

TENDER NO: NAL/PUR/ICTD/254/22-Z Date: 06-Dec-2022

TENDER DOCUMENT

FOR

INTELLIGENT INTEGRATED SMART ROW WITH 6 RACKS SOLUTION AT CSIR-NAL

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH
NATIONAL AEROSPACE LABORATORIES
PB NO.1779, HAL AIRPORT ROAD, BENGALURU – 560017

KARNATAKA-INDIA



Council of Scientific and Industrial Research
National Aerospace Laboratories
PB No.1779, HAL Airport Road, Bengaluru – 560 017, Karnataka-India
Tel #: 00 91 80 25086040/6041
Fax #: 00 91 80 25269611

Email: purchasek@nal.res. in Website: www.nal.res.in

Invitation for e-Bids / Notice Inviting e-Tender

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research, an autonomous body under Department of Scientific and Industrial Research (Government of India), New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organization. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites sealed bids from the Manufacturers, their distributors and Indian Agent of Foreign Principals, if any, for the procurement of the following Goods/Services for its day-to-day research. The Technical specifications, Allied requirements and scope of supply are given in **Chapter 4** appended herewith.

Sr. No.	Tender No.	Brief Description of item(s)	Quantity	Type of Bid	Mode of Procurement
1	NAL/PUR/ICTD/254/22-Z	Intelligent Integrated Smart Row with 6 Racks Solution at CSIR-NAL	Details as per Chapter-4 and BoQ	Single Stage Two Bid	Open Tender [Domestic]

- 1. E-Bids are invited through the electronic tendering process and the Tender Document can be downloaded from the e-Tender Central Public Procurement Portal (CPPP) of Government of India, https://etenders.gov.in. The submission of e-Bids will be only through the e-Tender portal https://etenders.gov.in. Bids will not be accepted in any other form.
- 2. Interested Bidders may obtain further information from the office of the:

Controller of Stores & Purchase

Purchase Section

CSIR- National Aerospace Laboratories

PB No.1779, HAL Airport Road, Kodihalli, Bengaluru – 560017

Karnataka-India

Tel #: 080 25086040/6041/6044

Fax #: 080 25269611

Email: purchasek@nal.res.in, mkala@nal.res.in

- 3. The prospective bidders should adhere to deadlines specified in Tender Details Screen corresponding to this Tender on E-Tender portal https://etenders.gov.in.
- 4. The Interested bidders should submit/upload Non-Disclosure Agreement (NDA) on E-Tender portal https://etenders.gov.in as scheduled below before attending the pre-bid meeting and the bidders who have submitted NDA only will be able to participate in the pre-bid Meeting and those bidders only can submit the tender. The other bids will be rejected, if submitted. NDA to be printed/executed on company's letter-head and signed by the bidders on both sides of each page.

Successful Bidder should submit NDA duly registered as per Stamp Act of India before placement of Purchase Order.

	Date	Time in hours (IST)
Submission of NDA [on or before]	NOT APF	PLICABLE
Approval of NDA		

5. (a) A Pre-Bid Conference (PBC) will be held as mentioned below (as the case may be):

	Date	Time in hours (IST)	Venue
Pre-Bid Conference		NOT APPLICABLE	

Bidders desirous of attending Pre-bid meeting are required to provide the following details: -

- 1. Bidders Name & address
- 2. Name, designation & mobile number of the representative (s) attending the meeting.
- 3. E-mail ID to which the meeting invitation to be sent.
- 4. Pre-bid queries, if any.

- (b) No Queries, suggestions or representation made after the PBC will be entertained. Changes made to the bidding document subsequent to PBC shall be treated as amendment to the bidding document and hosted in the CPP Portal/Purchase Website.
- (c) The Prospective bidders are requested to take cognizance of the amendments made, if any before submitting the quote which will be hosted on CSIR-NAL Website and CPP Portal before formulating and submitting the bids.

6. The Bid prepared by the Bidder shall include the following:

	Bid Security (BS) / Earnest Money Deposit (EMD)		
a)	The amount of Bid Security/EMD shall be: Rs.4,00,000 /- [Rupees Four Lakh Only]		
	The Bid Security/Earnest Money Deposit shall be deposited through Bank		
	Guarantee/Demand Draft drawn in favour of "The Director, National Aerospace		
	Laboratories, Bengaluru". The original Bid Security/EMD must be delivered to address		
	mentioned in Sr. No.2 above or before bid submission date and time as mentioned in		
	"Date Sheet" failing which the bid shall be summarily rejected.		
	For further details, refer Clause No.1.16 of Tender document		
	OR		
b)	If the Bid Security/EMD is <u>NIL</u> (or) Bidder is claiming exemption as per provisions specified		
	in the Tender document then the bidder has to furnish/submit BID SECURING		
	DECLARATION as per FORMAT specified in Chapter-8, Annexure-B.		
	The Bid Security Declaration in the name of "The Director, CSIR-National Aerospace		
	Laboratories, Bengaluru" to be part of the Technical Bid, without which the bid is liable to		
	be rejected.		
c)	For further details on the above, refer Tender document.		
d)	Forms as specified in Chapter No.8		

7. The Schedule for Submission of e-Bids and Opening of e-Bids is as follows:

Date & Time of S	Submission of	Date and Time	of Opening of
e-Bi	d	e-B	id
Date	Time (IST)	Date	Time (IST)
29-Dec-2022	10:00 Hrs	30-Dec-2022	11:00 Hrs

8. Government of India's Public Procurement Policies are binding in CSIR-NAL, as the case may be. Therefore, the Bidders are requested to refer to the instruction/guidelines as and when issued regarding Government of India Procurement Policies for Make in India and MSE issued by Ministry of Commerce and Industry, Department of Industrial Policy and Promotion (DPIIT) and Ministry of Finance. The onus for ensuring compliance to the provisions of the Policy notifications keeping in view the requirements under this Tender document entirely rests with the Bidder.

Although provisions related to Government's public procurement purchase preference policy are briefly stated in the tender document under relevant clauses, any bidder seeking exemptions / benefits / preferences under MSEs / Start Up India / Make in India / DPIIT, Ministry of Commerce and Industry policy or any other policy / scheme of the Government of India, which is currently in force MUST at the time of bidding itself declare its bidding status and the benefit/preference sought under the relevant policy of the Government and enclose all related documents / certificates etc. for claiming such benefits. The bidder must also clearly highlight the provisions of the policy with respect to the benefit/preference being sought by it for which it meets the eligibility conditions. Any exemption of DPIIT Order of at the discretion of the Competent Authority of CSIR.

IF THE BIDDER FAILS TO DECLARE ITS STATUS AND/ OR FAILS TO CLAIM THE POLCIY BENEFIT/ PREFERENCE/ EXEMPTION ETC. AND/ OR FAIL TO SUBMIT NECESSARY DOCUMENTS/ CERTIFICATES IN SUPPORT OF ITS CLAIM AT THE TIME OF BIDDING ITSELF, ITS CLAIM SHALL NOT BE ENTERTAINED AT A LATER STAGE IN THE BIDDING PROCESS AND NO OPPORTUNITY SHALL BE PROVIDED TO IT TO SUBMIT ANY DOCUMENT/ CERTIFICATE IN SUPPORT OF ITS CLAIM AS IT VIOLATES THE TENDERING PROCESS.

- 9. (a) In case of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/ dealer. There can be only one bid from the following:
 - i) The Principal manufacturer directly or through one Indian agent on his behalf; and
 - ii) Indian/foreign agent on behalf of only one principal.
 - (b) Foreign Bidders must disclose the name and address of agent and representative in India and Indian bidder must disclose their foreign principal or associates.
 - (c) If bidder is Indian Agent of Foreign Principal, the following instruction shall be complied and as amended from time to time as on the date of issue of Tender:
 - i) Bidder must necessarily comply with conditions of "Make in India" Order No. F-45021/2/2017-PP (BE-II) dated 16-Sep-2020 of Ministry of Commerce and Industry, Government of India, as amended from time to time on the date of issue of Tender.
 - ii) The Bidder shall comply with restrictions under Rule 144(xi) of the GFR 2017 related to restrictions on participation of Foreign Bidders and their Authorised Indian Agent/Dealer in terms of Order No.P-45021/112/2020-PP(BE-II) (E-43780) dated 24-Aug-2020 of the Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade, as amended from time to time as on the date of issue of Order.
- 10. The bids of those bidders failing to comply the following clauses will be summarily rejected.
 - (a) The bidders proposing to supply finished products directly/indirectly from Bidders of Countries sharing the land border with India should submit copy of registration done with the Ministry of Home Affairs and Ministry of External Affairs.
 - (b) If the products supplied are not from Bidders of Countries sharing Land border with India, the Bidders should enclose a declaration
 - (c) The debarment of a Bidder/Vendor in this tender, if any, is reciprocal of that Principal's Country, if it is Import.
- 11. The Director, CSIR-National Aerospace Laboratories (NAL), Bengaluru, India reserves the right to accept or reject any bids or accept all tenders either in part or in full or to split the order, or to annul the bidding process without assigning any reasons there for.

sd/-Controller of Stores & Purchase For and on behalf of CSIR

General Instructions to Bidders: -

- O1. For participation in e-procurement all bidders (including Foreign bidders) need to enroll themselves on the CPP Portal (https://www.etenders.gov.in). Only enrolled/registered bidders with the said portal shall be allowed to participate in the e-tendering process.
- O2. Tender Documents may be downloaded from Central Public Procurement Portal https://www.etenders.gov.in. Aspiring Bidders who have not enrolled/ registered in e-procurement should enroll/ register before participating through the website https://www.etenders.gov.in. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
- O3. Tenderers can access tender documents on the website (For searching in the NIC site https://www.etenders.gov.in, kindly go to Tender Search option, select tender type and select 'Council of Scientific and Industrial Research' in organization tab and select NAL-Bengaluru-CSIR' in department type Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website https://www/etenders.gov.in as per the schedule.
- 04. The Bidders should have Java 8 update 231 version-32 bit for uploading the bid in the CPP Portal.
- 05. Purchase Section, CSIR-NAL neither operates nor manages the CPP Portal where online bids are submitted and therefore will not be responsible for any technical issues related to bid submission (viz., being not being able to upload bid, blank/missing/part documents etc.,). If bid is incomplete on account of these, it will be treated as such and evaluated further. For any technical queries/issues related to online bid submission, Bidders must directly approach support service of CPP Portal as per the details given on their website.

INDEX

Chapter	Content	Page No.
1	Instructions to Bidders	6-27
2	General and Special Conditions of Contract	28-44
3	Schedule of Requirement	45
4	Specifications and Allied Technical Details	46-61
5	Price Schedule Forms	62
6	Qualification Requirements	63-66
7	Contract Form	67
8	Other Forms	68-88
9	Terms & Conditions	89-91
10	Confidentiality and Non-Disclosure Agreement	92-94

CHAPTER - 1

INSTRUCTIONS TO BIDDERS-Table of Contents

Clause No.	Contents
0.00001101	A. Introduction
1.1	Eligible Bidders
1.2	Cost of Bidding
1.3	Code of Integrity
	B. The Bidding Documents
1.4	Cost of tender Documents
1.5	Content of tender Documents
1.6	Clarification of tender documents
1.7	Amendment of tender Documents
	C. Preparation of Bids
1.8	Language of Bid
1.9	Purchase Preference Policies
1.10	Documents Comprising the Bid
1.11	Bid form and price schedule
1.12	Bid Prices
1.13	Bid Currencies
1.14	Documents Establishing Bidder's Eligibility and Qualifications
1.15	Documents Establishing Goods' Eligibility And Conformity to Bidding Documents
1.16	Bid Security
1.17	Period of Validity of Bids
1.18	Format and Signing of Bid
	D. Submission and Sealing Bids
1.19	Submission, Sealing and Marking of Bids
1.20	Deadline for Submission of Bids
1.21	Late Bids
1.22	Withdrawal, substitution and Modification of Bids
	E. Opening and Evaluation of Bids
1.23	Opening of Bids by the Purchaser
1.24	Confidentiality
1.25	Clarification of Bids
1.26	Preliminary Examination
1.27	Bidders right to question rejection
1.28	Responsiveness of Bids
1.29	Non-Conformity, Error and Omission
1.30	Examination of Terms & Conditions, Technical Evaluation
1.31	Conversion to Single Currency
1.32	Evaluation and Comparison of bids
1.33	Contacting the Purchaser
1.34	Post qualification
	F. Award of Contract
1.35	Negotiations
1.36	Award Criteria
1.37	Purchaser's right to vary Quantities at Time of Award
1.38	Option Clause
1.39	Purchaser's right to accept any Bid and to reject any or all Bids
1.40	Notification of Award
1.41	Signing of Contract
1.42	Order Acceptance
1.43	Performance Security
1.44	Pre-bid Conference
1.45	Integrity Pact
1.46	Assistance to Bidders

<u>A</u> <u>Introduction</u>

Instructions to bidder are broad guidelines to be followed while formulating the bid and its submission to the Purchaser. It also describes the methodology for opening and evaluation of bids and consequent award of contract. Instructions applicable for Import of Goods (Global Tender Enquiry) need not be applicable for Domestic Tender Enquiry and those may be ignored.

1.1. Eligible Bidders

- 1.1.1 This Invitation for Bids is open to all suppliers. However, only Class-I and Class-II local suppliers are eligible to participate in **Domestic Tender. Any bidder** from foreign country can participate in **Global Tender Enquiry** subject to clause 1.1.3 below. Mode of procurement is whether Domestic Tender or Global Tender Enquiry is specified in NIT.
- 1.1.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.
- 1.1.3 Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods or services, only if the bidder is registered with the Competent Authority as specified in Ministry of Finance (GoI) Order No.6/18/2019 PPD dated 23rd July 2020 and as amended from time to time.
- 1.1.4. Bidders who fulfil the Eligibility Criteria mentioned in Chapter 6 will be considered for Technical Evaluation of bids.
- 1.1.5 The bidders who have been temporarily suspended or removed from the list of registered suppliers by the purchaser or banned from Ministry/country wide procurement **shall be ineligible** for participation in the bidding process.

1.2 Cost of Bidding

1.2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

1.3 <u>Code of Integrity</u>

1.3.1 The bidders/suppliers should sign a declaration about abiding by the Code of Integrity for Public Procurement and submit it in the form as per **Chapter-8: Annexure-H** along with bid documents. In case of any transgression of this code, the bidder is not only liable to be removed from the list of registered suppliers, but it would be liable for other punitive actions such as cancellation of contracts, banning and blacklisting or action by Competition Commission of India, and so on.

1.3.2 Code of integrity for Public Procurement:

The Purchaser requires that the bidders, suppliers, contractors and consultants should observe the highest standard of ethics and should not indulge in the following prohibited practices, either directly or indirectly, at any stage during the procurement process or during execution of resultant contracts:

i)	"Corrupt practice"	making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process or contract execution;
ii)	"Fraudulent practice"	any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract;

7

iii)	"anti-competitive practice"	any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of the Competition Act, 2002, between two or more bidders, with or without the knowledge of the purchaser, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels;
iv)	"coercive practice"	harming or threatening to harm, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
v)	"conflict of interest":	participation by a bidding firm or any of its affiliates that are either involved in the consultancy contract to which this procurement is linked; or if they are part of more than one bid in the procurement; or if the bidding firm or their personnel have relationships or financial or business transactions with any official of purchaser who are directly or indirectly related to tender or execution process of contract; or improper use of information obtained by the (prospective) bidder from the purchaser with an intent to gain unfair advantage in the procurement process or for personal gain; and
vi)	"Obstructive practice"	materially impede the purchaser's investigation into allegations of one or more of the above mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the purchaser's Entity's rights of audit or access to information;
vii)	Collusive practice	means a scheme or arrangement between two or more bidders, with or without the knowledge of the purchaser, designed to establish bid prices at artificial, non-competitive levels.

1.3.2 The Purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

1.3.3 Obligations for Proactive disclosures

i)	The Purchaser as well as bidders, suppliers, contractors and consultants, are obliged
	under Code of Integrity for Public Procurement to sue-moto proactively declare any
	conflicts of interest (coming under the definition mentioned above - pre-existing or as
	and as soon as these arise at any stage) in any procurement process or execution of
	contract. Failure to do so would amount to violation of this code of integrity; and
ii)	The bidder must declare, whether asked or not in a bid document, any previous
	transgressions of such a code of integrity with any entity in any country during the last
	three years or of being debarred by any other Procuring Entity. Failure to do so would
	amount to violation of this code of integrity;

To encourage voluntary disclosures, such declarations would not mean automatic disqualification for the bidder making such declarations. The declared conflict of interest would be evaluated and mitigation steps, if possible, taken by the purchaser.

1.3.4 Punitive Provisions

Without prejudice to and in addition to the rights of the Purchaser to other penal provisions as per the bid documents or contract, if the Purchaser comes to a conclusion that a (prospective) bidder/supplier, directly or through an agent, has violated this code of integrity in competing for the contract or in executing a contract, the purchaser may take appropriate measures including one or more of the following:

i) If bids are under consideration in any procurement:		ids are under consideration in any procurement:
	a)	Forfeiture or encashment of bid security;

		b)	Calling off of any pre-contract negotiations; and
		c)	Rejection and exclusion of the bidder from the procurement process.
ii)	If a	contract has already been awarded
		a)	Cancellation of the relevant contract and recovery of compensation for loss incurred by the purchaser;
		b)	Forfeiture or encashment of any other security or bond relating to the procurement;
			Recovery of payments including advance payments, if any, made by the purchaser along with interest thereon at the prevailing rate.
ii	i)	Pro	visions in addition to above:
		a)	Removal from the list of registered suppliers and banning/debarment of the bidder from participation in future procurements of the purchaser for a period not less than one year;
filed under the signature of the Joint Secretary Commission of India;		b)	In case of anti-competitive practices, information for further processing may be filed under the signature of the Joint Secretary level officer, with the Competition Commission of India;
		c)	Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.

B. The Bidding Documents

1.4 <u>Cost of Tender Documents</u>

1.4.1 The bidding documents are to be **downloaded Free of Cost** from the website of **CPP Portal** https://etenders.gov.in or www.nal.res.in.

1.5 <u>Content of Tender Documents</u>

1.5.1 The Goods / Services required, bidding procedures and contract terms are prescribed in the bidding documents which should be read in conjunction with this Procurement specification. The bidding documents, apart from the invitation for Bids / Notice Inviting Tender have been divided into 8 Chapters as under:

Chapter No.	Name of the Chapter		
1	Instructions to Bidder (ITB)		
2	General Conditions of Contract (GCC) and Special Condition of Contract (SCC)		
3	Schedule of Requirements		
4	Specifications and Allied Technical Details		
5	Price Schedule Forms		
6	Qualification requirements		
7	Contract Form		
8	Other Standard Forms comprising		
	(i) Bid Security / Earnest Money Deposit		
	(ii) Bid Securing declaration		
	(iii) Bidder Information Form		
	(iv) Bid form		
	(v) Manufacturer's Authorization Form (MAF);		
	(vi) Performance Statement form		
	(vii) Service Support details;		
	(viii) Format for declaration by the bidder for code of integrity and conflict of interest		
	(ix) Certificate of Local Content		
	(x) Certificate of Price Break-up of Local Content		
	(xi) Integrity pact		
	(xii) Self-Certification		
	(xiii) Deviation Statement Form		
	(xiv) Performance Security Form		
	(xv) Acceptance Certificate Form		

1.5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

1.6 Clarification of tender documents

PRE-BID CONFERENCE (PBC)

The objective of PBC is to provide a platform for clarifying issues and clearing doubt, if any, about the specification and other allied technical/commercial details of the bid document. This is also an opportunity to question the bidding conditions and the bidding process. You can bring to our notice any restrictive terms, condition, inconsistent/conflicting, clauses terms/information or item specification in the tender document so that required changes can be made, if any.

1.6.1 In case when there is NO PRE-BID CONFERENCE

A prospective Bidder requiring any clarification of the bidding Documents shall contact the Purchaser in writing through the CPPP website https://etenders.gov.in OR at the Purchaser's address specified in the Special Conditions of Contract (SCC). The Purchaser will respond in writing through the CPP Portal OR through e-mail to any request for clarification, provided that such request is received not later than ten (10) days prior to the due date for submission of bids. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB Clause 1.7 relating to amendment of bidding documents and ITB Clause 1.20 relating to Due date for Submission of Bids. The amendments issued would be hosted on the CPPP website https://etenders.gov.in of the purchaser for the benefit of the prospective bidders who are expected to take cognizance of the same before formulating and submitting their bids.

1.6.2. In case when there is PRE-BID CONFERENCE

- a) A prospective Bidder requiring any clarification of the Biding Documents shall contact the Purchaser in writing through CPPP website https://etenders.gov.in OR at the Purchaser's address specified in the Special Conditions of Contract (SCC), latest by the date specified in the Invitation for Bids / NIT which would be deliberated as per ITB Clause 1.6.2 (b) of Instructions to the Bidders. No request for clarification or query shall be normally entertained after the Pre-Bid Conference. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB Clause 1.7 relating to amendment of Bidding Documents and ITB Clause 1.20 relating to Due Date for Submission of Bids. The clarifications and amendments issued would also be hosted on the CPPP website https://etenders.gov.in of the Purchaser for the benefit of the other prospective bidders.
- A Pre-bid Conference shall be held at venue and schedule specified in Tender Detail Screen. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate CSIR-NAL for proper conduct of the Pre-bid Conference, all prospective bidders are requested to kindly submit their queries (with envelope bearing Tender No. and Date on top and marked "Queries for Pre-bid Conference") so as to reach CSIR-NAL as indicated in Invitation to Bid. Queries may be sent by email to CSIR-NAL shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. These proceedings will become a part of clarifications / amendments to the bidding documents and would become binding on all the prospective bidders. These proceedings would also be hosted on CPPP website https://etenders.gov.in for the benefit of all the prospective bidders. Before formulating and submitting their bids, all prospective bidders are advised to surf through the CPPP website https://etenders.gov.in after the Pre-bid Conference, in order to enable them take cognizance of the changes made in the Tender document.

A Pre-bid Conference shall be held as indicated in invitation to bid, if any. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate the purchaser, the proper conduct of the Pre-bid Conference, all prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the NIT/Special Conditions of Contract (SCC), latest by the date specified in the critical date sheet. No request for clarification or query shall normally be entertained after the deadline/pre-bid conference if any. The purchaser shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. The proceeding of the Pre-Bid Conference would be hosted on the website of the purchaser/CPP Portal. Before formulating and submitting their bids, all prospective bidders are advised to surf through the purchaser's website/CPP Portal after the Pre-bid Conference, in order to enable them take cognizance of the revised tender conditions.

1.6.3 The queries, clarifications and amendments issued would also be hosted on the website of the CPP Portal/Purchaser for the benefit of the other prospective bidders and also shall be sent to all bidders who have purchased the tender documents.

