EXPRESSION OF INTEREST

FOR

Selection of Backend Consortium Partner for

"Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application"

EOI No. BECIL/PROJ/BT/BSPHCL-DASHBOARD/26-27/EOI

Dated: 25.08.2026

Issued By

Mr. Binay Kumar Tiwari (DGM)

बेसिल BECIL	**Broadcast Engineering Consultants India Limited** **(A Government of India Enterprise)** **CIN No. : U32301UP1995GOI017744** ***Corporate Office*:** **BECIL BHAWAN, C-56-A/17, Sector-62, Noida-201 307Tel: 0120 4177850, Fax: 0120 4177879** ***Head Office*:** **14-B Ring Road, IP Estate, New Delhi- 110002Tel: 011 23378823, Fax: 01123379885** **Web: www.becil.com**

DISCLAIMER

The information contained in this Request for Proposal document (the "EOI") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of BECIL or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this EOI and such other terms and conditions subject to which such information is provided. This EOI is not an agreement and is neither an offer nor invitation by BECIL to the prospective Bidders or any other person. The purpose of this EOI is to provide interested parties with information that may be useful to them in making their offers (Bids) pursuant to this EOI. This EOI includes statements, which reflect various assumptions and assessments arrived at by BECIL in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This EOI may not be appropriate for all persons, and it is not possible for BECIL, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this EOI. Each Bidder should, therefore, conduct its own investigations, actual site/ facilities/location inspections and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this EOI and obtain independent advice from appropriate sources. Information provided in this EOI to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. BECIL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein. BECIL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder 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 EOI or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the EOI and any assessment, assumption, statement or information contained therein or deemed to form part of this EOI or arising in any way for participation in this Bid Stage. BECIL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this EOI. BECIL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this EOI. The issue of this EOI does not imply that BECIL is bound to select a Bidder or to appoint the Selected Bidder for the Project and BECIL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by BECIL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and BECIL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process. In case of any rejection/cancellation, no bidder has any right to claim any compensation or reimbursement to cost. Participation in EOI does not guarantee selection of bidder.

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SECTION –I

INTRODUCTION AND BRIEF DESCRIPTION

1. INTRODUCTION

Broadcast Engineering Consultants India Limited (BECIL), an ISO 9001:2015, 27001:2013, ISO/IEC 2000:2012 certified Mini Ratna Central Public Sector Enterprise (CPSI) was incorporated on 24th March, 1995 under the Companies Act, 2013 (erstwhile the Companies Act, 1956) by Government of India with 100% equity share capital of BECIL held by President of India through Secretary and Joint Secretary of Ministry of Information & Broadcasting.

The Company was initially set up for providing project consultancy services and turnkey solutions encompassing the entire gamut of radio and television broadcast engineering, establishment of transmission facilities, content production facilities, terrestrial, satellite and cable broadcasting in India and abroad. The company has now diversified into the fields of Strategic Projects such as Information Communication.

Technology, Electronic Surveillance (namely CCTV, Access Control, Intrusion, Fire Safety, Hydrants, etc.). Electronic Media contents including films, Sentinel Analytics, Counter Drones/UAV etc. The activities include, but are not limited to Supply, Installation, Testing & Commissioning, Consultancy Services, Technical Audit, Media Analysis, R&D, projects pertaining to Digital India, City Surveillance, Safe City. Smart City, Make in India, Manufacturing, Audio Video & Data Analysis, Cyber Security, Engineering, Procurement & Construction, Project Management Services, Operation and Maintenance, Manpower Placement, AMC and providing total turnkey project for critical information infrastructure.

BECIL, has its Head Office in New Delhi, Corporate Office in Noida and Regional Office in Bangalore and Kolkata. BECIL is exploring geographical expansion in many states due to diversification in business portfolios.

Over the years, BECIL has consciously groomed and developed a team of in-house, versatile and dedicated engineers and also cultivated and harnessed a vast reservoir of professionals drawn from various fields of Broadcasting Industry, which include public and private Broadcasters, Defense and Cable Industry. Through this network of resourceful technical professionals, BECIL, has established its pan India presence to serve the needs of the industry.

BECIL has a vast reservoir of experts and integrates the expertise of All India Radio (AIR) and Doordarshan (DD), the national broadcaster of India, catering to one of the largest Radio Networks reaching out to more than a billion people and the world's largest Terrestrial Television Network supplemented by Analogue and Digital satellite Broadcasting services reaching out to millions of TV homes in India and abroad.

2. INTRODUCTION OF PROJECT/TENDER

Bihar State Power Holding Company Limited has floated an EOI vide No. 13/PR/BSPHCL/2026 Date: 01/04/2026 for Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application. Based on the assessment BSPHCL may proceed with limited tender inviting only capable/competent applicants for RFP stage. However this Invitation for EoI does not restrict the BSPHCL from awarding the work mentioned in this document through open tender at any time if need arises.

3.1 ELIGIBLE BIDDERS

That the Prospective Bidder/consortium or its Allied firm or sister concern should not be blacklisted/de-barred or put on holiday, by BECIL or any other Public sector Enterprise or a Government Body.

