

LCLS II and US Industry

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Putting Accelerator Technology to Work

Other Than Full and Open Competition

- US Industry requests the same treatment from our government that the EU gives to its industries (our competitors) for large government funded projects.
- We respectfully request that the Secretary of Energy inform congress that awards for the production of LCLS II components be restricted to components produced by US workers in the US.
- The US Department of Energy has this authority under the Federal Acquisition Regulations Subpart 6.3 – Other Than Full and Open Competition



Other Than Full and Open Competition

- 6.301 Policy (a) invokes Title 41 U.S.C. 253(c) which authorizes, under certain conditions, contracting without providing for full and open competition. It states the following:

“An executive agency may use procedures other than competitive procedures only when—

(7) the head of the executive agency –

(A) determines that it is necessary in the Public Interest to use procedures other than competitive procedures in the particular procurement concerned, and

(B) notifies the Congress in writing of such determination not less than 30 days before the award of the contract”.



The Public Interest

- One of the priority interests of the US public today is JOBS for US workers, especially high tech jobs.
- Over the past 10 years the DOE has invested heavily in Superconducting Radio Frequency, SRF, infrastructure at the national labs enabling the US to supply large quantities of SRF systems for domestic and international projects.
- Over the same time period the labs have supported the growth of several US companies, albeit at a very low rate of cavity production, to establish a US supplier base. This helps the US economy. There are now 4 companies with US workers that can provide all the cavities for the LCLS II.
- This is the first opportunity for US companies to apply this experience to a major project and will greatly contribute toward the success of the accelerator stewardship program



The Public Interest

- RI Research Instruments GmbH and E. Zanon SpA are building 420 SRF cavities each for the European XFEL
 - Each were given millions of dollars of infrastructure under the contract to support production rates
 - This infrastructure gives them an advantage in competing for other projects like LCLS-II.
- No other companies were invited to bid for XFEL cavity production despite there being qualified candidates in the US and Japan
 - Given the required infrastructure US companies could have matched the prices awarded
- The XFEL project steered business to EU SRF companies in key areas either by not allowing US companies to bid or by modifying the procurement rules to favor EU companies



The Public Interest

- If the LCLS-II is built by US Workers:
 - Approximately 1/3 of the dollars devoted to labor will ultimately return to the government through payroll taxes (income, FICA, and Medicare)
 - Critical high technology skills are maintained in the US
- “Buy American” is not good enough
 - US companies get a 12% advantage over foreign bidders under Buy American guidelines
 - However the EU waives the VAT tax when European companies bid outside the EU
 - This amounts to a 19% advantage for them



American Leadership

- A BESAC report released in July urges DOE to build an unprecedented x-ray light source that would leapfrog the capabilities of any other FEL x-ray source being built or planned worldwide.
- The report bluntly warns DOE that failure to build such a machine would cause the US to lose its 40-year leading role in light sources. It is abundantly clear, the panel says, that new FELs being planned in EUROPE and ASIA “will seriously challenge US leadership in the decades to come”.
- We believe that the same reasoning applies to limiting the industrial production of SRF cavities and components for this project to companies with US workers in the US.



Summary

- Currently 4 companies with US workers are available to compete for the LCLS II cavities. There are dozens of sub-tier US companies that supply these 4 companies.
- These companies were excluded from the XFEL competition. XFEL companies received millions of dollars from DESY for their required infrastructure.
- US DOE has invested about \$10 million in cavity R&D and production within US industry over the past 10 years. For the ILC cavities over 80% have qualified with gradients at or above the ILC spec of 35 MV/m. In fact 3 of the US cavities have exceeded 40 MV/m.
- A viable US SRF accelerator industry is vital for a successful Accelerator Stewardship Program and for any future US involvement in the ILC.