1.7 Amendment of Tender Documents

- 1.7.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the tender documents by amendment. The same would also be hosted on the website of the CPP Portal/Purchaser and all prospective bidders are expected to surf the website before submitting their bids to take cognizance of the amendments.
- 1.7.2 All prospective bidders who have down loaded the Tender Document should surf website of CPP Portal/Purchaser from time to time to know about the changes / modifications in the Tender Document. The changes / modifications would also be hosted on the website of CPP Portal/Purchaser. All prospective bidders are expected to surf the website of CPP Portal/Purchaser before formulating and submitting their bids to take cognizance of the amendments.
- 1.7.3 In order to allow prospective bidders' reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids and host the changes on the website of **CPP Portal/Purchaser.**

C. PREPARATION OF BIDS

1.8. Language of Bid

- 1.8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser shall be written in English language only especially when the details are technical. However, if GOI makes it mandatory under Raj Bhasha Abhiyan, in that case view of Rajbhasha unit of CSIR may be sought.
- 1.8.2 The Bidder/Supplier shall bear all costs of translation, if any, to the English language and bear all risks of the accuracy of such translation, for documents provided by the Bidder/Supplier.

1.9 Purchase Preference Policies

- 1.9.1 The purchaser intends to give product reservation/purchase preference/price preference in line with current Govt. of India procurement policies to help inclusive national economic growth by providing long term support to Small and Medium enterprises (SMEs) and disadvantaged sections of the society and to address environmental concerns along with preferential market access in govt. procurements.
- 1.9.2 For the above purpose, local supplier means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed in DIPP Order No.P-45021/2/2017-PP (BE-II) dated 28thMay, 2018 or by the Ministries/Departments in pursuance of this order, as amended from time and time and local content means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

1.10.1 <u>Documents comprising the E-bid</u>

The E-bid shall comprise of the documents as per the requirement of the Tender Document. The documents specified in Chapter-8, Annexure-M, Deviation Statement Form (Part-II) should be scanned and **uploaded in PDF format in proper sequence**. The scanned documents uploaded as part of bid should be scanned in high resolution for better readability.

The bid prepared by the Bidder shall include documents as under:

The bid prepared by the Bidder shall include documents as under:				
Sr. No.				
A. TECHNICAL BID				
(a)				
` ,	(b) Bid Securing Declaration			
` ,	(c) Bidder Information Form			
(d)	Bid Form			
(e)	Manufacturer's Authorization Form along with a certified copy of the Agency Agreement between the bidders and the Indian Agent;			
(f)	Performance Statement Form;			
(g)	Service support details form;			
(h)	Declaration abiding by the Code of Integrity and no conflict of interest for public procurement;			
(i)	 (i) Certificate of Local Content ➤ Self-certification that the item offered meets the minimum local content giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable. 			
	In cases of procurement for a value in excess of ₹ 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India policy, if applicable.			
(j)	Certificate of Price Break-p of Local Content			
(k)	Integrity Pact, if applicable;			
(I)				
(m)				
(n)				
(o)	Deviation Statement Form;			
(p)	Schedule of requirements.			
(q)	Unpriced bid with Technical Specifications & Scope of Supply/services and Terms & Conditions			
	B. PRICE BID			
(i)	Bid form;			
(ii)	Applicable Price Schedule Form;			
(iii)	Certificate of Price Break-up of Local Content;			
(iv)	Terms & conditions			

1.10.2 <u>Documents comprising Single Bid</u>

All the documents (as applicable) specified in **Chapter-8: Annexure-M (Part-II)** should be submitted in Single E-Bid along with BOQ- Price bid.

1.10.3 <u>Documents comprising Two Bid (Technical Bid & Price Bid)</u>

Technical bid should comprise documents (as applicable) specified in Chapter-8:Annexure-M (Part-II). Price Bid should comprise of BOQ & Annexure-J (if applicable).

1.10.4 Bill of Quantity (BOQ)- Price bid

Bidders should necessarily submit their price bid in the format provided and no other format is acceptable. The prices mentioned in BOQ shall be considered for evaluation and comparison of bids. Bidders 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 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.

1.11. Bid form and price schedule

1.11.1 The bidder shall complete the Bid Form and the appropriate price schedule form furnished in the bidding documents. These forms must be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. The Bid Form and the appropriate Price Schedule form shall be submitted in accordance with ITB Clause 1.18.3 of the bidding documents.

1.12. Bid Prices

1.12.1 The Bidder shall fill up the Bill of Quantity (BoQ) which is Price Bid. The BoQ should be filled up carefully as it will be used for evaluation of L1. The contract will be awarded to L1 bidder subject to fulfillment of other terms and conditions of tender and also the Price Preference Policy of Government of India, as amended from time and time and as specified in the tender document

1.12.2 Prices indicated on the price-schedule form shall be entered separately in the following manner:

1 11000	3 indicated on the price scriedale form shall be effected separately in the following mariner:				
(a)	For G	Goods manufactured within India			
	(i)	The price of the goods quoted Ex-works including taxes already paid.			
(ii) GST and other taxes, if any which will be payable on the goods if the					
	awarded				
	The charges for inland transportation, insurance and other local services required				
		for delivering the goods at the desired destination as specified in the price			
		schedule form.			
	(iv) Wherever applicable, the cost towards the installation, commissioning, spares,				
	extended warranty, AMC/CMC, site preparation and training including any				
	incidental services, if any.				
(b)	For Goods manufactured abroad				
	(i)	The price of the goods, quoted on FCA (named place of delivery abroad) or FOB			
		(named port of shipment), as specified in the price schedule form.			
	(ii)	The charges for insurance and transportation of the goods to the port / place of			
	destination both by Air/Sea.				
	(iii) The agency commission charges, if any.				
	(iv) Wherever applicable, the cost towards the installation, commissioning,				
		extended warranty, AMC/CMC, site preparation and training including any			
	incidental services, if any.				

- 1.12.3 The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.
- 1.12.4 Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offer shall be rejected as incomplete.
- 1.12.5 The price quoted shall remain fixed during the contract period and shall not vary on any account
- 1.12.6 All lots and items must be listed in Unpriced bid and priced separately as per BoQ/Price Schedule. If the Unpriced bid shows items listed but not priced in BoQ/Price Schedule, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.
- 1.12.7 (a) In case of imports the freight & insurance will be paid by the Purchaser, as the consignments are to be shipped through the Purchaser nominated freight forwarder.
 - (b) Custom Duty is levied on all import meant for CSIR-NAL. Hence, the suppliers are requested to quote only on FOB/FCA basis, freight, insurance and custom duty as applicable to R&D Institutions will be paid by the Purchaser.
- 1.12.8. In case of INR bids the price criteria should be on Free Delivery to CSIR-NAL, Bengaluru. Govt. Levies like GST etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, GST etc., if any.
- 1.12.9 (a) CSIR-NAL is a Public Funded Research Institute under Department of Scientific & Industrial Research, Government of India and concessional Custom duty @ 5.15% is applicable for the

- goods purchased for Research purpose vide Government of India vide Notification No.51/96–Customs dated 23-July-1996, as amended from time to time.
- (b) CSIR-NAL is a Public Funded Research Institute under Department of Scientific & Industrial Research, Government of India and concessional GST is not applicable for the Goods purchased for Research purpose. GST shall be applicable @ 18% for goods and services supplied to CSIR Institutes.
- 1.12.10 Please state specifically in your offer whether the duties and taxes are extra over the prices quoted, failing which it will be presumed that the prices are inclusive of taxes and duties and no claim would be entertained for statutory variations at a later date.
- 1.12.11 Stipulations like "GST is presently not applicable but the same will be charged if it becomes leviable later on" is not acceptable unless in such cases it is clearly stated that GST will not be charged if the same becomes applicable later on due to increase in turn over etc. If a bidder fails to comply with this requirement, his quoted price shall be loaded with the quantum of duty which is normally applicable on the item in question for the purpose of comparison with the prices of other tenderers.
- 1.12.12 a) All payments due under the contract shall be paid after deduction of statutory levies (at source) (like TDS, IT, TCS etc.) wherever applicable. In this connection GOI notification may be referred to before submitting quote on their own interest. Statutory deductions will be done accordingly at the time of payment.
 - b) If the supplier have not filed Income Tax Returns for the latest FY, TDS/TCS is applicable as per Income Tax Act.
 - c) Withholding Taxes are applicable on Foreign payments such as but not limited to Royalty, Fees for Technical Services etc..

1.13. Bid Currencies

1.13.1 Prices shall be quoted in Indian Rupees for offers received for supply within India and in freely convertible foreign currency in case of offers received for supply from foreign countries i.e. domestic tenderers are to quote and accept their payment in Indian currency; Indian agents of foreign suppliers are to receive their agency commission in Indian currency; cost of imported goods & services rendered in India, which are directly imported against the contract, may be quoted in foreign currency (currencies). Multicurrency BoQ shall have provision to quote prices in multiple currencies including Indian Rupees.

1.14. <u>Documents Establishing Bidder's Eligibility and qualifications</u>

- 1.14.1 The bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification (as specified in Chapter-6) to perform the contract if its bid is accepted.
- 1.14.2 The documentary evidence of the bidder's qualification to perform the contract if the bid is accepted shall establish to the purchaser's satisfaction that;
 - (a) The bidder meets the qualification criteria listed in bidding documents if any.
 (b) Bidder who doesn't manufacture the goods it offers to supply shall submit Manufacturers' Authorization Form (MAF) using the form specified in the bidding document to demonstrate that it has been duly authorized by the manufacturer of the goods to quote and/or supply the goods
 - (c) In case a bidder not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post-warranty period.
- 1.14.3 Conditional tenders/offers shall not be accepted. Alternate offers/makes/models will not be considered.

1.15 <u>Documents Establishing Goods' Eligibility and Conformity to Bidding Documents</u>

1.15.1 To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.

- 1.15.2 To establish the conformity of the goods and services to the specifications and schedule of requirements of the bidding document, the documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of:
 - (a) A detailed description of the essential technical and performance characteristics of the goods;
 - (b) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods during the warranty period following commencement of the use of the goods by the Purchaser in the Priced-bid; and
 - (c) An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 1.15.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.
- 1.16. Bid Security (BS) / Earnest Money Deposit (EMD)
- 1.16.1 The Bidder shall furnish, as part of its bid, a bid security (BS) / Earnest Money Deposit (EMD) for an amount as specified in the Invitation for Bids in the form of Bank Guarantee / Demand Draft drawn on any Nationalized/ Scheduled bank in favour of the "Director, National Aerospace Laboratories, Bengaluru", as the case may be.

A. In the case of foreign bidder(s):

a)	The BS /EMD shall be submitted either by the principal or by the Indian agent.		
b)	The bidder who submits the tender on behalf of their principals should produce		
	documentary evidence in support of their authority to quote.		
c)	The Bank Guarantee (BG) is insisted due to steep fluctuations in foreign exchange		
	hence the foreign DDs are not accepted towards BS/EMD.		
d)	In case a bidder desires to submit a BG issued from a foreign bank, then the same		
	should be confirmed by a Scheduled / Nationalised bank in India.		

B. In the case of Indigenous Bidder(s):-

The BS/EMD shall be submitted by the manufacturer or their specifically authorized dealer/bidder.

- 1.16.2 E-bids submitted without BS/EMD will stand rejected. BS/EMD will not be accepted in the form of Cash/Cheque or any other form other than DD/Bank Guarantee as per format given in Chapter-8, as the case may be. No Interest is payable on BS/EMD.
- 1.16.3 The bid security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture.
- 1.16.4 The bid security shall be in Indian Rupees for offers received for supply within India and denominated in the currency of the bid or in any freely convertible foreign exchange in the case of offers received for supplies from foreign countries in equivalent Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:
 - (a) A Bank guarantee (BG) or stand-by Letter of Credit issued by a Nationalized/Scheduled bank /Foreign Bank operating in India in the form provided in the bidding documents and valid for 45 days beyond the Validity of the Bid. In case a Bidder desires to submit a BG from the Foreign Bank, then the same should be confirmed by a Nationalised/Scheduled Indian Bank [OR]
 (b) A Banker's cheque or Account Payee demand draft in favour of the purchaser issued by any Nationalized/ Scheduled bank [OR]
 - (c) A Fixed Deposit Receipt pledged in favour of the Director, CSIR-NAL, Bengaluru.
- 1.16.4 The bid security shall be payable promptly upon written demand by the purchaser in case the conditions listed in the **ITB clause 1.16.11** are invoked.

1.16.5 The bid security should be submitted in its original form to the address mentioned below:-

Sr. CONTROLLER OF STORES & PURCHASE CSIR-NATIONAL AEROSPACE LABORATORIES PB NO.1779, HAL AIRPORT ROAD, KODIHALLI, BENGALURU – 560017 KARNATAKA-INDIA

Scanned Copy of Demand Draft/Bank Guarantee towards bid security should be uploaded along with the E-bid. The envelope enclosing EMD should be superscribed with Tender Number and specifying as "EMD" on the envelop.

1.16.6 Bidders that are currently registered with the purchaser or registered as MSEs will continue to remain registered during the tender validity period also and are exempted from payment of EMD. In case the tenderer falls in these categories, the bidder should furnish a certified copy of its valid registration details. Except for MSEs, this exemption is valid for the trade group and monetary value of registration only. The MSEs are provided tender document free of cost and are exempted from the payment of Bid Security provided the goods are produced and the services are rendered by them and not for any trading activities undertaken by them. Further firms who are having Udyog Aadhar Memorandum are entitled to all benefits available for MSEs under the Public Procurement Policies for MSEs and can get registered with any of the following agencies:

(a)	District Industries Centre			
(b)	Khadi and Village Industries Commission			
(c)	Khadi and Village Industries Board			
(d)	Coir Board			
(e)	National Small Industries Corporation			
(f)	Directorate of Handicraft and handloom and			
(g)	Any other body specified by the Ministry of MSME			
(h)	UdyogAadhaar Acknowledgement/UgyogAadhaar Memorandum issued by			
	MoMSME			

- 1.16.7 The bid security of unsuccessful bidder will be discharged /returned as promptly as possible positively within a period of 30 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.
- 1.16.8 The successful Bidder's bid security will be discharged upon the Bidder furnishing the performance security, without any interest. Alternatively, the BS/EMD could also be adjusted against Performance Security, if it is paid through Demand Draft / Banker's Cheque.
- 1.16.9 Where any aggregator has been appointed by the Ministry of MSME, themselves quote on behalf of some MSE units, such offers will be considered as offer from MSE units and all such facilities would be extended to these aggregators also.
- 1.16.10 The receipt of Bid Security before time and date of submission of bid is mandatory requirement.

 The bid is liable to be rejected if the Bid Security is not received within the stipulated time.
- 1.16.11 The bid security may be forfeited:
 - (a) If a Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
 (b) In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 14 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.
- **1.16.12** Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then the Bidder should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.
- 1.16.13 The bidder who seek exemption for EMD/BS or when **EMD/BS specified in NIT is NIL**, then Bidder should submit Bid securing Declaration as per Format specified in Chapter-8.
- 1.17. Period of Validity of Bids
- 1.17.1 Bids shall remain valid for minimum of 90 days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
- 1.17.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of

the period of validity. The request and the responses thereto shall be made in writing (by post, fax or e-mail). The bid security provided shall also be suitably extended failing which the bid would be summarily ignored. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

1.17.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

1.18. Format and Signing of Bid

- 1.18.1 The bids may be submitted as Single-bid or Two-bid as specified in the Invitation for Bids / NIT.
- 1.18.2 In case the bids are invited on single bid basis, then the Bidder shall submit E-bid comprising all documents listed under ITB clause 1.10.1 relating to documents comprising the bid.
- 1.18.3 In case the bids are invited on two-bid system, the Bidder shall submit E-bid in two separate parts. First part shall contain Technical bid comprising all documents listed under clause relating to Documents Comprising the Bid. The second part shall contain the Price-Bid as per the BoQ.
- 1.18.4 The scanned copies of the E-bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid detailing his/her name and contact details.
- 1.18.5 Any interlineations, erasures or overwriting shall be valid only if they are initialed by the persons or persons signing the bid.

D. Submission and sealing of E-Bids

1.19. <u>Submission, Sealing and Marking of Bids</u>

- 1.19.1 Bids shall be submitted online only at CPPP website https://etenders.gov.in
 (Bids received by Manual/ Offline bids/ FAX/E-mail shall not be accepted under any circumstances.)
- 1.19.2 The Bidder shall download the Tender Enquiry Document directly from the website https://etenders.gov.in and shall not tamper/modify it in any manner. In case if the same is found to be tampered/modified in any manner, Tender/Bid will be summarily rejected and EMD would be forfeited.
- 1.19.3 The complete bidding process is online. Bidders should be in possession of valid Digital Signature Certificate (DSC) of class III for online submission of bids. Prior to bidding DSC need to be registered on the website mentioned above. If the envelope is not digitally signed & encrypted the Purchaser shall not accept such open Bids for evaluation purpose and shall be treated as non-responsive and rejected.
- 1.19.4 Bidders are advised to go through "Bidder Manual Kit", "System Settings" & "FAQ" links available on the login page of the e-Tender portal for guidelines, procedures & system requirements. In case of any technical difficulty, Bidders may contact the help desk numbers & email ids mentioned at the e-tender portal. Every Bidder will be required to obtain a Class-III Digital Signature (DSC) for submission of Bids.
- 1.19.5 Bidders are advised to visit CPPP website https://etenders.gov.in regularly to keep themselves updated, for any changes/modifications in the Tender Enquiry Document.
- 1.19.6 Intending bidders are advised to visit CPPP website https://etenders.gov.in regularly till closing date of submission of bid, for any corrigendum.
- 1.19.7 The Bid Security/Earnest Money Deposit shall be deposited through Bank Guarantee / Demand Draft drawn in favour of "The Director, National Aerospace Laboratories, Bengaluru". The original Bid Security/EMD must be delivered at address mentioned in Sr.No.2 of NIT till bid submission date and time as mentioned in "Date Sheet" failing which the bid shall be summarily rejected.
- 1.19.8 Purchaser shall receive the bids online through CPPP portal only. The e-Tender portal shall

automatically stop accepting bids after the scheduled date and time specified in the Tender Document. Partially submitted bids shall be treated as invalid and shall not be processed.

1.20. Due date for Submission of Bids

- 1.20.1 EMD/BS must be received by the Purchase at the address specified in NIT not later than the time and date specified in NIT.
- 1.20.2 Bidders are advised to upload and submit their E-bids timely within due date for submission of E-Bids in view of the electronic process so as to avoid last minute issues.
- 1.20.2 The Purchaser may, at its discretion, extend the deadline for submission of bids by amending the bid documents in accordance with Clause relating to Amendment of Bidding Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the due date as extended.

1.21. Late Submission of EMD / BS

- 1.21.1 Any Bid Security/EMD received by the Purchaser after the due date for submission of bids prescribed by the Purchaser is liable to be rejected.
- 1.21.2 Bidders must note that the e-tender portal shall not permit uploading of bids after the scheduled time of submission.

1.22 Withdrawal, substitution and Modification of Bids

- 1.22.1 The bidder may withdraw, correct or modify his digitally signed bid after submission prior to the deadline for submission of bids, through provisions of e-tendering portal.
- 1.22.2 The bidder is not allowed to modify or withdraw bid after deadline for submission of bids.

E. Opening and Evaluation of E-Bids

1.23 Opening of E-Bids by the Purchaser

- 1.23.1 The E-bids shall be opened online by authorised officials of the Purchaser as per schedule given in Date Sheet. In case of two bid tender, the Price bid of only those bidders who qualified in technical evaluation, shall be opened.
- 1.23.2 In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day. In two-part bidding, the financial bid shall be opened only after technical evaluation. No separate intimation shall be sent to the bidders in this regard.
- 1.23.3 Since, E-bid is an online process; the E-bid opening or any other process may be delayed due to any technical/server issue. If any such issue arises, this will not be tantamount to process delay and CSIR-NAL will not be responsible for the same.
- 1.23.4 On opening of bids online, accepting the bid will not mean that the firm is technically or financially qualified.
- 1.23.5 Bids will be opened online on the specified date and time. There is no need to visit purchaser's premises to attend bid opening. If the bids cannot be opened on due date/ time due to any technical or administrative issues (network/connectivity issues, holidays, office closure etc.) these will be opened as soon as the issue is resolved or next working day as the case maybe. Bids submitted online on CPPP portal are safe, secure, and confidential and can be seen only after opening following the due process

1.24. Confidentiality

1.24.1 Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award. However, decisions taken during process of tender evaluation shall be hosted on e-Tenders

portal.

1.24.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.

1.25. Clarification of Bids

1.25.1 To assist in the examination, evaluation, comparison and post qualification of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest bidder, at the discretion of the purchaser. Any clarification submitted by a bidder in respect to its bid which is not in response to a request by the purchaser shall not be considered.

1.26. <u>Preliminary Examination</u>

- 1.26.1 The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in **ITB Clause 1.10.1** have been provided, and to determine the completeness of each document submitted.
- 1.26.2 The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.

		or these destination of information is information of the origination		
(a)	All the tenders received will first be scrutinized to see whether the tenders meet the			
	basic requirements as incorporated in the tender enquiry document. The tenders, who			
		ot meet the basic requirements, are to be treated as unresponsive and ignored.		
	The fo	ollowing are some of the important points, for which a tender may be declared as		
	unres	sponsive and to be ignored, during the initial scrutiny:		
	(i)	The Bid is unsigned		
	(ii)	The Bidder is not eligible.		
	(iii)	The Bid validity is shorter than the required period.		
	(iv) The Bidder has quoted for goods manufactured by a different firm without the			
	required authority letter from the proposed manufacturer.			
	(v) Bidder has not agreed to give the required performance security or has not			
	furnished the bid security.			
	(vi) The goods quoted are sub-standard, not meeting the required specification, etc.			
	(vii) Against the Requirement (Scope of Supply), the bidder has not quoted for the			
	entire requirement as specified in Chapter-4.			
	(viii) The bidder has not agreed to some essential condition(s) incorporated in the			
	tender enquiry.			
(b)	BoQ	(Price Bid) of the technically qualified bidders shall be liable to rejection, if any		
	condition is added in BoQ which contradicts the technical bid/unpriced bid.			

1.27 <u>Bidder's right to question rejection.</u>

1.27.1 A Bidder shall have the right to be heard in case Bidder feels that a proper procurement process is not being followed and/or tender has been rejected wrongly. Only a directly affected bidder can represent in this regard as under:

	an represent in this regard de dinder.				
i)	qua	y a bidder who has participated in the concerned procurement process i.e. pre- ilification, bidder registration or bidding, as the case may be, can make such			
		resentation;			
ii)	In c	ase pre-qualification bid has been evaluated before the bidding of Technical bids, an			
	арр	lication for review in relation to the technical bid may be filed only by a bidder who has			
	qua	lified in pre-qualification bid;			
iii)	In o	case technical bid has been evaluated before the opening of the financial bid, an			
	app	lication for review in relation to the financial bid may be filed only by a bidder whose			
		technical bid is found to be acceptable.			
iv)	Following decisions of the purchaser in accordance with the provision of internal				
,	guidelines shall not be subject to review:				
	a)	a) Determination of the need for procurement;			
	b)	b) Selection of the mode of procurement or bidding system;			
	c)				
	d)	d) Provisions limiting participation of bidders in the procurement process;			
	e)				
	f)	Cancellation of the procurement process except where it is intended to subsequently			
		re-tender the same requirements;			

- g) Issues related to ambiguity in contract terms may not be taken up after a contract has been signed, all such issues should be highlighted before consummation of the contract by the Vendor/Bidder/contractor; and
 h) Complaints against specifications except under the premise that they are either
- h) Complaints against specifications except under the premise that they are either vague or too specific so as to limit competition may be permissible.
- 1.27.2 In case a Bidder feels aggrieved by the decision of the purchaser, the Bidder may then send their representation in writing to the Purchaser's address as indicated in Special Conditions of Contract (SCC) within 05 working days from the date of communication of the purchaser intimating the rejection for reconsideration of the decision by the purchaser.