That the Bid submitted by any of the Bidder/consortium, who is found to be blacklisted/ debarred or on a Holiday list shall be out rightly rejected.

That in the event, if the Bidder chooses to be discreet and conceal about its status or about the status of any of its Allied/Sister concern of being debarred, then it shall be construed as a misrepresentation of facts and shall lead to an appropriate action by BECIL.

That the Bidder should not be undergoing any liquidation/insolvency proceedings on the due date of the submission of the bid. In case of any change in the status of declaration by the Bidder, the same shall be notified by BECIL to the Bidder in a span of seven days from the date of initiation of proceeding.

3.2 COST OF BIDDING

The Bidder shall be responsible to bear any costs associated with the preparation and submission of the Bid, and BECIL in no case, shall be responsible or liable for costs, inclusive of but not limited to bank charges, courier charges, site visits, expenses incurred for the purpose of demonstration and representation as desired by BECIL in order to assess the efficiency of the prospective Bidder, or any other expenses incurred for the submission of the Bid. That the Bidder shall be responsible for the costs/expenses regardless of the outcome of the bidding process.

3.3 ASSURANCE

The successful Bidder shall have to provide requisite documentation and satisfactory assurance of its capability and intention in regard to the supply of the goods and/or performance of the requisite scope of work/services pursuant to the award of the Contract within the time set forth herein

3.4 SITE VISIT

It shall be the responsibility of the Bidder to visit the Premises/Site wherein the work is to be performed or services is to be delivered to obtain all the requisite information that is necessary/essential for preparing the Bids and entering into a Contract. The cost of visiting the Site shall be borne by the Bidder.

The grant of permission by BECIL to the Bidder or its Authorized Representative , for the purpose of Site visit shall be contingent on the express condition that the Bidder and its representatives/agents shall indemnify the Company i.e. BECIL and its personnel from and against all liability in respect thereof and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expenses however caused, which, but for the exercise of such permission would not have arisen. That in the event if the Bidder fails to visit the site, it shall not relieve it from the performance of its scope of work/obligations as per the Contract

3.5 CONTENTS OF THE BIDDING DOCUMENT

That the set of Bidding Documents, include the Annexures given herein below in addition to the Invitation for Bid, together with any amendment/addendum

i. Section -I Introduction and Brief Description
ii. Section II- Schedule Of Dates
iii. Section III- General Terms and Conditions
iv. Section IV- Scope of Work and Specification
v. Section V- Bid Evaluation and Matrix
vi. Section VI- Enclosures and Forms

3.6 CLARIFICATION OF BIDDING DOCUMENT

For any clarification related to using the portal, you may visit the below link:

https://becil.ewizard.in

(i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

(ii) Any queries relating to the process of online bid submission or queries relating to e- tender Portal in general may be directed to the Helpdesk Support.

(iii) Please feel free to contact ewizard helpdesk (as given below) for any query related to

E-tendering Phone No. 011-49606060

Mail id: - helpdesk@ewizard.com

3.7 ADDENDUM/AMENDMENT TO THE BIDDING DOCUMENT

At any time prior to the deadline for the submission of the Bids by the Bidders, BECIL shall have the discretion to amend the bid at its own initiative or in sub-sequence to a clarification sought by the prospective Bidder.

The Amendment / Addendum shall form a part of the Bidding Document pursuant to clause 10 and clause 43 of the General terms and Conditions and the same shall be notified on the said procurement portal, so that the said addendum/amendment becomes binding on all the prospective bidders.

In the event of an Addendum/Amendment to the Bidding Document, the prospective Bidders shall be provided with a reasonable time for the purpose of preparation of their bids.

3.8 LANGUAGE OF THE BID

That the Bid and all correspondences and communication in connection with this Bid shall be in English language. The supporting documents to be submitted by the Bidder may be in another language provided they are accompanied by a certified translation. However, BECIL may also translate the documents on its own to avert the possibility of any irregularity and ambiguity.

3.9 EARNEST MONEY DEPOSIT

EMD/ Bid Security: Bidders should submit an **EMD of INR 10,00,000/- (Indian Rupees only),** in online mode or Bank Guarantee from any Scheduled Commercial bank in India and payable at Delhi/Noida in favour of "**Broadcast Engineering Consultants India Limited (BECIL**)" on BECIL tender website and should submit the proof (screenshot) of EMD submission in the Pre-Qualification Envelope. This EMD should be valid for **240** days from the due date of the tender (The bidder shall be responsible for periodically extending the validity of the EMD, in case as required by the department during the bid evaluation process). The bid security of all unsuccessful Bidders would be refunded by BECIL within three (3) months of the Bidder being notified as being unsuccessful and receipt of same from end client. The bid security amount is interest free and will be refundable to the unsuccessful Bidders without any accrued interest on it.

