

## **Exhibit A - Individual Technical Evaluation Table**

Vendor Name: Danfysik

Technical Submission Requirements	Technical Evaluation Criteria	EXCEEDS	MEETS	DOESN'T MEET
		REQUIREMENTS		
Ability to meet technical requirements. The Offeror shall submit a package that demonstrates Offeror's ability to meet the expected achievable technical specifications for the phase shifters set out in the <i>LCLS-II-</i> <i>HE Undulator Phase Shifter</i> <i>ESD</i> (LCLSII-HE-1.3-ES- 0244).	The Offeror's submittal package will be evaluated against the following enumerated items to establish the supplier's ability to manufacture and demonstrate performance of phase shifters that meet the technical specifications defined in LCLSII-HE-1.3- ES-0244.		✓	
<b>1.1</b> Ability to manufacture permanent magnets with the appropriate material properties (ESD0244.4102 – 4104, 4110)	The University will evaluate the ability of the Offeror to manufacture permanent magnets with the appropriate material properties (ESD0244.4102 – 4104, 4110).		✓	
<b>1.2</b> Ability to manufacture permanent magnets to the appropriate physical and magnetic tolerances (ESD0244.4102 – 4109, 4111-4115)	The University will evaluate the ability of the Offeror to manufacture permanent magnets to the appropriate physical and magnetic tolerances (ESD0244.4102 – 4109, 4111-4115).	✓ (see 1.)		
<b>1.3</b> Ability to serialize, order, and orient permanent magnets into the defined subassemblies (ESD0244.4101, 4116 – 4119)	The University will evaluate the ability of the Offeror to serialize, order, and orient permanent magnets into the defined subassemblies (ESD0244.4101, 4116 – 4119).		✓	
<b>1.4</b> Ability to align magnet subassemblies relative to one another (ESD0244.4201 – 4206)	The University will evaluate the ability of the Offeror to align magnet subassemblies relative to one another (ESD0244.4201 – 4206).		✓	1

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<b>1.5</b> Ability to operate magnetic gap in order to verify driveline functionality and set limit switches (ESD0244-4301 – 4310)	The University will evaluate the ability of the Offeror to operate magnetic gap in order to verify driveline functionality and set limit switches (ESD0244-4301 – 4310).		√		
Schedule and Delivery Date The Offeror shall submit a schedule which addresses all requirements contained in the <i>LCLS-II-HE Phase Shifter</i> <i>Statement of Work</i> (LCLSII- HE-1.3-SW-0618) – including but not limited to: material acquisition, first article manufacturing, inspection, assembly, testing, evaluation, and deliveries. Subcontractor work shall be specifically identified.	The Offeror will be evaluated on how its submitted schedule – including breakdown of design, procurement, manufacturing inspection, and testing – meets the University's project schedule for final delivery.			✔ (se	e 2.)
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Past Performance The Offeror shall submit documentation of prior manufacturing and testing of at least two similar/comparable products delivered within the last five years, demonstrating that the offeror has experience performing similar work in a quality manner.	The Offeror's plan will be evaluated on the Offeror's documentation of prior manufacturing and testing of at least two similar/comparable products delivered within the last five years, demonstrating that the offeror has experience performing similar work in a quality manner.		~		
<b>3.1</b> Specify any electromechanical assemblies with precision integrated motions. The required precision and actual achieved precision for the project should be noted.	The University will evaluate the ability of the Offeror to specify any electromechanical assemblies with precision integrated motions. The required precision and actual achieved precision for the project should be noted. The University will evaluate the		✓		
<b>3.2</b> Provide a summary of experience with manufacturing, handling, and assembly of permanent magnets.	ability of the Offeror to provide a summary of experience with manufacturing, handling, and assembly of permanent magnets.		✓		
<b>3.3</b> Specify experience with the assembly and checkout of motion	The University will evaluate the ability of the Offeror to specify experience with the assembly and checkout of motion control systems		<b>~</b>		

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Manufacturing capabilities and capacity (including lower-tier subcontractors)The Offeror shall submit a plan to demonstrate the Offeror's 	The offeror's proposal will be evaluated on their approach and execution plan to satisfy and execute all the requirements as described in this RFP, specifically but not limited to, aspects included in the following desired proposal elements:		
<b>4.1</b> Manufacturing capabilities – Facilities	<b>4.1.1</b> Outlines of equipment, space, and processes and whether they are sufficient to produce the mechanical assemblies.	✓	
	<b>4.1.2</b> A description of any specialized production areas	$\checkmark$	
	4.1.3 Descriptions of limitations of access to the University staff, if any, to the assembly and measurement areas where University work is being performed for inspection and documentation, including the ability to take photographs during the inspections.	✓	
<b>4.2</b> Manufacturing capabilities – Equipment	<ul> <li>4.2.1 A list of measurement equipment that will be utilized to verify manufacturing tolerances as well as the equipment that will be employed to align and/or verify assembly tolerances. Of special importance is indication of equipment ownership (i.e. owned or leased) and equipment calibration maintenance (including records).</li> <li>4.2.2 Identification of measurements or verifications that would require additional equipment or sub-contracting.</li> </ul>	✓	3

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Quality Assurance The offeror shall have an adequate quality assurance program, including at a minimum the following information:	The offeror's proposal will be evaluated on an adequate quality assurance program, including at a minimum the following information:	✓		
<b>5.1</b> Quality Assurance – Planning	<b>5.1.1</b> Indication of all current certifications for production standards such as ISO programs.	 ~		
	<b>5.1.2</b> A quality manual or quality plan that outlines the processes that will be utilized to ensure University and project standards are satisfied.	~		
	<b>5.1.3</b> A quality assurance management plan; indicate whether the project manager will handle quality monitoring or if a separate individual is responsible for managing data and feedback.	✓		
	<b>5.1.4</b> QA data management and communication plan. Indicate QA personnel manpower and availability	~		
<b>5.2</b> Quality Assurance – Execution	<b>5.2.1</b> Example of a standard non- conformance report and the change approval process.		✓ (see 3.)	
	<b>5.2.2</b> Example of a material and assembly shop traveler		✓ (see 3.)	
	<b>5.2.3</b> Specify how calibration certificates are tracked, stored, and monitored.		✓ (see 3.)	
<b>5.3</b> Quality Assurance – Subcontractors	<b>5.3.1</b> If the Offeror intends to utilize subcontractors, provide a list of potential subcontractors.		✓ (see 4.)	

## **Recommendation/ Summary:**

Danfysik proved in the past that they could make mechanical and magnetic assemblies (Phase Shifters for LCLS-II). Danfysik offered to sort and tune the magnet arrays. It will save SLAC resources and time. Not clear if the magnet arrays and magnet assemblies handled in pairs in tuning process.

Comments:

- 1. Br>1.32T exceeds the requirement (>1.3T)
- 2. ARO+11 months will be June 2024 (needed in April 2024)
- 3. No examples
- 4. No list
- 5.

I recommend Danfysik to be awarded the contract.

## **Prepared by:**

Yurii Levashov, Staff Engineer 4; June 6, 2023 Name/Title/Date NATIONAL