1.28 Responsiveness of Bids

- 1.28.1 Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:
 - (a) Affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - (b) Limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Contract; or
 - (c) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 1.28.2 The purchasers' determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 1.28.3 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission.
- 1.28.4 If a bidder quotes Nil Charges/consideration, the bid shall be treated as unresponsive and will not be considered.

1.29 <u>Non-Conformity, Error and Omission</u>

- 1.29.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonconformities or omissions in the Bid that do not constitute a material deviation.
- 1.29.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 1.29.3 Provided that the Bid is substantially responsive, the Bid shall be evaluated as per BoQ.
- 1.29.4 Provided that a bid is substantially responsive, the purchaser may request that a bidder may confirm the correctness of arithmetic errors as done by the purchaser within a target date. In case, no reply is received then the bid submitted shall be ignored and its Bid Security may be forfeited.

1.30 <u>Examination of Terms & Conditions, Technical Evaluation</u>

- 1.30.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.
- 1.30.2 The Purchase shall examine the Bid to confirm that Eligibility and Qualification criteria as specified is fulfilled by the Bidder.
- 1.30.3 The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with ITB Clause 1.15, to confirm that all requirements specified in Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.
- 1.30.4 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 1.28, it

shall reject the Bid.

1.30.5 Any bidder seeking benefit/preference under MSME / Make in India or any other policy/scheme of the Government of India, which is currently in force MUST at the time of bidding itself enclose all relevant documents / certificates etc. for claiming such benefits. The bidder must also clearly highlight the provisions of the policy and the kind of benefit being sought by it for which it meets the conditions for claiming such benefits. It may be noted that no other benefit / preference /concessions which is beyond the scope of the policy or the bidder's entitlement under the policy shall be given / considered by us. If the bidder fails to claim such benefit and/or fail to submit necessary documents/certificates in support of its claim at the time of bidding itself, its claim shall not be entertained at a later stage in the bidding process and no opportunity shall be provided to it to submit any document / certificate.

1.31 Conversion to Single Currency

1.31.1 To facilitate evaluation and comparison, the Purchaser will convert all quoted prices expressed in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers on the date of bid opening in the case of single bid and the rates prevalent on the date of opening of the Technical Bids in case of two-bid. For this purpose, "Bill Currency Selling" exchange rate notified in www.xe.com or www.rbi.org or any other website could also be used by the purchaser.

1.32 Evaluation and comparison of bids

- 1.32.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.
- 1.32.2 To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined below. No other criteria or methodology shall be permitted.
- 1.32.3 Price Preference
- **1.32.3.1** Price preference to Local suppliers as per Make in India procurement policy of Govt of India Reference: DPIIT Order No. P-45021/2/2017-PP (BE-II) dated 16th September 2020issued by inistry of Commerce (Govt of India), as amended from time to time on the date of issue of order.

Only Class-I and Class-II local suppliers are eligible to bid for all procurements other than Global Tender Enquiry and Purchase preference shall be given as specified below:

1) Definitions of terms applicable to Make in India procurement policy of Govt of India

a)	'Local content' means the amount of value added in India which shall be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.	
b)	'Class-I Local supplier' means a supplier provider whose product offered for procurement meets the local content of 50% and above.	
c)	'Class-II Local supplier' means a supplier provider whose product offered for procurement meets the local content of 20% and above but less than 50%.	
d)	'Non-Local supplier' means a supplier provider whose product offered for procurement meets the local content of less than 20%.	
e)	'L1' means the lowest tender or lowest bid or the lowest quotation received in this tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation .	
f)	'Margin of purchase preference ' means the maximum extent to which the price quoted by a local supplier may be above the L1 for the purpose of purchase preference.	

2) Tendered goods are divisible in nature, the following procedure shall be followed to evaluate L1 bidder and bidder for award of contract with the margin of purchase preference of 20% to Class-I Local supplier:

a)	Among all qualified bids, the lowest bid will be termed as L1. If L1 is from a Class-I		
	local supplier, the contract for full quantity will be awarded to L1.		
b)	If L1 bid is not from a Class-I local supplier, 50% of the order quantity shall be		
	awarded to L1. Thereafter, the lowest bidder among the Class-I local suppliers, will		

be invited to match the L1 price for the remaining 50% quantity subject to the local supplier's quoted price falling with in the margin of purchase preference, and contract for that quantity shall be awarded to such Class-I local supplier subject to matching the L1 price. In case such lowest eligible Class-I local supplier fails to match the L1 price or accepts less than the offered quantity, the next higher Class-I local supplier within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on local suppliers, then such balance quantity may also be ordered on the L1 bidder.

3) Tendered goods are **not divisible** in nature, the following procedure shall be followed to evaluate L1 bidder and bidder for award of contract **with** the **margin of purchase preference of 20%** to Class-I Local supplier:

a) Among all qualified bids, the lowest bid will be termed as L1. If L1 is from local supplier, the contract will be awarded to L1.			
b) If L1 is not from a Class-I local supplier, the lowest bidder among the Clasuppliers, will be invited to match the L1 price subject to local supplier price falling within the margin of purchase preference, and the contract		If L1 is not from a Class-I local supplier, the lowest bidder among the Class-I local suppliers, will be invited to match the L1 price subject to local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such Class-I local supplier subject to matching the L1 price.	
	c)	In case such lowest eligible Class-I local supplier fails to match the L1 price, the Class-I local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the Class-I local suppliers within the margin of purchase preference matches the L1 price, then the contract may be awarded to the L1 bidder.	
f	d)	Only Class-II Local suppliers are not eligible to get price preference under this clause.	

Applicability in tenders where contract is to be awarded to multiple bidders

In tenders where contract is awarded to multiple bidders subject to matching of L1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- a. In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only 'Class I Local suppliers'.
- b. In other cases, 'Class II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I Local suppliers'.
- c. If 'Class I Local suppliers' qualify for award of contract for at least 50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% of the tendered quantity, purchase preference shall be given to the 'Class I local supplier' over 'Class II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.
- d. First purchase preference shall be given to the lowest quoting 'Class-I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local supplier', does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local supplier', falling within 20% margin of purchase preference, and so on.

5) For more clarity in this regard, following table is furnished:

Quantity of	Price quoted by Class-I	Finalization of tender
Tendered goods	Local supplier	

Can be Split	L1	Full order on Local supplier
Can be Split	Not L1 but within L1 + 20%	50% order on Class-I Local supplier
		subject to matching L1 price
Cannot be Split	L1	Full Order on Local supplier
Cannot be Split	Not L1 but within L1+20%	Full Order on Class-I Local supplier
		subject to matching L1 price

6) Verification of local content

verii	fication of local content		
a)	The 'Class-I local Supplier'/ 'Class-II local Supplier' at the time of tender, bidding or		
	solicitation shall be required to indicate percentage of local content and provide self-		
	certification (Chapter-8: Annexure-I & J) that the item offered meets the local content		
	requirement for 'Class-I local Supplier'/ 'Class-II local Supplier', as the case may be.		
b)	Bidder shall also give price break up and the location(s) at which the local value		
	addition is made in the form of Annexure-J (Chapter-8). Annexure-I (Chapter-8)		
	should be enclosed with Technical bid and Annexure-J should be enclosed as part of		
	Price bid. Bidder cannot claim the services such as transportation, insurance,		
	installation, commissioning, training, after sales service (warranty or AMC/CMC		
	support), consultancy and custom clearance including custom duty as local value		
	addition.		
c)	In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local		
	Supplier'/'Class-II local Supplier' shall be required to provide a certificate from the		
	statutory auditor or cost auditor of the company (in the case of companies) or from a		
	practicing cost accountant or practicing chartered accountant (in respect of		
	Contractors other than companies) giving the percentage of local content.		
d)	False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h)		
	of the General Financial Rules for which a bidder or its successors can be debarred		
	for up to two years as per Rule 151 (iii) of the General Finance Rules along with such		
	other actions as may be permissible under law.		

1.32.3.2 Price Preference to MSMEs

- 1) In case MSME bidder is L1 entire value of the tender is to be ordered on the L1 MSME bidder.
- 2) In tender, participating Micro and Small Enterprises quoting price within price band of L1 + 15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a Micro and Small Enterprise and such Micro and Small Enterprise shall be allowed to supply upto 25 percent of the total tendered value (where the tender quantity can be split).
- 3) In case of more than one such MSMEs are in the price band of L1 + 15% and matches the L1 price, the supply may be shared proportionately if the goods can be split.
- 4) In case the tendered quantity of goods cannot be split, MSME shall be allowed to supply total tendered quantity provided their quoted price is within a price band of L1 + 15% and they match the L1 price.
- 5) If the quantity cannot be split and there are more than one eligible MSME bidders (price band within L1+15%) then the opportunity to match the L1 rate of the tender shall be given first to MSME (who have quoted lowest rate among the MSMEs within the price band of L1+15%) and the total quantity shall be awarded to him after matching the L1 price of the tender.
- 6) If the MSME who have quoted lowest rate among the MSMEs in the price band of L1 + 15% do not agree to match the rate of L1 of the tender, then the next ranked MSME bidder who has quoted within the price band of L1 + 15% in order shall be given chance to match the rate of L1 for award of the quantity/order.

7) For more clarity in this regard, following table is furnished:

Quantity of Tendered goods	Price quoted by MSME	Finalization of tender
Can be Split	L1	Full order on MSME
Can be Split	Not L1 but within L1+15%	25% order on MSME subject to matching L1

Cannot be Split	L1			Full Order on MSME
Cannot be Split	Not L1 L1+15%	but	within	Full Order on MSME subject to matching L1 price

- 8) The purchase preference to MSME is not applicable for works contracts where supply of goods not produced by MSMEs is also involved.
- 9) Price preference shall be made applicable subject to bidder meeting the following conditions as MSME firm:

a)	MSMEs participating in the tender must submit valid & authorised copy of certificate of registration with any one of the above agencies. In case of bidders submitting DIC registration certificate shall attach original notarised copy of the DIC certificate. The MSME's Bidder to note and ensure that nature of services and goods/items manufactured mentioned in MSME's certificate matches with the nature of the services and goods/items to be supplied as per Tender.
b)	Traders / resellers / distributors / authorized agents will not be considered for
	availing benefits under Public Procurement policy 2012 for MSMEs as per MSME
	guidelines issued by MoMSME.
c)	The registration certificate issued from any one of the above agencies must be valid
	as on Bid closing date of the tender. Bidder shall ensure validity of registration
	certificate in case bid closing date is extended.
d)	The MSMEs who have applied for registration or renewal of registration with any of
	the above agencies / bodies, but have not obtained the valid certificate as on close
	date of the tender, are not eligible for EMD exemption / preference.
e)	Where any aggregator has been appointed by the Ministry of MSME, themselves
	quote on behalf of some MSE units, such offers will be considered as offer from
	MSE units and all such facilities would be extended to these aggregators also.

1.32.4 The bids shall be evaluated on the basis of final landing cost which shall be arrived as under and as per Format given in BoQ of e-tender:

(a) For Goods manufactured in India

/					
	i)	The price of the goods quoted ex-works including all taxes already paid.			
	ii)	GST and other taxes, if any which will be payable on the goods if the contract is			
		awarded.			
	iii)	Charges for inland transportation, insurance and other local services required for			
		delivering the goods at the desired destination.			
	iv)	Wherever applicable, the cost towards the installation, commissioning, spares,			
		extended warranty, AMC/CMC, site preparation and training including any incidental			
		services, if any.			

(b) For Goods manufactured abroad

i)	The price of the goods, quoted on FCA (named place of delivery abroad) or FOB
	(named port of shipment), as specified in the bidding document.
ii)	The charges for insurance and transportation of the goods to the port/place of
	destination.
iii	The agency commission etc., if any.
iv	Wherever applicable, the cost towards the installation, commissioning, spares,
	extended warranty, AMC/CMC, site preparation and training including any incidental
	services, if any.

1.32.5 The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF/CIP basis respectively. However, the CIF/CIP prices quoted by any foreign bidder shall be loaded further as under:

(a)	Towards customs duty and other statutory levies – as per applicable rates.
(b)	Towards custom clearance, inland transportation etc 2% of the CIF/CIP value.

1.32.6 In case of Purchase of many items against one tender, which are not inter-dependent or where compatibility is not a problem, normally the comparison would be made on Ex-Works, (in case of Indigenous items) and on FOB/FCA (in case of Imports) prices quoted by the firms for identifying the lowest quoting firm for each item.

- 1.32.7 Orders for imported Goods need not necessarily be on FOB/FCA basis rather it can be on the basis of any of the incoterm latest edition as may be amended from time to time by the ICC or any other designated authority and favourable to the purchaser
- 1.32.8 Wherever the price quoted on FOB/FCA and CIF/CIP basis are the same, the Contract would be made on CIF/CIP basis only.
- 1.32.9 The GCC and the SCC shall specify the mode of transport i.e., whether by Air/Sea/Road/Rail.
- 1.32.10 There is <u>no provision to purchase optional items</u>. The specifications embodied in the tender documents would be the basis of evaluating the responsiveness of bids received.
- 1.32.11 The Purchaser shall compare all substantially responsive bids to determine the lowest valuated bid, in accordance with ITB Clause 1.32.
- 1.32.12 Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offers shall be rejected as incomplete.

1.33 Contacting the Purchaser

- 1.33.1 Subject to ITB Clause 1.25, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- 1.33.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

1.34 Post qualification

- 1.34.1 In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in **ITB Clause 1.15.**
- 1.34.2 The determination will take into account the eligibility criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.34.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

F. AWARD OF CONTRACT

1.35 Negotiations

1.35.1 Normally, there shall not be any negotiation. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the lowest evaluated responsive bidder. Counter offers tantamount to negotiations and shall be treated at par with negotiations.

1.36 Award Criteria

1.36.1 Subject to ITB Clause 1.39, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily. The details of the award would be hosted on the website of the Purchaser and CPPP website https://etenders.gov.in.

1.37 Purchaser's right to vary Quantities at Time of Award

1.37.1 The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements to the extent of 25% without any change in unit price or other terms and conditions of the Purchase Order.

1.38 Option Clause

1.38.1 The Purchaser reserves the right to increase or decrease the quantity of the required goods up to 25% (Twenty-Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

1.39 Purchaser's right to accept Any Bid and to reject any or All Bids

1.39.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

1.40 Notification of Award

- 1.40.1 **Prior to the expiration of the period of bid validity**, the Purchaser will notify the successful bidder in writing by registered letter or by cable or telex or fax or e mail that the bid has been accepted and a separate purchase order shall follow through post.
- 1.40.2 Until a formal contract is prepared and executed, the notification of award should constitute a binding contract.
- 1.40.3 Upon the successful Bidder's **furnishing of the signed Contract Form** and performance security pursuant to **ITB Clause 1.43**, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security.

1.41 Signing of Contract

- 1.41.1 Promptly after notification, the Purchaser shall send the successful Bidder the Agreement/Purchase Order.
- 1.41.2 Within twenty-one (21) days of date of the Purchase Order, the successful Bidder shall sign, date, and return it to the Purchaser.

1.42 <u>Order Acceptance</u>

- 1.42.1 The successful bidder should submit Order acceptance within 14 days from the date of issue of order/signing of contract, failing which it shall be presumed that the Bidder is not interested and the bid security is liable to be forfeited pursuant to ITB Clause 1.16.11.
- 1.42.2 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation beyond the original date. Even after extension of time, if the order confirmation is not received, the contract is liable to be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.

1.43 <u>Performance Security</u>

1.43.1 Within 21 days of receipt of the notification of award/Purchase Order as per **GCC Clause 2.12**, the supplier shall furnish Performance Security for the amount specified in SCC, valid for the time 60 days beyond the fulfillment of all contractual obligations including warranty.

1.44 Integrity Pact

- 1.45.1 Integrity Pact binds both buyers and sellers to ethical conduct and transparency in all activities from pre-selection of bidders, bidding and contracting, implementation, completion and operation related to the contract.
- 1.45.2 The Integrity pact essentially envisages an agreement between the prospective vendors/bidders and the buyer, committing the persons/officials of both sides, not to resort to any corrupt practices in any aspect/stage of the contract. Only those vendors/bidders, who commit themselves to such a Pact with the buyer, would be considered competent to participate in the bidding process. In other words, entering into this Pact would be a preliminary qualification. The essential ingredients of the Pact include:
 - (i) Promise on the part of the Purchaser to treat all bidders with equity and reason and not to

	seek or accept any benefit, which is not legally available;
(ii)	Promise on the part of bidders not to offer any benefit to the employees of the Purchaser
	not available legally and also not to commit any offence under Prevention of Corruption
	Act, 1988 or Indian Penal Code 1860;
(iii)	Promise on the part of bidders not to enter into any undisclosed agreement or understanding with other bidders with respect to prices, specifications, certifications,
	subsidiary contracts; etc.
(iv)	Undertaking (as part of Fall Clause) by the bidders that they have not and will not sell the
	same material/equipment at prices lower than the bid price;
(v)	Foreign bidders to disclose the name and address of agents and representatives in India and Indian Bidders to disclose their foreign principals or associates;
(vi)	Bidders to disclose the payments to be made by them to agents/brokers or any other
	intermediary;
(vii)	Bidders to disclose any past transgressions committed over the specified period with any
	other company in India or Abroad that may impinge on the anti-corruption principle;
(viii)	Integrity Pact lays down the punitive actions for any violation.

- 1.45.3 Each page of such Integrity pact proforma would be duly signed by Purchaser's competent signatory. All pages of the Integrity Pact are to be returned by the bidder (along with the technical bid) duly signed by the same signatory who signed the bid, i.e. who is duly authorized to sign the bid and to make binding commitments on behalf of his company. Any bid not accompanied by Integrity Pact duly signed by the bidder shall be considered to be a non-responsive bid and shall be rejected straightway.
- 1.45.4 The SCC shall specify whether there is a need to enter into a separate Integrity pact or not.
- 1.45.5 The Integrity Pact would be effective from the date of invitation of bids till complete execution of the contract.
- 1.45.6 The names and contact details of the Independent External Monitors (IEM) on the event of the need of IP is as detailed in the SCC.
- 1.45.7 The modal format of IP is at Chapter-7.
- 1.45.8 As a first option, dispute resolution is available through panel of IEMs' apart from arbitration clause. However, the fees / exemptions on the said account shall be equally shared by the parties.

1.46 Assistance to Bidders:

- 1.46.1 Any queries relating to the Tender Enquiry 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 NIT.
- 1.46.2 Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

CHAPTER 2 CONDITIONS OF CONTRACT A GENERAL CONDITIONS OF CONTRACT (GCC)

Clause No.	Contents
2.1	Definitions
2.2	Contract Documents
2.3	Fraud, Corruption and Code of Integrity
2.4	Joint Venture, Consortium or Association
2.5	Scope of Supply
2.6	Suppliers' Responsibilities
2.7	Contract price
2.8	Copy Right and Patent Indemnity
2.9	Application
2.10	Standards
2.11	Use of Contract Documents and Information
2.12	Performance Security
2.13	Installation, Commissioning, Demonstration, Inspection, Test and Training
2.14	Packing
2.15	Delivery and Documents
2.16	Insurance
2.17	Transportation
2.18	Incidental Services
2.19	Spare Parts
2.20	Warranty
2.21	Terms of Payment
2.22	Change Orders and Contract Amendments
2.23	Assignment
2.24	Subcontracts
2.25	Extension of time
2.26	Penalty Clause / Liquidated Damages
2.27	Termination for Default
2.28	Force Majeure
2.29	Termination for insolvency
2.30	Termination for Convenience
2.31	Settlement of Disputes
2.32	Governing Language
2.33	Applicable Law
2.34	Notices
2.35	Taxes and Duties
2.36	Right to use Defective Goods
2.37	Protection against Damage
2.38	Site preparation and installation
2.39	Import and Export Licenses
2.40	Risk Purchase Clause
2.41	Purchaser's right to vary Quantities/Option Clause
2.42	Integrity Pact
2.43	Order Acceptance

Note: The General Conditions of Contract shall form the part of Purchase Order / Contract.

GENERAL CONDITIONS OF CONTRACT (GCC)

2.1 <u>Definitions</u>

2.1.1 The following words and expressions shall have the meanings hereby assigned to them:

Sr.	Words /	Meaning
No.	Expressions	
(a)	Contract	The Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
(b)	Contract Documents	The documents listed in the Contract Agreement, including any amendments thereto.
(c)	Contract Price	The price payable to the Bidder as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
(d)	Day	Calendar day
(e)	Completion	The fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
(f)	GCC	The General Conditions of Contract.
(g)	Goods	All of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract
(h)	Services	The services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
(i)	SCC	The Special Conditions of Contract.
(j)	Subcontractor	Any natural person, private or government entity, or a combination of the above, to which any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
(k)	Bidder	The natural Person, Private or Government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
(1)	Council	The Council of Scientific & Industrial Research (CSIR), registered under the Societies Registration Act, 1860 of the Government of India having its registered office at 2, Rafi Marg, New Delhi-110001, India.
(m)	Purchaser	Any of the constituent Laboratory/Institute of the Council situated at any designated place in India as specified in SCC
(n)	The final destination	The place named in the SCC.

2.2 <u>Contract Documents</u>

- 2.2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.
- 2.2.2 Successful bidder shall have to enter into Contract Agreement as per Contract Agreement as per Contract Form given in Chapter-7 within 14 days of Placement of Purchase Order having above Rs.10 Lakh or equivalent amount in Foreign Currency.

2.3 <u>Fraud, Corruption and Code of Integrity</u>

- **2.3.1** The Purchase requires that Bidders, suppliers, contractors and consultant, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,
 - (a) The terms set forth below are defined as follows:

I	Corrupt practice	The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution	
II	Fraudulent practice	A misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract	

III	Collusive practice	A scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, non-competitive levels
IV	Coercive practice	Harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the
		procurement process or affect the execution of a contract

2.3.2 Without prejudice to and in addition to the rights of the Purchaser to other penal provisions as per the bid documents or contract, if the Purchaser comes to a conclusion that a (prospective) bidder/supplier, directly or through an agent, has violated this code of integrity in competing for the contract or in executing a contract, the Purchaser may take appropriate measures including one or more of the following:

	0		
a)	Cancellation of the relevant contract and recovery of compensation for loss incurred by		
	the purchaser;		

- b) Forfeiture or encashment of any other security or bond relating to the procurement;
- c) Recovery of payments including advance payments, if any, made by the Purchaser along with interest thereon at the prevailing rate.
- d) Provisions in addition to above:
 - 1) Removal from the list of registered suppliers and banning/debarment of the bidder from participation in future procurements of the purchaser for a period not less than one year;
 - In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India:
 - 3) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible

2.4 <u>Joint Venture, Consortium or Association</u>

2.4.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

2.5 Scope of Supply

2.5.1 Scope of Supply (i.e. the Goods and Related Services to be performed) shall be as specified in Chapter 4 i.e. Specifications and allied technical details.

