Tender Id: 2023\_CSIR\_164040\_1

PROCEEDINGS OF THE PRE-BID CONFERENCE HELD ON 30-08-2023 THROUGH WEBEX TOWARDS PROCUREMENT OF "DUAL RAM ELECTRO MECHANICAL ACTUATORS FOR SECONDARY FLIGHT CONTROLS".

The Pre-bid Conference was held and the following T&PC members attended the meeting: -

| SI.<br>No. | Name & Designation         |                               | Role                     |  |
|------------|----------------------------|-------------------------------|--------------------------|--|
| 1          | Dr. G.K Singh              | Chief Scientist, FMCD         | Chairman                 |  |
| 2          | Dr C.N. Sathyanarayana     | Chief Scientist, STTD         | Member                   |  |
| 3          | Mr. Vineet Kumar           | Chief Scientist, CAD          | PD-SARAS Member          |  |
| 4          | Mr. Bhaskar Chakravarthy   | Chief Scientist, CAD          | Specialist Member        |  |
| 5          | Mr .Kumaresan              | Sr Pricincipal Scientist      | Specialist Member        |  |
| 6          | Mr. Lakshminarayana        | Chief Scientist, RNCAC        | Project Leader           |  |
| 7          | Smt. Lakshmi Devi, V.      | Principal Scientist, ALD      | Invitee                  |  |
| 8          | Mr. Narasimha Rao Balla    | Sr.Principal Scientist, RNCAC | Member - Convener (TSC)  |  |
| 9          | CoSP or his representative |                               | Member - Convener (T&PC) |  |

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 to read out the clarification sought by the bidders and the replied there to 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 CPP portal/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.

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

Member-Convener (TPC)

Specialist Member

hyanarayana

Specialist Member

Member

Narasimha Rao Balla

Member - Convener (TSC)

Dr. G. K. Singh Chairman-T&PC

|            | IONAL AEROSPACE LA                          |  |  |   |
|------------|---|--|--|---|
| BEN        | GALURU - 560 017                            |  |  |   |
| TEN        | <br>DER NO.: NAL/PUR/CA                     | D/001/23(S)  |  | ANNEXURE - I  |
| DAT        | E & TIME : 30-08-2023                       | @ 11:00 AM   |  |   |
| VEN<br>WEE | UE: THROUGH<br>BEX                          |  |  |   |
|            |   |  |  |   |
|            | Bid Conference for Pro<br>at controls"      | ocurement of "Dual Ram E   | lectro Mechani                           | cal actuators for secondary   |
| A          |   |  |  |   |
| ATTI       | ENDANCE SHEET - PRO                         | SPECTIVE BID DERS  |  |   |
|            |   |  |  |   |
| Sr.<br>No  | Name of the Firm                            | Name & Designation of Representative   | E-tender<br>Registratio<br>n<br>(Yes/No) | Email ID  |
| 1          | M/s Ametek<br>Instruments<br>pvt Ltd        | Narendra.CP<br>Director-Sales  |  | narendra.cp@ametek.com  |
| 2          | M/s Sika Interplant<br>Systems Limited      | Ganesh Kumar M<br>Product Manager  |  | ganesh.kumar@sikaglobal.com   |
|            |   | Harish Kumar G<br>Business Development<br>Executive  |  | harish.kumar@sikaglobal.com   |
| 3          | M/s Micronel<br>Global Engineers<br>Pvt Ltd | Ms. Priya A <mark>shok</mark><br>Manager s <mark>a</mark> les  |  | mp@micronel.com   |
|            |   | Mr. Mohammed Shariff<br>Sr Maager Sales  |  | p1@micronel.com   |
|            |   | The state of the s |  | ■ The state of th |

