANG OR AS RECOMMED BY OEM	CATEGORY - 1
141	LAMPS (T-14, T-10, SPERICAL)	JS LAMPS / KOILITE / PHILIPS	CATEGORY - 3
142	LAMPS (HALOGEN)	OSRAM / PHILIPS / YOUYANG OR AS RECOMMED BY OEM	CATEGORY - 3
143	ISOLATING TRANSFORMERS	CAT-A BILDAL/ AMA/ ELECTROMACH/ THORN/ IDMAN-OY/ CEGELEC/ ADB/ YOUYANG CAT-B CTC & ALL MAKES IN CAT-A	CATEGORY - 1
144	CONSTANT CURRENT REGULATORS	CAT-A&B HONEYWELL/ HIND RECTIFIER/ AMA/ NASU/ THORN/ IDMAN-OY/ CEGELEC/ ADB/ YOUYANG	CATEGORY - 1
145	5 KV GRADE AIRFIELD LIGHTING CABLE	CAT-A&B KEI/ ALOKE/ RALLISION/ BHANSALI/ GLOSTER / DYNAMIC & MANUFACTURER HAVING 11KV GRADE BIS/ FAA CERTIFIED CABLES	CATEGORY - 1
146	PLUGS & RECEPTACLE	CAT-A&B AMA/ BILDAL /ALOKE/ BCH/ NEPTUNE- BALS/ VASANTH/ YOUYANG	CATEGORY - 2

* Shall be considered subject to enlistment of Item/ Product as per terms & conditions, criteria etc. of Expression of Interest (EOI) of AAI at CHQ level, before supply of Item/Product.

CATEGORY REQUIREMENT OF TEST CERTIFICATE/INSPECTION

CATEGORY - 1:

- Type test certificate for similar item done. If not, one of the items offered is to be type tested.
- OEMs routine test certificate.
- Acceptance test to be conducted in the presence of AAI representative at OEMs factory.

CATEGORY - 2:

- Type test certificate for similar item done. If not, one of the items offered is to be type tested.
- OEMs routine test certificate.
- Visual and functional check by AAI official at AAI airport site.

(Shalendra Kumar)
AGM (E-E)-NR

(R. N. Shinde)
GM (E-E)-WR

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)	CATEGORY OF TEST CERTIFICATE / INSPECTION
-------	-------	---	---

CATEGORY - 3:

- OEM/Dealer/Contractor routine test certificate.
- Visual and functional check by AAI official at AAI airport site

CATEGORY - 4:

- Visual and functional check by AAI official at AAI airport site.

NOTE:

- This categorization is done keeping in mind big projects wherein the bought out item quantity may be large. In case the bought out item/ supplied items are of very less in quantity, required category may be reviewed by Technical sanction Authority. Technical sanction authority shall finalise the requirements of certificate at the time of call of tender.
- Following guidelines shall be followed while implementing the approved makes list:
 - The technical sanctioning authority or the NIT approving authority shall specifically indicate in tender document the make of the items in accordance with approved list (Annexure-A2).
 - In case of supply item tender, where a manufacturer directly participates and whose make is not included in the approved list but otherwise meets the notice inviting tender conditions, then NIT approving authority may examine the merit of the case and consider/allow their make appropriately for participating only in that tender.
 - Approved Makes list under CAT-A shall be for Terminal buildings, Office buildings & ancillary Buildings in Operational area
 - Approved Makes list under CAT-B shall be for Residential Colony, Ancillary Buildings in Non-operational area & Service block/Substation building
 - All makes in CAT-A are eligible for CAT-B also.
 - Items/ Products under (*) Star Category, shall be considered subject to :
 - ED Engg. Shall have the powers to accept the star (*) marked items/products for a particular project, case to case basis, without formal enlistment, on the merit of the case.
 - Items/Products kept under Star (*) Category, shall be considered subject to fresh enlistment of the item/product as per terms & conditions, criteria etc of Expression of Interest (EOI) of AAI at CHQ on approval of ED (Engg.)-NR.
 - Project specific items, which are not covered in this approved makes list, may be considered with the approval of TS Authority, not below the rank of GM (Engg.)/GM (P).
- In addition to above, GM (Engg.) of respective regions shall have the powers to approve the product make for maintenance works following transparent process.
- Where less than 03 options of makes are mentioned in the list, TS authority (not below than GM) may add the renowned & reputed makes as per the merit of the case as work specific makes as per AAI requirements
- Field units must ensure the codal procedures and quality etc. while procuring the materials, notwithstanding the approval and must give prompt feedback in case of any adverse report in respect of quality, durable life, performance and successful completion of contracts/orders etc. by the firm
- The enlistment of items/products of manufacturer/OEM shall be valid for a period of one year on trial basis and the same shall be extendable for further period of three years, subject to satisfactory performance and feedback from the field stations/Airports
- In case of any adverse report of performance of the products the approval may be cancelled/withdrawn/withheld at any time with immediate effect with the approval of Member (Plg.).
- This list shall be applicable for all electrical works including Maintenance ,Special repair, Project (PMC/EPC) & Composite works.

