

## PACKAGE 3: SHORT CIRCUIT BUSBAR SYSTEM



# CENTRAL POWER RESEARCH INSTITUTE

(A Govt. of India Society, Ministry of Power)

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## AUGMENTATION OF SHORT CIRCUIT TEST FACILITIES AT HIGH POWER LABORATORY, CPRI, BENGALURU – PACKAGE 3: SHORT CIRCUIT BUSBAR SYSTEM (SCBS) (E-Tender) (Domestic Bidding)

NIT No.: CPRIBLR23NIT04

Date: 01-12-2023

### INFORMATION TO BIDDER

#### 1.0 FOREWORD

Central Power Research Institute (CPRI) invites online e-tender bids on single stage **two bid system** basis from eligible bidders (Class-I & Class-II local suppliers as per PPP MII order no. P-45021/2/2017-PP (BE-II), DPIIT, GoI dated 16/09/2020) for the Design, Engineering, Testing, Supply, Loading, transportation and insurance, Unloading, Handling, Storage, Erection, Installation, Testing at site and Commissioning of Short Circuit Busbar System (SCBS) including Earthing system, Support Steel Structures and their Foundations, Auxiliary and ancillary systems, Metal support structures for equipment as well as of all accessories and services complete in all respects required for their use on site including their connection with the equipment not covered by this specification for Augmentation of Short Circuit Test Facilities at High Power Laboratory, CPRI, Bengaluru, India as per the scope of work mentioned hereinafter.

#### 2.0 SCOPE OF WORK

2.1 The scope of the proposal shall be on the basis of a **single bidder's responsibility**, for the works specified under the accompanying specifications and documents.

2.2 This scope covers the Design, Engineering, Testing, Supply, Loading, transportation and insurance, Unloading, Handling, Storage, Erection, Installation, Testing at site, Commissioning and Training of Short Circuit Busbar System (SCBS) including Mandatory spares, Earthing system, Support Steel Structures and their Foundations, Auxiliary and ancillary systems, Metal support structures for equipment as well as of all accessories and services complete in all respects required for their use on site

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including their connection with the equipment not covered by this specification for Augmentation of Short Circuit Test Facilities at **High Power Laboratory, CPRI-Bengaluru, India.**

Short Circuit Busbar System (SCBS) mainly consists of Coaxial Busbar system, Power Busbar system, Current transformers, Voltage transformers, Voltage dividers, Disconnectors, Earth switches, Surge arrestors, Wall bushings, associated Transformer Ratio Changer System, Control and Monitoring System (CMS) and Steel support structures for the above equipment. These equipment shall be added, modified/de-erect and integrated with the ones already existing at site. The ratings of said Short Circuit Busbar System and it's associated works are given in Technical specification.

### 2.3

In addition to the above scope mentioned in the Clause 2.2, the supplier shall be responsible for the following activities:

#### **a) Supply part:**

- i) Detailed design and engineering of all the equipment, support structures and foundations for its suitability to the SCBS
- ii) Providing engineering drawings, data, operation and maintenance manual etc., for the CPRI's approval and use,
- iii) Procurement (where ever needed) and supply including stage inspection and testing,
- iv) Type tests reports issued by an accredited laboratory as per IEC/ISO 17025 or STL member laboratory shall be submitted at the time of supply for all equipment mentioned in clause 6.0 of this technical specification. The date of issue of type test report shall not be older than *ten* years from stipulated bid submission due date.
- v) Packing for tropical conditions and dispatching from the manufacture's works up to CPRI-Bengaluru site,
- vi) Supply of mandatory spares, tools and tackles.

#### **b) Transport, testing, erection, installation and commissioning part:**

- i) Transportation of all equipment/material up to the CPRI, Bengaluru site,
- ii) Transportation of all mandatory spares, tools and tackles up to the CPRI, Bengaluru site,
- iii) Transit insurance and storage cum installation insurance,
- iv) Preservation of all equipment/material at the site,
- v) Pre-assembly, if any, for erection and testing of all the equipment,
- vi) Erection and installation of all the equipment and support steel structures,
- vii) Supervision during erection and installation of the equipment,
- viii) Pre-commissioning and Commissioning tests of Short circuit busbar system at site and
- ix) Training of CPRI personnel at site.

