

REQUEST FOR PROPOSAL

No: 02-01002/1/2020-DIR\_HR-OPS/RFP

Date: 06/11/2020

## Request for Proposal

### Selection of Consultant

# Selection of Consulting Services for STUDY TO ENHANCE THE RESILIENCE OF ODISHA'S POWER INFRASTRUCTURE - Components II and III

Client: Coalition for Disaster Resilient Infrastructure  
Society (CDRIS)

Published on: 06 November 2020

## DISCLAIMER

The information contained in this Request for Proposal document ("RfP") or subsequently provided to Consultants, verbally or in documentary or any other form by or on behalf of the Coalition for Disaster Resilient Infrastructure (here forth referred to as CDRI in this document) or any of its employees or advisers, is provided to Consultants on the terms and conditions set out in this RfP and such other terms and conditions subject to which such information is provided.

This RfP is not an agreement and is not an invitation by the CDRI to the prospective Consultant or any other person. The purpose of this RfP is to provide interested Consultants with information that may be useful for formulation of their Proposals pursuant to this RfP. This RfP includes statements, which reflect various assumptions and assessments arrived at by the CDRI in relation to the Consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each Consultant may require. This RfP may not be appropriate for all persons, and it is not possible for the CDRI, its employees or advisers to consider the objectives, technical expertise and needs of each party who reads or uses this RfP. The assumptions, assessments, statements and information contained in this RfP, may not be complete, accurate, adequate or correct. Each Consultant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RfP and obtain independent advice from appropriate sources.

Information provided in this RfP to the Consultant is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The CDRI accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.

The CDRI and its employees and advisers make no representation or warranty and shall have no liability to any person including any Consultant under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RfP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RfP and any assessment, assumption, statement or information contained therein or deemed to form part of this RfP or arising in anyway in this Selection Process.

The CDRI also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Consultant upon the statements contained in this RfP.

The CDRI may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RfP.

The issue of this RfP does not imply that the CDRI is bound to select a Consultant or to appoint the Selected Consultant, as the case maybe, for the Consultancy and the CDRI reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The Consultant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the CDRI or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Consultant and the CDRI shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Consultant in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.

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## SECTION 1. INTRODUCTION

### 1. Background

The Coalition for Disaster Resilient Infrastructure (CDRI) is a multi-stakeholder global partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and academic and knowledge institutions. It aims to address the challenges of building resilience into infrastructure systems and development associated with it. The vision, mission, goal, and objectives of the CDRI are explicitly linked to the post-2015 development agendas. The Coalition will also contribute to the resilience of the global infrastructure systems in an increasingly interconnected world. The outcome of such collaboration would be aimed at building resilient economies and resilient people through cross-sector commitments at all levels towards adaptation and resilience with concrete outcomes that will bring resilience action to global scale. The global coalition is anchored by the Coalition for Disaster Resilient Infrastructure Society (CDRIS), registered under the Societies Registration Act (1860), India, in New Delhi, recognised as the CDRI Secretariat.  
CDRI Website: [www.cdri.world](http://www.cdri.world).

### 2. Purpose of the Assignment

CDRIS intends to select an agency to provide consultancy services to CDRIS for “Study To Enhance The Resilience Of Odisha’s Power Infrastructure - Components II and III”. In this regard, CDRIS invites proposals from interested and eligible agencies/firms to provide the consultancy services as detailed in this RFP.

## SECTION 2: INSTRUCTIONS TO CONSULTANTS

### Part I Standard

#### 1. Definitions

- (a) “CDRIS (as Employer)” means the organisation who has invited the bids for consultancy services and with which the selected Consultant signs the Contract for the Services and to which the selected consultant shall provide services as per the terms and conditions and TOR of the contract.
- (b) “Consultant” means any entity or association of entities/consortium/ joint ventures that may provide or provides the Services to CDRIS under the Contract.
- (c) “Contract” means the Contract signed by the Parties and all the attached documents listed in its Clause 1, that is the General Conditions (GCC), the project Specific Conditions (SCC), and the Appendices.
- (d) “Project specific information” means such part of the Instructions to Consultants used to reflect specific project and assignment conditions.
- (e) “Day” means calendar day.
- (f) “Experts” means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-consultant or Joint Venture member(s).
- (g) “Government” means the government of India
- (h) “Instructions to Consultants” (Section 2 of the RFP) means the document which provides short-listed Consultants with all information needed to prepare their proposals.
- (i) “Joint Venture (JV)” means an association with or without a legal personality distinct from that of its members, of more than one entity where one member has the authority to conduct all businesses for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Client for the performance of the Contract.
- (j) “Key Expert(s)” means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose Curricula Vitae (CV) was taken into account in the technical evaluation of the Consultant’s proposal.
- (k) “Personnel” means professionals and support staff provided by the Consultant and assigned to perform the Services or any part thereof; “Foreign Personnel” means such professionals and support staff who at the time of being so provided had their domicile outside the Government’s country; “Domestic Personnel” means such professionals and support staff who at the time of being so provided had their domicile in India.
- (l) “Proposal” means the Technical Proposal and the Financial Proposal.
- (m) “RFP” means the Request for Proposal prepared by CDRIS for the selection of Consultants, based on the SRFP.
- (n) “SRFP” means the Standard Request for Proposals, which has been used by CDRIS as a guide for the preparation of the RFP.
- (o) “Sub-consultants” means an entity to whom/which the Consultant subcontracts any

part of the Services while remaining solely liable for the execution of the Contract.

- (p) “Assignment/job/services” means the work to be performed by the Consultant pursuant to the Contract.
- (q) “Terms of Reference” (TOR) means the document included in the RFP as Section 4 which explains the objectives, scope of work, activities, tasks to be performed, respective responsibilities of CDRIS and the Consultant, and expected results and deliverables of the Assignment/job.

## 2. Introduction

- 2.1 CDRIS named in the Part II **Data Sheet** will select a consulting firm/organization (the Consultant) in accordance with the method of selection specified in the Part II **Data Sheet**.
- 2.2 The name of the assignment/Job has been mentioned in Part II **Data Sheet**. Detailed scope of the assignment/ job has been described in the Terms of Reference in Section 4.
- 2.3 The date, time and address for submission of the proposals has been given in Part II **Data Sheet**.
- 2.4 Consultants are invited to submit their Proposal, for consulting Assignment/job named in the Part II **Data Sheet**. The Proposal will be the basis for award of contract and ultimately for a signed Contract with the selected Consultant.
- 2.5 Consultants should familiarize themselves with local conditions and take them into account in preparing their Proposals. To obtain further information or clarifications, a pre-bid meeting will be organized. The date and time for pre-bid meeting has been given in Part II **Data Sheet**. To obtain further information or clarifications, Consultants may refer to procedure in para 4 below.
- 2.6 CDRIS will provide at no cost to the Consultants the inputs and facilities specified in the Part II **Data Sheet**, assist the consultants in obtaining licenses and permits needed to carry out the Assignment/job, and make available relevant project data and reports to the extent possible. The final responsibility for obtaining the above to complete the project lies with the Consultant.
- 2.7 Consultants shall bear all costs associated with the preparation and submission of their proposals and contract finalisation. CDRIS is not bound to accept any proposal and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultants.

## 3. Eligibility of Association of consultants

- 3.1 If the consultant has formed an association of consultants and applied jointly (if association/Joint Venture/consortium allowed as per **Data Sheet**), the association of consultants shall be evaluated as a single entity as per the qualification/ eligibility

criteria set forth in Part II **Data Sheet**. If any member of the association of consultants is dropped during or at any time after the RFP stage, such an association of consultant is liable to be rejected by CDRIS or lead to the termination of the contract.

- 3.2 The lead member of the association of the consultant shall be the consultant who has been selected by CDRIS and CDRIS shall deal with only the lead member for the purpose of this assignment. The lead member of the association of the consultant shall be responsible and liable to CDRIS for all aspects of their proposal, contract, service etc.
- 3.3 Apart from the association/consortium formed before submission of the proposal, the Consultant shall not subcontract any portion of Consultant's duties under this Agreement without prior written consent of CDRIS.
- 3.4 In case a member of the selected association of consultants is not able to perform their duties for some reason, any required changes to the proposed team or association of consultants may be submitted in writing to CDRIS with proper justifications for the changes, and proposed plan for replacement of roles and skills required to complete the project. CDRIS, at its sole discretion, may decide whether to approve or reject the proposal, or debar the association from further evaluation, or terminate the contract, depending on the stage of the project.

#### **4. Clarification and Amendment of RFP Documents**

- 4.1 Consultants may request a clarification on any clause of the RFP documents up to the number of days indicated in the Part II **Data Sheet** before the proposal submission date. Any request for clarification must be sent in writing by standard electronic means to CDRIS's email address indicated in the Part II **Data Sheet**. The Consultant may call CDRIS's representative to confirm if the email has been received. CDRIS will respond in writing by standard electronic means and will send copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Consultants. Should CDRIS deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure under para. 4.2 below.
- 4.2 At any time before the submission of Proposals, CDRIS may amend the RFP by issuing an addendum in writing or by standard electronic means. The addendum shall be sent to all Consultants and will be binding on them. Consultants shall acknowledge receipt of all amendments. To give Consultants reasonable time in which to take an amendment into account in their Proposals CDRIS may, if the amendment is substantial, extend the deadline for the submission of Proposals.

#### **5. Conflict of Interest**

- 5.1 CDRIS requires that Consultants provide professional, objective, and impartial advice and always hold CDRIS's interest's paramount, strictly avoid conflicts with other Assignment/jobs or their own corporate interests and act without any consideration for future work.



5.2 Without limitation on the generality of the foregoing, Consultants, shall be considered to have a conflict of interest and shall not be selected, under any of the circumstances set forth below:

- a. **Conflicting activities:** (i) a firm that has been engaged by CDRIS to provide goods, works or Assignment/job other than consulting Assignment/job for a project, shall be disqualified from providing consulting Assignment/job related to those goods, works or Assignment/job. Conversely, a firm hired to provide consulting Assignment/job for the preparation or implementation of a project, shall be disqualified from subsequently providing goods or works or Assignment/job other than consulting Assignment/job resulting from or directly related to the firm's consulting Assignment/job for such preparation or implementation. For the purpose of this paragraph, Assignment/job other than consulting Assignment/job are defined as those leading to a measurable physical output, for example surveys, exploratory drilling, aerial photography, and satellite imagery.
- b. **Conflicting Assignment/job:** (ii) A Consultant (including its Personnel and Sub-Consultants) shall not be hired for any Assignment/job that, by its nature, may be in conflict with another Assignment/job of the Consultant. For example, a Consultant hired to prepare engineering design for an infrastructure project shall not be engaged to prepare an independent environmental assessment for the same project, and a Consultant assisting an CDRIS in the privatization of public assets shall not purchase, nor advise purchasers of, such assets.
- c. **Conflicting relationships:** (iii) A Consultant (including its Personnel and Sub-Consultants) that has a business or family relationship with a member of CDRIS's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the Assignment/job, (ii) the selection process for such Assignment/job, or (iii) supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to CDRIS throughout the selection process and the execution of the Contract.

5.3 Consultants have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of CDRIS, or that may reasonably be perceived as having this effect. Any such disclosure shall be made as per the Standard forms of technical proposal provided herewith. If the consultant fails to disclose said situations and if CDRIS comes to know about any such situation at any time, it may lead to the disqualification of the Consultant during bidding process or the termination of its Contract during execution of assignment.

5.4 No agency or current employees/consultants of CDRIS shall work as Consultants under this assignment.

## 6. Unfair Advantage

6.1 The consultant selected for this assignment shall not be given any special preference

or consideration for other projects/assignments to be taken up in the future by CDRI. The selected consultant shall also not be barred from participating in future projects/assignments unless there is a conflict of interest as per para 5 above.

- 6.2 Fairness and transparency in the selection process require that the Consultants or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to the assignment in question. To that end, the CDRIS shall indicate in the **Data Sheet** and make available to all shortlisted Consultants together with this RFP all information that would in that respect give such Consultant any unfair competitive advantage over competing Consultants.

## 7. Proposal

- 7.1 The Proposal shall comprise the documents and forms listed in the **Data Sheet**.
- 7.2 Consultants may only submit one proposal. If a Consultant submits or participates in more than one proposal, such consultants and their proposals shall be disqualified from the RFP process.
- 7.3 The CDRIS permits consultants (individuals and firms, including Joint Ventures and their individual members) from all countries to offer consulting services.
- 7.4 Furthermore, it is the Consultant's responsibility to ensure that its Experts, joint venture members, Sub-consultants, agents (declared or not), sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established in this document.
- 7.5 The Consultant (including the individual members of any Joint Venture, if Joint venture allowed as indicated in the **Data Sheet**) shall submit only one Proposal, either in its own name or as part of a Joint Venture in another Proposal. If a Consultant, including any Joint Venture member, submits or participates in more than one proposal, all such proposals shall be disqualified and rejected. This does not, however, preclude a Sub-Consultant, or the Consultant's staff from participating as Key Experts and Non-Key Experts in more than one Proposal when circumstances justify and if stated in the **Data Sheet**.

## 8. Proposal Validity

- 8.1 The Part II **Data Sheet** to consultant indicates how long Consultants' Proposals must remain valid after the submission date. During this period, Consultants shall maintain the availability of Professional staff nominated in the Proposal and keep the financial proposal unchanged. CDRIS will make its best effort to award the work within this period. Should the need arise, however, CDRIS may request Consultants to extend the validity period of their proposals. Consultants who agree to such extension shall confirm that they maintain the availability of the Professional staff nominated in the Proposal and their financial proposal remain unchanged, or in their confirmation of

extension of validity of the Proposal, Consultants could submit new staff in replacement, who would be considered in the final evaluation for contract award. Consultants who do not agree have the right to refuse to extend the validity of their Proposals, under such circumstance CDRIS shall not consider such proposal for further evaluation.

## 9. Preparation of Proposals

9.1 The Proposal as well as all related correspondence exchanged by the Consultants and CDRIS, shall be written in English language.

9.2 In preparing their Proposal, Consultants are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of a Proposal.

9.3 While preparing the Technical Proposal, Consultants must give particular attention to the following:

9.3.1 An estimated number of Professional staff-months for the Assignment/job is as shown in the Part II **Data Sheet** (as applicable). However, the Proposal shall be based on the number of Professional staff-months or budget estimated by the Consultants.

9.3.2 Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position mentioned.

9.4 **Pre-Qualification Documents (PQ):** Depending on the nature of the Assignment/job, Pre-qualification documents may need to be submitted. The documents and formats are indicated in the **Data Sheet** and Section 3 – Standard Forms.

9.5 **Technical Proposals:** Consultants are required to submit a Technical Proposal in Forms provided in Section-3. The **Data Sheet** indicates the relevant forms to be submitted as part of the Technical Proposal. The Technical Proposal may provide the information indicated in the following paras using the attached Standard Forms (Section 3).

- a. Form Tech – 1 in Section-3 is a letter of technical proposal which is to be submitted along with the technical proposal.
- b. A brief description of the consultant's organization and in the case of a consortium/ joint venture, of each partner, will be provided in Form Tech-2. In the same Form, the consultant and in the case of a consortium/ joint venture, each partner will provide details of experience of assignments which are similar to the proposed assignment/ job as per the terms of reference. Information should be provided only for those Assignment/jobs for which the Consultant was legally contracted as a corporation or as one of the major firms within a joint venture. Assignment/jobs completed by individual professional staff working privately or through other consulting firms cannot be claimed as the experience of the Consultant, or that of the Consultant's associates, but can be

claimed by the Professional staff themselves in their CVs. Consultants should be prepared to substantiate the claimed experience along with the proposal and must submit letter of award / copy of contract for all the assignments mentioned in the proposal.

- c. Comments and suggestions on the Terms of Reference including workable suggestions that could improve the quality/ effectiveness of the Assignment/job; and on requirements for counterpart staff and facilities to be provided by CDRIS (Form Tech-3 of Section 3). The work plan should be consistent with the Work Schedule (Form TECH-8 of Section 3) which will show in the form of a bar chart, the timing proposed for each activity.
- d. A description of the approach and methodology are key components for preparing the technical proposal. Guidance on the content of this section of the Technical Proposals is provided under Form Tech-4 of Section 3.
- e. The list of the proposed Professional staff team by area of expertise, the position that would be assigned to each staff team member, and their tasks is to be provided in Form TECH-5 of Section 3.
- f. Estimates of the staff input needed to carry out the Assignment/job needs to be given in Form TECH-7 of Section 3. The staff-months input should be indicated separately for each location where the Consultants have to work and / or provide their key staff.
- g. CVs of the Professional staff as mentioned in the list above signed by the staff themselves or by the authorized representative of the Professional Staff (Form Tech-6 of Section 3).