(Shalendra Kumar)
AGM (E-E)-NR

(R. N. Shinde)
GM (E-E)-WR

Validate

Print

Help

Item Rate BoQ

Tender Inviting Authority: Asstt. Gen. Manager (Engg-Elect.), AAI, Jolly Grant Airport, Dehradun

Name of Work: "Misc. Capital works in operational and non-operational area at Dehradun Airport. (SH:- Replacement of defective LT cable of different locations in operational area at Dehradun Airport.)"

Contract No:

Name of the
Bidder/
Bidding Firm /
Company :

PRICE SCHEDULE

(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)

NUMBER #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Quoted Currency in INR / Other Currency	BASIC RATE In Figures To be entered by the Bidder (Including all Taxes but excluding GST)	TOTAL AMOUNT Rs. P	TOTAL AMOUNT In Words
1	2	4	5	12	13	53	55
1	Supply of 1.1 KV grade XLPE insulated and PVC sheathed aluminium conductor, armoured LT cable, conforming to IS 7098 (Part-I) 1988 with upto date amendments and as specified of following sizes.						
1.1	(a) 3.5 Core x 120 Sq.mm	500	Meter	INR		0.00	INR Zero Only
2	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size above 95 sqmm and upto 185 sqmm direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.	350	Meter	INR		0.00	INR Zero Only
3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size above 95 sqmm and upto 185 sqmm in the existing RCC/ HUME/ METAL pipe as required.	100	Meter	INR		0.00	INR Zero Only
4	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size above 95 sqmm and upto 185 sqmm in the existing masonry open duct as required.	50	Meter	INR		0.00	INR Zero Only
5	Supplying & making of cable end termination with brass compression gland and aluminium lugs for following sizes of XLPE / PVC insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade as required.						
5.1	(a) 3.5 Core x 120 Sqmm	4	Set	INR		0.00	INR Zero Only
6	Supply of following size HDPE pipe ISI marked conforming to IS 14930, Part II.						
6.1	(a) 63 mm dia., 4 Kgf/cm ²	100	Meter	INR		0.00	INR Zero Only
7	Laying of following size HDPE pipe complete with fitting and cutting, jointing etc. direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.						
7.1	(a) 63 mm dia.	100	Metre	INR		0.00	INR Zero Only
8	Supply of 100 mm dia. G.I. pipe of "B" class (conforming to IS:1239 Part-I 2004) for road and concrete crossing.	40	Metre	INR		0.00	INR Zero Only
9	Laying of 100 mm dia. GI pipe of B class in hard soil/surface concrete upto a depth of 40 cms. including excavation and refilling it with 1:2:4 CC to make the surface good etc. as required & as per the direction of Engineer-in-charge.	40	Metre	INR		0.00	INR Zero Only
10	Supply of following capacity electric geysers of following capacity suitable for operation on 1 phase AC supply of 220 Volt,50 Hz complete with its all accessories like power cord, mounting stand etc. as required of reputed makes such as Havells, Bajaj, etc.						