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### c) Support Steel Structures, all foundations and Electrical works part:

- i) Detailed design and engineering of all Support Steel Structures and their Foundations,
- ii) Providing engineering drawings, data etc., for the CPRI's approval and use,
- iii) Transportation of all material up to the CPRI, Bengaluru site,
- iv) Transit insurance and storage cum installation insurance,
- v) Preservation and conservation of all material at the site,
- vi) Erecting and mounting of support steel structures,
- vii) All foundation for support steel structures, cable trenches,
- viii) Designing and erection of Earthing system as per Indian standards (including the earth grid to earth risers) of switchyard area, new steel structures (non-current carrying parts) and short circuit busbar system equipment,
- ix) Overall Electrical works design, cabling and wiring works, erection and installation

### d) Interfacing & interconnecting of SCBS with existing equipment and Modification of existing structural works part:

- i) Short circuit busbar system shall be connected to/interfaced with existing and new short circuit generators, master breakers, make switches, current limiting reactors, laboratory transformers, 300kA high current transformer and existing switchyard equipment with different test cells and control room as per the requirements of the technical specification and drawings.
- ii) Modification, de-erecting and restoration of existing structures and its foundation works of the switchyard as per the requirements of the technical specification and drawings.
- iii) Interfacing and interconnecting of SCBS with existing switchgear equipment of primary busbar (17.5kV) and secondary busbar (72.5kV and 245kV) as per technical specification and drawings.
- iv) Design and supply of Control and Monitoring System (CMS) suitable for interfacing with generator control Systems (DCS), Data acquisition systems (DAS), Test Sequencers (TS), plant protection systems and SCBS including the existing Busbar system as per technical specification and drawings.

### 3.0

Single stage, two bid system basis is followed for this tender. The tender is classified into two parts:

**PART 1: Techno-commercial Bid** (Sealed Envelope) comprising Bid Security Declaration, requisite data on qualifying requirements, detailed technical aspects of the Plant and Equipment offered, supporting catalogues, documents and descriptive materials, data as required in Technical specifications, deviation list if any from employer's technical specifications and conditions of contract, work completion schedule, master network, integrity pact, quality assurance program, proposal for training program of CPRI personnel at site etc.

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Bid Form (Techno-Commercial Bid) Section-VII, Part 1 of 2 duly completed and signed by the Bidder, together with all Attachments **except** Attachment 8, Attachment 12 and Attachment 16 identified in ITB Sub-Clause 9.2 shall be submitted in hard copy along with technical compliance sheet as per attachment-11. Technical compliance of Volume I, Part 2 of 2, Section VI-TS shall be uploaded **through online portal [www.tenderwizard.com/CPRI](http://www.tenderwizard.com/CPRI) only.**

**PART 2: Price Bid** - Section VII-Part 2 of 2, Attachment 8, Attachment 12 and Attachment 16, comprising the financial details of the plant and equipment, mandatory spares, recommended spares, taxes and duties, type and special tests, transit insurance, storage cum installation insurance, transport and installation & commissioning etc. shall be submitted **through online portal [www.tenderwizard.com/CPRI](http://www.tenderwizard.com/CPRI) only.**

**4.0.** The bidder documents for the procurement of the said package consisting of two volumes: Volume-I and Volume-II, each containing two parts.

**Volume-I, Part 1 of 2:**

**Section-I:** Notice Inviting Tender (NIT) giving a brief description of the package and the requirements.

**Section-II:** Details of the Instruction to Bidders (ITB) – describes overall instruction to the bidders.

**Section-III:** Bid Data Sheet (BDS): This includes the amendments to ITB.

**Section-IV:** General Conditions of Contract (GCC).

**Section-V:** Special Conditions of Contract (SCC): This includes the amendments to GCC.

**Volume -I, Part 2 of 2:**

**Section-VI:** Details of the Technical Specifications and Drawings (TS).

**Volume-II, Part 1 of 2:**

**Section-VII:** Forms and Procedures

**Volumes-II, Part 2 of 2:**

**Section-VII:** Price Bid

**5.0** The bid document consisting of the scope of work, technical specifications, quantities and the terms and conditions to be complied with and other necessary documents can be purchased from **Purchase Authority, Purchase Division, Central Power Research Institute, P. B. No. 8066, Sadashivanagar P.O., Prof. Sir. C. V. Raman Road, Bengaluru-560080, Telephone No. +91-(0)80-22072271/ email id: [purchase@cpri.in](mailto:purchase@cpri.in) as per the given schedule.**

## PACKAGE 3: SHORT CIRCUIT BUSBAR SYSTEM

<b>Tender Information Summary (TIS)</b>	
NIT No.	<b>CPRI BLR23NIT04</b>
Tender Title	<b>AUGMENTATION OF SHORT CIRCUIT TEST FACILITIES AT HIGH POWER LABORATORY, CPRI, BENGALURU – PACKAGE 3: SHORT CIRCUIT BUSBAR SYSTEM (SCBS)</b>
Bidding System	<b>Single stage Two Bid system</b>
Bid documents on sale	From 05-12-2023 to 18-01-2024 Purchased from <b>Purchase Authority, Purchase Division, Central Power Research Institute, P. B. No. 8066, Sadashivanagar P.O., Prof. Sir. C. V. Raman Road, Bengaluru-560080, Telephone No. +91-(0)80-22072271/ email id: <a href="mailto:purchase@cpri.in">purchase@cpri.in</a></b>
Contact person regarding Bid document clarifications	<b>Purchase Authority, Purchase Division, Central Power Research Institute, P. B. No. 8066, Sadashivanagar P.O., Prof. Sir. C. V. Raman Road, Bengaluru-560080, Telephone No. +91-(0)80-22072271/Mob: 9449070058 email id: <a href="mailto:purchase@cpri.in">purchase@cpri.in</a>/<a href="mailto:gujjala@cpri.in">gujjala@cpri.in</a></b>
Last date of receipt of queries prior to pre-bid conference	18-12-2023
Pre bid conference	22-12-2023 at Central Power Research Institute, P. B. No. 8066, Sadashivanagar P.O, Prof. Sir. C.V. Raman road, Bengaluru-560 080, India.
Submission of Bid	through online portal <a href="http://www.tenderwizard.com/CPRI">www.tenderwizard.com/CPRI</a> only
Last date for receipt of Bid	19-01-2024 by 14.00 hrs (IST)
Techno commercial Bid Opening	Next working day from 11:00 AM onwards after Last date of receipt of Bid