9.5.1 The Technical Proposal shall not include any financial information. A Technical Proposal containing financial information that can be used to estimate the financial bid, may be declared non-responsive.

9.6 **Financial Proposals:** The Financial Proposal shall be prepared using the attached Standard Forms (Section 3). The consultant shall submit their financial proposal in the form of a single figure that would indicate the total cost of the entire project including all costs associated with the project and taxes as per clause 10 below. The financial proposal shall not include any conditions attached to it and any such conditional financial proposal shall be rejected summarily.

9.6.1 Form FIN-2 provides the format for submission of a break-down of 'Costs' proposed by the Consultant. CDRIS shall not use this cost break-down for evaluation of financial bids. The purpose of this break down is for deduction of payments by CDRIS in the case of non-completion of deliverable by consultant.

## 10. Taxes

10.1 The Consultant shall fully familiarize themselves about the applicability of Domestic taxes (such as: GST or any other taxes, duties, fees, levies etc.) on amounts payable by CDRIS under the Contract. All such taxes must be included by the consultant in the financial proposal.

## 11. Currency

11.1 Consultants shall express the price of their Assignment/job in Currency indicated in the **Data Sheet**.

## 12. Earnest Money Deposit (EMD)

12.1 Earnest Money Deposit:

- i. An EMD of amount as indicated in the **Data Sheet**, in the form of Bank Transfer from any of the public sector bank or a private sector bank authorized to conduct government of India business, as per para 14.3. At present ICICI Bank Ltd., Axis Bank Ltd. and HDFC Bank Ltd are 03 private sector banks authorized to carry out government transactions.
- ii. Proposals not accompanied by EMD shall be rejected as non-responsive. Last date of submission of EMD shall be 1 day before the Bid Submission Deadline as indicated in the **Data Sheet**.
- iii. No interest shall be payable by CDRIS for the sum deposited as earnest money deposit.
- iv. EMD will be liable to be forfeited if the consultant withdraws or amends, impairs or derogates from the tender in any respect within the validity periods of their tender.
- v. The EMD of the unsuccessful Consultants would be returned within one month of date of bid opening/contracting.

12.2 The EMD shall be forfeited by CDRIS in the following events:

- i. If Proposal is withdrawn during the validity period or any extension agreed by the consultant thereof.
- ii. If the Proposal is varied or modified in a manner not acceptable to CDRIS after opening of Proposal during the validity period or any extension thereof.
- iii. If the consultant tries to influence the evaluation process.
- iv. If the preferred bidder withdraws his proposal during negotiations (failure to arrive at consensus by both the parties shall not be construed as withdrawal of proposal by the consultant).
- v. If preferred bidder does not submit PBG and sign the agreement within the time provided by CDRIS.

## 13. Performance Guarantee

13.1 CDRIS will require the selected consultant to provide an irrevocable, unconditional Performance Bank Guarantee within 15 days from the notification of award, for a value equivalent to 10% of the total cost.

13.2 The Performance Guarantee shall be kept valid till completion of the project. The Performance Guarantee shall contain a claim period of three (3) months from the last date of validity. The selected consultant shall be responsible for extending the validity date and claim period of the Performance Guarantee as and when it is due on account of non-completion of the project.

- 13.3 In case the selected consultant fails to submit performance guarantee within the time stipulated, CDRIS at its discretion may cancel the order placed on the selected consultant without giving any notice. CDRIS shall invoke the performance guarantee in case the selected Consultant fails to discharge their contractual obligations during the period or CDRIS incurs any loss due to Consultants negligence in carrying out the project implementation as per the agreed terms & conditions.

## 14. Submission, Receipt, and Opening of Proposal

- 14.1 The original proposal, including Pre-Qualification Documents, Technical and Financial Proposals shall contain no interlineations or overwriting, except as necessary to correct errors made by the Consultants themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1, and FIN-1 of Section 3.
- 14.2 An authorized representative of the Consultants shall initial all pages of the original Pre-Qualification Documents, Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney (PQ1) accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign.
- 14.3 The procedure for submission of Bids is given in the **Data Sheet**.
- 14.4 The Proposals must be sent to the email address indicated in the **Data Sheet** and received by CDRIS no later than the time and the date indicated in the **Data Sheet**, or any extension to this date. Any proposal received by CDRIS after the deadline for submission shall not be opened.

## 15. Proposal Evaluation

- 15.1 From the time the Proposals are opened to the time the Contract is awarded, the Consultants should not contact CDRIS on any matter related to its Technical and/or Financial Proposal. Any effort by Consultants to influence CDRIS in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Consultants' Proposal.
- 15.2 CDRIS has constituted a Core Committee (CC) which will carry out the entire evaluation process.
- 15.3 **Opening and Evaluation of Technical Proposals:** CC while evaluating the Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded, and the competent authority accepts the recommendation.
- 15.4 The CC shall evaluate the Pre-Qualification Documents and Technical Proposals

based on their responsiveness to the Terms of Reference and by applying the evaluation criteria, sub-criteria specified in the **Data Sheet**. Evaluation of the technical proposal will start first and at this stage the financial bid (proposal) will remain unopened.

- 15.5 **Opening & evaluation of the Financial Proposals:** Financial proposals of only those firms who are technically qualified shall be opened on completion of evaluation of Technical Proposals.
- 15.6 After opening of financial proposals, system as described in **Data Sheet** shall be applied to determine the consultant who will be declared winner and be eligible for award of the contract.

## 16. Award of Contract

- 16.1 After completing evaluations, CDRIS shall issue a Letter of Intent to the selected Consultant and promptly notify all other Consultants who have submitted proposals about the decision taken.
- 16.2 The consultants will sign the contract after fulfilling all the formalities/pre-conditions mentioned in the standard form of contract in Section-6, within 15 days of issuance of the letter of intent. Failing this, the next eligible consultant may be considered for awarding the contract.
- 16.3 The Consultant is expected to commence the Assignment/job on the date and at the location specified in the **Data Sheet**.

## 17. Ownership and Confidentiality of Data and Work Products

- 17.1 Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Consultants who submitted the Proposals or to other persons not officially concerned with the process, until the publication of the award of Contract. The undue use by any Consultant of confidential information related to the process may result in the rejection of its Proposal and may be subject to the provisions of CDRIS's antifraud and corruption policy.
- 17.2 The ownership of the raw data collected by the Consultant during the study and the deliverables including documents, maps, images, processed data, etc. will rest with CDRIS. The Consultant will keep the data and work products confidential and will share them only with the express permission of CDRIS.
- 17.3 The information/data and the report of the study shall not be disclosed to any third party and any right for disclosure will remain with CDRIS.

## 18. Geospatial data and documentation standards

- 18.1 The project must use open-source formats and software for creation and storage of Geo-Spatial information to enable future access and reuse of data. The minimum requirements to be followed for all geospatial (GIS) data are:
  - 18.1.1 Vector data: Geospatial vector data must be delivered in ESRI Shape File format and SpatiaLite database format. Additional formats may be used with approval. Styling information should be provided in SLD format. All files must include projection parameters.
  - 18.1.2 Raster data: Geospatial raster data must be delivered in GeoTIFF. Additional formats may be used with approval. Styling information should be provided in SLD format. All files must include projection parameters.
  - 18.1.3 Metadata: Detailed documentation needs to be provided for each data set. The metadata must include description, source, contact, date, accuracy, restrictions. A description of the attribute name and attribute values needs to be provided for vector and tabular data sets. The metadata will be delivered in an XML format following ISO 19139.
  - 18.1.4 All spatial data should meet OGC <http://www.opengeospatial.org/standards>. All data should be geo referenced and projected in WGS 84 UTM zones. Metadata documentation shall be produced in an approved format compatible with the Federal Geographic Data Committee. FGDC-STD-001-1998. Content standard for digital geospatial metadata (revised June 1998). Federal Geographic Data Committee. Washington, D.C.



## INSTRUCTIONS TO CONSULTANT PART-II DATA SHEET

S. No. in Data Sheet	Ref. clause in Instruction to Consultants	Particulars:
1	2.1	Name of Employer: Coalition for Disaster Resilient Infrastructure Society (CDRIS)
2	2.2	Name of the Assignment: "STUDY TO ENHANCE THE RESILIENCE OF ODISHA'S POWER INFRASTRUCTURE - Components II and III"
3	2.5	A pre-proposal meeting will be held: Yes Via Video Conference. To attend the meeting, please email the representative below requesting a link to the meeting.  on <b>19<sup>th</sup> November 2020, at 1600 to 1700 hrs</b>  CDRIS's representative: Sameer Pethe. Sr. Specialist (Projects) Address: 4 <sup>th</sup> & 5 <sup>th</sup> Floor, Shriram Bhartiya Kala Kendra, 1 Copernicus Marg, New Delhi 110001, India Telephone: +91-11-4044-5999 Mobile: +91 9890050482 E-mail: <a href="mailto:sameer.pethe@cdri.world">sameer.pethe@cdri.world</a>
4	3.1 and 7.3	Joint Venture – Allowed
5	2.3, 12.1.ii, and 14.4	Date & time and address for submission of proposals/bids: Date: <b>8<sup>th</sup> December 2020</b> Time: 1700 hrs Address: Bids to be submitted via Email to <a href="mailto:project@cdri.world">project@cdri.world</a>  [Please call CDRIS's representative to confirm receipt of email and attachments.]
6	2.6	Inputs from CDRI: Nil

7	6.2	All data and outputs of Component 1 will be shared with the selected consultant to aid in the achievement of deliverables listed in Component III.
8	7.5	Participation of Sub-consultants, Key Experts and Non-Key Experts in more than one Proposal is permissible:  No
9	8.1	Proposals must remain valid 90 days after the final submission date. i.e. <b>8<sup>th</sup> March 2021.</b>
10	4.1	Clarifications may be requested not later than the day after the Pre-bid Meeting i.e. <b>1700 hrs on 20 November 2020.</b>  The address for requesting clarifications is:  E-mail: <a href="mailto:project@cdri.world">project@cdri.world</a>
11	9.3.1	The estimated number of professional months required for the Assignment/job is as indicated in the TOR.
12	7.1, 9.4, 9.5 and 9.6	As per Formats given in Section 3.  <b>Pre-qualification Documents: (PDF/ Folder A)</b>  1. PQ1: Power of Attorney to sign the Proposal 2. PQ2: Affidavit certifying that Consultant (consulting firm)/ director(s) of consulting firm are not blacklisted 3. Registration / incorporation documents 4. Documents of association / consortium / joint venture 5. Year-wise annual turnover details for the last 3 financial years (from 2016-17) with supporting documents.  <b>The formats of the Technical Proposal to be submitted are: (PDF/ Folder B)</b>  Form Tech 1: Letter of Proposal submission Form Tech 2: Consultant's organization & experience Form Tech 3: Comments & suggestions on TOR Form Tech 4: Approach & methodology Form Tech 5: Team composition Form Tech 6: Curriculum vitae Form Tech 7: Staffing Schedule Form Tech 8: Work Schedule Form Tech 9: Comment / modification suggested on draft contract.  <b>The Formats to of the Financial bid to be submitted are: (PDF/Folder C)</b> Form Fin 1 Form Fin 2
13	12	Earnest Money Deposit Amount = INR 5,00,000/- (Rs. Five Lakh Only)

14	13	Performance Guarantee Amount = 10% of total cost of project
15	11.1	Consultant to state the cost in Indian Rupees
16	14.3	<p>Considering advisories for COVID-19, the following steps are being followed by CDRIS in the tendering process:</p> <p>Bids should be prepared with soft/scanned copies of all necessary documents and converted into three separate PDF files – each having different passwords. File must be named as given below. The three PDF should be put in a single zip file and uploaded onto any cloud service and the download link should be sent to the email, by the last date, given in this <b>Data Sheet</b>.</p> <p>[Agency name]_ EMD transfer slip (without password protection)  [Agency name]_Pre-Qualification (PASSWORD protected file)  [Agency name]_Technical Bid (PASSWORD protected file)  [Agency name]_Financial Bid (PASSWORD protected file)</p> <p><b>EMD transfer slip:</b> Due to lockdown imposed on various parts of the country and suspension of postal services, online transfer is selected for EMD deposit. An interest free EMD amount as per <b>Data Sheet</b> Cl.13, should be deposited to the following Bank Account of CDRIS <b>1 day before</b> bid submission date.</p> <p>Account holder’s name:  <b>Coalition for Disaster Resilient Infrastructure Society (CDRIS),</b>  Account No. 39172788686, State Bank of India, IFS code: SBIN0000691  Branch: New Delhi Main Branch 11, Parliament Street New Delhi, NCT of Delhi-110001, Ph.: 011 23374140</p> <p>Consultant should make a single PDF of “Online Transaction Slip” and scanned copy of ‘Consultant’s cancelled Cheque’. EMD of unsuccessful Consultants shall be returned to the Account Number given in the cancelled cheque. Bids without EMD deposit slips shall be rejected.</p> <p><b>Pre-Qualification Documents:</b> In Prequalification documents, Consultants are required to provide scanned copies of all the document as per the instruction provided in the tender document along with scanned copies of supporting documents.</p> <p><b>Technical Bid:</b> In Technical bid, Consultants are required to provide scanned copies of all the document as per the instruction provided in the Instructions to Consultant along with scanned copies of supporting documents.</p>

		<p><b>Financial Bid:</b> In the Financial bid, Consultants are required to provide Signed and Stamped scanned copy of their Financial proposal as per Instructions to Consultant strictly according to Section 3, without any cutting or overwriting.</p> <p>Proposals will be submitted via EMAIL to the address as mentioned in the <b>Data Sheet</b> Cl. 5, with subject line: Proposal: Odisha Power Resilience_ Component II and III_[Consultant Name]”.</p> <p>The email should include all four PDF files listed above as attachment. Only one email should be sent by each Consultant. Multiple emails may lead to disqualification of Consultant. If the file size does not allow for transmission via email, a web-link may be provided for files to be downloaded from any cloud service. The Consultant may call the Contact Person mentioned in <b>Data Sheet</b> to inform CDRIS of the submission and receive acknowledgement of download files, via email.</p> <p><b>PASSWORD MUST NOT TO BE SHARED ALONG WITH BID SUBMISSION.</b> If the password is shared along with bid submission, then it may be treated as rejected.</p> <p>The <b>Passwords for Pre-Qualification Documents and Technical Bid pdf file are to be submitted on the same email id by 1200Hrs. on 1 day after final bid submission date</b>; and same may be confirmed on the phone to representative of CDRI mentioned in <b>Data Sheet</b>. Use Times Roman Font for sending Password to ensure readability.</p> <p>In case of failure of sending the password, or providing the incorrect password, in stipulated time and date, bid may be treated as cancelled.</p> <p>Password of Financial bid will be requested after the evaluation of Technical bid. Date and time of sending password will be intimated accordingly and failure of which will be resulted in cancellation of financial bid.</p> <p>Consultants are required to maintain record of their “Passwords” during the bidding process and provide the same only to the representative of CDRIS as per this <b>Data Sheet</b>, as and when requested.</p>
17	15.4 and 15.6	<p>The Consulting firm or consortium will be selected following a Quality Cum Cost Basis (QCBS) of selection, and form of contract would be Lump-sum Performance Based Contract.</p> <p><b>Evaluation Criteria for Qualification Documents (Envelope A):</b></p> <ol style="list-style-type: none"> <li>1. Minimum Eligibility Criteria             <ol style="list-style-type: none"> <li>a. Consultant should have a registered office and team members in India to be able to conduct the study in Odisha, India despite travel restrictions in place due to COVID19.</li> </ol> </li> </ol>

2. Financial Eligibility:
  - a. The Consultant should have a minimum average turnover of USD 600,000 (or equivalent) for the last 3 financial years. Academic and research institutions may be exempted.
  
3. Technical Eligibility:
  - a. The Consultant must have experience of at least 5 years in conducting similar studies with International/Central/State government and/or the private sector. (Self-declaration will suffice.)