2.6 Suppliers' Responsibilities

2.6.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply-Clause 2.5 of the GCC and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.

2.6.2 <u>Amalgamation/Acquisition etc.</u>:

In the event the Manufacturer/Supplier proposes for amalgamation, acquisition or sale its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfilment of contractual obligations i.e. supply, installation, commissioning, warranty, maintenance/replacement of spares accessories etc. You may confirm this condition while submitting the bid.

2.7 <u>Contract price</u>

2.7.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

2.8 Copy Right and Patent Indemnity

2.8.1 Copy Right

The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they

are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

2.8.2 Patent Indemnity

a) The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.12.2 Indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

(a)	the installation of the Goods by the Supplier or the use of the Goods in India; and
(b)	the sale in any country of the products produced by the Goods

b) If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

2.9 Application

2.9.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

2.10 Standards

2.10.1 The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

2.11 <u>Use of Contract Documents and Information</u>

- 2.11.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.
- 2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

2.12 Performance Security

- 2.12.1 Within 21 days of receipt of the notification of award of Contract/Purchase Order, the Supplier shall furnish performance security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the BS should be kept valid till such time the PS is submitted.
- 2.12.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 2.12.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers

received for supply from foreign countries or in equivalent Indian Rupees in case the Performance Security is submitted by the Indian Agent.

- 2.12.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer/bidder.
- 2.12.5 The Performance security shall be in one of the following forms:

	(a) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized/ Schedul		
		bank located in India or a Foreign bank with its operating branch in India in the form	
provided in the bidding documents OR		provided in the bidding documents OR	
	(b)	(b) A Banker's cheque or Account Payee demand draft in favour of the purchaser issued	
	by any Nationalized/ Scheduled bank OR		
	(c) A Fixed Deposit Receipt pledged in favour of the Director, CSIR-NAL, Bengaluru.		

- 2.12.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.
- 2.12.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 2.12.8 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order confirmation /PS are not received, the contract shall be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.
- 2.12.9 Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then Bidder should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.
- 2.13 Installation, Commissioning, Demonstration, <u>Inspections, Tests and Training.</u>
- 2.13.1 The inspections & test, training required would be as detailed in Chapter-4 of the Bidding Document relating to Specification and Allied Technical details.
- 2.13.2 The Bidder shall be responsible for Installation, Commissioning, Demonstration, Inspection, Tests and Training wherever applicable and for after sales service during the warranty and thereafter as specified in Chapter-4

2.14 Packing

- 2.14.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 2.14.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements are as given below or /and as specified in SCC and in any subsequent instructions ordered by the Purchaser:

The marking and documentation within and outside the packages shall be:

(a) Each package should have a packing list within it detailing the part No(s), description, quantity etc.

- (b) Outside each package, the contract No., the name and address of the purchaser and the final destination should be indicated on all sides and top.
 (c) Each package should be marked as 1/x, 2/x, 3/x.....x/x, where "x" is the total No. of packages contained in the consignment
 All the sides and top of each package should carry an Appropriate indication/ label/
- (d) stickers indicating the precautions to be taken while handling/storage.

2.15 <u>Delivery and Documents</u>

2.15.1 Delivery of the Goods and completion and related services shall be made by the supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents are given below or/and to be furnished by the supplier are specified in SCC.

	300.			
Details of Shipping and other Documents to be furnished by the Bidder are :				
A) For goods manufactured or supplied within India				
	Within 24 hours of dispatch, the Supplier shall notify the purchaser the complete details			
	of dispatch and also supply following documents by registered post / speed post and			
	copies thereof by FAX/email			
(a)	Two copies of Supplier's Invoice indicating, inter-alia description and specification of the			
	goods, quantity, unit price, total value			
(b) Packing list				
(c)	Certificate of country of origin			
(d)	Insurance certificate, if required under the contract			
(e)	Railway receipt/Consignment note			
(f)	Manufacturer's warrantee certificate and in-house inspection certificate, if any			
(g)	Inspection certificate issued by purchaser's inspector, if any			
(h)	Any other document(s) as and when required in terms of the contract			
NOTE:				
1	The nomenclature used for the item description in the invoice(s), packing list(s) and the			
	delivery note(s) etc. should be identical to that used in the contract. The dispatch			
	particulars including the name of the transporter should also be mentioned in the			
	Invoice(s).			
2	The above documents should be received by the Purchaser before arrival of the Goods			
_				
D)	and, if not received, the Bidder will be responsible for any consequent expenses.			
B)	For goods manufactured or supplied from abroad			
	Within 24 hours of dispatch, the Supplier shall notify the purchaser the complete details			
	of dispatch and also supply following documents by Registered Post / Courier and copies			
()	thereof by FAX/Email.			
(a)	Two copies of Bidder's Invoice giving full details of the goods including quantity, value,			
/1-	etc.			
(b	Packing list			
(c)	Certificate of country of origin			
(d)	Manufacturer's guarantee and Inspection certificate, if any			
(e)	Inspection certificate issued by the Purchaser's Inspector, if any			
(f)	Insurance Certificate, if required under the contract			
(g)	Name of the Vessel / Carrier			
(h)	Bill of Lading / Airway Bill			
(i)	Port of Loading			
(j)	Date of Shipment			
(k)	Port of Discharge & expected date of arrival of goods			
(l)	Any other document(s) as and when required in terms of the contract			
NOT	E:			
1	The nomenclature used for the item description in the invoice(s), packing list(s) and the			
	delivery note(s) etc. should be identical to that used in the contract. The dispatch			
	particulars including the name of the transporter should also be mentioned in the			
	Invoice(s).			
2	The above documents should be received by the Purchaser before arrival of the Goods			
	and, if not received, the Bidder will be responsible for any consequent expenses.			
3	The clearing of the consignment at Bengaluru Airport shall be done by our authorized Custom			
	House Agents (CHA). The corresponding shipping documents may be forwarded to them			
	accordingly. It is advised to give us and our CHA, a pre-alert before the consignment is dispatched.			
	If there is delay in clearing of the consignment for <u>not</u> giving timely pre-alert then demurrage (Ware			
	house charges), if applicable has to be refunded to us.			

- 2.15.2 The terms FOB, FCA, CIF, CIP, etc. shall be governed by the rules prescribed in the current edition of the Inco terms published by the International Chambers of Commerce(ICC), Paris.
- 2.15.3 The mode of transportation shall be as specified in SCC.

2.15.4 High-sea sales delivery-term is not acceptable.

- 2.15.5 The Bidders may please note that the delivery of the Goods should be strictly within Delivery Schedule mentioned in the Chapter-4/Purchase Order
- 2.15.6 Goods should not be dispatched until the Bidder/Supplier received a firm Purchase Order.

2.16 Insurance

- 2.16.1 Indigenous goods, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.
- 2.16.2 Import Goods, the purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.
- 2.16.3 Where delivery of the goods is required by the purchaser on CIF/ CIP basis for Imported Goods or FOR destination for Indigenous Goods, the supplier shall arrange and pay for Marine / Transit Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- 2.16.4 The equipment to be supplied will be insured by the supplier against all risks of loss or damage from the date of shipment till such time it is delivered at CSIR-NAL site in case of Rupee transaction.
- 2.16.5 Where delivery is on FOB or FCA basis for Imported Goods or FOR dispatch Station for Indigenous Goods, the Insurance would be the responsibility of the purchaser.
- 2.16.6 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.

2.17 Transportation

- 2.17.1 Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.17.2 Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.17.3 In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.
- 2.17.4 The clearing of the consignment at Bengaluru Airport shall be done by our authorized Custom House Agents (CHA) for CIP / CIF consignments. The details of CHA will be given in the Purchase

Order. The corresponding shipping documents may be forwarded to them accordingly. It is advised to give us and our CHA, a pre-alert before the consignment is dispatched. If there is delay in clearing of the consignment for not giving timely pre-alert then demurrage (Ware house charges) and/or penalty imposed by Indian Customs for late custom clearance, if payable has to be refunded to us by the Supplier / Indian Agent or the same will be deducted from any payment due to Supplier / Indian Agent against this order or any other Purchase order.

2.18 Incidental Services

2.18.1 The supplier may be required to provide any or all of the services, including training, if any, specified in chapter 4.

2.19 Spare Parts

2.19.1 The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

(a) Such spare parts as the Purchaser may elect to purchase from the Supplier, provide that this election shall not relieve the Supplier of any warranty obligations under Contract; and		
(b)) In the event of termination of production of the spare parts:	
	(i) Advance notification to the Purchaser of the pending termination, in sufficient ti	
to permit the Purchaser to procure needed requirements; and		to permit the Purchaser to procure needed requirements; and
(ii) Following such termination, furnishing at no cost to the Purchaser, the bluepri		Following such termination, furnishing at no cost to the Purchaser, the blueprints,
		drawings and specifications of the spare parts, if requested.

2.20 Warranty

- 2.20.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 2.20.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- 2.20.3 Unless otherwise specified in the SCC, the warranty shall remain valid for Twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for Eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 2.20.4 The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.
- 2.20.5 The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.
- 2.20.6 The equipment must be supported by a Service Centre manned by the principal vendor's technical support engineers. The support through this Centre must be available 24 hours in a day, seven days a week and 365 days a year. Also it should be possible to contact the Principal's vendor support Centre on a toll free number/web/mail.
- 2.20.7 An undertaking from the manufacturer is required in this regard stating that they would facilitate the Bidder, Service provider on regular basis with technology / product updates & extend support for the warranty as well.
- 2.20.8 Supplier will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.
- 2.20.9 The Principal Supplier must have a local logistics support by maintaining a local spares depot in the country of deployment of the equipment. This is to ensure immediate delivery of spares parts from Principal Supplier of equipment to its channel partner/system integrator.

- 2.20.10 Details of onsite warranty, Name of Agency that shall maintain during warranty and undertake Annual Maintenance Contract/Comprehensive Service Maintenance Contract beyond warranty shall be given in the offer. In case of foreign quote, the name of Indian Agent who shall maintain during warranty and AMC beyond warranty shall be given in the Technical Offer.
- 2.20.11 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 2.20.12 Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 2.20.13 If having been notified, the Supplier fails to remedy the defect within a reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 2.20.14 In case the Equipment / System remains non-operational or performs below the desired level for more than 1 week after intimation of the fault in the Equipment / System then Warranty period shall be extended for further period for which Equipment / System remained non-operational or performed below the desired level, without prejudice to any other terms and conditions of the Contract. The defects, if any, during the warranty period are to be rectified free of charge by arranging free replacement wherever necessary.
- 2.20.15 In case of any replacement during the warranty period the same shall be made free of cost i.e. DDP for import replacement and/or free delivery to CSIR-NAL for indigenous replacement. All the duties / taxes relating to these replacements have to be borne by the supplier. Dispatch details of such warranty replacements have to be informed in advance to enable us to provide documents for custom clearance.
- 2.20.16 Any replacements during warranty period should be free of cost. If the defective item has to be sent back to the Principal Supplier, for such replacements / returns to the Principal Supplier / Indian Agent has to bear documentation charges. If the cost of replacement is upto Rs.5 Lakh then the documentation charges will be Rs. 5,000/- and above Rs. 5 Lakh it is Rs. 10,000/-. Such charges have to be paid in favour of The Director, CSIR-NAL, Bengaluru. These charges are only for documentation. Any charges regarding packing, forwarding, freight, insurance, etc. should be borne by the Principal supplier / Indian Agent for returning of defective items. In other words, any warranty replacement has to be done immediately/within a week (7 days) without expecting CSIR-NAL to export the defective items to Principal supplier for repair/replacements. All charges involved for re-export of defective items have to be borne by Principal supplier / Indian Agent.

2.21 Terms of Payment

- 2.21.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.21.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfilment of other obligations stipulated in the contract.
- 2.21.3 Payments shall be made promptly by the Purchaser but in no case later than thirty (30) days after submission of the invoice or claim by the Supplier. While claiming the payment, the supplier should certify in the bill/invoice that the payment being claimed strictly in terms of the contract and all obligations on the part of the supplier for claiming the payment have been fulfilled as required under the contract.

Mandatory fields in Tax Invoice and Receipt Vouchers				
Invoice Number and Date	Name, address and GSTIN of the supplier			
Shipping and billing Address	Customer Name & GSTIN [CSIR-NAL]			
HSN Code/SAC Code	Place of Supply			
Taxable value and discounts	Item details i.e. description, quantity			
	(number), unit, the total value			
Signature of the Supplier	Rate and amount of taxes i.e.			
	CGST/SGST/IGST			

- 2.21.4 Kindly note, CSIR-NAL GST No.29AAATC2716R1ZB. Bidders are required to furnish their GST No. in the Invoice failing which, CSIR-NAL will not be able to make timely payment.
- 2.21.5 Payment shall be made in currency as indicated in the contract.
- 2.21.6 Advance payment will be paid in exceptional cases only against equivalent amount of Bank Guarantee or Stand by Letter of credit valid till acceptance of all ordered goods and services. Advance payment shall not exceed 30% of Purchase Order value.

2.22 <u>Change Orders and Contract Amendments</u>

2.22.1 The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:

(a)	Increase or decrease in the quantity required, exercise of quantity opinion clause;
(b)	Changes in schedule of deliveries and terms of delivery;
(c)	The changes in inspection arrangements;
(d)	Changes in terms of payments and statutory levies;
(e)	Changes due to any other situation not anticipated:

- 2.22.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be ascertained within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.
- 2.22.3 No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

2.23 Assignment

2.23.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

2.24 Subcontracts

2.24.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the contract.

2.25 Extension of time.

- 2.25.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.
- 2.25.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 2.25.3 Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to liquidated damages Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

2.26 Penalty Clause / Liquidated Damages

2.26.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value in case the delivered price of the delayed goods or

unperformed services cannot be ascertained from the contract, for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable.

2.27 <u>Termination for Default</u>

2.27.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part

(a)	If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC
	Clause on Extension of Time; or
(b)	If the Supplier fails to perform any other obligation(s) under the Contract.
(c)	If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or
	collusive or coercive practices etc as defined in GCC Clause and ITB clause on code of
	integrity in competing for or in executing the Contract.

2.27.2 In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:

(a)	The Performance Security is to be forfeited;
(b)	The purchaser may procure, upon such terms and in such manner as it deems
	appropriate, stores similar to those undelivered, and the supplier shall be liable for all
	available actions against it in terms of the contract.
(c)	However, the supplier shall continue to perform the contract to the extent not terminated.

2.28 Force Majeure

- 2.28.1 Notwithstanding the provisions of GCC Clauses relating to extension of time, Liquidated damages and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 2.28.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.28.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 2.28.4 If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

2.29 Termination for Insolvency

2.29.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

2.30 Termination for Convenience

2.30.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

- 2.30.2 The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
 - (a) To have any portion completed and delivered at the Contract terms and prices; and/or
 - (b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

2.31 Settlement of Disputes

- 2.31.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 2.31.2 If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 2.31.3 The dispute settlement mechanism/arbitration proceedings shall be concluded as under:
 - (a) If any dispute or difference arises between the parties hereto as to the construction, interpretation, effect and implication of any provision of this agreement including the rights or liabilities or any claim or demand of any party against other or in regard to any other matter under these presents but excluding any matters, decisions or determination of which is expressly provided for in this Agreement, such disputes or differences shall be referred to an Arbitral Bench consisting of three Arbitrators, one each to be appointed by each party and the two Arbitrators shall appoint a third Arbitrator who shall be the presiding Arbitrator. A reference to the Arbitration under this Clause shall be deemed to be submission within the meaning of the Arbitration and Conciliation Act, 1996 and the rules framed thereunder for the time being in force. Each party shall bear and pay its own cost of the arbitration proceedings unless the Arbitrators otherwise decides in the Award. The venue of arbitration should be the place from where the Contract has been issued.
 - (b) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
- 2.31.4 The venue of the arbitration shall be the place from where the purchase order or contract is issued.
- 2.31.5 Notwithstanding, any reference to arbitration herein,
 - (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - (b) the Purchaser shall pay the Supplier any monies due the Supplier.

2.32 Governing Language

2.32.1 The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

2.33 Applicable Law / Jurisdiction

2.33.1 The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

2.34 Notices

2.34.1 Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or and confirmed in writing to the other party's address specified in the SCC.

2.34.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

2.35 Taxes and Duties

- 2.35.1 For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.
- 2.35.2 For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.
- 2.35.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent without any commitment.
- 2.35.4 a) All payments due under the contract shall be paid after deduction of statutory levies (at source) (like TDS, IT, TCS etc.) wherever applicable. In this connection Gol notification may be referred to before submitting quote on their own interest. Statutory deductions will be done accordingly at the time of payment.
 - b) If the supplier have not filed Income Tax Returns for the latest FY, TDS/TCS is applicable as per Income Tax Act.
 - Withholding Taxes are applicable on Foreign payments such as but not limited to Royalty, Fees for Technical Services etc..

2.35.5 **Customs Duty**:

- a) The CSIR-NAL is a Public funded Research Institution under Department of Scientific & Industrial Research and concessional Custom Duty @ 5.15% is applicable for the goods purchased for research purpose vide Government of India Notification No.51/96-Customs dated 23-July-1996.
- b) The Certificates is issued without any commitment by CSIR-NAL. Hence, the supplier should ensure its applicability for their own interest.

2.35.6 **GST**

(a) CSIR-NAL is a Public Funded Research Institution under Department of Scientific & Industrial Research and Concessional GST is not applicable for the goods purchased for Research Purpose. GST shall be applicable @ 18% for goods and services supplied to CSIR Institutes.

2.36 Right to use Defective Goods

2.36.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

2.37 Protection against Damage

2.37.1 The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:

(a)	Voltage 230 volts - Single phase/ 415 V 3 phase (+_ 10%)
(b)	Frequency 50 Hz.

2.38 Site preparation and installation

2.38.1 The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the purchaser's site immediately after notification of award/contract.

2.39 Import and Export Licenses

- 2.39.1 If the ordered materials are covered under restricted category of EXIM policy in India the Bidder/ Agent may intimate such information for obtaining necessary, license in India.
- 2.39.2 If the ordered equipment is subject to Bidder procuring an export license from the designated government agency / country from where the goods are shipped / sold, the Vendor/Bidder has to mention the name, address of the government agency / authority. The Bidder must also mention the time period within which the license will be granted in normal course.

2.40 Risk Purchase Clause

2.40.1 If the supplier fails to deliver the goods within the maximum delivery period specified in the contract or Purchase Order, the purchaser may procure, upon such terms and in such a manner as it deems appropriate, Goods or Services similar to those undelivered and the Supplier shall be liable to the purchaser for any excess costs incurred for such similar goods or services.

2.41 Option Clause / Purchaser's right to vary quantities

2.41.1 The Purchaser reserves the right to increase or decrease the quantity of the required goods up to 25% (Twenty-Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

2.42 Integrity Pact

- 2.42.1 As per directive of the CVC all organizations including CSIR laboratories / institutes have to adopt an Integrity pact (IP) to ensure transparency, equity and competitiveness in major Public procurement having procurement value above Rs.3 Crore. The integrity pact envisages an agreement between the prospective bidders / vendors with the buyer committing the persons / officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. Only those bidders / vendors, who are willing to enter in to such an integrity pact with the Purchaser, would be competent to participate in the bidding.
- 2.42.2 The SCC shall specify whether there is a need to enter into a separate Integrity pact or not.
- 2.42.3 The names and contact details of the Independent External Monitors (IEM) on the event of the need of IP is as detailed in the SCC.

ed of it is as actailed in the occ.	d of it is as actailed in the soo.			
Integrity Pact - The integrity pact to be signed on Company's Letterhead, wherever				
applicable. However, efforts must be made to re	ealize the objectives & spirits thereof.			
The name and contact details of the IEMs are as	s under:			
Shri Prabhakaran Palaniappan,	Shri Rajan S Katoch,			
IAS (Retd.)	IAS (Retd.)			
New No. 9, (Old No. 4B/14),	A-91, Alkapuri			
Venkateswara Nagar, 3rd Street Bhopal (MP)				
Adyar, Chennai (TN)	PIN - 462 022			
PIN - 600 020				
Email: pprabakaranias@gmail.com	Email: rkatoch@nic.in			

2.43 Order Acceptance

- 2.43.1 The successful bidder should submit Order acceptance within 14 days from the date of issue of order/signing of contract, failing which it shall be presumed that the Bidder is not interested and his bid security is liable to be forfeited pursuant to ITB clause 1.16.11.
- 2.43.2 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation beyond the original date. Even after extension of time, if the order confirmation is not received, the contract is liable to be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.

CHAPTER 2

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

SI.No.	GCC Clause Ref	er there is a conflict, the provisions herein shall prevail over those in the GCC. Condition		
1	GCC 2.1.1(I)	The Purchaser is:		
		The Director		
		CSIR- National Aerospace Laboratories		
		HAL Airport Road, Kodihalli, Bengaluru – 560017		
		Karnataka-India		
		Tel #: 00 91 80 2508 6040/6041/6044		
		Fax #: 00 91 80 25269611		
		Email: purchasek@nal.res.in/mkala@nal.res.in		
_		Bill to address is same as above		
2	GCC 2.1.1(m)	The Final Destination is:		
		CSIR- National Aerospace Laboratories		
		HAL Airport Road, Kodihalli, Bengaluru – 560017		
		Karnataka-India		
		Tel #: 00 91 80 2508 6040/6041/6044		
		Fax #: 00 91 80 25269611		
	00000404	Email: purchasek@nal.res.in/mkala@nal.res.in		
3	GCC 2.13.1	Performance Security		
		The amount of the Performance Bank Guarantee shall be 3% of the		
		contract value to be submitted within 21 days from the date of PO valid up		
		to 60 days after the date of completion of performance obligations		
		including warranty obligations.		
4	GCC 2.16.3	Delivery – Mode of Transportation/Shipment		
-	000 2.10.5	a) By Road		
		b) DELIVERY TERM: CSIR-NAL, Bengaluru		
5	GCC 2.17.1	Insurance		
٦	GCC 2.17.1	insurance		
		The Insurance shall be for an amount equal to 110% of the invoice value of		
		the contract from "warehouse to warehouse (final destination)" on "all risk		
		basis" including strikes, riots and civil commotion.		
6	GCC 2.21.3	The period of validity of the Warranty shall be		
		The Warranty details are as per Chapter-4		
7	GCC 2.22.1	Payment Terms		
		The method and conditions of payment to be made to the Supplier under		
		this Contract shall be as follows:		
		A Payment for Goods and Services supplied from India		
		The payment shall be made in Indian Rupees, as follows:		
		(a) 100% after acceptance.		
		(b) 100% through Inland Letter of Credit opened in favour of supplier		
		through CSIR-NAL Bank (State Bank of India), will be decided, as the		
		case may be.		
		(c) E-Payment: All payments, CSIR-NAL prefers to make Electronic		
		Transfers (RTGS) through State Bank Of India, NAL Branch,		
		Bengaluru. (d) All payments due under the Contract shall be paid after deduction of		
		(d) All payments due under the Contract shall be paid after deduction of		
		statutory levies at source (like TDS, Income Tax, TCS etc.), wherever applicable.		
	1	i applicable.		

