

COMPLETE THIS FORM TO INITIATE SUPPLIER SCOUTING

MEPNN Supplier Scouting Opportunity Synopsis

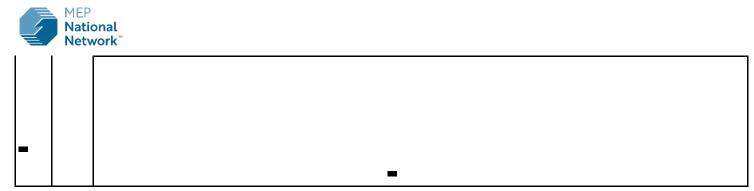
- *The submitting entity agrees to notify NIST MEP of the status of actions taken as a result of this scouting instance within 30 days after receiving a results report. For instances where the submitting entity is an MEP Center submitting on behalf of a client, the MEP Center agrees to notify NIST MEP on behalf of their client. For instances where the submission is direct from federal/state agencies or is a private company, the submitting federal/state agency or private company entity agrees to notify NIST MEP. Notification should be via email to scouting@nist.gov, indicating the following:
 - Contact with matches identified in report complete and supply contract awarded, process complete
 - Contact with matches identified in report complete and no supply contract awarded, process complete
 - Contact with matches identified in report complete and supply negotiations underway, process in progress

	Cor	ntact with matches identified in report underway; supply negotiations not yet begun; process in progress			
	• Cor	ntact with matches identified in report not yet begun, process in progress			
		ntact with matches identified in report will not occur within the next 6-months, process complete			
ICD Cr	n PIF fo	days or Silicon and Dielectric Materials			
		Opportunities will be posted for 30 days unless specified			
Item to b	be Scoute	d .			
Please d	escribe th	he item application/ the end use of item.* Provide the item number if applicable: (N95 Mask vs Protective Mask).			
system to industry, a	support nar academia, N	e of Standards and Technology (NIST) seeks information on commercial vendors that can provide an Inductively Coupled Plasma (ICP) cryo-silicon and dielectric materials etching nofabrication in the Center for Nanoscale Science and Technology (CNST) user facility. The system will be sited and used as a shared resource accessible to researchers from NIST, and other government agencies in the CNST NanoFab. The ICP cryo-silicon and dielectric materials etching system is a pattern transfer tool that uses fluorocarbon er chemicals to fabricate micron- and nano-scale structures in silicon and dielectric materials. Applications include fabricating nano-semiconductor and nano-photonic devices.			
	2022-134				
Supplier	Scouting	Number (NIST MEP use)			
33324	42				
Scouting	custome	er/product NAICS Code, if known			
⊒	_	a. Type of supplier being sought*			
단	ဇ	■ Manufacturer			
Ż	듛	☐ Other			
CA	lier				
TECHNICAL INFORMATION:	Supplier Information	b. Reason for scouting submission*			
FO	orm	☐ 2 nd Supplier ☐ Price ☐ Re-shore ☐ Past supplier no longer available			
× ×	atic	☐ New Product Startup			
죕	ĭ	Other Buy America/American compliance			
<u>N</u>					
	a 12				
	a N	a. Describe the manufacturing processes (elaborate to provide as much detail as possible).*			
	2. Summa and Perform	a. Describe the manufacturing processes (elaborate to provide as much detail as possible).* Item to be purchased as a standalone unit			
	2. Summary and Performa	Item to be purchased as a standalone unit			
	ummary of Tec Performance F				

and out of the process chamber. 2) A process chamber that is compatible with reactive chemicals such as CHF3, CF4, and SF6. 3) A process chamber that is capable to handle 12 different gases. 4) An ICP source that operates from 0 to 3000 W. 5) A RIE electrode that operates from 0 to 500 W or higher. 6) A pumping system that is compatible with fluorocarbon-based chemistries and maintains a base pressure of 9x10-7 Torr or lower. 7) Software that supports both manual and automatic operations. 8) Safety interlocks to keep users safe. 3. Wafer compatibility and cooling: 1) The system shall be able to process substrates with various sizes including 75 mm, 100 mm, 150 mm and 200 mm substrate. 2) The system shall be able to process substrates from -150 °C to +400 °C. 3) The system shall have mechanical wafer clamping and backside helium cooling. 2. Established process library: 1) The system shall have established process for etching silicon, silicon oxide, silicon nitride and other dielectric materials. 2) Established process documentation shall include process



		parameters such as etch rate, selectivity, and profile with scanning electron microscope pictures
		c. List required materials needed to make the product, including materials of product components.*
-		Item to be purchased as a standalone unit
	Ņ	d. Are there applicable certification requirements?* Yes Please explain
	Summary of	
	Technic	e. Are there applicable regulations?* Yes Please explain
	Summary of Technical Specifications cont:	
		f. Are there any other standards, requirements, etc.?* Yes Please explain
	nd Pert	
	ormanc	g. Additional Comments: Is there other information that would impact the item's performance or usefulness? Please explain.
	and Performance Requirements	
ВU	Pri	3a. Estimated potential business volume (i.e., # Units Per Day, Month, Year) *:
BUSINESS INFORMATION:	3. Volume and Pricing	One unit
FOR		b. Estimated target price / unit cost information (flexible and negotiable not accepted) *:
RMATION		\$700,000.00
	4	a. When is it needed by? (Immediate, 30 Days, 6 months, etc.)*
	Jelly	ASAP
	ery	b. Describe packaging requirements (i.e., individually/group packaging)*
	Delivery Requirements:	Flexible
	men	c. Where will this item be shipped?*
	is:	NIST, 100 Bureau Drive, Gaithersburg, MD 20899
	5. Ad dit	Is there other information you would like to include?



Photos or diagrams of the item (helpful but not required).