The Consultants whosoever qualify in pre-qualification, their Technical bids shall be evaluated as follows:

**Evaluation Criteria for Technical Bids:**

1. Table for evaluation of RFPs:

S no.	Criteria	Max points	Points	Rating Multiplier	Final Score
1.	<b>Consultancy Firm's specific experience</b>	<b>20 points</b>		<b>Not applicable</b>	
	Number of completed Projects in Disaster risk management within the power sector	3 Marks (1 Mark for each such project)		1	
	Number of completed projects in Power Infrastructure (Only projects relating to T&D)	4 Marks (1 Mark for each such project)		1	
	Number of completed projects in disaster risk assessment of infrastructure systems	3 Marks (1 Mark for each such project)		1	
	Number of completed projects in financial planning, budgeting, and advisory to government organisations.	3 Marks (1 Mark for each such project)		1	
	Number of completed projects in organisational planning, capacity development frameworks and advisory to government organisations.	2 Marks (1 Mark for each such project)		1	
	Number of completed projects in knowledge management for disaster risk reduction.	1 Marks (1 Mark for each such project)		1	

		Completed projects involving multiple stakeholders (Govt + private + INGO etc.)	2 Marks (1 Mark for each such project)		1	
		Number of completed International Projects	2 Marks (1 Mark for each such project)		1	
	<b>2.</b>	<b>Qualifications and relevant experience of Key Staff</b>	<b>40 points</b>		<b>Not applicable</b>	
		Team Leader	15		1	
		Power infrastructure expert	5		1	
		Disaster and climate risk management expert	5		1	
		Disaster risk finance expert	5		1	
		Capacity mapping and development expert	5		1	
		GIS and risk analysis expert	5		1	
	<b>3</b>	<b>Methodology</b>	<b>40 points</b>		<b>As per 3</b>	
		Understanding of ToR	15 points			
		Acceptability and detailing of methodology and work plan;	20 points			
		Innovation and future perspective	5 points			
<p>2. The Qualifications and relevant experience of Key Staff will be evaluated on the basis of the following sub-criteria:</p>						
		<b>Sub criteria</b>	<b>Sub-Points (% of max points)</b>	<b>Consideration</b>		
		Educational qualification (in field relevant to the allotted role)	25%	100% for PHD 75% for Masters 50% for bachelor's degree		
		Professional project experience (in the required area of assignment)	50%	Relevant projects of at least 6-month duration: 10 projects – 100 % 8 projects – 80 % 6 projects – 60 % 4 projects – 40 % 2 projects – 20 %		

		International experience	25%	5 + years – 100% 3 to 5 years – 75% 1 to 3 years – 50% 0 years – 0%										
		<p>3. The Methodology criteria will be multiplied by a Rating Multiplier to get the final score. The rating multiplier will be based on the level of responsiveness of the proposal to the requirement. The multiplier will be as follows:</p> <table border="1"> <thead> <tr> <th>Level of Responsiveness</th> <th>Rating Multiplier</th> </tr> </thead> <tbody> <tr> <td>Poor</td> <td>25 % (0.25)</td> </tr> <tr> <td>Satisfactory</td> <td>50 % (0.50)</td> </tr> <tr> <td>Good</td> <td>75 % (0.75)</td> </tr> <tr> <td>Excellent</td> <td>100 % (1.0)</td> </tr> </tbody> </table>			Level of Responsiveness	Rating Multiplier	Poor	25 % (0.25)	Satisfactory	50 % (0.50)	Good	75 % (0.75)	Excellent	100 % (1.0)
Level of Responsiveness	Rating Multiplier													
Poor	25 % (0.25)													
Satisfactory	50 % (0.50)													
Good	75 % (0.75)													
Excellent	100 % (1.0)													
18	15.5	<p>Method of Selection:</p> <p>Consultants scoring more than 60% in the technical evaluation shall be considered for financial evaluation.</p> <p>70 % weightage will be awarded for Technical Proposal and 30 % weightage will be awarded for Financial Proposal.</p> <p>Technical Bid will be assigned a Technical score (Ts) out of a maximum of 100 points, as per the Scoring Model provided in the previous section.</p> <p>The commercial scores would be normalized on a scale of 100, with lowest score being normalized to 100 and the rest being awarded on a pro-rata basis. Such normalized scores would be considered for the purpose of QCBS based evaluation, explained in section below.</p> <p>The individual Consultant's Financial Scores (Fn) are normalized as per the formula below:</p> <p><math>F_n = F_{min}/F_b * 100</math> (rounded off to 4 decimal places) Where,  <math>F_n</math> = Normalized commercial score for the Consultant under consideration  <math>F_b</math> = Absolute financial quote for the Consultant under consideration  <math>F_{min}</math> = Minimum absolute financial quote</p> <p>Formula for final evaluation:</p> <p>Composite Score (S) = <math>T_s * 0.70 + F_n * 0.30</math></p> <p>The Consultant with the highest Composite Score (S) would be considered for award of contract and will be called for negotiations, if required.</p>												
19	16.2	<p>Expected date for commencement of consulting Assignment/job is: 15<sup>th</sup> January 2021</p>												
20	16.2	<p>Location for performance assignment / job: Odisha State, India</p>												

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## SECTION 3: STANDARD FORMS



## PQ 1: Format for Power of Attorney for Signing of Application

### 1.1 POWER OF ATTORNEY

We ..... (name and address of the registered office) do hereby constitute, appoint, and authorize Mr. / Ms. (name and residential address) who is presently employed with us and holding the position of \_\_\_\_\_ as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our application assisting Coalition for Disaster Resilient Infrastructure to [Name of the Assignment] under CDRI’s three-year work plan (the “Project”), including signing and submission of all documents and providing information / responses to CDRI , representing us in all matters before CDRI , and generally dealing with CDRI in all matters in connection with our bid for the said Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

For

\_\_\_\_\_  
(Signature)

(Name, Title and Address)

Accepted

..... (Signature)

(Name, Title and Address of the Attorney)

*Note:*

- To be executed by the Lead Member in case of a Consortium.
- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- In case the Application is signed by an authorised Director of the Applicant, a certified copy of the appropriate resolution/ document conveying such authority may be enclosed in lieu of the Power of Attorney.

**PQ2: Format for affidavit certifying that Consultant (consulting firm)/  
director(s) of consulting firm are not blacklisted**

**(On a Stamp Paper of relevant value) Affidavit**

I M/s. .... (Sole Applicant / Lead Member/ Other Member /s)), (the names and addresses of the registered office) hereby certify and confirm that we or any of our promoter/s / director/s are not barred or blacklisted by any state government or central government / department / agency/PSU in India or abroad from participating in Project/s, either individually or as member of a Consortium as on\_\_\_.

We further confirm that we are aware our Application for the captioned Project would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RFP at any stage of selection and/or thereafter during the Contract period.

Dated this .....Day of....., 2020

Name of the Applicant

.....  
Signature of the Authorized  
Person

.....  
Name of the Authorized Person

FORM TECH-1

## LETTER OF PROPOSAL SUBMISSION

[Location, Date]

To: [Name and address of Employer]

Dear Sir/Madam:

We, the undersigned, offer to provide the consulting Assignment/job for [Insert title of Assignment/job] in accordance with your Request for Proposal dated [Insert Date] and our Proposal. We are hereby submitting our Proposal, which includes the Pre-Qualification Documents, Technical Proposal, and a Financial Proposal in password protected PDFs and requisite EMD.

We are submitting our Proposal in association with: [Insert a list with full name and address of each associated firm]

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Firm:

Address:

FORM TECH-2

## CONSULTANT’S ORGANIZATION AND EXPERIENCE

### A - Consultant’s Organization

[Provide here a brief description of the background and organization of your firm/entity and each associate for this Assignment/job. The brief description should include ownership details, date and place of incorporation of the firm, objectives of the firm etc. Also, if the consultant has formed a consortium, details of each of the member of the consortium, name of lead members etc. shall be provided]

### B - Consultant’s Experience

[Using the format below, provide information on each Assignment/job for which your firm, and each partner in the case of consortium or joint venture, was legally contracted either individually as a corporate entity or as one of the major partners within an association, for carrying out consulting Assignment/job similar to the ones requested under this Assignment/job. In case of consortium, association of consultant, the consultant must furnish the following information for each of the consortium member separately]

1. Firm’s name:

1	Assignment/job name:	
1.1	Description of Project	
1.2	Approx. value of the contract (in Rupees):	
1.3	Country:	
1.4	Location within country:	
1.5	Duration of Assignment/job (months) :	
1.6	Name of Employer:	
1.7	Address:	
1.8	Total No of staff-months of the Assignment/job:	

1.9	Approx. value of the Assignment/job provided by your firm under the contract (in Rupees):	
1.10	Start date (month/year):	
1.11	Completion date (month/year):	
1.12	Name of consultants involved in the project who will also be involved in the CDRI project, if any:	

Note: Please provide documentary evidence form the client i.e copy of letter of award or contract or work order or completion certificate for each of above-mentioned assignment. The experience shall not be considered for evaluation if such requisite support documents are not provided with the proposal.

FORM TECH-3

## **COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE AND ON COUNTERPART STAFF AND FACILITIES TO BE PROVIDED BY CDRIS**

### **A - On the Terms of Reference**

[Suggest and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the Assignment/job (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point and incorporated in your Proposal.]

### **B - On inputs and facilities to be provided by CDRIS**

[Comment here on Inputs and facilities to be provided by CDRIS according to Paragraph 6 of the Part II Special information to consultants including: administrative support, office space, Domestic transportation, equipment, data, etc.]

FORM TECH-4

## DESCRIPTION OF APPROACH AND METHODOLOGY FOR PERFORMING THE ASSIGNMENT/JOB

[Approach, methodology and work-plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal divided into the following three chapters:

- a) Technical Approach and Methodology,
- b) Work Plan, and
- c) Organization and Staffing,

a) Technical Approach and Methodology. In this chapter you should **explain your understanding** of the objectives of the Assignment/job, approach to the Assignment/job, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

b) Work Plan. The consultant should **propose and justify** the main activities of the Assignment/job, their content and duration, phasing and interrelations, milestones (including interim approvals by the Employer), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule of Form TECH-8.

c) Organization and Staffing. The consultant should **propose and justify** the structure and composition of your team. You should list the main disciplines of the Assignment/job, the key expert responsible, and proposed technical and support staff.

**Note:** Please provide details for category a, b and c separately and ensure the total (a+b+c) pages do not exceed 50 pages.

FORM TECH-5

## TEAM COMPOSITION AND TASK ASSIGNMENT/JOBS

Professional Staff

Sr. No.	Name of Staff	Name of Firm	Area of Expertise	Position / Task assigned for this job





13. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

[Among the Assignment/jobs in which the staff has been involved, indicate the following information for those Assignment/jobs that best illustrate staff capability to handle the tasks listed under point 12.]

Name of Assignment/job or project:

Year:

Location:

Employer:

Main project features:

Positions held:

Activities performed:

14. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date:  
authorized

[Signature of staff member or

Place:

representative of the staff]

[Full name of authorized representative]:

FORM TECH-7

## STAFFING SCHEDULE

S.No.	Name of Staff	Staff input (in the form of a bar chart)	Total
-------	---------------	--	-------

Months

1	2	3	4	5	6
---	---	---	---	---	---

1.

2.

3.

Note:

- 1 For Key Experts the input should be indicated individually; for Non-Key Support Staff it should be indicated by category (e.g.: draftsmen, clerical staff, etc.).
- 2 Months are counted from the start of the Assignment/job. For each staff indicate separately staff input for home and field work.

FORM TECH-8

**ACTIVITY/WORK SCHEDULE**

S.No.	Activity	Months (in the form of a bar chart)						Total Months
		1	2	3	4	5	6	
1.								
2.								
3.								

Note:

1. Indicate all main activities of the Assignment/job, including delivery of reports (e.g.: inception, interim, draft, and final reports), and other benchmarks such as Employer approvals. For phased Assignment/jobs indicate activities, delivery of reports, and benchmarks separately for each phase.
2. Duration of activities shall be indicated in the form of a bar chart.

FORM TECH-9

## COMMENTS / MODIFICATIONS SUGGESTED ON DRAFT CONTRACT

[Here the consultant shall mention any suggestion / views on the draft contract attached with the RFP document. The consultant may also mention here any modifications sought by them in the provisions of the draft contract. However, the Employer is not bound to accept any/all modifications sought and may reject any such request of modification. All changes to the draft shall be documented and discussed at the time of award of contract.]

FORM TECH-10

## INFORMATION REGARDING ANY CONFLICTING ACTIVITIES AND DECLARATION THEREOF

Are there any activities carried out by your firm or group company or any member of the consortium which are of conflicting nature as mentioned in para 5 of section 2. If yes, please furnish details of any such activities.

If no, please certify,

We hereby declare that our firm, our associate / group firm or any of the member of the consortium are not indulged in any such activities which can be termed as the conflicting activities under para 5 of the section 2. We also acknowledge that in case of misrepresentation of the information, our proposals / contract shall be rejected / terminated by the Employer which shall be binding on us.

Authorized Signature [In full and initials]:  
Name and Title of Signatory:  
Name of Firm:  
Address:

FORM FIN-1

## FINANCIAL PROPOSAL SUBMISSION FORM

[Location, Date]

To: [Name and address of Employer]

Dear Sir/Madam:

We, the undersigned, offer to provide the consulting services for Assisting Coalition for Disaster Resilient Infrastructure to [Name of the Assignment] under CDRI's three-year work plan in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal.

Our Financial Proposal is for the sum of Rs. \_\_\_\_\_/- [Insert amount(s) in words and figures]. This amount represents the total cost of the project and is inclusive of all indirect local taxes in accordance with Clause 10 of ITC. The estimated amount of local indirect taxes is Rs. \_\_\_\_\_ [Insert amount in words and figures] which may be confirmed or adjusted, if needed.

We hereby confirm that the financial proposal is unconditional, and we acknowledge that any condition attached to financial proposal shall result in rejection of our financial proposal. Our Financial Proposal shall be binding upon us up to expiration of the validity period of the Proposal, i.e. before the date indicated in Clause 8 of the Part II - Data Sheet.

Commissions and gratuities, if any, paid or to be paid by us to an agent or any third party relating to preparation or submission of this Proposal and Contract execution if we are awarded the Contract, will be solely borne by us. CDRI is not bound to reimburse these expenses to us.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Firm:

Address:

FORM FIN-2

## SUMMARY OF COST PER DELIVERABLE

S. No.	Deliverables	% of project cost per deliverable
1		
2		
3		
4		
5		
6		
7		
8		

Note: Consultant must state the proposed Costs in accordance with the **Data Sheet**

The Agency should include any other costs relevant to the Project. Taxes, if any, should be shown separately.

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## SECTION 4: TERMS OF REFERENCE (TOR)

### STUDY TO ENHANCE THE RESILIENCE OF ODISHA'S POWER INFRASTRUCTURE

#### Components II and III

#### 1. Context – Cyclone Fani

Situated on the eastern coast of India adjoining the Bay of Bengal, Odisha is one of the most hazard prone states in India. On 3<sup>rd</sup> May 2019 Cyclone Fani, the strongest cyclone since Phailin in 2013, made landfall near the pilgrimage town of Puri.

With two decades of experience in systematic management of disasters, Odisha state was well prepared for the cyclone. An early and precise warning about the coming cyclone, coupled with strong community mobilisation, enabled the state to minimise the loss of lives and human suffering caused by the cyclone.

Based on the experience of dealing with five cyclones in the last two decades, the Department of Energy was also well prepared. The department prepared contingency plans, pre-positioned funds, materials, manpower, equipment and vehicles, along with the technical and support staff and made communications plans to deal with the cyclone impact. It also held advance meetings with critical consumers like railways, industries, electricity generators, and the local load distribution centres, to plan for the systematic reduction and subsequent restoration of electrical loads during and after the passing of the cyclone, in order to prevent total grid collapse.<sup>1</sup>

The consultant should reflect, based on the information available, learnings or insights from the Super Cyclone Amphan that might be of relevance to the present study.