Q	GCC 2 27 1	Liquidated Damages (LD)/Penalty		
8	GCC 2.27.1	(a) As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to, otherwise will have to forfeit the EMD/PS and also LD clause will be applicable / enforced. (b) If the Supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay LD/penalty of 0.5% of order value per week of delay subject to maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the Supplier		
		(c) CSIR-NAL reserves the right to cancel the Purchase Order in case the delay in supply is more than 10 weeks. Penalties, if any, will be deducted from the EMD/PS		
		(d) The maximum amount of penalty shall be 10 %		
		(e) The LD/Penalty shall be levied on the delivered price of the delayed Goods or unperformed Services or Contract Value.	ed	
9	GCC 2.34.1	Applicable Law / Jurisdiction		
		The place of jurisdiction is Bengaluru, India.		
10	GCC 2.35.1	For notices, the Purchaser's address is		
		The Director		
		Attention: The Sr. Controller of Stores & Purchase		
		CSIR- National Aerospace Laboratories		
		PB No.1779, HAL Airport Road, Kodihalli,		
		Bengaluru – 560017, Karnataka-India		
		Tel #: 00 91 80 25086040/6041/6044		
		Fax #: 00 91 80 25269611		
		Email: purchasek@nal.res.in , mkala@nal.res.in		
11	GCC 2.42.1	Integrity Pact – The integrity pact <u>need not be</u> signed on Company Letterhead.	/'S	

CHAPTER 3

(To be filled by the bidder and enclosed with the Technical Bid)

SCHEDULE OF REQUIREMENT

The Schedule of Requirement must clearly specify the time frame required (Schedule) for delivery of goods and services to be completed by the bidder (in reference to Scope of Supply given in Clause-4.2 of Chapter-4) if the Contract is awarded for the offer / proposal submitted by the bidder in response to this Tender.

Delivery Schedule:

Sr.	No.			Quantity & Unit	Delivery Schedule	
В)	Perio	od of	delivery shall start from :	 		
C)			elivery / Delivery Term (named port of ship om Abroad	ment or named	place of deliv	ery:
	Goo	ds fr	om India			
D)	Scop	e of	Supply:			
E)			ne required for conducting installation, co			ent, acceptance tes
	Sr.	No.	Activity			Time Frame
	1		Site Preparation (if required)			
	2)	Installation & Commissioning			
	3	}	Acceptance Test			
	4	ļ	Training (Location, No. of persons, period of training	ng, nature of tra	ining)	
	5)				
Plac	e :		Signat	ture of the Bidde	er :	
Date	e :					
	es for	Bidde	ers:			
(1	L) -	The comust contract of the contract of the contract of the consider of the constant of the con	lelivery schedule shall clearly indicate the deliver the consignment in full from the cact or from the date of advance payment d desired for installation and commissing generate the premises of the Purchaser.	date of establish etc. It should a ioning of the e	nment of LC of Iso indicate sequipment af	or from the date of eparately the time fter arrival of the
(2	i	mplid Incote are dobliga	date or period for delivery should be cations of delivery terms stipulated in erms rules (i.e., EXW, or CIF, CIP, FOB, FCA delivered to the carriers), and the date ations start (i.e., notice of award, contract edit, date of releasing advance payment etc.	the Instruction A terms—that "de e prescribed he signature, open	s to Bidders elivery" takes erein from v	pursuant to the place when goods which the delivery

Chapter 4

Supply, Installation of Intelligent Integrated Smart Row with 6 Racks Solution at CSIR-NAL

4.1. End Use:

The Solution to install and deploy Modular infrastructure with Intelligent Integrated Smart Row with 6 racks (2 Nos) which shall be able to host critical IT technology hardware to run the application. The solution has to provide precision cooling, Uninterruptible Power System (UPS), Remote Monitoring solution with Biometric Access control for Security and Novec 1230 Fire Suppression system for critical IT components inside the rack.

4.2. Detailed Specifications

4.2.1 Specifications for Intelligent Integrated Smart Row with 6 racks (2 Nos)

S. No	eations for Intelligent Integrated Smart Row with 6 racks (2 Nos) Description of Requirements		
1.1	Scope of Work This specification covers intelligent integrated/inbuilt infrastructure, standalone system design, engineering, manufacture, assembly, testing at manufacturer's works, supply, delivery at site, unloading, handling, proper storage at site, erection, testing and commissioning at site of complete infrastructure for the proposed Data Centre to be installed at NAL, as detailed in the specification, complete with all accessories required for efficient and trouble-free operations		
1.2	Modular and scalable design for power and cooling: The critical components used to design the system should be redundant and in the Events of failure the components can be maintained easily. All the components of the infrastructure should be such that it can be easily dismantled and relocated to different location.		
2	Requirements		
2.1	Intelligent Integrated Smart Rack DC Infrastructure with inbuilt hot and cold aisle containment of 6 racks should cater IT load up to 40kVA. Both Hot & Cold aisle containment should be part of the rack frame.		
2.2	Intelligent Integrated Smart Rack DC Infrastructure essentially should include internal redundant or backup power supplies, environmental controls (Precision air conditioning, fire suppression, smoke detection, Water leak detection and humidity sensors), and security devices. Critical systems like UPS & HVAC should have N+N redundant topology. Environmental monitoring shall be done from IP based software.		
2.3	The detail specifications of the intelligent integrated/inbuilt infrastructure, standalone system shall be in adherence to standard Data Centre guidelines thus shall be composed of multiple active power and cooling distribution paths, but only one path active. Shall have redundant components.		
3	The Intelligent integrated Smart Rack DC Infrastructure shall have following components:		
3.1	In-Row closed loop Air-Conditioning		
3.1.1	Data center server and network racks should be equipped with In-row Variable capacity / digital scroll cooling units to provide closed loop precision cooling system which should be able to cool the equipment's uniformly right from 1st U to 42nd U of Rack		
3.1.2	Precision Air Cooling unit should be in N+N redundancy, with minimum of 10 Tr Gross Cooling Capacity Machines to cater the IT load of 40kVA		
	Precision Air Conditioner should have following Features: Cooling System should be DX (Variable capacity/digital scroll) type in N+N Topology The compressor should achieve the capacity modulation by adjusting the vertical/Horizontal positioning of the orbital scroll with respect to the fixed scroll inside the compressor. By varying the time of "loaded state" and "unloaded state" of the scroll element, the required capacity should be obtained.		

-	
	 Inbuilt Heater and Humidifier
	 Outdoor Unit with fan speed controller
	 Microprocessor Controller should have capacity to log minimum 400
	historical events.
	 In Row Precision Cooling Units should work on Raw power and should not
	use proposed UPS.
3.2	UPS System
3.2.1	LIDC about he of 40 kVA in N.L. N. tanalogy, real, mountable with of up to 0.0 and
3.2.1	UPS should be of 40 kVA in N+ N topology, rack mountable with pf up to 0.9 and efficiency up to 94.9%.
	eniciency up to 94.9%.
	Other features of UPS system are as follows:
	True On-line UPS with Widest input range (305V-477V)
	Double conversion and IGBT technology: Full IGBT Rectifier / Battery
	Charger and IGBT based Inverter
	Facility for remote monitoring
	N+N redundancy should be provided. The highest transfer to the little transfer transfer to the little transfer transf
2.2	Each UPS to have K13 output isolation transformer (Internal / External) Power Distribution Power Distribution Power Distribution Power Distribution Power Distribution
3.3.1	Power Distribution Vertical Rack PDU, OU, 32A, 1 phase, 415V, 20 C13 and 4 C19, IEC309 (each rack
3.3.1	is having two PDU's)
3.4	Main Electrical Panel and Cabling
3.4.1	02 nos. DB panel shall be provided for redundancy with diversified path. First DB
	Panel should be mounted on to utility rack & other can be wall mounted with all
	internal cabling integrated into the same. Essential MCB/MCCB should be provided
	with electrical system. DB panel mounted on Utility rack shall be covered with
	Novec 1230 Gas based fire suppression system.
3.4.2	Each of the UPS DB inside the utility cabinet should have provision for dual power
	input. Primary pwer source for both the smart rack UPS DBs will from individual 40 kVA rack mounted UPS & secondary source will be from the existing 200 kVA UPS.
3.5	Fire Detection and Suppression
3.5.1	Fire detection and suppression system: Fire detection and suppression system
0.0.2	should be mounted in panel adjacent to Smart Racks to avoid consumption of any
	usable U space an In-rack built-in feature of solution. It should have Fire alarm and
	fire suppression unit and the fire suppression agent should be NOVEC 1230 Gas as
	per NFPA 2001 guidelines
3.6	Environmental Controls
3.6.1	Each set of intelligent rack should include basic environmental controls:
	Smoke Detector
1	Water Leak Detection system
1	Temperature and Humidity Sensors for measuring Temperature at 3 levels i.e. Tem Middle and Bettern at both front 8 years of the great while the
1	i.e. Top, Middle and Bottom, at both front & rear of the rack, while the
	Middle Temperature should have Humidity measurement sensor. • Door Sensor
	Alarm beacon
3.7	IT rack & available usable space
3.7.1	06 no. Intelligent racks should have combined 240 U space available for IT
0.7.1	equipment's and network equipment & with rack mounted UPS and battery
	externally placed . 2 Nos of 16 Amps Load transfer switch also to be provided to
	provide dual power to single source equipment.
3.7.2	42 U racks of dimension 600 mm x 1000 mm, 06 numbers, with integrated hot &
	cold aisle containment of minimum 400 mm each. Both Hot & Cold aisle
	containment should be part of the rack frame.
3.8	Monitoring
(a)	The Integrated Court Deals Colution should have ID heard manifesting facility of all
i.	The Integrated Smart Rack Solution should have IP based monitoring facility of all
ii.	the passive parameters inside racks. Capable for Email & SMS Alerts
11.	oupdide for Email & Jivio Alero

iii.	Monitoring unit should occupy maximum 1 U space of rack height & should support
	dual power input.
iv.	The monitoring unit should integrate & monitor UPS & cooling unit in a single
	dashboard along with other environmental parameters.

3.8(b)	16 port IP KVM – 01 no.
	18.5" LCD console tray and 16 port IP KVM switch should be built in design and
	should occupy 1U space in 19" standard rack
3.9	Other features:
3.9.1	The Intelligent integrated infrastructure would provide much functionality and some
	of the key functionalities are - Both Cold aisle & hot aisle containment, of minimum
	400 mm each, should be integrated part of the rack frame, for airflow, Airtight
	Thermally insulated cabinet, remote Management.
3.9.2	Rack based Biometric access control system provided should be controlled by
	common access control panel with control for both front as well as rear doors. IP
	based Access control with user exclusive authentication.
3.9.3	Critical Component's for Integrated Smart Rack DC solution i.e., Rack, rack PDU,
	Load transfer switch, Cooling Units, UPS, IP KVM and remote monitoring system
	along temperature & humidity sensors, should be manufactured, supplied,
	implementation and service from same & single OEM for Seamless Integration &
	better Service Supports
3.9.4	Electrical Distribution board within Utility Cabinet to have fire detection & Novec
	Based Fire Suppression system
3.9.5	Status based LED Lights within Smart Racks
<mark>3.9.6</mark>	The integrated smart rack data centre solution should provide emergency door
	opening feature in case of In row Cooling Unit thermal outage.
3.9.7	9inch touch screen HMI - Graphical User Interface display should be mounted on
	the Integrated smart rack solution for local monitoring.

4.2.2 Detailed Specification of Components:

Detailed Specification of Components:						
3.10	Uninterrupted Power Supply (UPS) System					
3.10.1	General Description:					
	Supply, install, test and commissioning of true online, double conversion, high					
	efficiency, and high-power factor Uninterruptible Power Systems (UPS) rated at 2					
	x 40 KVA with battery backup support for 15 minutes on full load ,with 12V VRLA					
	batteries, per UPS (minimum 26520 VAH Per UPS) . UPS shall be of maximum					
	4U size, rack mountable & The backup batteries should be supplied with the					
	necessary arrangements to mount outside the cabinet.					
	Each UPS to be provided with inbuilt/ External K13 CU Isolation transformer					
3.10.2	Configuration: 2 x 40kVA (N+N Redundancy)					
3.10.3	Scope					
a.	The scope shall include design, supply, installation, testing and commissioning of					
	the complete UPS system and related accessories including:					
	All Server racks will get power feed from two independent 40 KVA UPS					
	systems to ensure redundancy.					
	All systems should be tested in factory as per the manufactures					
	recommended procedure for all operating parameters and the test					
	results should be provided during the installation.					
	Delivery at site, unloading, handling, installation of complete system					
	including interconnection from the UPS system to batteries and to input					
	/ output panels switches. All interconnections shall be done using multi-					
	strand Flexible Copper conductor cables of appropriate sizes.					
	Scope includes battery bank connections and providing safety barriers					
	for all bus bars and cable connection leads on battery racks.					
	Energizing of UPS and Battery bank commissioning.					
	 UPS control parameters setting and complete testing of system on load. 					
	Service backup by engineer till system is fully operational and					

subsequently training is to be provided to the concerned persons. Any upgrade of the system hardware and associated other software during the warranty period should be supplied at free of charge. Acceptance tests will be carried out after installation and the systems will be taken over only after successful completion of the acceptance Operation and service manuals of the systems containing technical / Electronic drawings / circuit diagrams complete in all respects should be Specification / features of the UPS system is as follows: h. Widest input range. Double conversion and IGBT technology. Full IGBT Rectifier / Battery charger IGBT based Inverter Batteries to support combined 30minutes full load backup. Power distribution panels Facility for remote viewing Easy to expand in a cost effective way UPS other technical specification c. General UPS type ON-LINE Model Name Bidder to Specify Rating (VA/W) 40,000 VA / 36,000 W Make Bidder to specify Technology IGBT with PWM Switching Crest Factor 3:1 Double Conversion efficiency 94.9% Eco mode efficiency 98.5 % 2 Input Nominal Input Voltage 415V AC (3-Phase) Permissible input voltage 305 V - 477 VAC variation at full load Nominal input frequency 50 Hz Permissible input frequencies 40 Hz to 70 Hz variation Input power factor at full load > 0.99 at full load 3 Output Nominal output voltage 380V (3-phase) Output Voltage regulation < +/- 1% Output voltage distortion 2% total harmonic distortion (THD) for 100% linear loads 5% THD for 100% non linear loads. Nominal output frequency 50 Hz Waveform Pure Sine wave 0.9 lagging Power factor Over load capability 125% for 5 minutes. 150% of full load for 1 minute. with automatic transfer to bypass Transient recovery time Within 20 milliseconds to +/- 1% 4 **Bypass** +15% -20% Voltage Range 50/60Hz Frequency +/-20% Frequency Range **Battery Parameters** 5 Туре 12V VRLA/SMF Back up 15 min per UPS **Environmental Parameters** 6

Operating temperature

0 to 40 deg. Centigrade

Relative Humidity S9% RH non condensing Altitude Altitude de-rating Altitude-rating Altitude de-rating Altitude-rating Altitude-rating Altitude de-rating Altitude-rating Altitude-ra		Ctorogo tomporaturo	15 to 15 dog Contigrado			
Altitude de-rating derate power by 1% per 100m when above 1000m Noise level 58db 7 Mechanical Parameters Height X width X Depth (MM) Bidder to specify Weight Bidder to specify Ventilation Forced - Air cooled Cable Entry terminal block Color / Panel finish EG7021 Protection IP20 8 Monitoring SNMP, Dry contact card, site monitoring / shutdown for multiple servers 9 Standards Safety IEC/EN62040-1-1 Electromagnetic Compatibility IEC/EN62040-1-2, IEC/EN61000-3-11, IEC/EN61000-3-12, IEC/EN61000-3-11, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, VD/T1095-2008 Surge Protection IEC/EN62040-1-2, IEC/EN61000-3-14, IEC/EN61000-3-12, IE		Storage temperature	-15 to 45 deg. Centigrade			
Altitude de-rating derate power by 1% per 100m when above 1000m Noise level 58db 7 Mechanical Parameters Height X width X Depth (MM) Bidder to specify Weight Bidder to specify Weight Bidder to specify Weight Errored - Air cooled Cable Entry terminal block Color / Panel finish EG7021 Protection IP20 8 Monitoring SNMP, Dry contact card, site monitoring / shutdown for multiple servers 9 Standards Safety IEC/EN62040-1-1 Electromagnetic Compatibility IEC/EN62040-1-2, IEC/EN61000-3-11, IEC/EN61000-3-12, Y0/T1095-2008 Surge Protection IEC/EN62040-2, meeting IEC/EN61000-4-5 Installation and Configuration 1. The entire system shall be installed as per manufacturer's recommendations & instructions including all interconnections for supply & control circuits. 2. All components shall be clearly identified using labels including battery cells individually, 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.1.1 In-row Precision Air Conditioning System in N+N redundancy 3.1.1.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at						
Noise level 58db						
Mechanical Parameters Height X width X Depth (MM) Bidder to specify Weight Weight Bidder to specify Ventilation Forced - Air cooled Cable Entry terminal block Color / Panel finish EG7021 Protection IP20 SMMP, Dry contact card, site monitoring / shutdown for multiple servers Safety IEC/EN62040-1-1 IEC/EN62040-1-2, IEC/EN61000-3-11, IEC/EN61000-3-12, YD/T1095-2008 Surge Protection IEC/EN62040-1-2, IEC/EN61000-3-14, IEC/EN62040-1-2, IEC/EN61000-3-12, YD/T1095-2008 IEC/EN62040-1-2, IEC/EN61000-3-12, YD/T1095-2008 IEC/EN62040-1-2, IEC/EN61000-3-12, YD/T1095-2008 IEC/EN62040-1-2, IEC/EN61000-3-12, YD/T1095-2008 IEC/EN62040-2, meeting IEC/EN61000-4-5 Installation and Configuration IEC/EN62040-2, meeting IEC/EN61000-4-5 Acontrol circuits. IEC/EN62040-2, IEC/EN62040-2, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN61000-3-12, IEC/EN62040-2, IEC/EN61000-3-12, IEC/EN6100		Announce de-rating				
Height X width X Depth (MM) Bidder to specify		Noise level	58db			
Weight Bildder to specify	7	Mechanical Parameters				
Ventilation		Height X width X Depth (MM)	Bidder to specify			
Cable Entry terminal block Color / Panel finish EG7021 8 Monitoring SMMP, Dry contact card, site monitoring / shutdown for multiple servers 9 Standards		Weight	Bidder to specify			
Color / Panel finish EG7021		Ventilation	Forced - Air cooled			
Protection IP20 SNMP, Dry contact card, site monitoring / shutdown for multiple servers 9 Standards IEC/EN62040-1-1 IEC/EN61000-3-1.1, IEC/EN61000-3-1.2, IEC/EN62040-3-1.2, IEC/EN						
Standards Safety Electromagnetic Compatibility Ilectromagnetic Compatibility Electromagnetic Compatibility Ilectromagnetic Compatibility Electromagnetic Compatibility Ilectromagnetic Compatibility Electromagnetic Compatibility Ilectromagnetic Compatibility Ilectromagne		Color / Panel finish	EG7021			
Standards Safety IEC/EN62040-1-1						
Safety IEC/EN62040-1-1 IEC/EN61000-3-11,	8	Monitoring				
Electromagnetic Compatibility IEC/EN62040-1-2, IEC/EN61000-3-11, IEC/EN61000-3-12, YD/T1095-2008 Surge Protection IEC/EN62040-2, meeting IEC/EN61000-4-5 Installation and Configuration 1. The entire system shall be installed as per manufacturer's recommendations & instructions including all interconnections for supply & control circuits. 2. All components shall be clearly identified using labels including battery cells individually. 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11. In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match he low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be especifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the en	9	Standards				
Electromagnetic Compatibility IEC/EN62040-1-2, IEC/EN61000-3-11, IEC/EN61000-3-12, YD/T1095-2008 Surge Protection IEC/EN62040-2, meeting IEC/EN61000-4-5 Installation and Configuration 1. The entire system shall be installed as per manufacturer's recommendations & instructions including all interconnections for supply & control circuits. 2. All components shall be clearly identified using labels including battery cells individually. 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency, Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11. In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match be low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be especifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. One refrigeration circuit, incorporating a high efficiency, fully hermetic varia		Safety				
Surge Protection IEC/EN62040-2, meeting IEC/EN61000-4-5						
 Installation and Configuration The entire system shall be installed as per manufacturer's recommendations & instructions including all interconnections for supply & control circuits. All components shall be clearly identified using labels including battery cells individually. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. Testing and Commissioning Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. Test the system as per recommendations & test listed below using precalibrated instruments. Simulation of malfunctions to verify protective device operations. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. Remote status & alarm tests. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. In-row Precision Air Conditioning System in N+N redundancy Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall modulate cooling capacity and airflow based on requirements. Direct Expansion Cooling Circuits		Surge Protection				
1. The entire system shall be installed as per manufacturer's recommendations & instructions including all interconnections for supply & control circuits. 2. All components shall be clearly identified using labels including battery cells individually. 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.1.1 In-row Precision Air Conditioning System in N+N redundancy 3.1.1.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capacity sc	3.10.5		1 ,			
recommendations & instructions including all interconnections for supply & control circuits. 2. All components shall be clearly identified using labels including battery cells individually. 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall be capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and			he installed as ner manufacturer's			
& control circuits. 2. All components shall be clearly identified using labels including battery cells individually. 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.1.1 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against						
cells individually. 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.1.1 In-row Precision Air Conditioning System in N+N redundancy 3.1.1.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic			va dottorio iniciading dir interesimente ior cappi,			
cells individually. 3. Services of authorized representative or manufacturer for supervision of installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.1.1 In-row Precision Air Conditioning System in N+N redundancy 3.1.1.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic		2. All components shall be	e clearly identified using labels including battery			
installation, connections, testing, & adjustments shall be provided. 3.10.6 Testing and Commissioning 1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
1. Under supervision of manufacturer's representative all system functions, operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with		installation, connections	s, testing, & adjustments shall be provided.			
operations, protective features shall be checked & pre-set to ensure compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion 6. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with	3.10.6					
compliance or specifications. 2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
2. Test the system as per recommendations & test listed below using precalibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
calibrated instruments. 3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
3. Simulation of malfunctions to verify protective device operations. 4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion 6. One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
4. Duration of supply on emergency. Low battery voltage alarm & shutdown, transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with			ana ta varify protactiva davisa aparations			
transfer & restoration of normal supply. 5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
5. Remote status & alarm tests. 6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
6. In case of test any shortfalls / faults, the same shall be rectified & test procedure shall be again repeated to establish satisfactory performance. In-row Precision Air Conditioning System in N+N redundancy Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion Cooling Circuits One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
3.11.1 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion Cooling Circuits One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
 3.11 In-row Precision Air Conditioning System in N+N redundancy 3.11.1 Configuration Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 						
Supply, installation, testing and commissioning of DX Type Air-conditioning units (with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with	3.11					
(with minimum of 10 Tr Gross Cooling Capacity Machines) designed specifically for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
for high sensible heat ratio with variable capacity cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with		Supply, installation, testing and	commissioning of DX Type Air-conditioning units			
low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
and uniform distribution of cooling. It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
It shall be specifically designed for service from the front and rear of the unit. The unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
unit shall be capable to be mounted between the racks or at the end of row. The unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
unit shall modulate cooling capacity and airflow based on requirements. 3.11.2 Direct Expansion a. Cooling Circuits • One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. • Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
 3.11.2 Direct Expansion Cooling Circuits One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 						
 Cooling Circuits One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 	2440					
 One refrigeration circuit, incorporating a high efficiency, fully hermetic variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 						
 variable capacity scroll compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 	a.		it incorporating a high afficiency fully harmatic			
 filter drier, moisture indicating sight glass, liquid line solenoid valve and an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 						
 an externally equalized expansion valve. Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 						
 Each compressor is equipped with pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with 						
switches for protection against high condensing and low evaporating temperatures. The low pressure switch features an automatic reset (with						
temperatures. The low pressure switch features an automatic reset (with						