However, since the estimated cost has not been specified in the EOI, **an indicative EMD of ₹10,00,000/- (Rs. Ten Lakh) has been provisionally incorporated in BECIL's EOI. The bidder shall be required to submit the differential EMD, if any, based on the actual estimated cost at the time of issuance of the RFP by the Client and submission of the bid.**

That the Earnest money deposit has been sought with an intent to protect the interests of M/s BECIL against the conduct of the Bidder which shall warrant the forfeiture of the earnest money deposit.

That any Bid not secured in accordance with Earnest Money Deposit will be rejected by BECIL by virtue of being un-responsive.

In case of forfeiture of EMD/ Bid Security, the forfeited amount will be considered inclusive of tax and tax invoice will be issued by BECIL. The forfeiture amount will be subject to final decision of BECIL based on other terms and conditions of order. EMD/Bid Bond will not be accepted in case the same has reference of 'remitter'/'financer' other than bidder on the aforementioned financial instrument of EMD/ Bid Bond submitted by the bidder and bid of such bidder will be summarily rejected.

The EMD will be refunded, in case work is awarded to BECIL on the submission of Performance Bank Guarantee and in case of unsuccessful bid, immediately after the fact came to BECIL knowledge. That the Earnest money deposit has been sought with an intent to protect the interests of M/s BECIL against the conduct of the Bidder which shall warrant the forfeiture of the earnest money deposit.

That any Bid not secured in accordance with Earnest Money Deposit will be rejected by BECIL by virtue of being un-responsive. That the Earnest money deposit of all the Unsuccessful Bidders shall be discharged/returned not later than 60 days after the finalization of the tendering process, whereas the Earnest money deposit of the unsuccessful Bidder shall be discharge upon signing the Work Order/Agreement or upon acknowledging the award and on furnishing of the Performance bank guarantee/ Security deposit.

Notwithstanding any contained in the Contract, the Earnest money deposit shall be forfeited in the following circumstances-:

i. In the event of withdrawal of bid, by the Bidder during the bid validity period
ii. If the Bidder is found indulgent in fraudulent/collusive and coercive practice
iii. In the event if the Bidder modifies the bid after the due date and time for the submission of the Bids
iv. In the case of successful Bidder, if the Bidder fails to sign the work order/Agreement
v. In case if the Bidder fails to furnish the Performance bank guarantee/ security.

3.10 INTENT AND IMPORTANT ASPECTS OF THE EXPRESSION OF INTEREST (EOI)

The Intent and important aspects of this Expression of Interest is (EOI) are as follows: -

BECIL intends to onboard a **Back-end Consortium Partner**. The selected partner will support BECIL in the selection/execution of Tender No. 13/PR/BSPHCL/2026 Date: 01/04/2026 titled 'Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application".

The intent of this EOI is to select a consortium partner of BECIL, subsequently work with BECIL for the above-mentioned tender if work gets awarded to BECIL. An MOU/ Agreement will be signed by BECIL with the consortium partner selected through this EOI, for preparation of bid and/ or participation in the above-mentioned tender.

In case the bid submitted by BECIL against the said tender, is accepted and BECIL receives Work Order/ Agreement from/ with the Client. BECIL may issue a Work Order to the selected agency. In such a scenario, the following conditions will be applicable, which are to be fully taken into consideration by the bidders, prior submitting a response to this EOI:-

The Consortium partner selected through this EOI, may be issued a work order by BECIL, for undertaking the work as per the above mentioned client's tender.

All terms and conditions of the client's tender, and any subsequent amendments/ corrigenda thereof, will be applicable fully on back to back basis on the Consortium partner selected through this EOI, including all important terms and conditions like EMD, PBG, Payment Terms, SLA conditions, Liquidity Damages, and any other penalties etc.

3.11 Performance Bank Guarantee (PBG)

In case the said tender is awarded to BECIL, the PBG as applicable shall be payable by the selected bidder on back to back basis of equivalent amount as per the terms and conditions of Client's Tender. The bidder must submit an undertaking in the bid stating that "they will provide the PBG in accordance with the timeline and the terms and conditions outlined in the client's tender.

Agency shall submit an irrevocable Performance Guarantee/Security (in-line with requirement of client work order) for proper performance and due fulfilment of the terms and conditions of the contract within 10 days or as per client LoA/WO (which ever is earlier) from the date of issue of Letter of Acceptance BSPHCL. The guarantee shall be in the form of Government securities or fixed Deposit Receipts or Bank Guarantee or Guarantee bonds of any Nationalized Bank of India and will be released after 2 months of total contract period.

All payments in the Project to the selected agency shall be on back-to-back basis only subject to receipt of corresponding payment from the client. An advance payment bearing Interest may be made to the selected agency, only if BECIL, receives an advance from the customer, provided the selected agency submits a bank guarantee (BG) of 110% of amount to BECIL in addition to the PBG.

The decision to engage the successful bidder as Consortium partner shall be taken by the Competent Authority of BECIL and accordingly the respective agreement shall be signed.

Bidders are advised to go through the Scope of Work and terms & condition of the said tender to understand the requirement and challenges associated with locations prior to submitting their bids.

The selected agency shall not subcontract, assign, or transfer any part of its obligations, duties, or responsibilities to any third party without the prior written consent of BECIL. Any attempt to do so shall be considered a material breach, leading to immediate termination without any liability on the part of BECIL.