#### 2. Impact of Fani on Power Infrastructure

Despite these preparations, Cyclone Fani with its winds occasionally gusting at 205 kmph caused extensive damages to the power infrastructure in the state. At an estimated INR 8,392 crore (USD 1.2 billion), the power sector sustained maximum damage and losses out of all the social, productive, and infrastructure sectors.<sup>2</sup> Power supply was disrupted in 14 of the 30 districts in Odisha. High wind speeds caused the falling and uprooting of poles, snapping of overhead lines, damaged transformers and accessories. Five districts, namely Puri, Cuttack, Khordha, Ganjam and Dhenkanal, were severely affected. Another nine districts suffered extensive damage leaving nearly 4 million people across the state without electricity.<sup>3</sup>

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<sup>1</sup> Department of Energy, Government of Odisha

<sup>2</sup> The Cyclone Fani - Damage, Loss and Needs Assessment (DLNA), Odisha State

<sup>3</sup> The Cyclone Fani - Damage, Loss and Needs Assessment (DLNA), Odisha State

Apart from disruptions of economic and industrial activities, the damage to power infrastructure had multiple cascading effects on other infrastructure and public services. Interdependent infrastructure services like transportation, telecom, water supply, medical, and banking services were also interrupted by the lack of power.<sup>4</sup> This limited peoples' access to critical resources required to cope with and recover from the devastation. Such disruptions have also been shown to have longer term direct and indirect impacts on the functioning of businesses, and the well-being of households.<sup>5</sup> The losses, in terms of revenue loss to distribution companies and loss in earnings of bill collectors (outsourced to third parties by DISCOMs) were around INR 253.5 crore (USD 36.2 million).<sup>6</sup> Complete restoration of power in the state took almost 2 months.<sup>7</sup>

### 3. Background of the Study

The impacts of the cyclone brought into focus the need for disaster and climate resilient power infrastructure systems in Odisha and also India as a whole. This represents another opportunity highlighting the imperative to build back better and more resilient. A study by the World Bank titled "Power for All" estimates that the annual cost of supply for achieving universal access to electricity by 2030 is INR 13,900 crore (USD 3 billion), with a cumulative cost of INR 2,00,000 crore (USD 62 billion) over the 2011–30 period.<sup>8</sup> It is imperative that this investment be made resilient to disaster and climate risk.

In a world that relies increasingly on electricity services, building the resilience of power systems is critical to providing reliable and sustainable services, energy security, economic well-being, and quality of life.<sup>9</sup> In this context, enhancing resilience refers to *"strengthening the ability of a system and its component parts to anticipate, prepare for, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through the preservation, restoration, or improvement of its basic structures and functions"* (IPCC 2012). While there are existing international best practices for risk reduction, India will have to adapt the solutions to its own situation and context.

On 17<sup>th</sup> July 2019, a meeting was organised by the Indian National Disaster Management Authority (NDMA), inviting all stakeholders involved in developing policy and conducting research at national level, and those in building and operating the power generation, transmission and distribution infrastructure in Odisha. The meeting discussed the damages and losses faced by the power sector and brainstormed about a roadmap towards building disaster and climate resilient power infrastructure in Odisha, and by extension, in all high-risk areas of India. There was strong consensus on the need for a detailed analysis of the impacts of the cyclone on power infrastructure in Odisha and the technical, organisational, and functional causes behind the extensive damages and subsequent time taken in the restoration of power. As a way forward, it was proposed that NDMA, in collaboration with relevant

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<sup>4</sup> News reports

<sup>5</sup> Lifelines: The Resilient Infrastructure Opportunity (2019), Sustainable Infrastructure Series, World Bank.

<sup>6</sup> The Cyclone Fani - Damage, Loss and Needs Assessment (DLNA), Odisha State, 2019

<sup>7</sup> Department of Energy, Government of Odisha

<sup>8</sup> Power for All (2015), WB Banerjee, Sudeshna Ghosh, Douglas Barnes, Bipul Singh, Kristy Mayer, and Hussain Samad

<sup>9</sup> Enhancing Power Sector Resilience: Emerging Practices to Manage Weather and Geological Risks, World Bank, ESMAP

stakeholders, would initiate an in-depth study aimed towards enhancing the power sector's resilience to disasters.

It was noted that based on past experiences, Odisha's power sector has developed and implemented multiple innovative approaches to managing the impacts of cyclones. These innovations, which have been adopted on an ongoing basis over the last two decades, need to be systematically documented and disseminated so that the advances made by Odisha may benefit other cyclone affected states in the country.

The Coalition for Disaster Resilient Infrastructure (CDRI) is supporting the NDMA to carry out this comprehensive assessment of the resilience of power infrastructure in Odisha state.

#### **4. Purpose of the Study**

The overall aim of the study is to enable the enhancement of the resilience of Power infrastructure in the state of Odisha (and the rest of India) to disasters, especially those emanating from extreme climatic events, through raising awareness and enhancing understanding about managing risks among power sector stakeholders, and enhancing their capacity to take adaptive actions to mitigate these risks and cope with the impacts of future disasters. The study will anticipate and account for the effects of climate change and the Indian Government's commitment to transition to the use of renewable sources for generation of power.

#### **5. Scope of work**

Natural hazards are among the leading causes of power outages around the world.<sup>10</sup> The impacts of cyclone Fani have demonstrated the need for a thorough understanding of the power infrastructure system and the measures taken to reduce the impacts of natural hazards. The study shall address all the components of the power infrastructure system along with all the stakeholders and user groups. Overall, the study will look at the various aspects of the system and aim to do the following:

1. Map the existing system in detail.
2. Assess and analyse the steps taken by Odisha state towards building resilience and identifying best practices.
3. Identify gaps in the existing system with respect to local needs, global best practice, and literature
4. Undertake a cost-benefit analysis (CBA) of investing in resilience by adopting a life-cycle approach.
5. Recommend a roadmap for improvements to the system to build resilience to the impacts of future hazards.
6. Financing instruments/options for investing in resilience
7. Disseminate the findings to state and national actors

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<sup>10</sup> Stronger Power: Improving Power Sector Resilience to Natural Hazards. Washington, D.C.: World Bank Group.

The study has three components. Each component considers three topics of increasing complexity and scale, towards enabling the improvement of power infrastructure in the country.

### **Component I: Disaster preparedness and management – (initiated in August 2020)**

1. Preparedness and survival
2. Recovery and reconstruction
3. Social and community resilience

### **Component II: Risk mapping and improvement of infrastructure**

1. Risk identification and estimation
2. Codes, standards, design and regulation
3. Technology and innovation

### **Component III: Institutional capacity and financing for resilience**

1. Risk based governance and policy development
2. Financing resilience and adaptation
3. Capacity mapping and development, and knowledge management

This document covers Components II and III defined above. The detailed scope of work is given below.

## **6. Component I: Disaster preparedness and management**

The first Component of the study was initiated in August 2020 and is scheduled to be completed by February 2021. With an aim of improving resilience of the power sector without improvements in hardware, it is concerned with the development and adoption of mechanisms for ensuring preparedness, preventing grid collapse, assessing losses, estimating recovery needs, and channelling adequate funds to disaster affected areas in a timely manner for early restoration and recovery. It also looks at aspects of community engagement to determine the information and support made available to the public and how it affected their resilience to the impact of the cyclone. The Component I looked at the disaster preparedness and management of the power sector in Odisha through the following stages – 1) Preparedness, 2) Survival, 3) Recovery and restoration, 4) Reconstruction, and 5) Social and Community Resilience.

## **7. Component II: Risk mapping and improvement of infrastructure**

The second Component of the study will cover three aspects:

- CII.1 - Risk identification and estimation
- CII.2 - Codes, standards, design, and regulation

## CII.3 - Technology and innovation

### 1. CII.1 - Risk identification and estimation

The process of building resilience will depend on an accurate assessment of the risks to the infrastructure system. Power sector infrastructure is heterogeneous and so is its vulnerability to disasters.<sup>11</sup> Thus decisions making for building resilience of the system will depend on a thorough analysis of the prevalent hazards in the region along with the exposure and vulnerabilities of various power infrastructure components to those hazards. This data needs to be made available at the appropriate scales to inform decisions on disaster and climate resilience building.

#### 1.1. Background:

Engineering standards issued by the Central Electricity Authority (CEA) specify reliability levels in terms of hazard return periods for various components of the power infrastructure and redirect to the relevant Indian Standard (IS) codes for the actual designs and specifications. These IS code standards are uniform across the nation and provide different design constants for different loads. The wind and cyclone hazard maps are maintained by the Building Materials and Technology Promotion Council (BMTPC) and derived from data provided by the India Meteorological Department

As is evident from the damages sustained by power infrastructure due to the impact of cyclone Fani, the existing estimations of the expected intensity of cyclonic winds (i.e. estimation of hazard intensity) has proved inadequate. Thus, improving the resilience of Odisha's power infrastructure will first depend on an exact estimation of the risk to various components of the system. Such estimation will have to be carried out at the appropriate geographical scale to best inform the prioritisation of investments.

The study will use hazard data and findings from existing sources to infer the multi-hazard risk of direct losses to power infrastructure in the state.

#### 1.2. Key Tasks:

1. Identification of multi-hazards impacting the power infrastructure to:
  - a. Map of intensities of these hazards across the state, based on inputs from existing sources;
  - b. Compilation of a multi-hazard map of the state as required to assess the risk to power infrastructure;
  - c. Zonation of the state based on the multi-hazards in every region. This could be done block-wise (or any appropriate administrative division or boundary used by power companies), or through overlaying a regular grid over the entire state, or by identifying homogenous geographical regions having contiguous multi-hazard

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<sup>11</sup> Stronger Power: Improving Power Sector Resilience to Natural Hazards, Washington, D.C.: World Bank Group.

characteristics. Zonation may vary, but results should also be presented in a manner that is useful to the power sector stakeholders.

2. Mapping of exposure of all existing components of the system to multi-hazards threats. This will involve creating a GIS based geo-referenced register of all power sector assets, from power generation up to the last mile distribution transformers, derived from existing maps and GIS databases, and verified through sample-based ground-truthing. This mapping should overlay on the hazard map created in 1 and will include the mapping of user group typologies like urban areas, villages, and industry.
3. Analysis of available climate change scenarios for Odisha and identification of down-scaling models to inform future projections of the risk assessment. This should help Odisha to identify what uncertainties are faced while planning for future expansion.
4. Analysis of plans for expansion of power infrastructure to estimate future exposure to disaster risk (including climate risks).
5. Zone-wise estimation and probabilistic or deterministic (scenario based) analysis of risk of direct losses to all components of the power infrastructure, depending on the availability of data.
6. Assessment of second order risk. Second order effects include loss of revenue and impacts on ongoing works and development plans.
7. Assessment of third order risks. These can be captured as Probable Maximum Losses in other sectors because of the loss of power supply. This will aid in making a case to the national and state governments for investing in resilient power.
8. Prioritisation of infrastructure components having high criticality and high vulnerability to various hazards to which they are exposed. Asset prioritisation matrix for decision making on investment in reconstruction, retrofitting or relocation.
9. Through this process, the study will also document:
  - a. What are the existing sources of risk data – hazards, exposure (of infrastructure and users), vulnerabilities, along with their reliability and their frequency of collection?
  - b. How has risk data been accounted for in informing the standards of various components? i.e. do equipment and component standards account for disaster risk, if so, how?
  - c. What are the processes in place for risk identification and integration within the power sector?
  - d. What is the institutional landscape with regards to incorporating and making decisions based on risk information?

### **1.3. Deliverables:**

1. Map the existing system in detail:

- a. Documentation of existing sources of risk data for various hazards (hazard intensity and probability, vulnerabilities, and exposure) to devise a mechanism for the continuous updating of risk scenarios.
  - b. Geo-referenced multi-hazard map of Odisha
  - c. Geo-referenced asset register of power infrastructure to map component wise exposure
  - d. Probabilistic, or deterministic (scenario based) risk of direct losses to all components of the power infrastructure
2. Assess and analyse the steps taken by Odisha state towards building resilience and identifying best practices.
- a. Institutional actors in the process of risk identification and incorporation
  - b. Map of the existing process of risk incorporation
3. Identify gaps in the existing system with respect to local needs/context, global best practice and literature
- a. Gaps in existing sources of risk data and process of incorporation
4. Recommend improvements to the system to build resilience to the impacts of future hazards.
- a. Identification of critical components at high risk of damage (with documentation of methodology)
  - b. Identification of critical components based on impact on the power system (with documentation of methodology)
  - c. Asset Prioritisation Matrix based on exposure to hazards (with documentation of methodology)
  - d. Asset Prioritisation Matrix based on impact of asset failure on the power system (with documentation of methodology)
  - e. Recommendations on siting of power infrastructure in Odisha (with land zonation map including effects of climate change)
  - f. Recommendations on dealing with uncertainties faced by power infrastructure due to climate change.
  - g. Recommend a system for risk data gathering and regular updating of data
  - h. Recommendations on system for incorporation of risk data into planning and standards.
5. Disseminate the findings to state and national actors
- a. Implement a GIS based system for Dept. of Energy in Odisha to maintain and update a complete asset register and monitor risks to power system components in Odisha.

## 2. CII.2 - Codes, standards, design, and regulation of operations:

This section relates to the adoption of mechanisms required for developing, enforcing, and updating scientific standards, designs, and regulations for improving the resilience of power infrastructure, while accounting for changing technologies and risk profiles. The adoption of robust standards improves the reliability of power supply to users during low-frequency high-impact natural hazard events. But application of uniformly high standards to the entire region is not financially prudent or viable. These decisions will depend upon the criticality of the various components and the risks to which they are exposed.

### 2.1. Background:

Of the total power supplied in Odisha, 37.8% is received from the Central Generating Stations and the balance is generated within Odisha state by hydro-power (36%), thermal power (15%), and renewable sources like small-hydro, solar, wind and biomass (9.8%). There has been no documented damage to these sources due to cyclone Fani.<sup>12</sup>

The 1999 Super Cyclone resulted in as many as 36 towers along 220 kV and 130 kV lines being totally damaged. Additionally, power disruptions in Bhubaneswar and Cuttack city lasted for four (full) days while the power in the other districts was restored by 15th December 1999 (almost 45+ days after the cyclone made its landfall). The 2013 Cyclone Phailin, one 220 kV and twenty-one 132 kV towers, 1756 feeders, 38,997 substations, 36,133.9 km of LT (low tension) line, 4074 km of EHT (extra high tension) line and 211,014 electric poles were damaged due to the combined effects of the cyclone and floods. Additionally, 38.09 lakh consumers were affected, and the power supply was restored to 27 lakh households by December 2013 (~60 days after the cyclone made the landfall). The very recent Cyclone Fani of 2019 resulted in serious damage to power infrastructure and huge disruptions in power supply across 14 districts In the State. The total damage was assessed at INR 8392.50 crores including INR 235 .5 crores of lost revenue by power distribution companies.

The baseline infrastructure and cyclone induced damages to the grid in the 14 affected districts has been tabulated in Table 1 below:

Table 1: Damages to Transmission and Distribution (T&D) Infrastructure affected districts<sup>13</sup>

Component	Baseline (qty.)	Damaged (qty.)	Damaged (%)
400, 220, 132 kV Extra High Voltage lines	13995 km	5 no. 400 kV towers and 111 towers of 220kV and 132 kV	Not available
33kV feeder lines (in km)	6803	4986	81.96
33/11 kV substation (in nos.)	496	263	53.02

<sup>12</sup> Damage to solar and wind generation sources needs verification

<sup>13</sup> In 14 Fani affected districts. Calculated from *The Cyclone Fani - Damage, Loss and Needs Assessment (DLNA)*, Odisha State, 2019.



11 kV feeder (in km)	71752	52697	73.44
11kV/415V distribution transformers (no.)	112424	32207	28.64
415V distribution lines (in km)	109979	51322	46.66
33kV and 11 kV Underground Cables	Limited areas of Bhubaneswar and Puri	0	0

As can be seen in Table 1, the maximum damages were sustained by 33kV and 11kV transmission lines (and towers) followed by 33/11kV sub-stations and 415kV distribution lines (and their towers). All these lines were overhead and supported on Mild Steel (MS) and R.C.C towers that got twisted, collapsed, or uprooted by high speed winds. It may also be noted that the underground (UG) cables installed under the Odisha Distribution System Strengthening Project (ODSSP) since 2014, sustained no damage and consequently power supply to areas with UG cabling was restored within 2 days. Additional reasons for weakening of towers like very long spans conductors - causing the towers to twist, corrosion, saline water, water logging at foundation, erosion, and ageing of towers will also need to be considered.