The compressor should be supplied along with an external solenoid valve. When the solenoid valve in its normally closed position, the compressor should operate at full capacity & when the solenoid valve gets energized, the two scroll elements should move apart axially. During the unloaded state, the compressor motor should continue to run, but since the scrolls will be separated, there will be no compression. A capacity modulation cycle should consist of a loading and unloading state. By varying the time of "loaded state" and "unloaded state", an average capacity should be obtained. The unit shall be provided with additional protection against high ambient temperature. When the temperature goes over the design conditions, the unit remains in operation with partial load (20% decrease against required). If such protection is not sufficient High Pressure switch shall generate an high pressure alarm and the unit shuts down manual reset shall be required. The inclined evaporator coil is manufactured from copper tubes, mechanically bonded to hydrophilic painted aluminum fins, with a stainless steel condensate drain pan. The large face area/low velocity coil allows precise control of temperature and humidity during cooling and dehumidification, and is designed to optimize fluid velocity and minimize pressure drop. The moisture indicating sight glass, liquid line solenoid valve and expansion valve for each circuit are mounted in a service compartment, isolated from the air stream, to allow checking and adjustment while the unit is in operation. b. **Fan Section** Units should be offered with two plug EC Direct Drive Fan, High efficiency, EC motor with integrated electronics, Maintenance free design and construction. The fan section shall be designed for higher air flow. The fan shall be protected from over temperature of motor, electronics, locked rotor protection, short circuit of motor output. Fans are IP54, Protection class F. Cabinet and Frame c. The unit shall be powder painted panels with ½" (or 10mm) insulation. A hinged control access panel opens to a second front panel which is a protection enclosure for high voltage components. The frame is painted with a powder coat finish to protect against corrosion. The unit is totally front and rear accessible including any component removal. d. Air Filtration The filter cells are made of two deep pleated 4" filters rated MERV8 following ASHRAE 52.2 (45% by ASHRAE 52.1) or G4 following EN779, located within the cabinet, and accessible from the rear of the unit. Frame of the filter shall be made of GI/Aluminum. Clogged filter alarm should be available as standard. It sends a visual alarm to display. Copper piping & Refrigerant e. All units equipped with direct expansion circuit are suitable for R410A refrigerant. The unit should support piping distance up to 50mtrs from indoor unit to condenser. Maximum geodetic height from indoor unit to condenser should range between (-) 8mtr to (+) 30 mtr where positive difference in height will have condenser above indoor unit & Negative difference in height will have condenser below indoor unit. f. Microprocessor Controller Air conditioning models should be controlled by microprocessor-based controller. It can be programmed to control the function of every device within the unit via I/O. The controller should allow setting and monitoring of the following space parameters: Air inlet Temperature Air supply Temperature

Return Temperature set-point 0 Supply Temperature set-point 0 Return Temperature band 0 Supply Temperature band 0 Humidity (inlet) 0 Humidity set-point 0 Humidity band 0 Rack Min, Max and Average temperature The example of available warnings / alarms: High supply temperature Low supply temperature High return humidity 0 Low return humidity Loss of airflow Compressor Low Pressure Compressor High Pressure Electrical heater high temperature (When applicable) 0 Clogged filter 0 Customer input (No 4 inputs) 0 LP transducer fail 0 Call service (customer input) 0 High temperature (customer input) 0 Unit hours exceeded 0 Compressor hours exceed 0 Humidifier hours exceed 0 Supply sensor failure 0 Network failure 0 Humidifier problem 0 Digital scroll high temperature 0 Smoke detected 0 0 Fire alarm Rack sensor failure Following features should be incorporated in the controller: Status Report of the latest 400 event-messages of the unit. Input for remote on-off and volt-free contacts for simple remote monitoring of low and high priority alarms: high/low temperature, high/low refrigerant pressure, fan/control failure. compressor/control failure and others should be available LAN management: functions provided as standard include stand-by (in case of failure of the unit in operation, the second one starts automatically), and automatic rotation. Automatic restart is provided after a power failure. g. Monitoring There should be SNMP and HTTP/Web-management capability for enhanced communications and control. The cards make use of an Ethernet network (10/100Mbit) to monitor and control a wide range of operating parameters, alarms and notifications via a standard web browser (Internet Explorer). The unit shall also include input volt-free contacts for simple remote monitoring of low and high priority alarms: high/low temperature, high/low refrigerant pressure, fan/control failure, compressor/control failure and others should be available. h. Condenser The condenser should be with fan speed controller designed & set for usages of R410A refrigerant. Condenser should work 0 deg C to 45 deg C ambient temperature. The condenser frame shall be made up of a sturdy GI/MS structure. The motorized fan shall be IP54, protection class F. i. Humidifier

The unit is fitted with a canister type steam humidifier suitable for use

	with water of varying degrees of hardness, provided that the water is not treated or demineralized (Conductivity range 125-500μS/cm). The humidifier is complete with a water inlet valve, water outlet valve and a maximum water level sensor, disposable cylinder, steam distributor and electronic controls. Humidifier control is of the ON-OFF type, can be also disabled by remote contact. Humidifier should be removable from the rear of the cabinet.
3.12	Racks & Accessories
a.	Rack Containment Frame should be of 42 U, 19" mounting type with standard Rack + Cold & Hot Aisle Containment.
b.	Both Cold aisle & hot aisle containment, of minimum 400 mm each, should be part of the rack frame.
C.	Rack frame is, scalable and modular with safe load carrying capacity of 1000 Kg
d.	Base plinth with 100 mm height
e.	Cable entry provision from top & bottom both side of rack
f.	Cut outs with rubber/brush grommet on top and bottom cover of rack for cable entry
g.	Vertical Cable manager on both LHS & RHS on rear side
h.	Each rack shall have front glass door for complete 42U height visibility & rear steel split door integrated with common Biometric access control panel.
i.	Thermally insulated cold aisle chamber
j.	Blanking panels to prevent air mixing
k.	Fixed Shelf to be provided
I.	Plastic Cable duct on vertical LH & RH section of racks for cable routing
m.	Front Rack doors to be provided with Biometric Access Control with 02 nos. of Electromagnetic lock per door
n.	Gas spring to be provided on front doors of racks
0.	Status based LED light to be provided on each rack
p.	Each rack enclosure should be physically separated through caged partition at cold & hot aisle to avoid unauthorized access from one rack to another.
3.13	Safety and Security Systems
3.13.1	Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. The front rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access control system. The system would be designed and implemented to provide following functionality: • Configurable system for user defined access • Built-in Real Time Clock (RTC), calendar; complete Database stored locally and shall be capable of operating offline on standalone mode • Record, report and archive each and every activity (permission granted and / or rejected) with log formats • Fail safe operation in case of no-power condition and abnormal condition such as fire, theft, intrusion, loss of access control, etc. • At the biometric reader, user presents the finger to the biometric reader which is unique to each employee. The pattern is read and compared with stored data to grant / deny access.
3.13.2	Fire Alarm and Fire Suppression System
	The integrated infrastructure solution should be designed as a complete standalone unit with security, fire detection and fire suppression systems. Each of the systems is inter-operable and inter connected. Environmentally friendly NOVEC 1230 agent is used to ensure that no harm to human beings and environment is caused. Following systems should be installed. NOVEC 1230 Clean Agent for fire suppression system Fire detection and alarm systems, with detectors and panel
	Protected area: The entire enclosed volume of the Intelligent Rack
	O

	containment including electrical panel mounted in utility cabinet should be						
	protected with fire detection and fire suppression system.						
	The NOVEC 1230 system is designed and installed as per NFPA 2001-						
	2012 Edition. SMPV, Petroleum and Safety Explosives Organization (PESO)						
	approved cylinder filled with NOVEC 1230 is installed in specially designed						
	Modular rack.						
3.14	Monitoring						
3.14.1	Supply and installation 1U rack mountable monitoring system with Sensors & notification system. The system shall continuously collects critical information from network connected devices such as UPS system, Cooling Units, temperature & humidity sensors, Door sensors, Water Leak sensor and other dry contact monitoring. The solution should have Beacon , Buzzer-Sound and Flash Led Alarm.						
3.14.2	Based on pre-set parameters, automated email & SMS alerts should be sent to the intended recipients by the monitoring unit						
3.14.3	The monitoring unit should integrate & monitor UPS & cooling unit in a single						
	dashboard along with other environmental parameters						
3.14.4	The monitoring system should have the following features:						
a.	Intelligent Rack environment remote monitoring						
b.	Modbus 485 Communications						
C.	SNMP Communication						
d.	Single window for monitoring all sensors including Cooling.						
e.	Data and logs of historical information of alarms and notification						
f.	Temperature & Humidity Sensor, with LCD display and RJ45 connector						
g.	Door sensor with RJ 45 connector						
h.	Water leak detection sensor with RJ45 connector						
i.	Smoke detection sensor with RJ45 connector						
j.	Alarm device with LED flash and sound option						
3.15	HMI – Smart Racks Interface mounted on Integrated Smart Rack Infrastructure						
2454	for Local level monitoring						
3.15.1	Smart Racks should have functionality to graphically monitor the passive						
	infrastructure —						
	9-inch wide touch screen HMI display with a very user-friendly interface It should be many driven system. Thermal management, Power symply.						
	 It should be menu driven system, Thermal management, Power supply environmental quantities, alarms, logs, and provided a total of menu 						
	items, breakdown of the sub-menu item the next menu level,						
	3) First authorization on LCD, is only authorized once, authorized system						
	will automatically skip the authorization page while booting						
	System Configuration page includes integrated cabinet configuration						
	5) Home page presents system function information (Such as Date & Time						
	ex.), system performance parameters and critical system parameters						

3.15.2	System performance parameters:						
	a)	Enclosures: thermal path average temperature,					
	b)	Air conditioning: return air temperature, supply air temperature					
	c)	All the components shall be graphically represented on HMI.					
	d) Real time PUE monitoring. Critical system parameters:						
3.15.3	Critical system parameters: a) UPS operation: AC mode/bypass mode/Battery mode/standby mode						
	,	The system load factor					
	b) HVAC Operation – Animated fan during Run & Compressor status						
	c)	IT racks parameters – Temp. & Humidity Parameters are highlighted for normal & abnormal values					
2454	Therma	I Management:					
3.15.4	a)	Return air temperature profile cross-ordinate					
	b)	Cooling fan state to the operating state, the corresponding icon is					
		animated; alarm flood state is, icon animation. Door status icon static					
		display, the door opened and closed the door to a different style static					
		icon.					
3.15.5	Supply	& Distribution:					
	a)	UPS page displays for the distribution parameters and real-time power					
	b)	system operating mode UPS working state: AC mode / bypass mode / Battery mode / standby					
	0)	mode					
	c)	The operating state of the system: Single / 1 + 1 parallel / 2N double					
	,	bus					
0.45.0	Environ	mental Amount: (The amount of ambient acquisition)					
3.15.6	a)	acquisition and display status of the current environmental data amount					
		of the rack, comprising: a real-time value of the respective collection					
		point temperature and humidity sensors, front and rear door state,					
		hot/cold aisles average temperature curve moisture profile					
	b)	When the air conditioning is working properly, hot and cold airflow					
		patterns dynamic channel is turned on when the air conditioning is not					
	٥)	working, dynamic airflow patterns hot and cold aisles disappear					
	c)	Door status icon static display, the door opened and closed the door to a different style static icon					
	d)	When the passage of hot / cold temperature and humidity sensor					
	u)	measured value exceeds the set range, the system will generate a					
		corresponding alarm; conversely, when the hot / cold aisles temperature					
		and humidity sensor measurement range is set to fall the alarm					
		disappears					
3.15.7	Warning	g – Alarm-Current Alarm:					
3.13.7	a)	Displays the Current Alarms Page					
	b)	The current alarm is divided into emergency alarms, major alarms and					
		general alarms					
	c)	When the current alarms and buzzers system in the normal mode, the					
		LCD buzzer will sound an alarm, and for 5 minutes, the duration of the					
		latest alarm generation time from a timer In maintenance mode, the					
		buzzer will not sound an alarm. After the lifting of maintenance mode,					
		buzzer return to normal mode					

	Alama Makada da Islama					
3.15.8	Alarm - historical alarm:					
	a) Alarm History page provides a display system and screening history					
	alarms					
	b) LCD page provides only historical records up to 100 within the system					
	one week. For longer or more the number of alarm history, Web pages					
	can be viewed in alarm management					
3.16	IP KVM Switch					
3.16.1	Proposed 18.5" LCD console tray and 16 port IP KVM switch should be built in					
	design and should occupy 1U space in 19" standard rack.					
3.16.2	It should have cable management arm(CMA) and the 16 port KVM switch built in					
	at the rear side of the LCD console tray to save the U space in Rack.					
3.16.3	KVM switch should not have push button since it is not operable from front side					
0.40.4	in rack.					
3.16.4	Both LCD console tray and the built-in KVM switch should have separate power					
3.16.5	supply. Vendor should supply 16 number of KVM cables with VGA, USB connectors and					
3.10.3	LEDs to indicate Power status.					
3.16.6	Built-in KVM switch should have 16 RJ45 port to connect KVM cable/dongle with					
	CAT cable extension at least upto 30Mt					
3.16.7	Supplied KVM cables should support Virtual media to map USB media devices to					
	target servers remotely over TCP/IP.					
3.16.8	Built it KVM switch should have encryptions including 128-bit SSL, AES, DES and					
	3DES and they can be selected for keyboard, mouse and video signals and virtual					
2.400	media sessions.					
3.16.9	Built-in KVM switch should be cascaded with another KVM switch with max 30Mt cat cable only.					
3.16.1	LCD display should support brightness 250 cd /m2, contract ratio 1000:1 and					
0	16.7 million colours.					
3.16.1	LCD console tray and built in KVM switch should support max resolution 1600 x					
1	1200 at 60 Hz.					
3.16.1	Operating temperature and Humidity of LCD console tray should be 0°C to 50°C					
2	and 10% to 80%					
3.16.1 3	LCD console tray should have 103 key keypad with numpad and touchpad.					
3.16.1	It should have control buttons on the front of the monitor to adjust the					
4	characteristics of the image that is displayed.					
3.16.1 5	It should have two independent USB 2.0 compliant pass-through ports at front side.					
3.16.1	LCD console tray should be global certified by agencies UL, CE, CCC, BSMI, C-Tick,					
7	EAC, VCCI, KCC, FCC Class A					
3.17	Earthing Works (Maintenance free chemical earthing)					
	Supply, Installation, Testing and Commissioning on Maintenance free Chemical					
	Earth Electrodes complying with the latest version of IS 3043 / IEC / IEEE					
	Specifications. The Earth Electrode shall be with 3 M long, 17 mm. dia high					
	tensile strength, copper bonded Steel Rods coated with minimum 250-micron pure eletrolytic Copper. Soil enrichment compound in quantities not less than 10					
	Kgs shall be used and the Earth Pit shall be back-filled with good quality soil					
	without any Stones / Granules / Sand etc.					
	The Earth Station shall be provided with suitable requisite Copper / GI term 450 x 450 mm brick masonary chamber with CI / stone / MS chequer-plate					
3.18	Cleaning					
	On completion of installation, testing of the system all components,					
	cabinets etc. shall be cleaned & unwanted material, debris shall be					
	removed from site					
	Scratches dents if any shall be cleaned & touched up to match the					

	original finish
	Cable and electric wire should be arranged in a way that minimize the physical tempering with the existing infrastructure and should be properly managed maintaining the aesthetics
3.19	Warranty
3.19.1	Warranty for the complete system shall be 05 years from the date completion of installation & commissioning. Consumables like fire suppression Gas- NOVEC, Refrigerant Gas, Batteries, emergency Lights can be excluded.

3.20	Maintenance and Support					
3.20.1	After Sale Service					
	 Service shall be guaranteed by supplier during defect liability period/Warranty Period. 					
	 Bidders shall have back-to-back agreement with the product OEM to offer 24 x 7 services through their authorized service engineer for warranty period. 					
	 Product OEM shall provide warranty from the date of taking over of the equipment after the acceptance tests. 					
	 Basic training and operational training to be provided after the successful installation of DC 					
	 Quarterly PM to be carried out during the warranty period 					

4.2.3 <u>List of Deliverables (BoQ):</u>

Bill of Quantities(BOQ)						
SI.No.	Sl.No. Item Description Quantity					
1.	Intelligent Integrated Smart Row with 6 racks with inbuilt required					
	precision ACs, UPS and Fire detection & suppression system, with					
	Remote Monitoring solution and Biometric Access control for Security					

4.3 Scope of Supply and incidental works:

- (i) Supply of the equipment / system along with the accessories, installation and commissioning as per clause No.4.2
- (ii) The vendors shall submit technical bids along with complete Bill of Materials with make and model no. of each item to be used for the solutions offered by them.
- (iii) During the execution of the works if any damage occurs to the existing installations like power cables, water lines, sewage lines etc, the vendor shall rectify the same as per original at his own cost and restore the facility as directed by site engineers
- (iv) The products/services offered should strictly conform to the specifications given in the product literature. The models proposed/ marked for withdrawal from the market or models under quality testing should not be offered.
- (v) Acceptance as per clause No.4.4.3
- (vi) Training as specified below in 4.5
- (vii) On site comprehensive Warranty as per 4.6 below

4.4 Inspection & Tests

CSIR-NAL reserves the right to witness a demonstration of all the specifications listed in section 4.2

4.4.1 General

- **1.** The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified here.
- 2. The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination.
- 3. Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- **4.** Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.

- 5. The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.
- The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 7. With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent, if any, shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after customs clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/ Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.
- 8. Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance Manuals together with Drawings of the goods and equipment built. These shall be in such details as will enable the Purchase to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
- The Manuals and Drawings shall be in the ruling language (English) and in such form and numbers as stated in the Contract.
- **10.** Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purposes of taking over until such Manuals and Drawing have been supplied to the Purchaser.
- 11. On successful completion of acceptability test, receipt of deliverables, etc. and after the Purchaser is satisfied with the working of the equipment, the acceptance certificate signed by the Supplier and the representative of the Purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the equipment.

4.4.2 Manufacturer's Inspection Certificate`

After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser reserves the options to be present at the supplier's premises during such inspection and testing.

4.4.3 Acceptance Test

The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at Purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.

On the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.

Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.

The acceptance tests at the final destination include the following:

a)	Successful Installation of Intelligent Integrated Smart Racks - 6 No's at CSIR-NAL
b)	Should able to meet all the security requirement mentioned in 4.2

4.5 Training

1)	Location	At CSIR-NAL
2)	Number of persons	6
3)	Period of Training	5 days.
4)	Nature of Training	Intelligent Integrated Smart Racks Management

4.6 Incidental Services

(i) On site Comprehensive Warranty:

- Warranty for the complete system shall be 05 years from the date completion of installation, commissioning and acceptance.
- Warranty should start from the date of acceptance by CSIR-NAL.
- Maintenance and Support to cover the following:
- Service shall be guaranteed by supplier during defect liability period/Warranty Period.
- Bidders shall have back-to-back agreement with the product OEM to offer 24 x 7 services through their authorized service engineer for warranty period.
- Product OEM shall provide warranty from the date of taking over of the equipment after the acceptance tests.
- Basic training and operational training to be provided after the successful installation of DC.
- Quarterly PM to be carried out during the warranty period.

4.7 Delivery Schedule (including supply, installation, commissioning, training & acceptance)

Delivery of the Item		Installation & Commissioning		Training At CSIR_NAL, if any	Acceptance of the item
Days/ Weeks /Months from the date of PO	Location	Days/ Weeks/ Months from the date of receipt of equipment	Location	Days/ Weeks/Months from the date of Installation & Commissioning	Days/ Weeks/Months from the date of Installation, Commissioning & Training
4 Weeks	CSIR-NAL at Kodihalli	4 Weeks	CSIR-NAL at Kodihalli Campus	10 days	1 Day

4.8 Commercial evaluation of bid

The bid will be treated as <u>incomplete</u> if bidder has <u>not quoted</u> for all the components given inscope of supply (clause 4.2) and <u>the incomplete bid will be rejected</u>. The bidder should also include all incidental services in their quote. The bid will be commercially evaluated for the components in the scope of supply.

4.9 Additional Tender Specifications

4.9.1 Solution details to be submitted

As indicated earlier, the bidder has to respond to all requirements tabulated in this document. In addition, an optimum solution document shall be submitted elaborating the details and technology proposed.

Dear Sir.

AUTHORIZATION & BACK TO BACK SUPPORT BY OEM

	Date:
То,	
Director,	
CSIR NAL,	
Subject: Manufacturer's Authorization Form with Back to Back Support -	
Reg. Tender Ref. No.:	

We hereby authorize M/s to quote / secure the order in their name / supply the equipment against the Tender Enquiry Ref. No.:. It is confirmed that

- 1. The Authorized Partner will have back to back support for the following equipment for supply of spares, support and its services against this tender conditions for a minimum period of 7 years (5 Years work Period and 2 years AMC provision should there if ordered) from the date of commissioning.
- 2. The equipment will have 5 (Five) Years Warranty directly from the OEM during the warranty Period. This authorization is valid only for the following equipment for which we are the OEM:

In case of any default by the Authorized Partner, it will be our responsibility to provide spares, support and services on-site on the same terms and conditions as negotiated and finalized in this tender enquiry.

(Authorized Signatory)

For

Note: This 'Authorization & Back to Back Support Form' should be issued on the letterhead of OEM.

Note: At the time of installation and commissioning of the configuration if it is found that some additional hardware accessories or software items with licenses are required to complete the configuration to meet the operational requirement of the configuration which were not included in the vendor's original list of deliverables then vendor is required to supply such items to ensure the completeness of the configuration at no extra cost. The vendor should ensure completeness of the list of deliverables in the offer to avoid such discovery during installation. The vendor shall resolve all issues related to the compatibility of hardware, drivers, and other system software. Hence it is recommended to the interested bidder to understand requirement in detail before quoting for the tender.

Checklist for Vendor

- 1. Manufacturer Authorization form (MAF) for participating in current bid is attached
- 2. Warranty with required part number is provided with 5 Years Next Business Day
- 3. Technical Data sheet justifying the compliance is attached
- 4. Technical Bill of Material is attached

CHAPTER-5

PRICE SCHEDULE FORM

Bidder should quote as per the BOQ Format Only as uploaded in https://etenders.gov.in

The Bidders should have Java 8 update 231 version-32 bit for uploading the bid in the CPP Portal.

