

**Highly Specialized Custom Critical Fabrication Solution for the National Research Council
Canada– Solicitation Number: 18-22016**

Advance Contract Award Notice (ACAN): 18-22016

An ACAN is a public notice indicating to the supplier community that a department or agency intends to award a contract for goods, services or construction to a pre-identified supplier, thereby allowing other suppliers to signal their interest in bidding, by submitting a statement of capabilities. If no supplier submits a statement of capabilities that meets the requirements set out in the ACAN, on or before the closing date stated in the ACAN, the contracting officer may then proceed with the award to the pre-identified supplier.

Background: The NRC's (CPFC) facility provides a "one stop shop" for world-class semiconductor wafer engineering and manufacturing services, commercial grade prototyping and pilot-run production for Canadian and International institutions and corporations. Its Semiconductor Wafer Fab offers a large variety of materials and processes including gallium arsenide (GaAs) and indium phosphide (InP), gallium nitride (GaN) and silicon-on-insulator (SOI). To deliver this mission, NRC Researchers employ a combination of 50 highly specialized semiconductor tools and equipment. Wafer manufacturing is complex and requires multi-step processes (400-700 steps) that involve temperature, light, chemicals, pressure, vacuum and water. NRC researchers use specialized work stations containing staging areas, baths for masking, etching, deposition, doping and washing. The finished wafers need protection from airborne particles, contaminants, moisture and charged ions, so controlled storage in static-dissipative or -neutralizing desiccators and other storage and process enclosures are used.

Definition of Requirement:

The National Research Council Canada, Advanced Electronics and Photonics Research Centre has a requirement for a Highly Specialized, Custom Critical Fabricator and equipment integrator. The NRC hired Reynolds technical services in the past to design and build a variety of Highly Specialized Chemical Processing Wet Benches. These Acid Chemical Processing Wet benches are not off the shelf products but rather highly specialized custom solutions that fits the needs of a very unique semiconductor research environment. The benches are used for handling a variety of chemical applications including electro-chemical processing, acid processing as well as other chemical wet processing applications. Engineering packages were designed and built with a significant amount of time and effort by Reynolds Tech. Reynolds owns the engineering design packages used to build equipment on hand. The NRC now has a requirement for a similar engineering solution. The contractor will be responsible to design, fabricate and integrate a Custom Critical Chemical Processing wet bench and fume hood assembly that's compatible with NRC owned Reynolds Chemical Processing Wet Benches.

Minimum Essential Requirements:

- Must have an equivalent design package compatible with existing Reynolds Wet Benches
- Must have significant experience integrating and installing equipment in a Highly Specialized Semiconductor environment (10 years' experience)

Applicability of the trade agreement(s) to the procurement:

North American Free Trade Agreement (NAFTA)

Justification for the Pre-Identified Supplier:

The non-competitive recommendation is based on a follow-on contract with the original designer "Reynolds tech". Reynolds has been selected for this requirement as they are the original designer of equipment on inventory, they have the necessary technical knowledge and skill set to manage NRC's requirements in a systematic manner. Reynolds is the original designer of the equipment on hand and the owner of engineering package required to fabricate and integrate the Chemical processing wet bench and exhausted fume hood. Reynolds owns the rights to the engineering designs/drawings that will be used for this integration. There are no reasonable alternative solutions. The operational costs/implications of managing unequal versions of two designs would result in significant delays, alteration of standard research procedures/methodologies, and the loss of the present configuration (interchangeable/designs). The procedures would have to be requalified at great expense and time. This qualifying is obligatory as each client has specific requests and varies in design and operation therefore requiring that new process must be developed should an alternate proposal be considered.

Limited Tendering Procedures/applicable:

1016 b. where, for works of art, or for reasons connected with the protection of patents, copyrights or other exclusive rights, or proprietary information or where there is an absence of competition for technical reasons, the goods or services can be supplied only by a particular supplier and no reasonable alternative or substitute exists

1016 d. For additional deliveries by the original supplier that are intended either as replacement parts or continuing services for existing supplies, services or installations, or as the extension of existing supplies, services or installations, where a change of supplier would compel the entity to procure equipment or services not meeting requirements of interchangeability with already existing equipment or services, including software.

Ownership of Intellectual Property: No Intellectual Property will be generated from this contract, all Intellectual Property belongs to Reynolds Tech, should any Intellectual Property arise as a result of this contract, Ownership of any Foreground Intellectual Property will remain with the Contractor.

Estimated Contract Start date and End date: July 3, 2018 – March 31, 2019

Estimated Contract term: The initial contract will be for 2 Chemical Processing Hoods at a value of 143,472.51 CAD and for future requirements of similar value and scope up to 3 years and/or up to \$1.5 Million in total value.

Cost estimate of the proposed contract: (initial contract \$143,472.51 Canadian)

Proposed Supplier: Reynolds Tech, 6895 Kinne Street, East Syracuse, NY 13057

Suppliers' right to submit a statement of capabilities: Suppliers who consider themselves fully qualified and available to provide the goods, services or construction services described in the ACAN may submit a statement of capabilities in writing to the contact person identified in this notice on or before the closing date of this notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

Closing date for a submission of a statement of capabilities: June 29, 2018, 2PM Eastern

Inquiries and submission of statements of capabilities:

Procurement Officer: Steve Cassidy Tel: (613) 993-0851; Email: Steve.Cassidy@nrc-cnrc.gc.ca