NAL/PUR/NT/037/18-Z

PROCEEDINGS OF THE PRE-BID CONFERENCE HELD ON 04th December 2020 AT ICAST CONFERENCE HALL, CSIR-NAL, TOWARDS DEVELOPMENT, SUPPLY, INSTALLATION AND COMMISSIONING OF DIGITAL WIND TUNNEL

SI. No.	Name & Designation		Role
1	Dr. J.S. Mathur	Chief Scientist, CFD	Chairman
2	Mr. V. Ramesh	Chief Scientist, CFD	Expert Member
3	G K Suryanarayana		Expert Member
4	Mr. Rajeev,G.	Chief Scientist, NTF	Member
5	Mr. Sampath Rao, B,	Chief Scientist, NTF	Member
6	Mr. R.P. Thangavelu,	Chief Scientist, CM	Member
7	Mr. Nitin Khamesra	Principal Scientist, NTF	Member
8	Mr Keshav Shrinivas Malagi	Principal Scientist, CFD	Member
9	Mr. Anand Rajeshwar Rao	Sr.Principal Scientist, NTF	Member - Convener (TSC)
10	AO or his representative		Member
11	FAO or his representative		Member
12	CoSP/SPO or his representative		Member - Convener (T&PC)

Pro hid Conference was held and the following T&PC members attended the meeting: -

The list of Prospective bidders who attended the Pre-bid Conference is as per Annexure-I.

At the outset, the Chairman welcomed all the Members and the representatives of the Bidders and briefed in general the scope of the Project. The Indenting Officer explained in detail scope of the project inclusive of (a) Presentation of test cases (appendix-A) for validation/evaluation of bidders,(b)Evaluation criteria for shortlisting/finalising the vendor, (c) Product Developmental activities followed by installation, commissioning, training, etc of the DWT project. Further he read out the clarification sought by the bidders and the replied thereto as detailed in Annexure-II (Part A: Technical Clarification and Part B: Commercial Clarification, if any).

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of CSIR-NAL and all prospective bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before formulating and submitting their bids as stipulated in bidding Documents.

Multiple bidders requested to increase the time provided for (a) submission of test cases result (appendix_A) and (b) Project completion (covering development, supply, installation and commissioning of DWT inclusive of training at NAL, etc.,).

Based on the request of multiple vendors, the committee deliberated in detail and recommends to increase/extend the time required for (a) submission of test cases (results) and technical bid by 1 month (on or before 31st March 2021) and (b) completion of project (covering development, supply, installation and commissioning of DWT inclusive of training at NAL,etc.,) by 5 months (viz., 8 months after placing of purchase order (P.O)).

B. Sampat

Member

The meeting ended with a vote of thanks to the Chair.

Encl: as above.

Convener (T&PC)

a Admin - Member

Dr. V Ramesh Expert - Member

G. K. Suryanarayana Expert - Member

Keshav Shrinivas Malagi Invitee- Member

Anand Rajeshwar Rao Member – Convener (TSC)

gest 1

Nitin Khamesra Member

G. Rajeev Member

00 1

RP. Thangavelu Member

grather

Dr. J.S.Mathur Chairman

CSIR-NATIONAL AEROSPACE LABORATORIES BENGALURU - 560 017

TENDER NO.: NAL/PUR/NT/037/18-Z DATE & TIME : 04-Dec-2020 @ 11.00 AM VENUE: THROUGH WEBEX

Pre-Bid Conference for DEVELOPMENT, SUPPLY, INSTALLATION AND COMMISSIONING OF DIGITAL WIND TUNNEL.

Sr. No.	Name		Signature
1	Dr. J.S. Mathur, Chief Scientist,CFD	Chairman	Jesthur
2	Mr. V. Ramesh, Chief Scientist-CFD	Expert-Member	
3	Mr. G K Suryanarayana	Expert-Member	
4	Mr. Rajeev, G., Chief Scientist, NTF	Member	G==
5	Mr. Sampath Rao,B, , Chief Scientist, NTF	Member	To the
6	Mr. R.P. Thangavelu,, Chief Scientist, CM	Member	Rougs.
7	Mr. Nitin Khamesra, Principal Scientist, NTF	Member	point laes-
8	Mr Keshav Shrinivas Malagi, Principal Scientist, CFD	Member	
9	Mr. Anand Rajeshwar Rao, Sr.Principal Scientist, NTF	Member- Convenor - TSC	mant
10	FAO or his representative	Member	andignetty
11	AO or his representative	Member	anot the
12	CoSP/SPO or his representative	Member-Convenor T&PC	90 04.12. Love

ATTENDANCE SHEET - T&PC MEMBERS

ANNEXURE - I

NATIONAL AEROSPACE LABORATORIES BENGALURU - 560 017

TENDER NO.: NAL/PUR/NT/037/18-Z DATE & TIME : 04-Dec-2020 @ 11.00 AM VENUE: NTAF Conference Hall, CSIR-NAL, NWTC-Belur, Bengaluru-560037

Pre-Bid Conference for DEVELOPMENT, SUPPLY, INSTALLATION AND COMMISSIONING OF DIGITAL WIND TUNNEL.