Note:

- i. The Bidder may fill the BoQ (Price Schedule Form) and enclose as per Clause 1.10 and 1.19 of the Bidding documents.
- ii. The Bidders have to fill in the BoQ (Price Schedule) as per table below for the Goods Being Offered from India.

For Goods Being Offered From India											
ub-Total: Ex-Works Price 1 Nos INR 0 INR Zero Only											
Less: Discount (if any)	1	Nos	INR				0	0	INR Zero Only		
Sub-Total:	1	Nos	INR	0			0	0	INR Zero Only		
Less: Buy-back Price (if any)	1	Nos	INR				0	0	INR Zero Only		
Sub-Total:Net Ex-Works Price	1	Nos	INR	0			0	0	INR Zero Only		
Add: Packing & Forwarding charges (if any)	1	Nos	INR				0	0	INR Zero Only		
Add: Transportation Charges (if any)	1	Nos	INR				0	0	INR Zero Only		
Add: Insurance charges (from warehouse-to-	1	Nos	INR				0	0	INR Zero Only		
warehouse) (if any)											
Total (A):	1	Nos	INR	0			0	0	INR Zero Only		
Installation & Commissioning charges (if any)	1	Nos	INR				0	0	INR Zero Only		
Training charges (if any)	1	Nos	INR				0	0	INR Zero Only		
Total (B):	1	Nos	INR	0			0	0	INR Zero Only		
Bank Charges, if any	1	Nos	INR				0	0	INR Zero Only		
Any other charges, if any	1	Nos	INR				0	0	INR Zero Only		
Grand Total	1	Nos	INR	0			0	0	INR Zero Only		
(For Goods Being Offered From India)											

iii. The Non-Relevant Cells in Column M have to be filled with 0 (Zero) before Uploading the BoQ.

CHAPTER-6 Qualification Requirements Eligibility & Qualification Requirements

6.1 Eligibility Criteria

a) Legal Valid Entity:

The Bidder shall necessarily be a legally valid entity either in the form of a Limited Company or a Private Limited Company registered under the Indian Companies Act, 1956 or Country of Origin.

Bidder may be Joint Venture, Consortium or Association so long as they are formed and registered prior to the bid submission date.

Copy of Certificate of Incorporation issued by Registrar of firms/companies is to be submitted in support of this criterion.

- b) Only Class-I and Class-II local suppliers are eligible to participate in Domestic tender enquiry.
 - Submit Chapter-8:Annexure-I & J with your bid/offer.
- c) In case of Global Tender Enquiry, Indian Agent quoting on behalf of Foreign Principal Supplier should submit a certified copy of an Agreement/Memorandum of understanding (MOU) between both the parties, detailing services to be rendered by the Agency.
- d) An undertaking (self-certificate) is to be submitted to demonstrate that the bidder satisfies the bidders' eligibility criteria, as mentioned in ITB Clause 1.1.2 in the form of declaration by the Bidder for Code of Integrity & conflict of interest as per Chapter-8:Annexure-L.

6.2 Technical Qualification Criteria

Criteria 1 - Experience and Past Performance:

MINIMUM ELIGIBILITY CRITERIA FOR OEM

Proposals not complying with the below minimum eligibility criteria for the OEM will be rejected and will not be considered for evaluation of technical bid. The proposal should adhere to the following minimum eligibility criteria:

- a) Critical Component's for Integrated Smart Racks Data Centre Solution (Rack, load transfer switch, Cooling Units, UPS, rack PDU, IP KVM and monitoring system along with temperature & humidity sensor) should be Manufactured, Supplied, Implemented and Service support from same & single OEM for Seamless Integration & better Service Supports
- b) The Smart Rack OEM should have minimum 07 years of experience in executing similar works (Similar works means "SITC of Modular Integrated Smart Rack Data Centre infrastructure") in Central/State/PSU Organizations. Completion Certificate signed by the concerned authorities, as a proof of work execution to be submitted along with the bid.
- c) The Smart Rack OEM must have executed minimum 05 Integrated Smart Rack Data Centre projects, with minimum 06 rack configuration in each project, during the last 3 years from the bid submission date from Government / PSU. Completion Certificate signed by the concerned authorities to be submitted along with the bid.
- d) Smart Rack OEM Service Support for Major Equipment's: OEM or Manufacturer should have its own service centre.
- e) The Smart Rack OEM should have at least three qualified and experienced DC certified professionals like CDCP/CDCS/CDCE/ATD on their company payroll with minimum 3 years' experience in Data Centre designing and implementation.
- f) The Smart Rack OEM or Manufacturer should be ISO 9001: 2000, ISO 14001, ISO/IEC 27001:2013 and ISO 45001 certified.

- g) The Smart Rack OEM shall be present in Gartner Competitive Landscape Research Report for Edge in the Micro Modular Data Center Market as Leader in Data Center Facilities Specialist.
- h) The Project Manager proposed from bidder/OEM must have a minimum 5 years of experience in executing & managing Data centre projects.
- i) The Smart Rack OEM should have its own manufacturing facility in India for wide range of Racks, UPS & Precision air conditioning units to ensure high availability of the smart rack data centre. Supporting document/undertaking regarding the same to be submitted along with the bid.
- j) The Smart Rack OEM or Manufacturer of the offered goods/ equipment's should be a company registered under the companies Act since last 10 years. Valid company registration certificate should be submitted.

6.3 Financial Qualification Criteria

- a) The average annual financial turnover of 'The bidder' during the last three years, ending on 'The relevant Date', should be at ₹₹1 Crores as per the annual report (audited balance sheet and profit & loss account) of the relevant period.
- b) A copy of the annual report (audited balance sheet and profit & loss account) of the relevant period, duly authenticated by a Chartered Accountant/Cost Accountant in India or equivalent in relevant countries, is to be submitted in support of this criterion.
 - Ministry of MSME have clarified that all Central Ministries/Departments/Central Public Section Undertakings may relax condition of prior turnover and prior experience with respect to Micro and Small Enterprises in all public procurements subject to meeting of quality and technical specifications. Further, the condition of prior turnover and prior experience may be relaxed for Start-ups (as defined by Department of Industrial Policy and Promotion) subject to meeting of quality & technical specifications and making suitable provisions in the bidding document (rule 173 (i) of GFR 2017))
- c) The net worth of the Bidder firm (manufacturer or principal of authorized representative) should not be negative on 'The Relevant Date' and also ii) should have not eroded by more than 30% (thirty percent) in the last three years, ending on 'The Relevant Date'.

Note: In case of Indian Bidders/companies (manufacturer or principal of authorized representative) who have been restructured by Banks in India, under the statutory guidelines, they would be deemed to have qualified the Financial standing criteria considering the institutional financial backing available to them.

Applicability in Special Cases:

a) Applicability to 'Make in India':

Bidders (manufacturer or principal of authorised representative) who have a valid/approved ongoing 'Make in India' agreement/ program and who while meeting all other criteria above, except for any or more of sub-criteria in Experience and Past Performance above, would also be considered to be qualified provided:

- i) their foreign 'Make-in-India' associates meet all the criteria above without exemption, and
- ii) the Bidder submits appropriate documentary proof for a valid/approved ongoing 'Make in India' agreement/program.
- iii) the bidder (manufacturer or principal of authorised representative) furnishes along with the bid a legally enforceable undertaking jointly executed by himself and such foreign Manufacturer for satisfactory manufacture, Supply (and erection, commissioning if applicable) and performance of 'The Product' offered including all warranty obligations as per the general and special conditions of contract.

b) Authorized Representatives:

Bids of bidders quoting as authorised representative of a principal manufacturer would also be considered to be qualified, provided:

i)	their principal manufacturer meets all the criteria above without exemption, and
ii)	the principal manufacturer furnishes a legally enforceable tender-specific authorisation in the prescribed form assuring full guarantee and warranty obligations as per the general and special conditions of contract; and
iii)	the bidder himself should have been associated, as authorised representative of the same or other Principal Manufacturer for same set of services as in present bid (supply, installation, satisfactorily commissioning, after sales service as the case may be) for same or similar 'Product' for past three years ending on 'The Relevant Date'

c) For Existing Successful Past Suppliers:

In case the bidder (manufacturer or principal of authorised representative) who is a successful past supplier of 'The Product' in at least one of the recent past 5 years procurements, who do not meet any or more of requirements above, would also be considered to be qualified in view of their proven credentials, for the maximum quantity supplied by him in such recent past.

d) Joint Ventures and Holding Companies:

Credentials of the partners of Joint ventures cannot (repeat cannot) be clubbed for the purpose of compliance of PQC in supply of Goods/Equipment, and each partner must comply with all the PQC criteria independently. However, for the purpose of qualifying the Financial Standing Criteria, the Financial Standing credentials of a Holding Company can be clubbed with only one of the fully owned subsidiary bidding company, with appropriate legal documents proving such ownership.

Note for Bidders:

a) 'Doctrine of Substantial Compliance':

The Pre-Qualification Bidding (PQB) and Pre- Qualification Criteria (PQC) are for shortlisting of sources who are competent to perform this contract to ensure best value for money from expenditure of Public Money. This process is neither intended to bestow any entitlement upon nor to create any rights or privileges for the Bidders, by way of overly hair-splitting or viciously legalistic interpretations of these criteria, disregarding the very rationale of the PQB and PQC. Keeping this caveat in view, interpretation by the Purchaser would be based on common usage of terminologies and phrases in public procurement in accordance with the 'Doctrine of Substantial Compliance' and would be final.

- b) The Bidder must declare, whether asked or not in a bid document, any previous transgressions of such a code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity. Failure to do so would amount to violation of this code of integrity.
- c) In case of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/ dealer. There can be only one bid from the following:
 - i) The Principal manufacturer directly or through one Indian agent on his behalf; andii) Indian/foreign agent on behalf of only one principal.
- d) Along with all the necessary documents/certificates required as per the tender conditions, the bidder should furnish a brief write-up, backed with adequate data, explaining his available capacity (both technical and financial), for manufacture and supply of the required goods/equipment, within the specified time of completion, after meeting all their current commitments.

- e) Supporting documents submitted by the bidder must be certified as follows:
 - i) All copy of supply/work order; respective completion certificate and contact details of clients; documents issued by the relevant Industries Department/National Small Industries Corporation (NSIC)/ manufacturing license; annual report, etc., in support of experience, past performance and capacity/capability should be authenticated by the by the person authorised to sign the tender on behalf of the bidder. Original Documents must be submitted for inspection, if so demanded.
 - ii) All financial standing data should be certified by certified accountants, for example, Chartered Accountants/Cost Accountants or equivalent in relevant countries; and Indian bidder or Indian counterparts of foreign bidders should furnish their Permanent Account Number.
- f) A bidder or any of its affiliates who participated as a consultant in the preparation of the design or technical specifications of the contract i.e. the subject of the bid; cannot participate in the bidding process.
- g) Indian agents quoting on behalf of its foreign principal need to submit a copy of the agency agreement with the foreign principal detailing the services to be rendered by them on behalf of the principals, failing which its bid shall not be considered.
- (h) Foreign bidders to disclose the name and address of agent and representatives in India and Indian bidder to disclose their foreign principal or associates.

CHAPTER 7 Contract Form

Contract No.	_ Date:
THIS CONTRACT AGREEMENT is made	
the [insert: number]day of [insert: month], [insert: year].

BETWEEN

- (1) The Council of Scientific & Industrial Research registered under the Societies Registration Act 1860 of the Government of India having its registered office at 2, Rafi Marg, New Delhi-110001, India represented by National Aerospace Laboratories, Bengaluru (hereinafter called "the Purchaser"), and
- (2) [insert name of Supplier], a corporation incorporated under the laws of [insert: country of Supplier] and having its principal place of business at [insert: address of Supplier] (hereinafter called "the Supplier").

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency(ies)] (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- O1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- O2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:

(a)	This Contract Agreement
(b)	General Conditions of Contract
(c)	Special Conditions of Contract
(d)	Technical Requirements (including Schedule of Requirements and Technical Specifications)
(e)	The Supplier's Bid and original Price Schedules
(f)	The Purchaser's Notification of Award
(g)	[Add here any other document(s)]

- O3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
- 04. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- O5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

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

For and on behalf of the Council of Scientific & Industrial Research

Signed: [insert signature]

in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

Signed : [insert signature]

in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier] in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

CHAPTER 8

Other Standard Forms (To be enclosed as indicated below)

TABLE OF CONTENTS

SI. No.	Name	Annexure
1	Bid Security Form (to be enclosed with the technical bid)	А
2	Bid Securing Declaration. (to be enclosed with the technical bid)	В
3	Bidder Information Form (to be enclosed with the technical bid)	С
4	Bid Form (to be enclosed with the priced bid)	D
5	Manufacturers' Authorization Form (to be enclosed with the technical bid)	E
6	Performance Statement Form (to be enclosed with the technical bid)	F
7	Service Support Detail Form (to be enclosed with the technical bid)	G
8	Format of declaration of abiding by the code of integrity and conflict of interest to be submitted by the bidder (to be enclosed with the technical bid)	Н
9	Certificate of Local Content	I
10	Certificate of Price Break-up of Local content (to be enclosed with the Price bid)	J
11	Integrity Pact (to be enclosed with the technical bid), if any	K
12	To be executed on Company's Letterhead duly stamped and signed Self-Certification	L
13	Deviation Statement Form (to be enclosed with the technical bid)	М
14	Performance Security Form (to be submitted on award of Contract)	N
15	Acceptance Certificate Form (to be submitted on award of Contract)	0
16	Terms and Conditions	
17	Non-Disclosure Agreement (if applicable)	

Note: Please refer clause 1.10.1 of the bidding documents for other documents to be attached with the bids/offers

Tender No.: ANNEXURE-A

BID SECURITY FORM

Where	eas				
(herei	nafter c	alled the tenderer)			
has		submitted	their	offer	dated
	supply				
(nerei	natter c	alled the tender)			
Agains	st the Pu	ırchaser's Tender No			
_		EN by these presents that WE			
от		are bound		having our regis (hereinafte	
"Purch	naser")	are bound			i caned the
In		the		sum	of
THE C (1) (2)	ONDITION If the respe	.20 DNS OF THIS OBLIGATION ARE tenderer withdraws or ame of within the period of validity tenderer having been notification.	ends or modifies or impa y of this tender OR	_	-
		d of its validity			
	(a)	If the tenderer fails to furniscontract.	sn the Performance Secur	ity for the due Performar	nce of the
	(b)	Fails or refuses to accept/e	execute the contract.		
the Pu amount occurr This g	urchaser nt claim red cond juarante	e to pay the Purchaser up to having to substantiate its deed by it is due to it owing the lition or conditions. e will remain in force up to spect thereof should reach the second in the lition of t	emand, provided that in it o the occurrence of one and including 45 days a	ts demand the Purchaser or both the two condition after the period of tender	will note that the is, specifying the
			(Signat	cure of the authorized offic	er of the Bank)

Name and designation of the officer Seal, name & address of the Bank and address of the Branch

Note: Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

_				
Ten	. ~	^r	NIA	
161	w		INU.	

render	140	BID-S	ECURING DECLARATION	N FORM	
				Date:	
				Bid No	
To (inse	ert complete nam	ne and address of the	e purchaser)		
I/We. TI	he undersigned,	declare that:			
I/We ur	nderstand that, a	ccording to your con	ditions, bids must be s	upported by a Bid Securing Dec	laration.
	e of notification have withdrawing period of bid von having been notified (i) fail or reconstruction.	if I am /We are in a tenter in	oreach of any obligation d, impairs or derogates e form of Bid; or nce of our Bid by the p ontract, if required, or	ntract with you for a period of on under the bid conditions, because from the tender, my/our Bid burchaser during the period of burchaser during the period	ause I/We during the id validity
upon th	ne earlier of (i) th		otification of the name	lid if I am/we are not the succe of the successful Bidder; or (i	
			ame and capacity are sl erson signing the Bid Se		
Name: ((insert complete	name of person sign	ning he Bid Securing De	eclaration)	
Duly au	thorized to sign t	he bid for an on beh	alf of : (insert complete	e name of Bidder)	
Dated o	on	_ day of	(insert date	of signing)	
Corpora	ate Seal (where a	ppropriate)			

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

Tender No.: ANNEXURE-C

BIDDER INFORMATION FORM

(a) [The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No ::[insert number from Invitation for bids]

01.	Bidder's Legal Name [insert Bidder's legal name]
02.	In case of JV, legal name of each party: [insert legal name of each party in JV]
03.	Bidder's actual or intended Country of Registration: [insert actual or intended Country of
	Registration]
04.	Bidder's Year of Registration: [insert Bidder's year of registration]
05.	Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of
	registration]
06.	Bidder's Authorized Representative Information
	Name: [insert Authorized Representative's name]
	Address: [insert Authorized Representative's Address]
	Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers]
	Email Address: [insert Authorized Representative's email address]
07.	Attached are copies of original documents of:
	Articles of Incorporation or Registration of firm named in 1, above.

Signature of Bidder	
Name	
Business Address	

Tender No.: ANNEXURE-D

Bid Form

[The	Bidder	shall f	ill in	this	Form	in	accordance	with	the	instructions	indicated	No	alterations	to	its	format
sha	II be pe	rmitted	and	no s	ubstit	utio	ons shall be	acce	pted.	.1						

Date : [insert date (as day, month and year) of Bid Submission]

Tender No. :

To : Director, CSIR-NAL, Bengaluru

We, the undersigned, declare that:

VVC , C	ne undersigned, declare that:
(a)	We have examined and have no reservations to the Bidding Documents, including Addenda No.: [insert the number and issuing date of each Addenda]
(b)	We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services [insert a brief description of the Goods and Related Services] as specified in Chapter 4
(c)	The total price of our Bid, excluding any discounts offered in item (d) below, is: [insert the total bid price in words and figures, indicating the various amounts and the respective currencies]
(d)	The discounts offered and the methodologies for their application are: Discounts. If our bid is accepted, the following discounts shall apply. [Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]
(e)	Our bid shall be valid for the period of time specified in ITB Clause 1.17.1, from the date fixed for the bid submission due date in accordance with ITB Clause 1.19 and it shall remain binding upon us and may be accepted at any time before the expiration of that period
(f)	If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 1.43 and GCC Clause 2.13 for the due performance of the Contract and also submit order acceptance within 14 days from the date of contract in accordance with ITB Clause 1.42 and GCC Clause 2.44;
(g)	The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

(h)	We understand that this bid, together with your written acceptance thereof included in your
	notification of award, shall constitute a binding contract between us, until a formal contract is
	prepared and executed.
(i)	We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed: [insert signature of person whose name and capacity are shown]
In the capacity of [insert legal capacity of person signing the Bid Submission Form]

Name	: [insert complete name of person sig	ning the Bid Submission Form]				
Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]						
Dated o	n day of	,[insert date of signing]				

Tender No.: ANNEXURE-E

MANUFACTURERS' AUTHORIZATION FORM

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No. :[insert number from Invitation For Bids]

To : [insert complete name and address of Purchaser]

WHEREAS

We [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 2.20 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidder]

Dated on ______, _____[insert date of signing]

PERFORMANCE STATEMENT FORM

Details of similar equipment / systems supplied & installed during past 3 years in India & Abroad

Tender No.:	
Name of the Bidder	

Order Placed by (full address of Purchaser)	Order No. and date	Description and quantity of ordered equipment	Value of order	Date of completion of deliver as per contract	Date of actual completion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been installed/working satisfactory? (Attach a certificate from the purchaser / Consignee)	Name of Contact person along with Telephone No., Fax No. and e-mail address

Signati	ure and Seal of the manufacturer/Bidder
Place	:
Date	

SERVICE SUPPORT DETAIL FORM

Sr. No.	List of similar type of equipment's serviced in the past 3 years	Address, Telephone Nos., Fax No. and e-mail address of the buyer	Nature of training Imparted/ service provided	Name and address of service provider

Signature and Seal of the manufacturer/Bidder						
Place:						
Date:						

Tender No.: ANNEXURE-H

Format for declaration by the Bidder for Code of Integrity & conflict of interest (On the Letter Head of the Bidder)

Ref. No:	Date
To,	-
(Name & address of the Purchaser)	
Sir/Madam,	
With reference to your Ten- we shall abide by the Code of Integ Tender document and have no conf	der No dated I/We hereby declare that grity for Public Procurement as mentioned under Para 1.3.0 of ITB of your flict of interest.
	transgressions of the code of integrity with any entity in any country during arred by any other Procuring Entity are as under:
a b c	
We undertake that we shal this code.	I be liable for any punitive action in case of transgression/ contravention of
Thanking you,	
	Yours sincerely,
	Signature (Name of the Authorized Signatory) Company Seal

Tender No.: ANNEXURE-I

Certificate of Local Content (to be enclosed along with Technical Bid)

We M/s	(Name of Bidder) hereby certify that v	ve meet the minimum
Local content fo	or the Goods and services offered vide our offer/bid No	dated
as	s specified below:	
> Class-I	I Local Supplier with local content of 50% and above	
	OR	
	II Local Supplier with local content of 20% and above but less than 50% appropriate category of Local Supplier)	
	iming the services such as transportation, insurance, installation, commis warranty or AMC/CMC support), consultancy and custom clearance incl lition.	
the General Fin	that the false declarations will be in breach of the Code of Integrity undenancial Rules (Govt of India) for which we or our successors can be debard (iii) of the General Finance Rules along with such other actions as may	red for up to two years
<u>.</u>	t signature of person whose name and capacity are shown] of [insert legal capacity of person signing the Bid Submission Form]	
Name : [insert o	complete name of person signing the Bid Submission Form]	
Duly authorized	d to sign the bid for and on behalf of: [insert complete name of Bidder]	
Dated on	day of,[insert date of signing]	

Tender No.:

ANNEXURE-J

Certificate of Price break up of Local Content (to be enclosed along with Price Bid)

Ref	: Clause 1.30.9 and Chapter-	9(Part-A) of the Tend	er No		
We	M/s	(N	Name of Bidder) h	ereby certify that we	e meet the minimum
Loc	al content for the Goods and	services offered vide	e our offer/bid No)	dated
	as specified below	:			
	Class-I Local Supplier w OR	ith local content of 5	0% and above		
	Class-II Local Supplier w (Tick appropriate category)		20% and above bu	ut less than 50%	
Min	imum Local content is	% as per Price bi	reak up given bel	ow:	
Cor	nponent of Cost	Imported Produc	ct	Domestic value product	addition to
		In Foreign Currency US% or specify	In Rupees Exchanged Rate 1 US\$ - Rs.	In Rupees	Location of value addition
	Goods				
i)	Material				
ii) iii)	Equipment				
,	Total Quoted Price = [X + Y]		X=	Y=	
% L	ocal Content = $\begin{bmatrix} \mathbf{Y} \\ \mathbf{X} + \mathbf{Y} \end{bmatrix} \times 1$	00			
sale	are not claiming the services service (warranty or AMC, al value addition.				
the	are aware that the false de General Financial Rules (Go per Rule 151 (iii) of the Gene	vt of India) for which	we or our succes	sors can be debarre	ed for up to two years
	ned : [insert signature of pers he capacity of [insert legal ca				
Nar	me : [insert complete name o	f person signing the l	Bid Submission F	orm]	
Dul	y authorized to sign the bid fo	or and on behalf of: [i	insert complete n	ame of Bidder]	
Dat	ed on day of _	·	,		

FORMAT OF INTEGRITY PACT INTEGRITY PACT

Tender No.:

Council of Scientific & Industrial Research (CSIR) a Socie represented by	, .
Andherein referred to as	"The Bidder/ Contractor."