NUMBER #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Quoted Currency in INR / Other Currency	BASIC RATE In Figures To be entered by the Bidder (Including all Taxes but excluding GST)	TOTAL AMOUNT Rs. P	TOTAL AMOUNT In Words
1	2	4	5	12	13	53	55
10.1	(a) Geyser - 25 litre	2	Each	INR		0.00	INR Zero Only
10.2	(b) Geyser - 50 litre	2	Each	INR		0.00	INR Zero Only
11	Supply of National Flag of size 20' x 30' in 100% knitted Polyester (140gsm) with reinforced super-strong nylon webbing on all 3 sides (for withstanding strong winds) complete with rope/ toggle on the side sleeve as required at site.	10	Nos.	INR		0.00	INR Zero Only
12	Supply of stool type folding ladder of following platform height made of rectangular Zig-Zag channel heavy duty Aluminum section of size 75x35x3.8 mm and upper corner thickness shall be 6.5 mm as per IS: 733-1983 temper T-6 and 63 mm wide Corrugated aluminum 01 piece steps having non slippery Corrugated flat section bottom end with non slippery rubber pad and all other accessories required for safeties etc as per original equipment manufacturer as per original equipment manufacturer as required. (Similar to model RELADS 2502, make RELADS) subject to Compliance of enclosed Technical Specification.						
12.1	(a) Height 20 feet	1	Each	INR		0.00	INR Zero Only
13	Supply, Installation, Testing and Commissioning of 40 Watt LED street light with inbuilt 48Ah lithium ferro phosphate battery, 75 watt Solar Photo-Voltaic panel with inbuilt solar charger controller and PIR sensor, dusk to dawn with 12 hour battery backup of reputed make & reliable operation including 5 years Warranty period from the date of commissioning of above solar panel in different locations at Dehradun Airport.	6	Job	INR		0.00	INR Zero Only
14	Dismantling and Reinstalling of 500 ltrs solar water heater (with all enclosures), dismantling from CISF Barracks and reinstallation on the roof of old substation building at Dehradun Airport.	1	Job	INR		0.00	INR Zero Only
15	Supply of following electrical equipments along with calibration certificate report:						
15.1	(a) Digital Clamp meter (Motwane make, Model No. DCM-39 A)	1	Each	INR		0.00	INR Zero Only
15.2	(b) Digital Earth Tester (Motwane make, Model No. DET-20) with complete kit.	1	Each	INR		0.00	INR Zero Only
15.3	(c) Digital Insulation Tester (Motwane make, Model No. i12)	1	Each	INR		0.00	INR Zero Only
15.4	(d) Extractor/Vacuum Cleaner having 15 Litre gross capacity with wet & Dry function & operation on single phase. (equivalent to Make: BOSCH, Model No.: GAS 15 Professional).	1	Each	INR		0.00	INR Zero Only
16	Supply of 12V-7AH sealed lead acid battery for OMEGA make lift of exide or its equivalent make.	15	Each	INR		0.00	INR Zero Only
17	Supply of Dragon search light of 3-mm thick, tough, Shock-Proof & Water-proof High-Grade ABS Body, 10 Watt LED lamp, beam range of 1 km, penetration range of 200 feet in fog and smoke, 4.5AH sealed maintenance free high performance battery with Dual Charging: AC/DC Wall Charger or through 6V DC SOLAR PANEL (3-5W only) and three mode of operation high beam low beam and Auto flasher equivalent to FOS protector.	5	Each	INR		0.00	INR Zero Only
Total in Figures						0.00	INR Zero Only
Quoted Rate in Words						INR Zero Only	