The adequacy of the IS codes and standards used for constructing the damaged towers and lines needs to be assessed and financially feasible measures for hardening need to be suggested. This will depend on a careful cost benefit analysis of various options. There is also a need to look at the entire network as a whole to suggest measures to build redundancy, diversity, and flexibility in the grid based on second and third order risk assessments.

## 2.2. Key Tasks:

### Codes, standards, and designs:

1. Documentation of national level designs, codes, and standards used for construction of all power components (Civil and Electrical) including generation and T&D components (before cyclone Fani).
2. Review of any official improvements, changes, deviations made by the Odisha state from the national standards, through internal circulars and notifications and their implications on power infrastructure resilience in Odisha.
3. Documentation and review of best practices implemented in Puri and Bhubaneswar regions for grid improvement that led to lack of disruption or early restoration of power.
4. Survey of adherence to above mentioned standards for identifying gaps between design and implementation.
5. A component-wise technical analysis of reasons for failure of each component, due to the impact of natural hazards. An SOP would need to be defined to ensure a technical evaluation of reasons for component failure after every disastrous event.

6. Analysing the existing codes and standards relating to T&D towers and conductors using instances of failure. This will be including and not limited to – span between towers, foundations, stringing methods, tower type, materials and designs and conductor materials, joints, and strength standards.
7. Analysing the entire power system, network design, system planning criteria (like load limits etc.), and reliability criteria used in Odisha, to carry out a criticality analysis and identify the most critical combination of assets that need to be hardened or made redundant to improve system reliability and resilience. This would be based on the second and third order risk assessment from Component II.1.
8. Comparison with global best practices from areas with similar risk profiles to ascertain appropriateness and sufficiency of network design, codes, and standards used in Odisha state.
9. Review and recommend risk informed standards for 11kV lines and distribution lines.
10. Review and recommendations on standards to be followed at the time of reconstruction of damaged power infrastructure.
11. Review and recommendation of options for retrofitting of existing power infrastructure based on criticality and cost-benefit analysis.
12. Cost-benefit analysis of various options for upgrading the generation and T&D infrastructure. See CIII.6 – Finance.

**Risk responsiveness of codes and standards:**

13. Review of process/system (if any) followed to modify/update codes, standards, and designs based on improved understanding of hazards and risks.
14. Review of process/system (if any) followed to modify/update codes, standards, and designs based on improved understanding of future uncertainties created by climate change.

**Operation and maintenance:**

15. Analysing SOPs for operation and maintenance of generation and T&D infrastructure (including those on Vegetation Management) to verify existence and identify adequacy and sufficiency of such documents.
16. Development / improvement of standards for O&M of T&D infrastructure. Especially of 11kV lines and distribution lines.
17. Review of existing processes to monitor Right of Way through regular and adequate Vegetation management by the utility company (or out-sourced supplier). Vegetation management is dependent on allied departments like Forest and Public Works. This would require the development of an inter-departmental protocol for streamlining permissions and actions required for vegetation management.

18. Review of technology options for regular monitoring of power lines including options like GIS maps, drones, sensors etc. Review of O&M standards for critical components and development of a system to ensure the maintenance of these components.

### **2.3. Deliverables:**

1. Map the existing system in detail - Mapping of existing codes, standards and designs for construction, operation and maintenance of generation and T&D infrastructure.
2. Assess and analyse the steps taken by Odisha state towards building resilience and identifying best practices.
3. Identify gaps in the existing system with respect to global best practice and literature / Identify gaps in the existing system such as:
  - a. Adopted norms vis-à-vis global best practices and literature
  - b. National norms vis-à-vis local consideration
  - c. Planning vis-à-vis Implementation
  - d. Implementation vis-à-vis National Code
4. Recommendations on updating codes, standards, designs, and O&M procedures relating to all components of the power infrastructure based on risk assessment, cost-benefit analysis and international best practices. This should include a framework for graded resilience building based on continually updated risk information. See CIII.6 – Finance.
5. Disseminate the findings to state and national actors

### **3. CII.3 - Technology and innovation:**

This aspect relates to the enabling the power sector to harness and leverage the power of technology to address constraints on accuracy, scale, reach, and capacity in constructing, operating, and recovering (damaged) infrastructure systems. Technology can be used to assess, analyse, decide, and expedite the recovery and reconstruction of infrastructure after damages. It can also support analysis and selection of appropriately resilient infrastructure components and systems. Technology choices may be looked at through two aspects –for power infrastructure (i.e. generation, transmission and distribution) and another for disaster risk management (i.e. risk assessment, early warning system, monitoring , damage assessment, support in recovery and reconstruction). The current study will make recommendations on both aspects – 1. Improving the power infrastructure to resist hazards, and 2. – tools and technologies that can be adopted by the power sector to improve disaster risk management.

#### **3.1. Key Tasks**

1. Documentation of current materials, technologies, and designs being used in Odisha for all components of power infrastructure.
2. Documentation of technological choices currently in use in Odisha:
  - a. For risk assessment – for monitoring of hazards (satellites, early warning systems), and vulnerabilities (like sensors and application of big data)
  - b. For risk mitigation and improving reliability of the system (like network configurations, fail safe mechanisms, redundancies, distributed generation, mesh networks, islanding, Remote Control GIS Grids, smart meters, and grids)
  - c. For regular monitoring of assets and post disaster damage assessment (drones, communications equipment, computer-based systems for calculations like quantity assessment for replacement of damaged infrastructure)
  - d. For maintenance and repairs (machinery and equipment for tree and debris clearance and for small scale repairs, communications, real time tech support)
  - e. For emergency restoration (Emergency Restoration Supply (ERS) Towers, Mobile Sub-stations, Diesel Generators (DG), batteries, renewable energy sources)
  - f. For fresh construction, and reconstruction of damaged components.
3. Documentation of energy generation in Odisha including renewable energy sources. Review of the impacts of Fani Cyclone on these generation sources.
4. Identification of global best practices for materials, technologies, and designs for each component of the power infrastructure system.
5. Estimation of cost implications of upgrading Odisha’s power infrastructure to align with global best practice. See CIII.6 – Finance.
6. Recommendations on technology and innovation for - risk assessment, risk monitoring, damage assessment, support in restoration, recovery, and reconstruction

### **3.2. Deliverables**

1. Map the existing system in detail - Documentation of existing technologies employed in the power infrastructure of Odisha state in all stages of pre, during and post disaster scenarios.
2. Assess and analyse the steps taken by Odisha state towards building resilience and identifying best practices in terms of technology choices and innovative systems and processes.
3. Identify gaps in the existing system with respect to global best practice and literature.
4. Recommendations for technologies and innovations that could be employed at the various stages/ infrastructure components to improve the resilience of Odisha’s power infrastructure looking at recommendations on both aspects – 1. Improving the power infrastructure to resist

hazards, and 2. – tools and technologies that can be adopted by the power sector to improve disaster risk management.

5. Disseminate the findings to state and national actors.

## **8. Component III: Institutional capacity and financing for resilience**

Component III will use the findings of Component I and II to make recommendations on making Odisha's power infrastructure more resilient. The output of Component III will be a clear phased roadmap for Odisha state to achieve a resilient power system that minimises losses (to infrastructure and users) and recovers quickly from the impact of natural hazards.

Component I and II will provide options and ways forward for improving the resilience of power system. Component three will study the existing governance, finance, and human resources arrangements to provide a roadmap for implementing the recommendations made in the CI and II.

The third Component of the study will cover three aspects:

- CIII. 4 - Risk based governance and policy development
- CIII. 5 - Capacity mapping and development, and knowledge management
- CIII. 6 - Financing resilience and adaptation

### **4. CIII.4 - Risk governance and policy development:**

Governance refers to the different ways in which governments, the private sector and in general all individuals and institutions in a society organize themselves to manage their common affairs.<sup>14</sup> Risk governance refers to the various ways in which many individuals and institutions – public and private – deal with risks surrounded by uncertainty, complexity and/or ambiguity.<sup>15</sup> Bad governance has been identified as the leading driver for disaster risk.<sup>16</sup>

This sub-component looks at the governance and policy arrangements and recommends the steps required to enable the integration of disaster and climate resilience concepts in the creation, operation & maintenance, and updating of power infrastructure in Odisha state. Political and economic challenges and coordination failures impede the creation of a resilient infrastructure ecosystem. Governments play a key role in ensuring the resilience of critical infrastructure and they should adopt a whole-of government approach to deal with these issues.<sup>17</sup> This should be aimed at getting the basic processes right, building institutions for resilience, creating regulations and incentives for resilience, improving decision making and providing financing.<sup>18</sup>

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<sup>14</sup> UNDP, 2010 in UNISDR 2015

<sup>15</sup> Hermans et al., 2012

<sup>16</sup> <https://www.undrr.org/news/biggest-risk-driver-all-bad-governance>

<sup>17</sup> Workshop Proceedings - IWDR 2019

<sup>18</sup> Lifelines: The resilient infrastructure opportunity

Resilience depends on developing or sustaining the laws, regulations, and guidelines that require utilities to apply appropriate safety standards to resilient power facilities, both in the installation/construction phase and during regular maintenance and operation. It is also crucial that governments create a clear legal structure or an institutional entity that will be responsible for coordination and enforcement of disaster risk management provisions. At the operational level, each power company may prepare an emergency action plan that involves emergency preparedness systems, including drills and training of staff as well as recovery operations. Recovery operations encompass not only specific steps for damage recovery and power restoration, but also internal institutional coordination and cooperation with other utilities, governmental institutions, and municipalities.<sup>19</sup>

#### **4.1. Background:**

The institutional landscape dealing with the power infrastructure in India is large and diverse. Under the Ministry of Power at national level, there is a plethora of organisations in-charge of various aspects of policy making, creation of standards, creation and operation of generation and T&D infrastructure, financing, manufacturing (private sector), research, capacity building and training, and legal and environmental protection. Each state also has its own governance and operational arrangement that is under national direction but with operational flexibility. The capacities and sensitivities of these organisations to account for disaster risk and to work towards building the disaster resilience of the power infrastructure system varies and, in some cases, is non-existent. This sub-component will identify responsibilities within the system and make recommendations on a roadmap for achieving systemic resilience.

#### **4.2. Key Tasks**

1. Process-mapping of the entire institutional landscape at national and state levels along with their hierarchy, responsibilities, reporting mechanisms, compliance obligations, funding mechanisms, and accountability mechanisms.
2. Mapping of organisations, positions, methods, mechanisms, and processes through which natural hazard risk data is currently incorporated in governance, decision making, regulation and creation of power infrastructure.
3. Documentation and review of policies and regulations that relate to risk reduction and along with a historical timeline of their evolution.
4. Assessing the extent that policy and governance structures are enabling the inclusion of resilience in infrastructure development plans. These include laws, regulations, guidelines, and institutional frameworks for preparedness as well as response and recovery.
5. Review of processes that allow the increase of systemic resilience, including regularly maintaining and updating asset inventories and maps of energy infrastructure, regularly

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<sup>19</sup> Stronger power 5.1.1

assessing infrastructure vulnerability, and improving operations based on lessons learned from past events.

6. Mapping of decision making, management, and coordination mechanisms for ensuring preparedness and early response to the impact of natural hazards.
7. Mapping of the decision-making process followed in Odisha that allowed them to prepare for and respond to cyclone Fani. These will include decisions about operational and financial flexibility at different levels.
8. Mapping of mechanisms in Odisha for institutional coordination and cooperation between stakeholders like utilities, governmental institutions, and municipalities.
9. Recommendations on modification of existing policies to ensure resilience/graded resilience in upcoming infrastructure construction.
10. Comparison with international best practice to devise recommendations on improving the above system to incorporate resilience considerations.

#### **4.3. Deliverables**

1. Map the existing system in detail - Documentation of the existing system of incorporation of resilience into decisions regarding creation of new assets and reconstruction of damaged ones.
2. Assess and analyse best practices followed in Odisha state that facilitated their preparedness and early recovery from cyclone Fani.
3. Identify gaps in the existing system with respect to global best practice and literature / Identify gaps in the existing system such as:
  - a. Adopted norms vis-à-vis global best practices and literature
  - b. National norms vis-à-vis local consideration
  - c. Planning vis-à-vis Implementation
  - d. Implementation vis-à-vis National Codes
4. Recommend a phased roadmap on improving the national and state level governance to implement the recommendations made in Component I and II.
5. Disseminate the findings to state and national actors

#### **5. CIII.5 – Capacity mapping and development, and knowledge management:**

This sub-component refers to assessing and developing required human resource capacities within the power sector stakeholders along with systems for exchange and spread of scientifically accurate knowledge enabling the contribution of all stakeholders to building resilience of infrastructure systems.

## 5.1. Background

Due to its long experience in dealing with cyclone, the department of energy in Odisha is doing better at emergency response and recovery than other states of India. There is a need to document their practices, assess their organisational capacity, management structure, capacity building system, and knowledge management system to identify lessons that can be adopted by other hazard prone states. The study will also make recommendations on how Odisha state could improve on these aspects.

## 5.2. Key Tasks

### Capacity assessment

1. Mapping of human resource availability at all levels. Normal pre-disaster and additional capacity required for post-disaster response and recovery. This will include a mapping of sanctioned vs filled posts at all levels.
2. Capacity mapping of departmental and contractual human resources at all levels on aspects of disaster risk management appropriate to each role. This includes the estimation and analysis of Knowledge, Skills and Attitudes at all levels.
3. Documentation of training and capacity building initiatives taken up within the Dept. of Energy. This includes trainings on SOPs, Contingency plans, mock-drills, simulations, emergency management exercises etc.
4. Review of capacity building programs along with the sufficiency thereof. The study will look at how Odisha plans and executes its capacity building programs by looking at processes for training needs assessment, frequency of trainings and outcome tracking.
5. Recommend a system for Odisha state to monitor and develop capacities of various actors required to manage disaster risk.

### Knowledge management

6. Assessment and review of the existing method and processes for knowledge management within the state power sector.
7. Identifying a corpus of documented knowledge – public domain documents, process manuals, organizational SOPs, training programs etc.
8. Documentation and review of public outreach and IEC activities carried out by the Government to improve the resilience of electricity users.
9. Recommend a process/system/method for Odisha state to manage knowledge efficiently and effectively within the state on all aspects of disaster management for the Power sector.

## 5.3. Deliverables



1. Map the existing system in detail – Documentation of the existing capacities and knowledge of various levels at Odisha state in responding to natural hazards.
2. Assess and analyse best practices followed in Odisha state in terms of building human resource capacities on preparedness, response, recovery, and reconstruction for Power infrastructure.
3. Documentation of initiatives and processes applied within Odisha to learn from past disasters and to retain and pass on the organisational experience and knowledge.
4. Identify gaps in the existing capacity development and knowledge management systems with respect to global best practice and literature.
  - a. Adopted norms vis-à-vis global best practices and literature
  - b. National norms vis-à-vis local consideration
  - c. Planning vis-à-vis Implementation
  - d. Implementation vis-à-vis National Code
5. Recommend systems for capacity development and knowledge management functions at state level to continuously learn from past disasters and improve the restoration of power after a disaster and in the creation of new infrastructure and to implement the recommendations made in Component I and II.
6. Disseminate the findings to state and national actors

## 6. CIII.6 – Financing preparedness, resilience, and adaptation:

The energy sector comprises subsystems ranging from power generation to transmission and distribution. The various subsystems of energy infrastructure are exposed to disaster risks which can be managed by adopting appropriate standards. The Odisha Disaster Management Plan (ODM Plan) stresses the need to restore and repair electrical lines and other infrastructure as of the utmost priority, and earmarks normative cost (up to INR 4000 per pole and Rs.0.50 lakh INR per km). The ODM plan identified that transmission lines, owing to their height, are highly vulnerable to cyclones. In addition, the low laying substations are prone to flooding, following a cyclone. Moreover, the quick supply of towers and poles and accessibility to remote locations remain a challenge. Usually the high voltage lines have more investments and less risks; however, the key problem lies with the local lines and their distribution system.

Risk financing strategies for each state and sector will depend on its capacity, risk appetite, resources, and willingness to manage risk. Appropriate financing can incentivise and enable the resilience of infrastructure systems.