SECTION –II

IMPORTANT DATES (SCHEDULE AND CRITICAL DATES)

4.1 IMPORTANT DATES (SCHEDULE AND CRITICAL DATES

S.N	ACTIVITY	SCHEDULED DATE & TIME
1.	**EOI Number**	**BECIL/PROJ/BT/BSPHCL-DASHBOARD/26-27/EOI**
2.	**Date of Issue of EOI**	**25.08.2026**
3.	**Last date and Time for Submission of bids**	**29.08.2026 @ 01:00 AM**
4	**Availability of Document**	https://www.becil.com; https://becil.ewizard.in
5	**E-tender Portal Fee** (Non-refundable)	INR 3,540/- E-tender Portal Fee (non-transferrable & non- refundable) payable through online e-Portal
6	**Bidder Enrolment Fee** (Non-refundable)	INR 2360/- Bidder Enrolment Registration fee (non- transferrable & non-refundable) payable through online e- Portal
7.	**RFP document Fee (Form Fee) (Non-Refundable)**	INR 17,700/- (incl GST) Form Fees (non-transferrable & non-refundable) payable through online e-Portal
8.	**EMD/ Bid Security**	INR (10,00,000/-) (Ten Lakh) only through online payment or Bank Guarantee from any Scheduled Commercial bank in India and payable at Delhi/Noida in favour of "Broadcast Engineering Consultants India Limited (BECIL)" **For detail refer clause 3.9**
9.	**Address for Communication of bids**	BECIL Bhawan, C-56 / A -17, Sector - 62, Noida – 201307.
10.	**Contact details for this EOI**	Sh. Binay Kumar Tiwari, DGM Tele- 0120-4177850 Email- binaytiwari@becil.com

DISCLAIMER: BECIL MANAGEMENT, AT ITS OWN DISCRETION, MAY DECIDE NOT TO PARTICIPATE IN THE TENDER UNDER REFERENCE, EVEN AFTER SELECTION OF THE BACKEND PARTNER WITHOUT ASSIGNING ANY REASON THEREOF.

4.2. INSTRUCTIONS FOR E-TENDERING PORTAL OF BECIL

4.2.1 E-TENDER PORTAL FEE

The bidder has to pay a non-refundable **e-tender portal fee amounting to ₹3540/-** (Non-refundable) by way of on-line payment on e-tender portal before submission of the proposal. SUBMISSION OF THE PROPOSAL

The bidders are advised to study the EOI document carefully. Submission of proposals shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications. Bidders shall have to submit their proposal (Technical) online through the e-tendering website **https://becil.ewizard.in**

4.2.2 E-TENDERING PROCEDURE

(i) E-Procurement is the complete process of e-tendering from publishing of tenders online, inviting online bids, evaluation and award of contract using the system. You may keep a watch of the tenders floated under **https://becil.ewizard.in**. These will be invited for online Bids. Bidder Enrolment can be done using "Bidder Enrolment".

(ii) The instructions given below are meant to assist the bidders in registering on the e- tender Portal, and submitting their bid online on **https://becil.ewizard.in** the e-tendering portal as per uploaded bid.

(iii) More information useful for submitting online bids on may be obtained at: **https://becil.ewizard.in**

4.2.3 GUIDELINES FOR REGISTRATION ON PORTAL

(i) Bidders are required to enroll on the e-Procurement Portal by clicking on the link "Online Bidder Enrolment" on the e-tender Portal by paying the **Registration fee of Rs. 2360/- (inclusive of taxes).**

(ii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

(iii) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidders.

(iv) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile. Or bidders can contact our help desk for getting the DSC.

(v) Only valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.

(vi) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC /e-Token.

(vii) The scanned copies of all original documents should be uploaded in pdf format on portal **https://becil.ewizard.in**

(viii) After completion of registration payment, bidders need to send their acknowledgement copy on our **help desk mail ID: helpdesk@ewizard.com** for activation of your account.

Helpdesk Number : Tel 011-49606060 , 9355030616, 9560364871

4.2.4 SEARCHING FOR TENDER DOCUMENTS ON PORTAL

(i) There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters.

(ii) Once the bidders have selected the tenders they are interested in, you can pay the form fee and processing fee (NOT REFUNDABLE) by net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fee tenders will be moved to the respective 'requested' Tab. This would enable the e- tender Portal to intimate the bidders through e-mail in case there is any corrigendum issued to the tender document.

4.2.5 PREPARATION OF BIDS ON PORTAL

(i) Bidders should take into account any corrigendum published on the tender document before submitting their bids.

(ii) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.

(iii) Bidders, in advance, should get ready the bid documents to be submitted as indicated in the tender document /schedule and generally, they can be in PDF formats. Bid Original documents may be scanned with 100 dpi with Color option which helps in reducing size of the scanned document.

(iv) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GST, Annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Documents" available to them to upload such documents.