Sr. No.	Name of the Firm	Name & Designation of Representative	E-tender Registration (Yes/No)	Email ID
2	M/s. COREEL	Shri. Vinay.L		vinay.l@coreel.com
3	M/s. COREEL	Shri. Surendran.P		surendran.p@correl.com
6	M/s. Axiomatic	Shri. Surinder		surinder@axiomatic.in
7	M/s.Meta Comptech	Shri. Balaji		cmbalaji@metacomptech.com
8	M/s. Ansys	Shri. Jagan Govind		jagan.govind@ansys.com
9	M/s. Ansys	Shri. Vishak T		vishakT@ansys.com
10	M/s. Sandi	Shri.Nikhil Shende and shri. Munikrishna		nikhil.shende.sandi@gmail.com
11	M/s. Zeusnumerix	Shri. Abhishek Jain		abhishek@zeusnumerix.com
12	M/s. Numeca	Shri. Hari Prasad		hari.prasad@numeca.com
13	-	_	-	_

CSIR-NATIONAL AEROSPACE LABORATORIES BENGALURU

TECHNICAL QUERIES & CLARIFICATION

Tender No.

: NAL/PUR/ABP/NT/037/18-Z

Item Description

: Development, Supply, Installation and Commissioning of Digital Wind Tunnel

Sr. No.	Query / Clarification Sought	Clarification/Amendment
1.	What are the detailed features/tabs required in the GUI of this automated software ?. it will be great if the expected layout of GUI is suggested by the customer.	This GUI is in addition to standard software provided. The GUI should allow pick and merge of geometries involved and automated meshing of final geometry. GUI should enable efficient use of library of components, quick set up of solver and result tabulation and plotting. In general, this GUI should be able to cater requirements as mentioned in Chapter 4 (covered in sections 4.2.2, 4.2.3 (4.2.3.1, 4.2.3.2, 4.6) of tender document. and as explained in pre-bid meeting.
2	Digital wind tunnel will be used to test scaled model or also should be able to simulate full scale model.	Yes, both full scale and scaled model simulation should be possible. Free stream estimation/simulation should also be possible. Further as explained in pre-bid meeting.
3.	What is expected from the simulation tool with respect to optimization of support systems.	DWT GUI should be able to simulate flow over test article with different support systems (already pre-defined in library with grid) automatically. optimization implies one which gives minimum interference effect (on test article results) as explained in pre-bid meeting
4 . ∂	In section 4.2.3.1 page no 40. Should the simulation tool identify the required mesh size for different object by itself? item number V.	Yes, desired. More the automation the better it is.
5.	Suggestion to reduce, the duration of training, "linked to acceptance", to 3-4 days, in lieu of 2 weeks : Training is an integral part of implementation of the DWT at NAL. However, initial training can be completed in 3 or maximum 4 days,	As the DWT is expected to be used by the team with little/no exposure to CFD usage, 2 weeks of training is required (minimum) as discussed in pre-bid meeting. Normally 2 weeks

	time frome It is also rated as 100	
	time frame. It is also not clear if 2 weeks means 10 or 14 working days. We understand your concern of needing more time for interaction with the supplier to be able to understand the software, for support and help in doing the class of problems you wish to do and help NAL scientists get a grasp on the software. The time is definitely required and we agree with you 100%, but this time will be required over time and not continuously in one go. The initial training can be 3-4 days and "linked to the acceptance" and release of payments. The advance training and support can be over "multiple sessions" of up to 1-2/3 days	include (12 working days inclusive of Saturdays).
1.00	at a time and at a gap of 2-3/4 weeks on	
	mutually agreed dates and time. This is a	
	practical approach, as your scientists will	
	need inputs, after they start working and	
	need support or help, while doing their	
	projects, till they master the software to a	
	great extent. It is anyway important for the	
	supplier, to ensure that the software	
	delivered, is used and performs well, so we	
	strongly recommend, that the duration of	
	training, "linked to acceptance" should be	
1.	as suggested. Additional support has to be	
	provided by the vendor as and when	
	period.	207 2
	should be available and acceptable due to	NIVI
6	How would you troat yandara who look as the	Diddor coloction oritoria is closed
0.	if not all the features, as mentioned in the	mentioned in the tender desument
	specifications? And how would you qualify (Ridder has to provide compliance and
	disgualify them in the comparative	data (as applicable) covering (a)
-	qualification analysis of software	sections 1.2 to 8.0 of chapter 1. (b)
6.9	quantication analysis of soltware.	noints 1 to 11 of annendix A (test
a seleta	We would like to know how you would be	case document in PDF) provided in
ENERGY A	evaluating the software's qualified for	DVD along with test cases (c)
	procurement? Please elaborate the process	Bidder/vendor gualification criteria
	or basis of evaluation or comparison.	1,2,3 as mentioned in chapter 6 of tender document etc. as discussed in
1.11	Since, the various software suites being	detail in pre-bid meeting
	offered by different vendors can have	
	dissimilar features and performance, would	
Statistics.	the vendor gualification criterion of NAL be	
1000	based on shortlisting and procuring the	
1.00	software suite, that BEST meets the DWT	