### 6.1. Background

The Department of Energy in Odisha, like all states in the country, does not have a separate allocation for disaster preparedness, response, recovery, and reconstruction of their infrastructure

system. There is also no additional funding available for incorporating disaster resilience considerations into new infrastructure. All these activities are taken up through the annual budget of the department. In the case of building new and disaster resilient infrastructure assets, this system may not cause much hindrance. Updating standards and regulations to account for disaster risk will mandate the department to budget for the additional cost of resilience in their normal annual budget estimation. On the other hand, not having a separate allocation for recovery and reconstruction means that funds allocated for normal development work get utilised for reconstruction. This, not only hampers development work, it also means that the department is unable to account for how much it is spending every year on recovery and reconstruction after every disaster impact. This means that it is not possible to estimate how much financial loss each state has suffered due to destruction by of natural hazards over the years, especially losses caused by small to medium scale events that do not overburden state capacity.

## 6.2. Key Tasks

1. Exposure assessment - Develop exposure dataset describing the power transmission and distribution assets for use in the modelling. The Consultant will use a spatial data (including licensed third party or public data) and an estimate of value to create an exposure database, consisting of power transmission and distribution assets. This exposure data will form the basis for the risk analysis. See CII.1 – Risk Assessment.
2. Conduct Probabilistic Risk Analysis:
  - a. Assessment of "Base" Cyclone & Flood Risk - risk analysis of the 'base' exposure dataset of power transmission and distribution assets.
  - b. Assessment of "Resilient" Cyclone & Flood Risk - counter-factual risk analysis, calculating the cyclone and flood risk to the exposure dataset, as if it were designed to be resilient to a range of Standards of Protection (e.g. resilient up to the 1 in 10-year return period flood hazard, and 1 in 50 years return period cyclone/wind hazard).
  - c. Resilience Metrics - Development of metrics to demonstrate the benefit (or cost benefit analysis) of investment in resilience of power transmission and distribution assets.
3. Documentation of the process of fund allocation and utilisation for disaster preparedness, response, and recovery during and after the impact of cyclone Fani. Identification of systemic bottlenecks that create gaps between fund allocation and fund release in post disaster situations.
4. Documentation of pre-disaster activities undertaken by the Dept. of Energy in Odisha to expedite recovery and reconstruction. This may include pre-agreed supply arrangements, emergency procurement guidelines, rate contracts, arranging for the availability of cash for labour and materials etc.

5. Disaster Risk Financing and applicability of innovative mechanisms to finance resilience. The Consultant will draw on recent global experience, including instruments such as social impact bonds, to provide a high-level assessment of the applicability of key innovations in financing to building resilience of the power transmission and distribution network in Odisha.

### **6.3. Deliverables**

1. A description of the methods and assumptions used in the development of the exposure dataset
2. The risk analysis results for:
  - a. Base cyclone and flood risk analysis
  - b. Resilient cyclone and flood risk analysis (for the range of SoP scenarios)
3. Resilience metrics - showing a comparison of results, and a discussion of the resilience benefits.
4. Documentation of existing mechanism to fund preparedness, recovery, and reconstruction of power infrastructure in times of a disaster.
5. Documentation of practices used by Odisha state to fund preparedness, response and recovery activities.
6. Identify gaps in the existing system with respect to global best practice and literature.
7. Recommendations on how financing could help incentivise incorporation of resilience considerations into new infrastructure creation, operation & maintenance.
8. A discussion of disaster risk financing options/instruments for investing in resilience. Additionally, recommendations on improvements to the financial structure that would allow for fastest recovery after the impact of a disaster.
9. Recommendations of pathways and processes that may be utilised to fund improvements in resilience of new and reconstructed infrastructure and to implement the recommendations made in Component I and II.
10. Disseminate the findings to state and national actors

## **9. Validation of data and recommendations**

- Consultants should follow well defined quality control and assurance procedures.
- Involvement of expert reviewers during report finalisation.
- Workshops for consultations and dissemination of findings and recommendations.

## 10. Geospatial data and documentation standards

- 10.1 The project must use open-source formats and software for creation and storage of Geo-Spatial information to enable future access and reuse of data. The minimum requirements to be followed for all geospatial (GIS) data are:
- 10.1.1 Vector data: Geospatial vector data must be delivered in ESRI Shape File format and SpatialLite database format. Additional formats may be used with approval. Styling information should be provided in SLD format. All files must include projection parameters.
  - 10.1.2 Raster data: Geospatial raster data must be delivered in GeoTIFF. Additional formats may be used with approval. Styling information should be provided in SLD format. All files must include projection parameters.
  - 10.1.3 Metadata: Detailed documentation needs to be provided for each data set. The metadata must include description, source, contact, date, accuracy, restrictions. A description of the attribute name and attribute values needs to be provided for vector and tabular data sets. The metadata will be delivered in an XML format following ISO 19139.
  - 10.1.4 All spatial data should meet OGC <http://www.opengeospatial.org/standards>. All data should be geo referenced and projected in WGS 84 UTM zones. Metadata documentation shall be produced in an approved format compatible with the Federal Geographic Data Committee. FGDC-STD-001-1998. Content standard for digital geospatial metadata (revised June 1998). Federal Geographic Data Committee. Washington, D.C.

## 11. Expected Timeline and Payment Schedule

- Within a **total expected duration of 8 months** the consultants shall propose delivery milestones and corresponding payment schedule as per their understanding of the project requirements and objectives as given in the TOR.
- The payment schedule shall be such that the **final payment** on completion of the project and acceptance of deliverables shall constitute 30% of the total cost. The remaining 70% may be distributed reasonably over the project period and linked to specific deliverables.
- The budget and milestones should account for workshops/meetings required to achieve appropriate buy-in, consultation, and dissemination of the findings to national and state level stakeholders.
- The following format may be used:

S. No.	Milestone	Description of Milestones*	Timeline T <sub>0</sub> + days (number of days available for activity)	% amount of total to be disbursed after completion and verification of milestone
1	Contract Effectiveness Date	-	T <sub>0</sub>	0%
2	Inception Report	Inception report identifying literature, stakeholders, and work-plan		10%
3	Milestone 1			
4	Workshop 1			

5	Milestone 2			
6	Milestone 3			
7	Workshop 2			
8	Milestone 4			
..	..			
..	..			
N	Milestone N			
M	Workshop N			
O	Final reports and project closure		T <sub>0</sub> + 244 days (Maximum 8 months)	30%

\* Milestones should be defined and explained separately also.

- The final negotiated timeline of milestones and deliverables shall be inserted in the contract before signing.

## 12. Staffing Requirements

Expected input of Key Experts and requisite expertise and number of key professional staff is given in the table below. If all the required skills are not available within a firm, they are encouraged to associate with other firms. Appropriately curated consortiums are appreciated to fulfil the entire gamut of requirements.

CVs of the Key Experts will be used for evaluation of Technical Bids. Any additional CVs will not be considered for evaluation. Consultants are to use any additional personnel (apart from the Proposed Team) as required to achieve the aims of the project. The CDRI reserves the right to seek more details regarding the qualifications and experience of the key experts.

Team Composition	Expertise	Qualifications	Minimum Years of relevant work experience
<b>Team Leader</b>	Project and/or Operations leadership experience in power sector with work related to disaster risk management, government advisory, and policy and planning. Experience of projects in DRM for power sector in line with SDGs and the Sendai Framework.	100% for PHD 75% for Masters 50% for bachelor's degree	10 years
<b>Power infrastructure expert</b>	Design and planning of power infrastructure, Transmission and Distribution, operations and maintenance. Expertise in standards, technology selection and deployment.	100% for PHD 75% for Masters 50% for bachelor's degree	5 years
<b>Disaster and climate risk</b>	Disaster preparedness, financial preparedness, risk assessment,	100% for PHD	5 years

<b>management expert</b>	disaster risk reduction, contingency planning.	75% for Masters 50% for bachelor's degree	
<b>Disaster risk Finance / Economics expert</b>	Financial management and advisory to government, loss assessment, cost-benefit analysis, financial risk management.	100% for PHD 75% for Masters 50% for bachelor's degree	5 years
<b>Capacity mapping and development expert</b>	Emergency response and management, early recovery and reconstruction.	100% for PHD 75% for Masters 50% for bachelor's degree	5 years
<b>GIS and risk analysis expert</b>	Experience in producing GIS based maps and analysis used for infrastructure planning purposes at national and local authority levels.	100% for PHD 75% for Masters 50% for bachelor's degree	5 years

### 13. Additional Information

1. Background material including data available and to be provided to the consultant: The CDRI can facilitate the process of data collection and meetings with the requisite stakeholders. But the primary responsibility for these will lie with the Consultant.
2. The CDRI would not be providing any facilities to the consultant for this project.
3. Any other related information specific to the study / assignment which is necessary to be furnished to all the bidders.
  - a. As this study is being undertaken with the risk of COVID-19, consultants may account for all the legal, social, travel restrictions in place while presenting their proposals.
  - b. The consultants are encouraged to be innovative in suggesting alternate modes of conducting the inception workshop and for disseminating the findings of the report at the end of the study in place of the Workshops, as these may not be possible in the given context.
  - c. The cost of logistics for organizing Workshops mentioned in the scope of work will vary based on the mode of conducting the workshops (online or in-person) and this will depend on the lockdown and social distancing restrictions in place at the time. Thus, the logistics costs of the workshops will be reimbursed As-On-Actuals basis.  
[Logistics: Does not include staff time, or resource persons, or coordination. For web-based meetings, this does not include the cost of purchase of hardware or software, only services if any.]

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## SECTION 5: Standard Form of Contract

CONTRACT FOR CONSULTANTS' SERVICES

(Name of the contract/work can be written here)

between

Coalition for Disaster Resilient Infrastructure Society (CDRI)

and

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Dated:

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- I. Form of Contract
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  - 2. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT
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## I. Form of Contract

This CONTRACT (hereinafter called the “Contract”) is made on the \_\_\_\_\_ day of the month of \_\_\_\_\_, 20\_\_\_, between the Coalition for Disaster Resilient Infrastructure Society, with its office at 4<sup>th</sup> & 5<sup>th</sup> Floor, Bhartiya Kala Kendra, 1 Copernicus Marg, New Delhi - 110001 (hereinafter called the “CDRI”), and, a joint venture/consortium/association consisting of the following entities, namely, lead consultant \_\_\_\_\_ and its partner \_\_\_\_\_ (hereinafter collectively called the “Consultant”).

### WHEREAS

(a) the Consultant, having represented to the “CDRI” that he/she/it has the required qualifications professional skills, personnel, financial and technical resources, statutory authorization, has offered to provide services in response to the Request for Proposal numbered \_\_\_\_\_, titled \_\_\_\_\_ dated \_\_\_\_\_ issued by the CDRI;

(b) the “CDRI”, on basis of Consultant’s representations, has accepted the offer of the Consultant to provide the services on the terms and conditions set forth in this Contract.

**NOW, THEREFORE, IT IS HEREBY AGREED** between the parties as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:

- (a) The General Conditions of Contract.
- (b) The Special Conditions of Contract.
- (c) The following Appendices:

Appendix A: Description of services  
Appendix B: Reporting requirements  
Appendix C: Staffing schedule  
Appendix D: Cost estimates and Payment or billing schedule  
Appendix E: Duties of CDRI

2. The mutual rights and obligations of the “CDRI” and the Consultant shall be as set forth in the Contract, in particular:

- (a) the Consultants shall carry out and complete the Services in accordance with the Description of Services, which is hereby incorporated in Appendix A, and is made a part of the Contract; and
- (b) the “CDRI” shall make payments to the Consultant in accordance with the provisions of the Contract.

3. Period of Performance for completion of work described in Description of Services begins \_\_\_\_\_ and continues through \_\_\_\_\_ unless the period of performance is extended by

CDRI, as a written modification to this Contract. The Consultant acknowledges that extension for period of performance is at the sole discretion of CDRI and the Consultant shall not claim it as a matter of right under any circumstances whatsoever.

4. The Consultant represents that it is a duly constituted and compliant entity under Applicable Laws and the signatories to the Contract are authorised and duly constituted under Applicable Laws to execute this Contract.

Both parties acknowledge that they have read this Contract, understand it, and agree to be bound by its terms. The parties further agree that this Contract together with all the incorporated attachments, is the entire agreement between the parties and supersedes all prior agreements, written or oral, relating to the subject matter of this Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be executed by their duly authorized representatives as of the day and year first above written.

1. For and on behalf of the Coalition for Disaster Resilient Infrastructure Society:

On Behalf of CDRIS,

CDRIS, 4th & 5th Floor, Bhartiya Kala Kendra, 1 Copernicus Marg, New Delhi – 110001

In presence of (Witnesses)

(i)

(ii)

2. For and on behalf of the Lead Consultant

[name of Consultant]

In presence of

(Witnesses)

(i)

(ii)

[Authorized Representative]

[For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached.]

## II. General Conditions of Contract

### 1 GENERAL PROVISIONS

- 1.1 **Definitions** Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:
- (a) “Applicable Law(s)” means the laws and any other instruments having the force of law in India for the time being.
  - (b) “Confidential Information” - means all information which has been designated as confidential by the Parties in writing or that ought to be considered as confidential (however it is conveyed or on whatever media it is stored) including but not limited to information which relates to the business, policy, strategy, affairs, properties, assets, trading practices, services, developments, trade secrets, Intellectual Property Rights, know-how, personnel, customers and suppliers of either party and commercially sensitive information which may be regarded as the confidential information of the disclosing party.
  - (c) “Consultant” means \_\_\_\_\_. And its partner \_\_\_\_\_.
  - (d) “Contract” means the Contract signed by the Parties and all the attached documents listed in its Clause 1 that is this General Conditions (GCC), the Special Conditions (SCC), Form of Contract, the Appendices, and any subsequent mutually signed document added to this contract .
  - (e) “Day” means calendar day.
  - (f) “Effective Date” means the date on which this Contract comes into force and effect pursuant to Clause GCC 2.1.
  - (g) “Foreign Currency” means any currency other than the currency of the “CDRI’s” country.
  - (h) “GCC” means these General Conditions of Contract.
  - (i) “Government” means the Government of India
  - (j) “Intellectual Property Rights”: means any copyright, rights in designs, database rights, domain names, trademarks, service marks, patents, logo, brand names, or any applications for any of the foregoing, know-how or similar rights or obligations (whether registerable or not) including Moral Rights as defined under applicable laws of India;
  - (k) “Local Currency” means Indian Rupee.
  - (l) “Member” means any of the entities that make up the joint venture/consortium/association; and “Members” means all these entities.
  - (m) “Party” means the “CDRI” or the Consultant, as the case may be, and “Parties” means both of them.
  - (n) “Personnel” means professionals and support staff provided by the Consultants and assigned to perform the Services or any part thereof; “Foreign Personnel” means such professionals and support staff who at the time of being so provided had their domicile outside the Government’s country; “Local Personnel” means such professionals and support staff who at the time of being so provided had their domicile inside the Government’s country; and “Key Personnel” means the Personnel referred to in Clause GCC 5.2(a).
  - (o) “Reimbursable expenses” means all assignment-related costs [such as travel, translation, report printing, secretarial expenses, subject to specified maximum limits in the Contract].

- (p) “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented.
- (q) “Services” means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.
- (r) “Sub-consultants” means an entity to whom/which the Consultant subcontracts any part of the Services while remaining solely liable for the execution of the Contract.
- (s) “Third Party” means any person or entity other than the “CDRI”, or the Consultant.
- (t) “In writing” means communicated in written form with proof of receipt.

## 1.2 Relationship Between the Parties

Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the “CDRI” and the Consultant. The Consultant, subject to this Contract, has complete charge of Personnel, performing the Services and shall be fully responsible and liable for the Services performed by them or on their behalf hereunder.

1.3 **Law Governing Contract:** This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the applicable laws of the Republic of India.

1.4 **Headings:** The headings shall not limit, alter, or affect the meaning of this Contract.

1.5 **Notices:**

1.5.1 Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered post or email to such Party at the address specified in the SCC.

1.5.2 A Party may change its address for notice hereunder by giving the other Party notice in writing of such change to the address specified in the SCC.

1.6 **Location:** The Services shall be performed at such locations as are specified in **Appendix A hereto** and, where the location of a particular task is not so specified, at such locations, as the “CDRI” may approve.

1.7 **Authority of Lead Consultant:** In case the Consultant consists of a joint venture/consortium/association of more than one entity, the Members hereby authorize the entity specified (Lead Consultant) in the SCC to act on their behalf in exercising all the Consultant’s rights and obligations towards the “CDRI” under this Contract, including without limitation the receiving of instructions and payments from the “CDRI”.