(v) These documents may be directly submitted from the "My Documents" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

4.2.6 SUBMISSION OF BIDS ON PORTAL

(i) Bidder should log into the website well in advance for the submission of the bid so that it gets uploaded well in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

(ii) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document as a token of acceptance of the terms and conditions laid down by BECIL.

(iii) Bidder has to select the payment option as "e-payment" to pay the tender fee / EMD as applicable and enter details of the instrument.

(iv) (Post EOI Process) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

(v) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

(vi) The uploaded tender documents become readable only after the tender opening by the authorized bid openers. Upon the successful and timely submission of bid click "Complete" (i.e. after Clicking "Submit" in the portal), the portal will give a successful Tender submission acknowledgement & a bid summary will be displayed with the unique id and date & time of submission of the bid with all other relevant details. The tender summary has to be printed and kept as an acknowledgement of the submission of the tender. This acknowledgement may be used as an entry pass for any bid opening meetings.

4.2.7 CLARIFICATION

For any clarification related to using the portal, you may visit the below link:

https://becil.ewizard.in

(i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

(ii) Any queries relating to the process of online bid submission or queries relating to e- tender Portal in general may be directed to the Helpdesk Support.

(iii) Please feel free to contact ewizard helpdesk (as given below) for any query related to

E-tendering Phone No. 011-49606060

Mail id: - helpdesk@ewizard.com

SECTION –III

EOI NOTICE & GENERAL TERMS AND CONDITION

5 EOI NOTICE

5.1 Broadcast Engineering Consultants India Limited (BECIL) invites Expression of Interest (EOI), through online mode, for selection of a Back end Technology partner/consortium of BECIL, for collaborating with BECIL for participating in Tender No. 13/PR/BSPHCL/2026 dated 01/04/2026 Titled **Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application.**

5.2 The EOI must be submitted in English Only. All the documents including the supporting documents/ enclosures etc. must be Calibri/ Aerial/ Times New Roman, font size-12 and fully legible. Supporting documents if in a language other than English must be accompanied by an English translated document. The English version shall prevail in matters of interpretation. EOI Documents which are not legible shall be rejected.

5.3 The representative of agency will require a specific authorization/ board resolution to submit the EOI.

5.4 In case the bidder has any doubt about the meaning of anything contained in the EOI document/pre-bid queries, they shall seek clarification within 2 days of issue of EOI. Except for any written clarification by Shri Binay Tiwari, DGM, BECIL, no written or oral communication, presentation or explanation by any other employee of BECIL shall be taken to bind or fetter BECIL under the contract. In case of such clarification or otherwise, the extension in the bid submission date of the EOI shall be entirely on the discretion of BECIL taking into the consideration of end client's tender submission due date.

5.5 The Management of BECIL reserves the right to amend or withdraw any of the terms and conditions mentioned in the EOI Document or reject any or all the bids without giving any notice or assigning any reason. The decision of the CMD, BECIL in this regard shall be final and binding on all.

5.6 BECIL reserve the right to amend any term of the EOI at any point of time before the submission and bidder should regularly check the website. Further, BECIL also reserves to increase/ decrease/ delete/ add any BOQ item. Further any amendment done by client after the selection of bidder, all the amendment will be applicable. In case of non-acceptance of such amendment, the EMD submitted will be forfeited by BECIL and blacklisting of agency may be done for a minimum period of 3 years from participating in BECIL EOI/tenders

5.7 The bidder should submit the signed Integrity Pact on a plain paper along with the bid.

5.8 The Bidders will have no right to withdraw from the EOI process post submission of their bid without the formal consent of BECIL.

5.9 Participation in the EOI by any bidder will be on "NO COST NO COMMITMENT" basis. The Bidder shall bear all cost associated with the preparation and submission of the Bid including but not limited to Documentation Charges, Bank charges, all courier charges, translation charges, authentication charges and any associated charges including taxes & duties thereon. Further, BECIL will in no case be responsible or liable for these costs, regardless of the outcome of the bidding process.

5.10 For Consortium : Not allowed

6 SUBMISSION OF EOI

6.1 EOI, complete in all respects, must be submitted online on the https://becil.ewizard.in.

6.2 BECIL may, at its own discretion, extend the date for submission of EOI. In such a case all rights and obligations of BECIL and the bidders shall be applicable to the extended time frame.

6.3 As the EOI can be submitted only up to the defined date and time, there can't be any late bids.

6.4 At any time prior to the last date for receipt of EOI, BECIL may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the EOI document by an amendment. The amendment will be notified on BECIL's website **http://www.becil.com & https://becil.ewizard.in** and should be taken into consideration by the prospective bidders while preparing their EOI.

6.5 The bidders will bear all costs associated with the preparation and submission of their bids. BECIL will, in no case, be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

6.6 The bidder shall ensure that it fulfills the eligibility criteria as desired in the EOI and other essential conditions. Compliance statement of Eligibility criteria with the documents submitted as a proof is to be prepared and submitted. The supporting documents may be with list of existing and past clients with details of services offered, details of similar projects executed.

6.7 The EOI should be duly signed on each page by authorized person. Documents authorizing the signatory /Power of Attorney must accompany the bid.