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Address for physical submission of Originals/Self-attested copies of Originals of scanned documents uploaded except Price	<b>Purchase Authority, Purchase Division, Central Power Research Institute, P. B. No. 8066, Sadashivanagar P.O., Prof. Sir. C. V. Raman Road, Bengaluru-560080, Telephone No. +91-(0)80-22072271/ email id: <a href="mailto:purchase@cpri.in">purchase@cpri.in</a></b>
Contact Details of Independent External Monitor for this Tender	<b>Shri. Vijay Kumar Singh IFoS (Retd.) &amp; Independent External Monitor (IEM) of CPRI Contact No. 9717581113 Email ID: <a href="mailto:ksingh_vijay@yahoo.com">ksingh_vijay@yahoo.com</a></b>
Cost of Bidding Document (Non-refundable and to be paid as per Bidding Document)	Rs. 5,000 (Rupees Five Thousand Only) per set for Indian Bidders
Tender Processing Fee (Non-refundable and to be paid on line at the time of tender submission )	Rs.2950.00 (inclusive of service tax) through e-payment gate way. This is mandatory.
Earnest Money Deposit	As per Bidding Document, exclusive of Bank Charges, Commission, etc.

**NOTE:**

- 1) Public Procurement (Preference to Make –In-India) Order 2017 – Revision order No. P-45021/2/2017-PP (BE-II) dated 16th September 2020 is applicable for this tender.
- 2) The bidder / tenderer offer shall be rejected / disqualified for the following reasons:
  - 2a) The tenders without Tender Document Fee, Tender Processing fee and EMD
  - 2b) Non receipt of EMD in Original on or before due date. (Which was uploaded at the time of tender submission).
  - 2c) The bids submitted on “High Sea Sale” basis.
  - 2d) Any bidder from a country which shares a land border with India without registration certificate as required under rule no. 144(xi) of GFR 2017.

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### IMPORTANT INSTRUCTIONS TO BIDDERS TO PARTICIPATE IN e-TENDERING

1	The Bidders who are not registered for e-tendering on the website mentioned below are required to get prior registration with <b>KEONICS, No.24, 3<sup>rd</sup> Stage, 4<sup>th</sup> Block, Basaveshwarnagar, Bangalore -560 079</b> , after fulfilling the procedural formalities, including making payment of the requisite registration/processing fee ONLINE in favour of KSEDCL payable at Bangalore. If needed, bidders can be imparted training on online bidding process as per details available on the website. Details of 'vendor registration' and 'Vendor brief help' are also available on the above e-tender portal.
2	One of the pre-requisites for participation in e-tendering is obtaining a valid Class III Digital Signature Certificate from one of the Digital Signature Certifying authorities such as NIC, MTNL, e-Mudhra, TCS, Safescrypt, GNFC etc., preferably through KEONICS.
3	On tender opening date, the Bidders can login and can witness the bids opening process. Sequel to the opening of bids at the prescribed date & time, the bidders would automatically receive cost comparison sheet.
4	Bidders must ensure to quote in the prescribed format included in the tender document. The column meant for quoting rate in figures appears in pink colour and the moment rate is entered, it turns sky blue. In addition to this, while selecting any of the cells; a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).
5	List of Documents to be scanned and uploaded along with bid: <ul style="list-style-type: none"><li>• Demand Draft/Banker's Cheque/FDR/BG issued by any of scheduled banks guaranteed by Reserve Bank of India, drawn in favour of the 'Chief Accounts Officer, CPRI, Bangalore (In case of submission of EMD by way of DD/ Bank guarantee, the original copy of the uploaded DD/BG should reach 'Purchase Authority, Central Power Research Institute, Bengaluru' on or before the due date and failing which the offer shall be rejected.</li><li>• Certificates of PAN.</li><li>• Certificate of Registration for GST, HSN &amp; SAC codes etc.</li></ul>
6	Any queries regarding registration for e tendering can be got clarified through KEONICS e-tender help desk. Contact No. 080- 49352000 / 9686196764 / 9686115318