1.8 **Authorized Representatives:** Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the “CDRI” or the Consultant may be taken or executed by the officials specified in the SCC.

1.9 **Taxes and Duties:** The Consultant shall be liable to pay such direct and indirect taxes, duties, fees, and other impositions levied under the applicable laws of India.

## 1.10 Fraud and Corruption

1.10.1 **Definitions:** It is the CDRI’s policy to require that CDRI as well as Consultant observe the highest standard of ethics during the execution of the Contract. In pursuance of this policy, the CDRI defines, for the purpose of this provision, the terms set forth below as follows:

- (i) “corrupt practice” means the offering, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution, and includes any allegation of being involved in corrupt practice unrelated to this Contract by any Statutory or Government agency duly empowered to do so under Applicable Law;
- (ii) “fraudulent practice” means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract or having been blacklisted by any Government agency under Applicable Law;
- (iii) “collusive practices” means a scheme or arrangement between two or more consultants, with or without the knowledge of the CDRI, designed to establish prices at artificial, non-competitive levels;
- (iv) “coercive practices” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract;

### 1.10.2 Measures to be taken by the CDRI

- (a) The CDRI reserves the right to terminate the contract, without notice, if it determines at any time that Consultant, its affiliates and/or its representatives were directly or indirectly engaged in corrupt, fraudulent, collusive or coercive practices during the selection process or the execution of that contract, without the Consultant having taken timely and appropriate action satisfactory to the CDRI to remedy the situation after notification by the CDRI;
- (b) The CDRI may also sanction against the Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to participate in CDRI’s procurement process if it at any time determines that the Consultant has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a CDRI-financed contract;
- (c) The CDRI shall also be entitled to take recourse to this clause if it comes to the knowledge of CDRI that the Consultant has been involved in or alleged to be involved in any corrupt, fraudulent, collusive or coercive practices in relation to any third party transaction not related to this Contract or has been blacklisted by any Government agency or it is so alleged by any Government agency.

## 2 COMMENCEMENT, PROGRESS MONITORING, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

2.1 **Effectiveness of Contract:** This Contract shall come into force and effect on the date (the “Effective Date”) of the “CDRI”’s notice to the Consultant instructing the Consultant to begin carrying out the Services. This notice shall confirm that the conditions precedent and effectiveness conditions, if any, listed in the SCC have been met.

2.2 **Termination of Contract for Failure to Become Effective:** If this Contract has not become effective within such time period after the date of the Contract signed by the Parties as

specified in the SCC, either Party may, by not less than twenty one (21) days written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.

- 2.3 Commencement of Services:** The Consultant shall begin carrying out the Services not later than the number of days after the Effective Date specified in the SCC.
- 2.4 Expiration of Contract:** Unless terminated earlier pursuant to Clause GCC 2.9 hereof, this Contract shall expire at the end of such time-period after the Effective Date as specified in the SCC.
- 2.5 Entire Agreement:** This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any other statement, representation, promise or agreement not set forth herein.
- 2.6 Modifications or Variations:** (a) any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. Pursuant to Clause GCC 8.2 here of, however, each Party shall give due consideration to any proposals for modification or variation made by the other Party. (b) In cases of substantial modifications or variations, the prior written consent of the Parties is required.

## **2.7 Force Majeure**

### **2.7.1 Definition**

- (a) For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable and not brought about by or at the instance of the Party claiming to be affected by such events and which has caused the non-performance or delay in performance, and which makes a Party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, global economic recession, embargo, emergency, earthquake, fire, explosion, storm, pandemic, epidemic, flood or other extreme adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by Government agencies.
- (b) Force Majeure shall not include: (i) any event which is caused by the negligence or intentional action of a Party or by or of such Party’s agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected both to take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.
- (c) Subject to clause 2.7.2, Force Majeure shall not include insufficiency of funds or inability to make any payment required hereunder.

**2.7.2 No Breach of Contract:** The failure of a Party to fulfil any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

**2.7.3 Measures to be taken:**

- (a) A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.
- (b) A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.
- (c) Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.
- (d) During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the “CDRI”, shall either:
  - i. demobilize; or
  - ii. Continue with the Services to the extent possible, in which case the Consultant shall continue to be paid proportionately and on pro-rata basis, under the terms of this Contract.
- (e) In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clause GCC 9.

**2.8 Suspension:** The “CDRI” may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including satisfactorily carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall allow the Consultant to remedy such failure, if capable of being remedied, within a period not exceeding thirty (30) days after receipt by the Consultant of such notice of suspension.

**2.9 Termination**

**2.9.1 By the “CDRI”:** The “CDRI” may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (i) of this Clause GCC 2.9.1.

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause GCC 2.8 hereinabove, within thirty (30) days of receipt of such notice of suspension or within such further period as the “CDRI” may have subsequently approved in writing.



- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its Members becomes and which has substantial bearing on providing Services under this contract) insolvent or go into liquidation or receivership whether compulsory or voluntary.
- (c) If the Consultant has, directly or indirectly engaged, or even attempted to engage in corrupt or fraudulent practices in competing for or in executing this Contract.
- (d) If the Consultant submits to the “CDRI” a false statement or is found guilty of misrepresentation either before, during or after signing of the present contract”.
- (e) If the Consultant places itself in position of conflict of interest or fails to disclose promptly any conflict of interest to the CDRI.
- (f) If the consultant fails to provide satisfactory quality services as envisaged under this Contract. The Consultancy Monitoring Committee (CMC) formulated to monitor the progress of the assignment may make judgement regarding the poor quality of services, the reasons for which shall be recorded in writing. The CMC may decide to give one chance to the consultant to improve the quality of the services.
- (g) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- (h) If there is a Change of Control in the constitution of the Consultant;
- (i) If the “CDRI”, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

In such an occurrence the “CDRI” shall give a not less than thirty (30) days’ written notice of termination to the Consultant

**2.9.2 By the Consultant:** The Consultant may terminate this Contract, by not less than thirty (30) days’ written notice to the “CDRI”, in case of the occurrence of any of the events specified in paragraphs (a) through (b) of this Clause 2.9.2.

- (a) If the “CDRI” fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GCC 9 hereof within forty-five (45) days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) days.

**2.9.3 Cessation of Rights and Obligations:** Upon termination of this Contract pursuant to Clauses GCC 2.2 or GCC 2.9 hereof, or upon expiration of this Contract pursuant to Clause GCC 2.4 hereof, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality and intellectual property rights set forth in the present agreement, (iii) the Consultant’s obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GCC 4.5 hereof, and (iv) any right which a Party may have under the Law.

**2.9.4 Cessation of Services:** Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GCC 2.9.1 or GCC 2.9.2 hereof, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the “CDRI”, the Consultant shall proceed as provided, respectively, by Clauses GCC 4.9 or GCC 4.10 hereof.

**2.9.5 Payment upon Termination:** Upon termination of this Contract pursuant to Clauses GCC 2.9.1 or GCC 2.9.2 hereof, the “CDRI” shall make the following payments to the Consultant:

- (a) If the Contract is terminated pursuant to Clause 2.9.1 (g), (h) or 2.9.2, remuneration pursuant to Clause GCC 7.3(h) (i) hereof for Services satisfactorily performed prior to the effective date of termination, and reimbursable expenditures pursuant to Clause GCC 7.3(h)(ii) hereof for expenditures actually and reasonably incurred prior to the effective date of termination;
- (b) If the agreement is terminated pursuant of Clause 2.9.1 (a) to (f), the consultant shall not be entitled to receive any agreed payments upon termination of the contract. However, the “CDRI” may consider making payment for the part satisfactorily performed on the basis of Quantum Meruit as assessed by it, if such part is of economic utility to the CDRI. Applicable Under such circumstances, upon termination, the client may also impose liquidated damages as per the provisions of Clause GCC 10 of this agreement. The consultant will be required to pay any such liquidated damages to client within 30 days of termination date.

**2.9.6 Disputes about Events of Termination:** If either Party disputes whether an event specified in paragraphs (a) through (h) of Clause GCC 2.9.1 or in Clause GCC 2.9.2 hereof has occurred, such Party may, within thirty (30) days after receipt of notice of termination from the other Party, refer the matter to Clause GCC 9 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

### **3. Intellectual Property:**

3.1 As a material condition to which Consultant agrees in exchange for the opportunity to provide the Services, Consultant expressly acknowledges and agrees that all reports, documents, improvements, discoveries, inventions, processes, designs, plans, and trade secrets, whether of a technical nature or not, which could either be primary or secondary data, made or developed by Consultant alone or in conjunction with any other person or entity while providing the Services herein or developed by the Consultant during the course of or arising out of his previous employment, which relate to or affect the business of CDRI (“Intellectual Property”), shall be the sole and exclusive property of CDRI. All intellectual property rights in the same shall be the exclusive property of CDRI, for perpetuity and for all territories of the world.

3.2 The Consultant agrees that during the subsistence of the present contract, it could come across or be handed over material, data etc., where the intellectual property rights in the same would be the sole property of CDRI. Consultant agrees that he shall not, directly, or indirectly, use or disclose any of the said material belonging to CDRI to any entity in any manner or medium whatsoever, for any reasons whatsoever.

3.3 The Consultant expressly agrees to disclose and reveal to CDRI all Intellectual Property, and all information regarding Intellectual Property, concurrent with the discovery or development of the Intellectual Property. Consultant hereby assigns to CDRI all rights, title, and interests in any Intellectual Property.

3.4 The Consultant irrevocably appoints the CDRI as his/her/its attorney and, in his name and on his behalf, to execute and do any instrument or thing and generally to use his name for the purpose of giving to the CDRI or its nominee the full benefit of the provisions of this clause 3.

3.5 Surrender of Material upon Termination of Agreement: Upon termination of this Agreement, Consultant shall return immediately to the CDRI all Intellectual Property (including all books, records, notes, data and information relating to CDRI or its business and all other CDRI property), and will so certify in writing that it has done so.

3.6 Moral Rights. Consultant hereby waives all moral rights relating to the Intellectual property which may be developed by it during the performance of the present contract (including any rights (a) of identification of authorship, (b) of approval, restriction, or limitation on use, and (c) to subsequent modifications

## 4. OBLIGATIONS OF THE CONSULTANT

### 4.1 General

**4.1.1 Standard of Performance:** The Consultant acknowledges and agree that it shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, observe Industry standards of sound management practices, which are in conformity with International and National Industry standards, employ appropriate latest, secure, applicable technology equipment, machinery, materials and methods.. The Consultant agrees that it shall always act, in respect of all and any matters relating to this Contract or to the Services, as faithful adviser to the “CDRI”, and shall at all times support and safeguard the “CDRI’s” interests in any dealings with Third Parties.

**4.1.2 Performance Bank Guarantee:** Consultant will be required to submit performance security within 15 days of signing of contract. The amount of Performance Bank Guarantee will be \_\_\_\_\_ of the contract value and be valid for a period of \_\_\_\_\_ months. The Performance Bank Guarantee will be forfeited and encashed by CDRI in the event of breach of contract by Consultant. Failure to submit Performance Bank Guarantee may result in cancellation of contract and forfeiture of EMD.

**4.2 Conflict of Interests:** The Consultant agrees that it shall hold the CDRI’s interests paramount, at all given points of time, without any consideration for future work, and strictly avoid conflict of interest

with other assignments or their own corporate interests. If during the period of this contract, a conflict of interest arises for any reasons, the Consultant shall promptly disclose the same to the CDRI and seek its instructions.

**4.2.1 Consultant not to benefit from Commissions, Discounts, etc.:**

(a) The payment of the Consultant pursuant to Clause GCC 7 hereof shall constitute the Consultant's only payment in connection with this Contract and, subject to Clause GCC 3.2.2 hereof, the Consultant shall not, directly or indirectly, accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Personnel and agents of either of them, similarly shall not receive any such additional payment.

(b) Furthermore, if the Consultant, as part of the Services, has the responsibility of advising the "CDRI" on the procurement of goods, works or services, the Consultant shall comply with the CDRI's applicable procurement guidelines, and shall at all times exercise such responsibility in the best interest of the "CDRI". Any discounts or commissions obtained by the Consultant in the exercise of such procurement responsibility shall be for the account of the "CDRI".

**4.2.2 Consultant and Affiliates Not to Engage in Certain Activities:** The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and/or any entity affiliated or associated with the Consultant, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.

**4.2.3 Prohibition of Conflicting Activities:** The Consultant shall not directly or indirectly engage, nor shall cause their Personnel as well as their Affiliates to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to Consultant under this Contract.

**4.3 Confidentiality:** During the course of this contract, it is likely that the Consultant might come into contact with CDRI's 'confidential information'. Such confidential information may include, without limitation: (i) daily business and financial information of CDRI, (ii) business methods and practices, (iii) technology and technological strategies, (iv) marketing strategies (v) CDRI's policies and (vi) other such information CDRI deems as "Confidential Information". The Consultant with its signature below, agrees to keep in strict confidence all 'non-public' information so long as it remains non-public, except to the extent disclosure is required by law, requested by any governmental or regulatory agency or body. The Consultants agree not to use or allow the use of 'confidential information' disclosed to them for their own benefit, or for the benefit of any party with which the Consultant or the Company is affiliated. If this agreement is terminated, the Consultant shall promptly return to the other party all documents, contracts, records, or other information received by it that disclose or embody confidential information of the other party.

**4.4 Insurance to be Taken out by the Consultant:** The Consultant (i) shall take out and maintain, and shall cause any Associates and Affiliates to take out and maintain insurance, at their own cost but

on terms and conditions approved by the “CDRI”, insurance against the risks, and for the coverages specified in the SC, and (ii) at the “CDRI”’s request, shall provide evidence to the “CDRI” showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid.

**4.5 Accounting, Inspection and Auditing:** The Consultant (i) shall keep accurate and systematic accounts, records and working files in respect of the Services hereunder, in accordance with Internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time changes and costs, and the bases thereof, and (ii) shall periodically permit the “CDRI” or its designated representative and/or the CDRI, and up to five years from expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the “CDRI” or the CDRI, if so required by the “CDRI” or the CDRI as the case may be.

Any audit shall be subject to the following:

- i. the audit shall be restricted to the engagement and shall be conducted with prior reasonable notice
- ii. the auditors or the representatives of CDRI for the audit shall not be the consultant’s competitors;
- iii. the audit shall not be conducted more than once in a calendar year and twice in entirety; and
- iv. any findings during the audit, shall be shared with the Consultant and be discussed and agreed mutually with CDRI and the Consultant for its closure.

**4.6 Consultant’s Actions Requiring “CDRI”’s Prior Approval:** The Consultant agrees to obtain the “CDRI”’s prior approval in writing before taking any of the following actions:

- (a) Any change or addition to the Personnel listed in Appendix C.

**4.7 Reporting Obligations:** The Consultant shall submit to the “CDRI” the reports and documents specified in Appendix B hereto, in the form, in the numbers and within the time periods set forth in the said Appendix. Final reports shall be delivered in Pen Drive in addition to the hard copies specified in said Appendix.

**4.8 Documents Prepared by the Consultant to be the Property of the “CDRI”:** All plans, drawings, specifications, designs, reports, other documents and software prepared by the Consultant, for the “CDRI” under this Contract shall become and remain the property of the “CDRI”, and shall be the Intellectual Property of the CDRI. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all the aforesaid material, software, documents to the “CDRI”, together with a detailed inventory thereof, in a manner as desired by CDRI.

**4.9 Equipment, Vehicles and Materials Furnished by the “CDRI”:** Equipment, vehicles and materials made available to the Consultant by the “CDRI”, or purchased by the Consultant wholly or partly with funds provided by the “CDRI”, shall be the property of the “CDRI” and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make available to the “CDRI” an inventory of such equipment, vehicles and materials and shall dispose of such equipment and materials in accordance with the “CDRI”’s instructions. While in possession of such equipment, vehicles and materials, the Consultant, unless otherwise instructed by the “CDRI” in writing, shall insure them at the expense of the “CDRI” in an amount equal to their full replacement value.

**4.10 Equipment and Materials Provided by the Consultants:** Equipment or materials brought into the Government’s country by the Consultant and the Personnel and used either for the Project or personal use shall remain the property of the Consultant or the Personnel concerned, as applicable.

## **5 CONSULTANTS’ PERSONNEL**

**5.1 General:** The Consultant shall employ and provide such qualified and experienced Personnel as are required to carry out the Services.

