NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
NASA SHARED SERVICES CENTER

RECOMMENDATION AND DETERMINATION TO SOLICIT FROM ONE SOURCE
OR BRAND NAME

PICK ONE

Sole Source:
☒I recommend that NASA, NASA Shared Services Center negotiate with Sefar Inc. only for SEFAR 51i/2 Control Unit and Measuring Devices. The total estimated cost of this effort is [redacted] and the estimated period of performance or lead-time for delivery is 30 Days ARO.

OR

Brand Name Justification:
☐I recommend that NASA, NASA Shared Services Center negotiate only with vendors who can provide the subject brand name from Manufacture Name for Product being purchased . The total estimated cost of this effort is $Dollar Amount and the estimated period of performance or lead-time for delivery is Date .

This recommendation is for the acquisition of supplies or services determined to be reasonably available from only one source/only one manufacture. Competition is impractical for the following reasons (please answer the questions below):

1. **What are the reasons for soliciting only the suggested source/suggested brand name?** Please provide the unique characteristics of the items or services along with the supporting rationale and the market research performed to substantiate your reason for the suggested source/brand name.

   NASA Langley Research Center (LaRC) requires the purchase of SEFAR 51i/2 Control Unit and Measuring Devices from the vendor SEFAR, Inc. which are required for use in the Composite Materials and Processing Laboratory at LaRC. The system will support research involving the stretching and alignment of carbon nanotube (CNT) sheets, a critical processing step in the fabrication of flexible and thin-walled composite materials for future space applications. The required research process demands the ability to perform precisely controlled multiaxial stretching while simultaneously measuring and regulating the applied tension throughout the process. The SEFAR system uniquely combines pneumatic high-force multiaxial actuation with integrated tension sensing and closed-loop feedback control. This combination enables accurate control of process parameters while providing real-time monitoring and data acquisition necessary for research, process development, and repeatability. The required configuration includes a custom integration of the tension controller with the stretching system that is not available as a standard commercial off-the-shelf product. SEFAR, Inc. is the only identified supplier capable of providing this specific integrated configuration.

2. **What is the impact to the government if another vendor/brand is used?** Include any dollar, schedule, or compatibility impacts if possible.

   If another vendor were selected, it would significantly delay or prevent completion of critical project milestones and impede NASA's planned collaboration with industry to advance the manufacturing and application of high-performance nanomaterials. The HiPerforMaS effort represents an investment of approximately $5 million, and the inability to obtain the required stretching capability would place that investment and associated research objectives at substantial risk. Another system would also not provide the required integrated combination of multiaxial stretching, pneumatic high-force actuation, closed-loop tension control, real-time tension feedback, and the custom configuration necessary to accomplish the research objectives. SEFAR, Inc. is the only known source capable of meeting NASA Langley Research Center's minimum technical requirements without unacceptable schedule delays, increased technical risk, or degradation of research capability.