## **NOTICE INVITING EXPRESSION OF INTEREST** TO SUPPLY SHORT CIRCUIT BUS BAR SYSTEM **FOR AUGMENTATION OF HIGH POWER LABORATORY**



## **DECEMBER** 2020

**Contact Person:** 

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## 1. INTRODUCTION:

Central Power Research Institute (CPRI), an autonomous organisation under the Ministry of Power, Government of India, serves as an independent authority for testing and certification of power equipment. CPRI has several laboratories and test facilities engaged in different specialized fields. CPRI is well equipped with four short-circuit testing stations, two for low/medium voltage shortcircuit testing and two high power testing facilities for H.V. switchgears and other power system equipment, at Bhopal and Bangalore. The institute has rendered over five decades of dedicated service to the power sector.

High Power Laboratory was commissioned in CPRI, Bangalore in 1990, with a capacity of 2500 MVA direct testing and super imposed with the synthetic testing circuit which can cater to testing of EHV breakers/interrupters rated up to 245 kV, 63 kA. It has been playing a major role in the field of testing high power equipment since its inception.

## 2. BACKGROUND:

CPRI intends to augment the test facilities of the High Power Laboratory, Bangalore, to meet the growing demand for more flexible and higher range of testing facilities. It is proposed to augment the system by adding two 2500 MVA short-circuit generators to operate in parallel with the existing 2500MVA short circuit generator. To evacuate the short circuit power from Short circuit Generators up to the test cells, well and robustly designed short circuit bus bar system is required.

Short Circuit Busbars System including the Power busbar system, Coaxial busbar system (IPBD), Power cables, Current transformers, Voltage transformers, Disconnectors, Earth switches, Surge arrestors, Wall Bushings, Bus structures, Bus Post Insulators, Earthing, auxiliary and ancillary system & services complete in all respects as per technical specifications for enhancing the short circuit test facility at High Power Laboratory, CPRI, Bengaluru including their connection with the equipment.

## 3. EOI:

This Expression of Interest is published by CPRI for seeking response from suppliers/ manufacturers for the Design, Engineering, Manufacture, Assembly, Testing, Supply, Transportation, Loading and Unloading, Erection, Installation and Commissioning of with necessary experience and capability to meet the stipulated time frames shall submit their response to CPRI by **27/01/2021**.

#### 4. TECHNICAL SPECIFICATIONS:

Description	Rating
Rated short-circuit power	7500 MVA
Rated voltage	14 kV rms
Maximum voltage	15 kV rms
Operating frequencies	50/60 Hz
Rated armature peak current, 0.5 cycles after current start	≥1100 kA peak
Rated 3-phase armature current	≥309 kA rms#
Rated 2-phase armature current	≥268 kA rms#

<sup>#</sup> If the supplier is not able to meet exact rated short circuit power requirement, may express their interest with their capability in terms of short circuit current.

The Schematic diagram of the augmentation of the HPL is given in annexure -1

## 5. PRE QUALIFICATION CRITERIA FOR PARTICIPANTS:

- Participants shall have experience in manufacture, supply, erection and commissioning of HT busducts and bus bar systems of short circuit rating not less than 250kArms for one second for a minimum period of **10** years.
- Participants should have supplied similar equipment to at least one generating station which is connected to the grid or any Short Circuit Test laboratory having minimum fault level of 3800MVA at the point of connection of busduct and shall produce satisfactory performance certificates.
- Participants shall have the capability to meet the stipulated time frames; lead time for manufacturing shall not exceed 18 months.

• Manufacturer shall have adequate infrastructure to support after sales service for a minimum period of 25 years in India.

## 6. SUBMISSION OF RESPONSE DOCUMENTS:

- Interested manufacturers shall submit their responses by post or courier or e-mail to the contact given below.
- Participant shall submit their information as per the format in enclosure 1.
- Response documents shall be submitted within 27/01/2021.

## 7. CONTACT:

Mr. ANUPAM AWASTHI, ADDITIONAL DIRECTOR/PROJECT LEADER,

Mr. S. SUDHAKARA REDDY, ADDITIONAL DIRECTOR,

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## 8. EVALUATION OF RESPONSE RECEIVED BY CPRI:

- Short-listing of the participants, based on technical merits. The short-listed participants will be called for presentation at CPRI, Bangalore or through virtual conference in the due course.
- Techno-commercial discussions with the short-listed participants.
- Formulation of scope of work and technical details / specifications.
- Subsequent evaluation and identification of competitive supplier by CPRI through domestic bidding.

## 9. REMARKS:

CPRI reserves their right to evaluate the responses, based on technical merits, in the process of short-listing and identification of the participants for further discussions.

# ENCLOSURE 1 Format for response from Participants

1	General Information	
1.1	Name of the company	
	(Manufacturer)	
1.2	Registered Head Office:	
	Address:	
	Telephone:	
	Fax:	
	E-mail:	
	Website:	
	Registered Factory / Works:	
	Address:	
1.3	Telephone:	
1.3	Fax:	
	E-mail:	
	Website:	
1.4	Chief Executive:	
	Contact person(s)	
	Name(s):	
	Official capacity:	
1.5	Address:	
1.5	Telephone:	
	Fax:	
	E-mail:	
	Brief profile of Company	
1.6	Brief profile of company	

2	Financial Information	
	Physical and annual turn-overs,	
	and profit after-tax for last 3	
	years:	
	Year-1:	
	Year-2:	
	Year-3:	
	Experience data for the	
	equipment offered:	
3	a) List of major customers	
3	b) Application segments	
	c) Year-wise major supplies	
	during last <b>5</b> years	
	Infomation regarding Local	
	content in percentage as per	
4	DPIIT order for eligilibity	
	(like class I supplier or class II	
	supplier)	
	Particulars of products (Short-	
	circuit Power busbar system,	
	Coaxial busbar system (IPBD),	
	Power cables, Current	
	transformers, Voltage	
	transformers, Disconnectors,	
	Bus Post Insulators, Earth	
5	switches, Surge arrestors, Wall	
	Bushings, Bus structures,	
	Earthing, auxiliary and	
	ancillary system) including	
	technical specifications	
	Attach company profile, product	
	profile, technical brochures /	
	catalogues.	
6	Any other information	