### **5.2 Description of Personnel:**

(a) The title, agreed job description, minimum qualification, and estimated period of engagement in the carrying out of the Services of each of the Consultant’s Key Personnel are as per the consultant’s proposal and are described in Appendix C. If any of the Key Personnel has already been approved by the “CDRI”, his/her name is listed as well.

(b) If required to comply with the provisions of Clause GCC 4.1.1 hereof, adjustments with respect to the estimated periods of engagement of Key Personnel set forth in Appendix C may be made by the Consultant by written notice to the “CDRI”, provided (i) that such adjustments shall not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger, and (ii) that the aggregate of such adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Clause GCC 7.1(b) of this Contract. Any other such adjustments shall only be made with the “CDRI”’s written approval.

(c) If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Key Personnel set forth in Appendix C may be increased by agreement in writing between the “CDRI” and the Consultant. In case where payments under this Contract exceed the ceilings set forth in Clause GCC 7.1(b) of this Contract, this will be explicitly mentioned in the agreement.

**5.3 Approval of Personnel:** The Key Personnel listed by title as well as by name in Appendix C are hereby approved by the “CDRI”. The Consultant is free to use any additional personnel (in addition to the Key Personnel) as required to achieve the aims of the project.

### **5.4 Removal and/or Replacement of Personnel:**

- (a) Except as the “CDRI” may otherwise agree, no changes shall be made in the Personnel. If, for any reason beyond the reasonable control of the Consultant, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Personnel, the Consultant shall forthwith provide as a replacement a person of equivalent or better qualifications, within a period of no more than 10 days.
- (b) If the “CDRI” (i) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, or (ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the “CDRI”’s written request specifying the grounds therefore, forthwith provide as a replacement a person with qualifications and experience acceptable to the “CDRI”.
- (c) Any of the Personnel provided as a replacement under Clauses (a) and (b) above, as well as any reimbursable expenditures (including expenditures due to the number of eligible dependents) the Consultants may wish to claim as a result of such replacement, shall be subject to the prior written approval by the “CDRI”. The rate of remuneration applicable to a replacement person will be the rate of remuneration paid to the replaced person. Also (i) the Consultant shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and (ii) the remuneration to be paid for any of the Personnel provided as a replacement shall not exceed the remuneration which would have been payable to the Personnel replaced.

**5.5 Resident Project Manager:** not required.

## **6 OBLIGATIONS OF THE “CDRI”**

**6.1 Assistance and Exemptions:** Unless otherwise specified in the SC, the “CDRI” shall use its best efforts to:

- (a) Coordinate with officials and other stakeholders to facilitate the project.
- (b) facilitate the process of data collection and meetings with the requisite stakeholders. But the primary responsibility for these will lie with the Consultant.

**6.2 Change in the Applicable Law Related to Taxes and Duties:** If, after the date of this Contract, there is any change in the Applicable Laws of India with respect to taxes and duties, which are directly payable by the consultant for providing the services i.e. GST or any such applicable tax from time to time, which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by written agreement between the Parties hereto, and corresponding adjustments shall be made to the ceiling amounts specified in Clause GCC 7.1(b).

**6.3 Services, Facilities and Property of the “CDRI”:** (a) The “CDRI” shall make available to the Consultant and its Personnel, for the purposes of the Services and free of any charge, the assistance as mentioned in GCC 6.1 above. (b) In case that such services, facilities and property shall not be made available to the Consultant, the Parties may agree on any time extension that it may be appropriate to grant to the Consultant for the performance of the Services.

**6.4 Payment:** In consideration of the Services performed by the Consultant under this Contract, the “CDRI” shall make to the Consultant such payments and in such manner as is provided by Clause GCC 7 of this Contract.

## **7 PAYMENTS TO THE CONSULTANT**

### **7.1 Total Cost of the Services**

- (a) The total cost of the Services payable is set forth in Appendix D as per the consultant’s proposal to the CDRI.
- (b) Except as may be otherwise agreed under Clause GCC 2.6 and subject to Clause GCC 7.1(c), payments under this Contract shall not exceed the amount specified in Appendix-D.
- (c) Notwithstanding Clause GCC 7.1(b) hereof, if pursuant to any of the Clauses GCC 5.2(c) or 6.2 hereof, the Parties shall agree that additional payments shall be made to the Consultant in order to cover any necessary additional expenditures not envisaged in the cost estimates referred to in Clause GCC 7.1(a) above, the ceiling or ceilings, as the case may be, set forth in Clause GCC 7.1(b) above shall be increased by the amount or amounts, as the case may be, of any such additional payments through a written agreement only.

**7.2 Currency of Payment:** All payments shall be made in Indian Rupee after deductions mandated under Applicable Law.

**7.3 Terms of Payment** The payments in respect of the Services shall be made as follows:

- (a) The consultant shall submit the invoice for payment when the payment is due as per the agreed terms. The payment shall be released as per the work-related milestones achieved and as per the specified percentage (payment schedule) as per SCC 13.
- (b) Once a milestone is completed, the consultant shall submit the requisite deliverables as specified in this Contract. The CDRI shall release the requisite payment upon acceptance of the deliverables. However, if the CDRI fails to intimate acceptance of the deliverables or its objections thereto, within 30 days of receipt of it, the CDRI shall release the payment to the consultant without further delay.
- (c) **Final Payment:** The final payment as specified in SC 13 shall be made only after the final reports and a final statement, identified as such, shall have been submitted by the Consultant and approved as satisfactory by the “CDRI”. The Services shall be deemed completed and finally accepted by the “CDRI” and the final report and final statement shall be deemed approved by the “CDRI” as satisfactory ninety (90) calendar days after receipt of the final report and final statement by the “CDRI” unless the “CDRI”, within such ninety (90) day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report or final



statement. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated. Any amount, which the “CDRI” has paid or caused to be paid in accordance with this Clause in excess of the amounts actually payable in accordance with the provisions of this Contract, shall be reimbursed by the Consultant to the “CDRI” within thirty (30) days after receipt by the Consultant of notice thereof. Any such claim by the “CDRI” for reimbursement must be made within twelve (12) calendar months after receipt by the “CDRI” of a final report and a final statement approved by the “CDRI” in accordance with the above.

- (d) For the purpose of payment under Clause 7.3 (b) above, acceptance means; acceptance of the deliverables by the CDRI after submission by the consultant and the consultant has made presentation to the CMC / CDRI with / without modifications to be communicated in writing by the CDRI to the consultant.
- (e) If the deliverables submitted by the consultant are not acceptable to the CDRI / CMC, reasons for such non-acceptance should be recorded in writing; the CDRI shall not release the payment due to the consultant. This is without prejudicing the CDRI’s right to levy any liquidated damages under Clause GCC 10. In such case, the payment will be released to the consultant only after it re-submits the deliverable, and which is accepted by the CDRI.
- (f) All payments under this Contract shall be made to the accounts of the Consultant specified in the SCC.
- (g) With the exception of the final payment under (c) above, payments do not constitute acceptance of the Services nor relieve the Consultant of any obligations hereunder, unless the acceptance has been communicated by the CDRI to the consultant in writing and the consultant has made necessary changes as per the comments / suggestions of the CDRI communicated to the Consultant.
- (h) In case of early termination of the contract, the payment shall be made to the consultant as mentioned here with: (i) Assessment should be made about work done from the previous milestone, for which the payment is made or to be made till the date of the termination. The consultant shall provide the details of persons reasonably worked during this period with supporting documents. Based on such details, the remuneration shall be calculated based on the man month rate as specified. (ii) A reasonable assessment of the reimbursable and miscellaneous expenses shall be made based on details furnished by the consultant in this regard with supporting documents and based on the assessment of the work done and the respective rates as provided. Wherever such an assessment is difficult, the rates should be arrived at by calculating the amount on pro-rata basis. The total amount payable shall be the amount calculated as per (i) and (ii) above plus any applicable tax.

## **8 FAIRNESS AND GOOD FAITH**

**8.1 Good Faith:** The Parties undertake to act in good faith with respect to each other’s rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

**8.2 Operation of the Contract:** The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to

the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but no failure to agree on any action pursuant to this Clause shall give rise to a dispute subject to arbitration in accordance with Clause GCC 9 hereof.

## **9 SETTLEMENT OF DISPUTES**

9.1 **Amicable Settlement:** Performance of the contract is governed by the terms & conditions of the contract, in case of dispute arises between the parties regarding any matter under the contract, either Party of the contract may send a written Notice of Dispute to the other party. The Party receiving the Notice of Dispute will consider the Notice and respond to it in writing within 30 days after receipt. If that party fails to respond within 30 days, or the dispute cannot be amicably settled within 60 days following the response of that party, clause GCC 9.2 shall become applicable.

9.2 **Arbitration:** In the case of dispute arising upon or in relation to or in connection with the contract between the CDRI and the Consultant, which has not been settled amicably, any party can refer the dispute for Arbitration under (Indian) Arbitration and Conciliation Amendment Act, 2019 as may be amended from time to time. Such disputes shall be referred to a sole Arbitrator mutually amended by the Parties. In case of failure of the appointment of the Sole arbitrator, the matter will be decided in accordance with the provisions of the Arbitration Act 2019.

9.3 Arbitration proceedings shall be held in India at the place indicated in SCC and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.

9.4 The decision of the sole arbitrator shall be final and binding upon both parties. The fees and expenses of the Arbitrator as determined by the arbitrator shall be shared equally by the CDRI and the Consultant. However, the expenses incurred by each party in connection with the preparation, presentation shall be borne by the party itself. All arbitration awards shall be in writing and shall state the reasons for the award.

9.5 The Courts of New Delhi, India shall have exclusive jurisdiction in all disputes and differences arising out of or in relation to this Contract and these dispute and arbitration clauses will survive the termination of this contract.

## **10 Liquidated Damages**

10.1 The parties hereby agree that due to negligence of the Consultant, if the CDRI suffers losses, damages the quantification of which may be difficult, and hence the amount specified hereunder shall be construed as reasonable estimate of the damages and both the parties agree to pay such liquidated damages, as defined hereunder as per the provisions of this Contract.

10.2 The amount of liquidated damages under this Contract shall not exceed 10 % of the total value of the contract as specified in Appendix D. The overall liability under the engagement not to exceed

the fees paid to Consultant hereunder without any exceptions. Also, the Consultant shall not be liable for indirect/consequential losses of any nature whatsoever.

10.3 The liquidated damages shall be applicable under following circumstances:

- (a) If the deliverables are not submitted as per schedule as specified in SCC 13, the Consultant shall be liable to pay 1% of the total cost of the Services for delay of each week or part thereof.
- (b) If the deliverables are not acceptable to the CDRI as mentioned in GCC Clause 7.3 (f), and defects are not rectified to the satisfaction of the CDRI within 30 days of the receipt of the notice, the Consultant shall be liable for Liquidated Damages for an amount equal to 1 % of total cost of the Services for every week or part thereof for the delay.

#### **11 Miscellaneous provisions:**

- (i) Any failure or delay on the part of any Party to exercise right or power under this Contract shall not operate as waiver thereof.
- (ii) The Consultant shall notify the CDRI of any material change in their status where such change would impact on performance of obligations under this Contract.
- (iii) Each member/constituent of the Contractor/Consultant, in case of a Joint Venture, shall be jointly and severally liable to and responsible for all obligations towards the CDRI for performance of works/services including that of its Associates/Sub Contractors under the Contract.
- (iv) It is acknowledged and agreed by all Parties that there is no representation of any type, implied or otherwise, of any absorption, regularization, continued engagement or concession or preference for employment of persons engaged by the (Contractor/Consultant) for any engagement, service or employment in any capacity in any office or establishment of the Government of India or the CDRI.

#### **12. INDEMNIFICATION:**

12.1 The Consultant shall always indemnify and keep indemnified the CDRI against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while providing its services under the Project.

12.2 The Consultant shall at all times indemnify and keep indemnified the CDRI/Government of India against any claims in respect of any damages or compensation payable in consequences of any accident or injury sustained or suffered by its (the Consultant's) employees or agents or by any other third Party resulting from or by any action, omission or operation conducted by or on behalf of the Consultant.

12.3 The Consultant shall at all times indemnify and keep indemnified the CDRI against any and all claims by Employees, Workman, Contractors, sub-contractors, suppliers, agent(s), employed engaged or otherwise working for the Consultant, in respect of wages, salaries, remuneration, compensation or the like. This clause shall not be construed by the Consultant as permitting sub-contracting of the Services or authorising the Consultant to appoint a Sub-Consultant for rendering part of the

Services under this Contract. It is made expressly clear that the Services to be rendered under this Contract shall not be sub-contracted by the Consultant.

12.4 All claims regarding indemnity shall survive the termination or expiry of the Contract.

**III. Special Conditions of Contract:**

SC Clause	Ref. of GCC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
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1.	1.5	The addresses are:
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1.	“CDRI”:	CDRIS, 4th & 5th Floor, Bhartiya Kala Kendra, 1 Copernicus Marg, New Delhi – 110001
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Attention: Megha Punia

2.	Consultant:	_____
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\_\_\_\_\_  
\_\_\_\_\_

2.	1.7	[Lead Consultant]
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3.	1.8	The Authorized Representatives are:
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For the “CDRI”: Megha Punia, Dy. Dir (HR & Admin)

For the Consultant: \_\_\_\_\_

4.	2.1	The contract shall come into effect after fulfilment of the following conditions: 1. Contract is signed by both parties; 2. Submission of Performance Guarantee by Consultant; 3. Approval of CDRI in writing.
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5. 2.2 The time period shall be [45 days].
6. 2.3 The time period shall be [15 days].
7. 2.4 The time period shall be [Twelve months].
8. 3.4 Limitation of the Consultants' Liability towards the "CDRI". the Consultants liability under the Contract shall be in accordance with the GCC
9. 3.5 The risks and the insurance coverage shall be as follows:
- (a) Third Party motor vehicle liability insurance in respect of motor vehicles operated in the Government's country by the Consultant or its Personnel, with a minimum coverage as per applicable laws of India;
  - (b) Third Party liability insurance, with a minimum coverage as per applicable laws of India;
  - (c) Professional liability insurance to cover the CDRI against any loss suffered by the CDRI due to the professional service provided by the Consultant, with a minimum coverage of as per applicable laws;
  - (d) Workers' compensation insurance in respect of the Personnel of the Consultant, in accordance with the relevant provisions of the applicable Laws of India, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and
  - (e) Insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract,(ii) the Consultant's property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services, by theft, fire, or any natural calamity.
10. 5.5 Resident project manager = No
11. 6.1 Only as specified in GCC.
12. 7.1 (b) The Contract price is: \_\_\_\_\_ [*insert amount and currency for each currency as applicable*] [*indicate: inclusive or exclusive*] of local indirect taxes.
- Any indirect local taxes chargeable in respect of this Contract for the Services provided by the Consultant shall *is included* by the Consultant.
- The amount of such taxes is \_\_\_\_\_ [insert the amount as finalized at the Contract's negotiations on the basis of the estimates provided by the Consultant in Form FIN-1 of the Consultant's Financial Proposal.

13. 6.3

- Payment will be made based on milestones indicated for each activity as below:

S. No.	Milestone	Timeline T <sub>0</sub> + days (number of days available for activity)	% amount of total to be disbursed after completion and verification of milestone	Absolute amounts to be disbursed after completion and verification of milestone
1				
2				
3				
4				
5				
6				
7				
8				
9				

2. Timeline for Invoice processing: within 30 days of acceptance of deliverables and invoice.

14. 8.3 The Arbitration proceedings shall take place in New Delhi, India.

Binding signature of CDRI Signed by Megha Punia, Dy. Dir (HR& Admin), Coalition for Disaster Resilient Infrastructure Society

Binding signature of Consultant Signed by \_\_\_\_\_

(for and on behalf of \_\_\_\_\_)

**IV. Appendices**

**APPENDIX A – DESCRIPTION OF SERVICES**

**APPENDIX B - REPORTING REQUIREMENTS**

**APPENDIX C – STAFFING SCHEDULE**

**APPENDIX D – Total COST OF SERVICES and Schedule of Payments**

The Total Cost of Services shall be Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only).

**APPENDIX E - DUTIES OF THE “CDRI”**

The CDRI would not be providing any facilities to the consultant for this project apart from those mentioned in clause 6.1 of GCC in this contract.

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