	requirements, technically? Please let us know your views. Would we be correct in assuming that the entire qualification criteria would focus on the technical capabilities and qualified based on points being awarded on a scale of 1 to10, for every feature of the chapter 4 and chapter 6 of your tender document and the software suite that gets the maximum points, would be awarded the contract? This process would give every participating vendor a fair chance to demonstrate their capabilities and NAL the opportunity to procure the tool, that best suits your requirement. We would like to know your view on this.	
7.	Query regarding Linear scaling, Ref. point viii of 4.2.3.1. Automated solver, pg. 41 : For a given problem size, as the number of cores used is increased, the work associated with each core can be broken up into computational load and communications load. The rate at which the computational load and communications load goes down with increasing number of cores used, is different. So strictly "linear" scaling is not theoretically possible. Could you please clarify?	As clarified in pre-bid meeting
10	Regarding the "specified Mach number in the test section" mentioned in Chapter 4, Section 4.5, Technical validation/Bidder qualification criterion, item 1, pg. 44) : Can we get additional clarification on where in the test section is the Mach number to be ascertained, or the procedure to be associated with evaluation of the Mach number in the test section?	For the perforated wall test section it shall be in the plenum chamber and it shall be on the wall for solid wall test section as explained in pre-bid meeting.
11	Few bidders/vendors requested to reduce the number of test cases (appendix-A) considering the time limit for bidding.	Committee did not agree as selection and optimization of the test cases were done after thorough wetting and deliberations and are required to assess the technical capability and vendor/bidder expertise for the DWT requirements. Details were explained in pre-bid meeting.
12	The free stream condition other than P_0 , M, and T_0 to simulate tunnel flow condition (viz., turbulence intensity etc.,)	Inlet flow to be turbulent uniform flow (with appropriate turbulent intensity as applicable probably) as explained in pre-bid meeting.

13	Are holes in the perforated test section open (always) and active?	Yes, they are always open to the flow. Details were explained in pre-bid meeting.
14	When shall the selected test case will be run on the NAL/CSIR-4PI machine (512 core etc.,)	After submission of test cases , technical bid etc., to NAL, a slot will be provided to run the selected test case on CSIR-4PI machine as explained in pre-bid meeting.

Anand Signature of IO & PL

CSIR-NATIONAL AEROSPACE LABORATORIES BENGALURU

Tender Id : 2020_CSIR_63138_1

Tender No. : NAL/PUR/NT/037/18-Z

Item Description : Development, Supply, Installation & Commissioning of Digital Wind Tunnel

Sr. No.	Query / Clarification Sought	Clarification/Amendment
2	Sr. No.5 – NIT / ITB Clause No.1.16 Submission of Bid Security (BS) / Earnest Money Deposit (EMD)	Sr. No.5 – NIT / ITB Clause No.1.16 Submission of Bid Security (BS) / Earnest Money Deposit (EMD)
	Rs. 55,000/- [Rupees Fifty Five Thousand Only]	BIDDER TO SUBMIT BID SECURING DECLARATION.
	The Bid Security/Earnest Money Deposit shall be	Refer Annexure-B, Chapter -8]
	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.1 above on or before bid submission date and time as mentioned in "Date Sheet" failing which the bid shall be summarily rejected.	The Bid Security Declaration in the name of "The Director, National Aerospace Laboratories, Bengaluru" to be part of the Technical Bid, failing which the bid is liable to be rejected.
3	GCC /SCC Clause 2.13.1	GCC /SCC Clause 2.13.1
	Performance Security	Performance Security
	The amount of the Performance Bank Guarantee shall be 10% 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.	The amount of the Performance Bank Guarantee shall be Three Percent (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.

Stores & Jurchase Officer For and on behalf of CSIR