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- (a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- (b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- (c) The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action.

Section 2 - Commitments of the Bidder(s)/Contractor(s)

- (1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- (a) The Bidder(s)/Contractor(s) will not, directly or through any other Person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- (b) The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, Certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- (c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- (d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)//Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annexure.
- (e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (3) The person signing IP shall not approach the courts while representing the matters to IEMs and he/she will await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future Contracts

(1) If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings". Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annex -"B".

Section 4 – Compensation for Damages

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- (2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 - Previous transgression

- (1) The Bidder declares that no previous transgressions occurred in the last 3 Years with any other Company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings."

Section 6 - Equal treatment of all Bidders / Contractors/ Sub-contractors

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all Subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violating Bidders / Contractors/ Subcontractors

(1) If the Principal obtains knowledge of conduct of a bidder, Contractor or Subcontractor or of an employee or a representative or an associate of a bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will

inform the same to the Chief Vigilance Officer.

Section 8 - Independent External Monitors

- (1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the JS (A), CSIR.
- The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s) / Subcontractor(s) with confidentiality.
- (4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notice, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- (6) The Monitor will submit a written report to the JS(A), CSIR within 8 to 10 weeks from the date of reference or intimation to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.
- (7) Monitor shall be entitled to compensation on the same terms as being extended to/provided to Independent Directors on the CSIR.
- (8) If the Monitor has reported to the JS(A), CSIR, a substantiated suspicion of an offence under relevant IPC/PC Act, and the JS(A), CSIR has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- (9) The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally singed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by JS(A), CSIR.

Section 10 - Other provisions

- (1) This agreement is subject to Indian Law. Place of performance and Jurisdiction is the Registered Office of the Principal, i.e. New Delhi
- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & On behalf of the Principal) (Office Seal)	(For & On behalf of Bidder/Contractor (Office Seal)
Place	Place
Date	Date
Witness 1:(Name & Address):	
Witness 2: (Namo & Address):	

SELF CERTIFICATION

With reference to Clause No. 1.1.3 of this tender and Gol Ministry of Finance Order No.: F. No. 6/18/2019-PPD dated 23rd July, 2020 on "Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs)" & OM No. F. No. 18/37/2020-PPD dated 8thFebruary, 2021 and as amended from time to time on the date of issue of Tender:

I†	15	CP	rtit	IEC	l tr	าลt

□ We are not a bidder of a country which shares a land border with India.

OR

□ We are a bidder of a country which shares a land border with India, however, we are eligible to bid in any procurement whether of goods or services as we are registered with the Competent Authority as specified in Ministry of Finance (GoI) Order No. 6/18/2019 − PPD dated 23rd July 2020. Copy of valid registration is attached.

□ Tick as applicable

Place: Date:

Authorised Signatory Name: Company Seal

DEVIATION STATEMENT FORM

PART –I The following are the particulars of deviations from the requirements of the tender specifications:

SI.No.	Name of Specifications/ Parts/Accessories of Tender Enquiry	Specifications of quote Model / Part / Accessory	Compliance whether YES/NO	Deviation, if any to be indicated in unambiguous terms (The compliance/ Deviation should be supported by relevant Technical Literature)	Technical justification for the deviation, if any. If specification is superior / inferior than asked for in the enquiry, it should be clearly brought out in the justification

Signature of Bidder

- > If the Bidder offers more than one model, then the Compliance Statement must be enclosed for each and every model separately.
- > The Technical and Commercial deviations should be indicated separately.
- > If the Bidder fails to enclose the compliance statement, his bid is likely to be rejected.
- > Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

Place:	
Date:	Signature and seal of the Manufacturer/Bidder

PART - II

The E-bid shall comprise of the documents as per the requirement of the Tender document. The documents specified below should be scanned and uploaded in PDF Format in proper sequence. The scanned documents uploaded as part of bid should be scanned in high resolution for better readability.

Sr. No.	Tender Clause No./ Chapter/Annexure	Tender Requirement	Compliance	Document Submitted
1	ITB 1.16 Chapter 8: Annexure-A	EMD (to be valid till 45 days beyond the validity of Bid)	Yes / No	Yes / NA
2	Chapter-8, Annexure-B	Bid Securing Declaration Form	Yes / No	Yes / NA
3	ITB 1.18	Bid is Signed	Yes / No	Yes / NA
4	Chapter 8: Annexure-C	Bidder Information Form	Yes / No	Yes / NA
5	Chapter 8: Annexure-D	Bid Form-Tender Acceptance Form	Yes / No	Yes / No
6	Chapter 8: Annexure-E	Manufacturers Authorisation Form (MAF) (If bidder is not OEM))	Yes / No	Yes / NA
7	Chapter 8 - Annexure F	Performance Statement Form	Yes / No	Yes / NA
8	Chapter 8: Annexure G	Service Support details enclosed	Yes / No	Yes / NA
9	Chapter 8: Annexure-H	Declaration by the Bidder for Code of Integrity & conflict of Interest	Yes / No	Yes / NA
10	Chapter-8:Annexure-I	Self-Certification for Local Content [For Class-I or Class-II Local Suppliers]	Yes / No	Yes / NA
11	Chapter-8:Annexure-J	Price break-up for Local content [to be attached with price bid in case of two bids]	Yes / No	Yes / NA
12	Chapter 8: Annexure-K	Integrity Pact (if applicable)	Yes / No	Yes / NA
13	MSME Registration of appropriate authority	Documents to substantiate MSME Bidder status	Yes / No	Yes / NA
14	Self-Certification	1.1.3 & Chapter-8: Annexure-L	Yes / No	Yes / NA
15	Chapter 8:Annexure M - Part I & Part II	Deviation Statement Form enclosed	Yes / No	Yes / NA
16	Chapter-6, 6.1(a)	Certificate of Incorporation	Yes / No	Yes / NA
17	Chapter-6, 6.1(c)	Agency Agreement/MoU beween Foreign Principal and Indian Agency (If bidder if Agent of Foreign Principal) for Global Tender Enquiry)	Yes / No	Yes / NA
18	Unpriced bid with Technical specifications & Scope of Supply		Yes / No	Yes / NA
19	Chapter 6, 6.3(b)	Annual Financial Report (audited Balance Sheet and Profit & Loss Account) of the last Three Financial Years, duly authenticated by a Chartered Accountant/Cost Accountant	Yes / No	Yes / NA
20	Chapter 3	Schedule of Requirement	Yes / No	Yes / NA
21	Confidentiality and Non-E	Disclosure Agreement	Yes / No	Yes / No

Note: The documents comprising bid should be submitted in the above sequence in orderly manner.

II)	The following are the particulars of deviation/compliances as per Tender conditions and Clause No.1.26
	of Tender document

1	ITB 1.17	Bid Validity (90 days after the date of Bid opening)	Yes / No Bid Valid upto	Yes / NA
2	GCC/SCC 2.21	Warranty: As per SCC & Chapter-4	Yes / No	Yes / NA
3	GCC/SCC 2.13	Agree to submit Performance Security as per Clause 2.12.1 & as specified in SCC	Yes / No	Yes / NA
4	Terms and Conditi	ons	Yes / No	Yes / NA
5		t Manufacturer/Authorised Indian Agent agree to greement in the Form as per Chapter-7, if any	Yes / No	Yes / NA

3	G	CC/SCC 2.13	Agree to submit Performance Security as per Clause 2.12.1 & as specified in SCC				/ No Yo	es / NA
4	Т	erms and Conditi	ons			Yes	/ No Ye	es / NA
5	Original Equipment Manufacturer/Authorised Indian Agent agree to submit Contract Agreement in the Form as per Chapter-7, if any						/ No Yo	es / NA
III)	us a relev supp i)	financial qualificand the copies of vant period, duly port of the followin	the annual re authenticated ng information ual financial to	eports (audited d by a Chartere i: urnover of our fi	balance sheet ed Accountant/C rm M/s	and profit & Cost Account	loss account) ant, are submi	of the tted in
		during the last the No.6.3, as per the			March, is more t	han, as per	Chapter-6, Cla	use
		Financial	Year				Average	7
		Annual Fir						7
		Turnover in Ru	pees crore					
	ii)	the last three ye	on 31st Marcl	n and also it ha on 31st March 2	as not eroded by 2021 as per the			not ent) in
IV)	alon attac	e bid comprises o g with Annexure- ched with Price b of Annexure-J, if	J filled up an id in case of	d uploaded as	Cover-1. Price	break up for	Local content	t (to be
Date:						Signatu	ure and seal of	the Bidde

To,

PERFORMANCE SECURITY FORM/STAND-BY LETTER OF CREDIT

MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY/ STAND-BY LETTER OF CREDIT

WHEREAS
AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;
AND WHEREAS we have agreed to give the supplier such a bank guarantee;
NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of
We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.
We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.
This guarantee shall be valid until the day of
(Signature of the authorized officer of the Bank)
Name and designation of the officer
Seal, Name & Address of the Issuing Branch of the Bank

Note:

Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

	Acceptano	ce Certifica	ate		
PO No. NAL/F	PUR/			Date:	
Sub:	Certificate of Supply, Installati	on, Commissioi	ning, Training and A	Acceptance of Goo	ds & Services
1	This is to certify that the equipalong with all the standard and installed, commissioned and a	d special acces			
(a)	Contract No. Date				
	Value				
	Mode of Shipment				
(b)	Description of the Equipment				
(0)	Name of the Considers		CCID NAL Bendel		
	Name of the Consignee Scheduled date of Delivery of	the	CSIR-NAL, Bengal	uru	
(u)	Consignment to the Laboratory				
(e)			of LC Establishe	d	
(6)	Date of Establishment	i e	Shipment		f Expiry
(f)			nsignment by the		
	Date of Shipme	nt	Date	of Receipt at CS	IR-NAL
(g)	Scheduled date for completion	n of			
	Installation, Commissioning ar	nd acceptance			
(h)	Actual date of completion of Ir				
	Commissioning and acceptant				
(i)	Penalty for Late Delivery (at La	iboratory /			
	Institute level) Rs.				
(j)	Penalty for Late Installation, Co				
	and Acceptance (at Laboratory	/ Institute			
	level) Rs.				
2	Details of accessories/items no		and recoveries to b		
Sr. No.	Desc	ription		Amount to	be recovered
			1		
3	The acceptance test has been	done to our en	tire satisfaction. Th	e Supplier has fulf	illed his contractual
	obligations satisfactory - Yes				
			OR		
	The Supplier has failed to fu	Ifill his contrac	ctual obligations wi	th regard to the fol	lowing:
Sr. No.	Description			Amount to	be recovered
The amount of	recovery on account of failure of	of the supplier t	o meet his contract	tual obligations is a	as indicated at Para
3					
4	Liquidated Damages/Penalty I	Percentage			
	No. of Days / Weeks	delayed	Am	ount to be recov	ered
5	Warranty Details	ı			I.
6	Training, if any		COMPLETED/ NO	COMPLETED (atta	ach training
	, , , , , , , , ,		Certificate/docum	•	
_	5		-		
7	Details of Performance Securit BG No.				
	BG No.	Date	Amount in Rs.	Valid till	% of BG
Fan Diinahaaa	r (Indenting Officer)		Fan Dunahasan (I	\\	
roi Fuicilasei	(maenting Officer)		For Purchaser (F	roject Leader)	
Signature			Signature		
_					
Name			Name		
Designation			Designation		
Name of the La	aboratory/Institute	CSIR-NAL	Name of the Labo	ratory/Institute	CSIR-NAL
	liberatery, metrate			ratory/ motitate	
Date	<u>L</u>		Date		
For Supplier					
Signature					
Name					
Designation					
Name of the					
Supplier					
Date					
	t .				

TERMS & CONDITIONS

Tender No.	NAL/PUR/	
Sr. No.	Approximate weight of the Consignment	Approximate dimensions of the consignment
1		
2	Indian Customs Tariff No. and HSN No. (ICT & HSN No.)	
3	Country of Origin	
4	Percentage of Local Content	
5	Annual Turnover	
6	Type of Supplier	
7	Mode of Shipment By Air / SEA / Road / e-download	
8	Port of Destination	Final Destination
9	Delivery Term (INCO Term), as the case may be	
10	Delivery Schedule including Supply, Installa	tion, Commissioning, Training & Acceptance
a)	Delivery of the Item as per Chapter-4/ BoQ [In weeks / Days / Months] from the date of PO / LC / ILC / Advance [Mention the appropriate term]	
b)	Installation & Commissioning from the date of Delivery of item [In weeks/Days/Months]	
c)	Training from the date of Installation & Commissioning of item [In weeks/Days/Months]	
d)	Acceptance from the date of Training [In weeks/Days/Months]	
11	Installation & Commissioning (if any) Quoted Price inclusive or exclusive	
12	Training (if any) Quoted Price inclusive or exclusive	
13	Partial Shipment [If partial shipment required, the charges incurred towards partial shipment to be borne by Bidder]	

14	Payment Term	
15	Currency of Bid/Quotation	
13	Currency of Bid/ Quotation	
16	Statutory Levies	
	[GST/IGST or any other taxes, duties]	
	% of tax to be mentioned.	
17	Bidder GST No.	
18	Bidder Bank Details along with Cancelled	
	cheque	
19	Insurance Coverage as per GCC/SCC	
	Clause No.2.17.1	
20	Warranty	
21	Agree to submit Darformanae Cosurity on	
21	Agree to submit Performance Security as per GCC/SCC Clause No.2.13.1	
22	Integrity Pact as per GCC/SCC Clause	
	No.2.43.1 to be signed and stamped on Organization's Letterhead, if applicable	
23	Validity of offer	
24	Order to be placed	
	[Full address, Tel #, Fax #, Email Id,	
	Contact Person]	
25	Nature of the item [to be specified]	
	Hazardous/Radio Active/ Perishable/	
	Dangerous/ Shelf-life or any other	
26	Bidder to mention in the quote, any	
	special carrier requirement is necessary	
	for transport viz Special License, ODC	
	etc.,	

27	Any other					
28	Total Price quoted as per BoQ/Price Schedule/List of Deliverables exclusive of tax					
29	Total Price quoted as pe Schedule/List of Deliverable tax					
30	If country of Origin is Forei Procurement Policies (DIPP (ng details, as	per GOI
	"Self-Certification that the item offered meets the minimum local content (in terms of percentage) giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the Make in India Policy, if applicable".					made in
Note:	Unit Price indicating currency FOB (named port of shipment or FCA (named place of delivery)					
dı	e average annual financial turnov uring the last three years, ending o.6.3, as per the following data:					se
Γ	Financial Year				Average	
-	Annual Financial Turnover in Rupees crore					
be	ne net worth of our firm M/sen negative on 31st March and a st three years, ending on 31st Ma				had no	
	Financial Year end date					
	Net worth in Rupees lakh					
				Signatu	re and seal of t	he Bidder

Date:

Confidentiality and Non-Disclosure Agreement

1. <u>Disclosure of Confidential Information</u>

For the purpose of this agreement, "CSIR-NAL" is "Disclosing Party" and "XYZ" is "Receiving party" Under this agreement, CSIR-NAL may disclose confidential information to the Receiving Party either orally or in any recorded medium, during discussions and pre-bid meetings for providing information comprising or relating to: techniques, schematics, designs, contracts, financial information, sales and marketing plans, business plans, clients, client data, business affairs, operations, strategies, inventions, methodologies, technologies, employees, subcontractors, pricing, service proposals, methods of operations, procedures, products and/or services ("Confidential Information") related to SARAS Mk-II Aircraft programme. Based on the disclosure, Receiving Party will submit the tender for the RFQ generated from CSIR-NAL ("Purpose"). Confidential Information shall include all nonpublic information furnished, disclosed or transmitted regardless of form.

2. <u>Confidentiality</u>

It is agreed that:

Receiving Party will use the Confidential Information solely for above stated purpose of this agreement. Receiving Party shall not copy, reproduce or use the Confidential Information in any way that is directly or indirectly detrimental to Disclosing Party or its subsidiaries or affiliates, and shall not disclose the Confidential Information to any unauthorized third party without written authorization by the Disclosing Party. Receiving Party shall ensure that access to Confidential Information is granted only to those of its employees or agents ("Representatives") who have a demonstrated need to know such information in order to carry out the business purpose of this Agreement. Prior to disclosing any Confidential Information to such Representatives, Receiving Party shall inform them of the confidential nature of the information and their obligation to refrain from disclosure of the Confidential Information. Receiving Party and its Representatives will take all reasonable measures to maintain the confidentiality of the Confidential Information, but in no event less than the measures it uses for its own information of similar type. Receiving Party and its Representatives shall not disclose to any person including, without limitation, any corporation, sovereign, partnership, limited liability company, entity or individual (i) the fact that any investigations, discussions or negotiations are taking place concerning the actual or potential business relationship between the parties, (ii) that it has requested or received Confidential Information, or (iii) any of the terms, conditions or any other fact about the actual or potential business relationship. Receiving Party and its Representatives will immediately notify Disclosing Party of any use or disclosure of the Confidential Information that is not authorized by this Agreement. Receiving Party and its Representatives will use its best efforts to assist Disclosing Party in remedying any such unauthorized use or disclosure of the Confidential Information.

The parties have appointed the following individuals to coordinate the disclosure and receipt of Confidential Information under this Agreement:

For	For CSIR-NAL		
Name:	Name:		
Title:	Designation:		
Address:	Division:		
Telephone:	Address: CSIR-National Aerospace Laboratories,		
E-mail:	HAL Airport Road, Kodihalli,		
Fax:	Bengaluru-560 017,		
t	Telephone: Fax:		
E	E-mail:		

Either Party may change above designated technical point of contact by informing other Party.

Any Notices will be in writing and sent to each party at its address below which may be changed upon written notice. Notices will be effective upon receipt.

For For CSIR-NAL Name: Name: Dr. M Manjuprasad Title: Title: Head, KTMD Address: CSIR-National Aerospace Laboratories, Address: Telephone: P.B.No. 1779, HAL Airport Road, Kodihalli, Fax: Bengaluru - 560 017 Telephone:080-25086207 E-mail: Fax:080-25086147 E-mail: manjuprasad@nal.res.in

The obligations contained in this Section 2 will not apply to the extent that Receiving Party can demonstrate that the Confidential Information: (a) was part of the public domain at the time of disclosure or properly became part of the public domain, by publication or otherwise; (b) was rightfully acquired by Receiving Party from third Party prior to disclosure by Disclosing Party; (c) was independently developed by Receiving Party or its Representatives without reference to the Confidential Information; or (d) is in the possession of Receiving Party at the time of disclosure that may be demonstrated by business records of Receiving Party (e) is required to be disclosed by a government agency or by a proper court of competent jurisdiction; provided, however, that Receiving Party and its Representatives shall provide Disclosing Party prompt prior written notice of such requirement, shall consult with and assist Disclosing Party in obtaining a protective order prior to such disclosure, and shall only disclose the portion of Confidential Information which it has been advised by written opinion of counsel is legally required to be disclosed and shall use its best efforts to obtain assurance that confidential treatment will be accorded such information if the protective order is not obtained or if Disclosing Party waives disclosure of such information.

3. Ownership of Confidential Information

Disclosing Party retains all rights, title and interest to its Confidential Information. No license under any trademark, patent or copyright, or application for same which are now or hereafter may be obtained by Disclosing Party is either granted or implied by the disclosure of Confidential Information to Receiving Party. Confidential Information is provided "as is" basis. In no event shall Disclosing Party be liable for the accuracy or completeness of the Confidential Information.

4. <u>Term</u>

Unless renewed for a further period, this Agreement shall terminate **Five (05) years** from the Effective Date. For the term of this Agreement and **Ten (10) years** thereafter, the receiving party shall neither disclose the Disclosing Party's confidential information to any other third party.

5. Return of Confidential Information

During the term of this agreement, upon written request of Disclosing Party, Receiving Party and its Representatives shall promptly return to Disclosing Party all copies of Confidential Information in its possession including, without limitation, all copies of any analyses, compilations, studies or other documents prepared by Receiving Party or its Representatives containing or reflecting any Confidential Information. Receiving party shall certify in writing that it and its Representatives have returned all such information to Disclosing Party.

6. <u>General</u>

- a) This Agreement and all questions relating to its validity, interpretation, performance and enforcement (including, without limitation, provisions concerning limitations of actions), shall be governed by and construed in accordance with the laws of India and is subject to the exclusive jurisdiction of the Courts of Bangalore, India and may be modified only in writing and signed as accepted by both the Parties.
- b) Receiving Party agrees that the breach of the provisions of this Agreement by it, will cause Disclosing Party irreparable damage for which recovery of money damages would be inadequate. Disclosing Party will, therefore, be entitled to obtain timely injunctive relief to protect its rights under this Agreement in addition to any and all remedies available at law or in equity. Any Dispute or claim arising out of or relating to this Agreement shall be first tried to

solve through mutual discussions by authorized representatives of both the Parties. If no conclusion is arrived at through such mutual discussions within a period of 30 days, then the dispute should be settled by arbitration in accordance with Delhi International Arbitration Center (DIAC), Delhi High Court, New Delhi. Decision of arbitral tribunal shall be final and binding on the Parties. Parties shall equally bear the cost of arbitration and its proceedings unless the award provides otherwise. The Parties shall continue to perform their respective obligations under this Agreement during the pendency of the arbitration proceedings except insofar as such obligations are the subject matter of the said arbitration proceedings.

- c) Neither party may assign any of its rights or obligations under this Agreement without the prior written consent of the other party. This Agreement shall be binding upon and inure to the benefit of the parties permitted successors and assigns.
- d) This Agreement may be amended or supplemented only by a writing that is signed by duly authorized representatives of both parties.
- e) No term or provision hereof will be considered waived by either party, and no breach excused by it, unless such waiver or consent is in writing signed an authorized representative of the non-breaching party. No consent to, or waiver of, a breach by a party, whether express or implied, will constitute a consent to, waiver of, or excuse of any other, different, or subsequent breach.
- f) Either party may terminate this Agreement upon service of 60 days' prior written notice to the said effect on the other party with return of confidential information as stated in Clause 5.
- g) If any part of this Agreement is found invalid or unenforceable, that part will be amended to achieve as nearly as possible the same economic and legal effect as the original provision and the remainder of this Agreement will remain in full force.
- h) This Agreement constitutes the entire agreement between the parties relating to this subject matter and supersedes all prior or simultaneous representations, discussions, negotiations, and agreements, whether written or oral.

In witness whereof, the parties hereto have Accepted and agreed this agreement as of the date first above written by the following authorized Party representatives:

FOR AND ON BEHALF OF	FOR AND ON BEHALF OF CSIR-NAL
Signature:	Signature:
Name:	Name: Dr. M Manjuprasad
Designation & Seal:	Designation & Seal: Head, KTMD
Witnesses (Name & Signature):	Witnesses (Name & Signature):
1.	1.
2.	2.