



## **Solenoid & Vacuum Assembly Expression of Interest Overview**

UT-Battelle, LLC (the Company) seeks an Expression of Interest (EOI) for procurement of two (2) Solenoid & Vacuum Assemblies. These Assemblies will be delivered to Oak Ridge National Laboratory (ORNL) in support of a DOE funded research and development program. The scope of work includes final design evaluation, procurement of commercially available components, fabrication, assembly, inspections, testing, storage (as needed) and delivery.

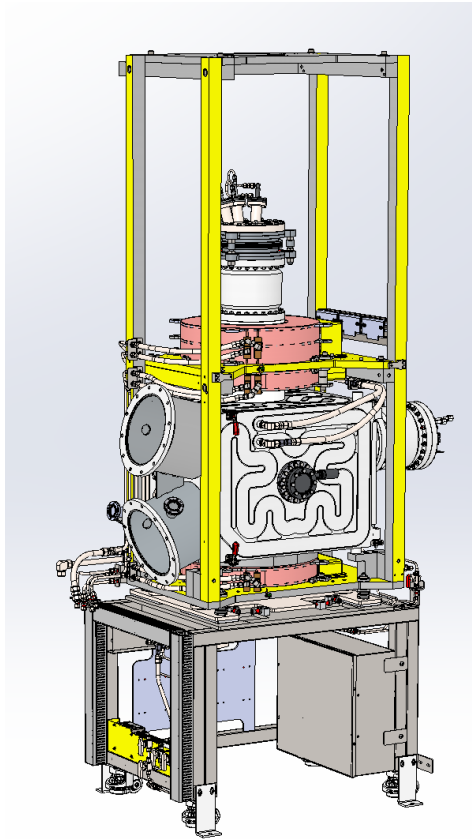
The Solenoid & Vacuum Assembly Request for Proposal (RFP) is expected to be issued in late 2023 with work to begin immediately after contract award. Required delivery will be finalized at time of purchase order award, however the current estimate is 4th Quarter 2024. The award will be a single, competitive fixed price contract and may include options for up to an additional twenty-five (25) units to be fabricated and delivered in multiple subsequent orders. The optional assemblies could be purchased in multiple orders with varying schedules & quantities. There is no guarantee of additional orders beyond the original scope. Required delivery for optional units (if awarded) is estimated to begin approximately one month following the first delivery and continue with one assembly per month thereafter.

**Disclaimer:** This EOI neither constitutes a solicitation, Request for Proposal (RFP), Invitation for Bid, or promise to issue an RFP, nor does it restrict UT-Battelle, LLC to a specific acquisition approach.

**SCOPE** – The scope includes evaluation of final design to ensure conformance with relevant codes & standards, purchase of commercially available components, fabrication, assembly, inspection, testing, storage (as needed) and delivery of a complete Solenoid & Vacuum Assembly according to Company provided design drawings, assembly drawings, 3D Model, Bill of Material, Technical Specifications and Statements of Work.

Each assembly consists of a custom stainless-steel base frame with casters and x-y adjustment table and sheet metal fabrication that supports a high-vacuum chamber with water cooling channels and instrumentation ports as well as two (2) internal linear shifts, three (3) large solenoid magnets mounted on a bolted steel frame, two (2) high voltage breaks, electronics, and support utility lines (water, nitrogen, power). The stainless-steel frame is approximately 38" x 27" x 30" WxDxH, the vacuum chamber measures approximately 26" x 18" x 21" WxDxH, and the solenoid support frame is approximately 33" x 25" x 76" WxDxH.

The support frame is a welded assembly of square and/or rectangular stainless steel tubing section and an XYZ adjustment table to hold the centerline of the vacuum chamber to 48" from the ground with vertical adjustments and alignment features. The support frame also includes cable ducts and an enclosure for Power Supply Protection circuits. The figure below depicts a simplified view with dimensions of the entire assembly.



The design of the assembly and components is complete and does not require extensive Seller design activities other than any fabrication specific “shop” type drawings the Seller may require for their own internal processes and controls and evaluation to ensure conformance to codes & standards. The complete design drawing package, Specifications, Statement of Work and Bill of Material will be provided as part of the RFP. Solid Models will be provided to the successful bidder. Standard safety, documentation, and quality assurance requirements will be outlined within the Specifications and Statement of Work package.

Note: The vacuum chamber and solenoid magnets/steel frame have previously been designed/developed and are required to be procured from specific vendors.

Successful bidders will be able to demonstrate the following:

- Fabrication experience of welded stainless steel structural equipment supports
- Applicable certifications for required welding, testing and inspection
- Assembly and testing experience with vacuum components, water and compressed gas plumbing and complex mechanical integration
- Documented Quality Control Program
- Experience handling Export Controlled Information as defined by US-DOE and US-Department of Commerce. Note the designs and equipment are not subject to International Traffic in Arms regulations (ITAR), but similar information controls are required.

SUBMITTAL REQUIREMENTS – The EOI submittal requirements consist of a narrative summary overview up to a maximum of four (4) pages and shall address the following:

- Company name, key contact, address, email and any other contact information
- Main and Branch fabrication shop locations detailing capabilities of shops & personnel, including known sub-suppliers
- Storage & throughput capabilities
- Expected proposal development duration
- DOE/Federal Work Experience identifying relevant experience and any registration with DOE/Federal acquisition system(s)
- Provide summary of a minimum of two (2) projects of similar size and application