6.8 The EOI complete in all respects must be submitted with requisite information and annexure(s). The EOI should be free from ambiguity, change or interlineations. In complete EOI will not be considered and is liable to be rejected without making any further reference to agency/ bidder

6.9 Bidders have to take into account any changes/ amendments made in the end client's tender/ RFP through corrigendum till date of submission of bid in response of EOI.

6.10	**Checklist of documents/information to be submitted**	
	(a)	Bidder Particulars as per format.
	(b)	Certificate of Incorporation (for Company/LLP/Proprietorship)
	(c)	Memorandum & Articles of Association/Partnership deed/Proprietorship declaration
	(d)	Audited financial statements for the last 3 years i.e. FY 2022-23; 23-24; 24-25.
	(e)	ITR Acknowledgment for last 3 years i.e. FY 2022-23; 23-24; 24-25
	(f)	Undertaking to provide the PBG in accordance with the timeline and the terms and conditions outlined in the client's tender
	(g)	GST Registration Certificate
	(h)	Copy of PAN Card
	(i)	Any other relevant registration documents on registration with other appropriate authorities (ESIC, EPFO, Labour deptt etc.)
	(j)	Power of Attorney authorizing the person signing the bid for this EOI.
	(k)	Undertaking in letter head to indemnify BECIL from any claims / penalties / statutory charges, liquidated damages, with legal expenses etc.

	(l)	Undertaking in compliance to Office Memorandum No. F. No. 6/18/2019-PPD, Dated 23-07-2020, Department of Expenditure, Ministry of Finance as per Clause 10 below.
	(m)	All the requisite documents in the prescribed formats placed at Annexures to this EoI
	(n)	Pre-Contract Integrity Pact as per Annexure-A
	(o)	All the documents in support of Technical criteria like Experience Certificates, PO, proposed Makes for the solution, Solution architecture (if asked) and other documents as required.
	(p)	Declaration regarding acceptance of Terms and conditions of EOI.
	(q)	Undertaking for compliance with signing of Non-disclosure agreement as per clause 39 below.
	(r)	~~Undertaking for payment of EMD/ Bid Security if selected **or** claiming EMD exemption under startup and MSME enclosing the relevant documents **such as registration certificate with MSME.**~~
	(s)	Undertaking regarding absence of Conflict of Interest as per clause 14 below
	(t)	~~Consortium agreement in case where bidder is consortium~~

7 OPENING OF EOI

7.1 The bids submitted against this EOI shall be opened on **29.08.2026 @01.30 PM**. BECIL reserves the right to change the date of opening of bid.

7.2 Bidders who wish to attend opening of EOI may visit BECIL for the same at the designated time, with authorization in proper format on bidder's letter head.

8. RELATIONSHIP BETWEEN THE PARTIES

Nothing contained herein, shall be construed as establishing a relation of master and servant or of Agent and Principal as between the Bidder/Agency and BECIL.

9. INTELLECTUAL PROPERTY RIGHTS:

9.1 Deliverable, outputs, plans, drawings, specifications, designs, reports and other documents and software submitted by the Bidders under this EOI and subsequent to this EOI in relation with this tender shall become and remain the property of BECIL/procuring entity and subject to laws of copyright, must not be shared with third parties or reproduced, whether in whole or part, without BECIL's/ the procuring entity's prior written consent.

9.2 The Bidder shall, not later than upon termination or expiration of this Contract and/or subsequent Agreement/Contract signed with the Bidder, deliver all such documents and software to BECIL/the procuring entity, together with a detailed inventory thereof.

9.3 The Bidder shall not incorporate any materials, technology or any item or thing that involves the use of intellectual property rights or proprietary rights that the Bidder does not have the right to use or that may result in claims or suits against BECIL arising out of claims of infringement of any intellectual property rights or other proprietary rights.

9.4 The Bidder shall perform all acts necessary to obtain and continue to have all necessary licenses, approvals, consents of third parties free from any encumbrances and all necessary technology, hardware and software to enable it to perform its obligations under this Contract. If license agreements are necessary or appropriate between the Bidder and third parties for purposes of enabling, enforcing or implementing the provisions hereinabove, the Bidder shall be under an obligation to enter into such agreements at its own sole cost, expense and risk.

10 LAND AND BORDER PROVISION

10.1 The Undertaking at Annexure-K shall be submitted by the Bidder in line with the guidelines issued vide the Office Memorandum, No. F. No. 6/18/2019 dated 23.07.2020, by the Department of Expenditure, Ministry of Finance, Govt. of India.

11 INDEMNITY

11.1 The Bidder shall indemnify, save, hold harmless and defend BECIL and its officers, servants, employees and agents promptly upon demand and at its expense, from and against any and all suits, proceedings, actions, demands, losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which

BECIL may become subject, insofar as such losses arise out of, in any way relate to, arise or result from:

a) Deficiency in the Bidder’s performance of its scope of service of breach of any of its obligations or scope of work.
b) Actions by the Bidder that causes BECIL to be indirect or direct consequential, breach of the main contract.
c) Any claims by employees, suppliers, creditors or other persons in a relationship with the Bidder.
d) Any claims of infringement, misappropriation or otherwise by third parties in regard to the execution of the works.