B. Marailzau (B. MARASIMHARAE) (Indenter) (LAOSHMINALAYANA)

| BENGAL               | URU - 560 017   |                            |                         |
|----------------------|---|----------------------------|-------------------------|
| TEND 50              |   |                            |                         |
|                      | NO.: NAL/PUR/CAD/001/23[S]                              |                            | ANNEXURE - I            |
|                      | TIME: 30-08-2023 @ 11:00 AM                             |                            | *** (3)                 |
| VENUE:               | THRQUGH WEBEX   |                            |                         |
| Pre-Bid<br>flight co | Conference for Procurement of "Dual Ram                 | Electro Mechanical A       | actuators for secondary |
| ATTEND               | ANCE SHEET - T&PC MEMBERS                               |                            |                         |
|                      | •   |                            | C:                      |
| Sr. No.              | Name  | 4                          | Signature               |
| 1                    | Dr. G.K.Singh, Chief Scientist, FMCD                    | Chairman                   | e                       |
| 2                    | Mr. J. Ramaswamy Setty, Sr. Principal<br>Scientist, ACD | Member                     |                         |
| 3                    | Mr. Dilip Kumar Sahu,Sr.Technical<br>Officer-2, CAD     | Member                     |                         |
| 4                    | Mr. Vineet Kumar, Chief Scientist, CAD                  | Member                     | Ovar                    |
| 5                    | Dr C.N. Satyanarayana                                   | Member                     |                         |
| 6                    | Mr. Bhaskar Chakravathy, Chief<br>Scientist, RNCAC      | Specialist-<br>Member      | S-Shasan                |
| 7 ~                  | Mr Kumaresan  | Specialist-<br>Member      | G. Kint                 |
| 8                    | Mr S.C. Lakshminarayana                                 | Project Leader             | A                       |
| 9                    | Smt. Lakshmi Devi, V. Principal Scientist,<br>ALD       | Invitee                    | La Muistin              |
| 10                   | Mr. Narasimha Rao Balla, Principal<br>Scientist, RNCAC  | Member-<br>Convenor -TSC   | B. Melanimble           |
| 11                   | COFA or his/her representative                          | Member                     |                         |
| 12                   | COA or his/her representative                           | Member                     | C 2                     |
| 13                   | CoSP or his representative                              | Member-<br>Convenor (T&PC) | एन मिन्द्र              |

## CSIR-NATIONAL AEROSPACE LABORATORIES BENGALURU

## **TECHNICAL QUERIES & CLARIFICATION**

Tender No.

: NAL/PUR/CAD/001/23(S)

Item Description

: Procurement of "Dual Ram Electro Mechanical Actuators for secondary flight controls)"

| Sr. No. | Query / Clarification Sou <mark>g</mark> ht  | Clarification/Amendment   |
|---------|--|---|
| 1       | Indenter requested participants about the list of documents.   | participants expressed that they want to come back with an E-mail, if any concerns are there by the end of the day. However, M/s Ametek mentioned no concerns with the list of documentation. |
| 2       | M/s Micronel raised the queries as follows  1. Actuator equipped with brushed motor. In this case no electronic control board is implemented inside the actuator to drive the electric motor. Actuation speed will be variable depending on external load applied (electric motor and kinematic chain will be sized to guarantee the requested performance at specified rated load)  2. Actuator equipped with brushless motor. In this solution the actuator will be equipped with an electronic control board to drive the electric motor at constant speed (also with variable external loads). | The physical dimensions and rate of speed as as mentioned in chapter 4 with minimum cost to be maintained.  |
| 3       | M/s Micronel enquired that actuator shall have a mechanical redundancy but not electrical redundancy (Through e mail dated 30- Aug -2023)  | The physical dimensions<br>and rate of speed as<br>mentioned in chapter 4<br>with minimum cost to be<br>maintained  |
| 4       | participants were requested further any concerns/points on the Chapter4  | Nil   |
| 5       | participants were requested any concerns/points on<br>the Chapter6 ( Qualification requirements)   | Nil   |

Signature of IO & PL

(CAOSHUE PARTAMIT)