12 CODE OF INTEGRITY

12.1 No official of BECIL or the Bidder shall act in contravention of the codes which includes Prohibition of:

a) Offering of any bribe or undue gratification in any form to BECIL/Client or its officials, or indulging in any corrupt practices.

b) Any omission, or misrepresentation that may mislead or attempt to mislead so that a financial or other benefit may be obtained, or any necessary obligation or pre-requisite may be avoided.

c) Improper use of information provided by BECIL to the Bidder with an intent to gain an unfair advantage in the procurement process or for personal gain.

d) Any financial or business transactions between the Bidder and any official of BECIL/Client related to tender or execution process of contract, which can affect the decision of BECIL directly or indirectly.

e) Any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.

f) Obstruction of any investigation or auditing of a procurement process.

g) Making false declaration or providing false information for participation in a tender Process or to secure a contract.

13 CONFLICT OF INTEREST

Any Bidder having a conflict of interest, which substantially affects fair competition, shall not be eligible to bid in this tender. Bids found to have a conflict of interest shall be rejected as non-responsive. Bidder shall be required to declare the absence of such conflict of interest in Form of Declaration. A bidder in this Tender Process shall be considered to have a conflict of interest if the bidder:

a) Directly or indirectly controls, is controlled by or is under common control with another Bidder; or

b) Receives or have received any direct or indirect subsidy/ financial stake from another Bidder; or

c) Has the same legal representative/ agent as another Bidder for purposes of this bid. A Principal can authorize only one agent, and an agent also should not represent or quote on behalf of more than one Principal. However, this shall not debar more than one Authorized distributor from quoting equipment manufactured by an Original Equipment Manufacturer (OEM), in procurements under Proprietary Article Certificate; or

d) Has a relationship with another bidder, directly or through common third parties, that puts it in a position to have access to information about or influence the bid of another Bidder or influence the decisions of the Procuring Entity regarding this Tender process; or

e) Participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as sub-contractor in another bid or vice- versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of a non-bidder firm as a sub- contractor in more than one bid; or

f) Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services that it provided (or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm), for the procurement planning (inter-alia preparation of feasibility/ cost estimates/ Details Project Report (DPR), design/ technical specifications, terms of reference (ToR)/ Activity Schedule/ schedule of requirements or the Tender Document etc.)of this Tender process; or has a close business or family relationship with a staff of the Procuring Organization who:
   (i) are directly or indirectly involved in the preparation of the Tender document or specifications of the Tender Process, and/or the evaluation of bids; or
   (ii) would be involved in the implementation or supervision of resulting Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the Tender process and execution of the Contract.

14 UNDUE INFLUENCE

a. The Agency/Bidder undertakes that it has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the BECIL/Client or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favor or disfavor to any person in relation to the present Contract or any other Contract with the Government of India.

b. Any breach of the aforesaid undertaking by the Agency/Bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the Agency) or the commission of any offers by the Agency or anyone employed by him or acting on his behalf, as defined in the Bharatiya Nyaya Sanhita, erstwhile known as the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle BECIL to cancel the contract and all or any other contracts with the Agency and recover from the Agency the amount of any loss arising from such cancellation, from the present or from any other contract with BECIL.

15 UNLAWFUL/UNETHICAL PRACTICES

15.1 If the Contractor/ Bidder has engaged in corrupt, fraudulent, collusive and coercive practices or defaulted commitments under integrity.

15.2 Any intentional omission or misrepresentation in the documents submitted by the Bidder for the purpose of due diligence or for the execution of any act essential for the execution of the Project.

15.3 If the Bidder uses intimidation / threats or bring undue outside pressure on BECIL or any of its official for acceptance / performances of the deliverable/qualified work under the contract:

16 PENALTY FOR BREACH OF INTEGRITY, CONFLICT OF INTEREST, UNLAWFUL/UNETHICAL PRACTICES AND UNDUE INFLUENCE

16.1 Forfeiture of Bank guarantee or any other bond or bid security submitted by the Bidder.

16.2 Cancellation/ termination of the Contract with the liberty to recover the accrued losses/damages by the Bidder from the dues payable to the bidder in the present or any contract with BECIL, including imposition of penal damages.

16.3 Initiation of Arbitration /legal proceedings to recover losses or damages incurred by BECIL due to the violation of ethical practice or use of unlawful practices or use of undue influence by the Agency.

17 BLACKLISTING/ DEBARMENT

17.1 The Bidder/Contractor shall be debarred/blacklisted from bidding for the contract/tender floated by BECIL for a period of two years, for violation of the code of integrity, for undue influence as well as for the breach of any other terms and conditions of the tender as per the General Financial Rules 2017 and the Guidelines for debarment of firms from bidding issued by the Department of Expenditure, Ministry of Finance no. F1/20/2018 –PPD dated 02.11.2021.

18 RISK AND COST CLAUSE

18.1 In case of persistent breach/default of the terms and conditions of the Contract and due to abnormal delay (beyond the maximum late delivery in the Liquidated damages clause) in supplies, defective supplies or non-fulfilment of any of the terms and conditions of the RFP and the Work Order, BECIL may cancel the contract/Work Order in full or part thereof, and will procure supplies/equipment’s or ensure the execution of work or any pending service in case of service contract from other willing vendor at the risk and cost of the Bidder.

18.2 Risk & Cost Clause, in line with Conditions of Contract may be invoked in any of the following cases:

18.3 Bidder's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to Bidder including unexecuted portion of work/ supply does not appear to be executable within balance available period.

18.4 Withdrawal from or abandonment of the work by Bidder before completion of the work as per contract.

18.5 Non completion of work/ Non-supply by the Bidder within scheduled completion/delivery period as per RFP or as extended from time to time, for the reason attributable to the Agency/ Bidder.

18.6 Termination of Contract on account of any other reason (s) attributable to Agency/ Bidder

18.7 Assignment, transfer, subletting of Contract by the Agency/Bidder without BECIL's written permission resulting in termination of Contract or part thereof by BECIL.

18.8 Any damage to Client property not restored properly should be recovered from the running bills of the contractor and hence utmost precaution should be taken during the execution of the work. Client should have full liberty to get the damage rectified at the contractor's risk and cost.

18.9 **The bidder shall ensure that all terms, conditions, obligations, risks, and liabilities under the Client's RFP/Contract are accepted on a back-to-back basis. Any additional cost, payment liability, tax, duty, or financial impact arising due to the implementation of any new law, amendment to existing law, government notification, or statutory requirement during the contract period shall be borne by the bidder. BECIL shall not be responsible for such additional costs or liabilities.**

14 PENALTIES

14.1 In the event of any penalties, deductions, disincentives, or charges levied by the Client due to poor or substandard quality of work, non-compliance with service standards, or any deficiencies related to the assigned scope of work, the same shall be recovered from the Bidder.

14.2 The Bidder shall bear the full financial responsibility for such penalties or deductions imposed on BECIL by the Client and will not be entitled to claim any reimbursement or adjustment for the same.

15 CONFIDENTIALITY

a. The Bidder recognizes, accepts and agrees that disclosure of Confidential information to the Staff shall be only on a need-to-know basis and only those staff who are involved in rendering the services and need to have access would alone be informed of Confidential information.

b. The Bidder recognizes, accepts and agrees that all tangible and intangible information obtained or disclosed to the Bidder’s and/or its staff, including all details, documents, data, business/ customer information and the BECIL 's practices and trade secrets (all of which are hereinafter collectively referred to as "confidential information") which may be communicated to the Bidder ’s and/or its facility staff may be privy under or pursuant to this Contract and/or in the course of performance of the Bidder ’s obligations under this Contract shall be treated, as absolutely confidential and the Bidder irrevocably agrees and undertakes and ensures that all its facility staff shall keep the same as secret and confidential and shall not disclose the same at all in whole or part to any Person or persons (including legal entities) an any time or use nor shall allow information to be used for any purpose other than that as may be necessary for the due performance of the Bidder’s obligations hereunder except when required to disclose under the due process and authority of law.

16 RIGHT TO INSPECTION

a. That BECIL and its field officers or its Auditors, shall have the right to carry out inspection checks and tests, and do audit of the Bidder’s premises, personnel and records relating to the project in order to ensure there is no compromise on the quality of goods/services provided by the Bidder to the BECIL and its Client. The BECIL has a right to review and monitor the security practices and control procedures adopted by the Bidder. The Bidder shall produce and make available all such books, records, information, etc., related to project work for the purpose of Inspection/ audit as sand when required.

b. That BECIL shall have the right to review and monitor the performance of the Bidders on a continuous basis system integrator shall furnish necessary particulars, statements, etc., as desired by the BECIL in a periodical manner for the purpose of assessment of their performance.

17 TERMINATIONS

a. Termination of Contract by BECIL due to unsatisfactory performance

a) If the Bidder refuses or fails to execute the specified quantum of work or any separate part thereof with diligence or ensure its completion within the time specified in the RFP, or subsequent work order issued thereto, then it shall be open to BECIL at its option by written notice to the Agency/Bidder to:

b) To terminate the contract without prejudice to any other remedy available under the Contract. That a notice of cure, highlighting the deficiency or problem shall be served on the Agency /Bidder by BECIL, with an opportunity to cure the same within a period of 15 days. That on the non-resolution of deficiency, a notice of termination shall be served on the Agency/Bidder and the Contract shall be deemed terminated after a period of 15 days from the date of notice of termination.

b. Termination due to Breach

a) BECIL may, without prejudice to any other remedy available for the breach of contract, may terminate the contract in sub-sequence to non –resolution of deficiency after the service of a notice of cure with a window period of fifteen days. After the end of the cure period, a 15 (fifteen) days' notice shall be served on the Agency/ Bidder, and the contracts shall be deemed terminated after the end of the period of fifteen days from the date of notice of termination.

b) The following sub-clauses shall attract the provision of termination, on the occurrence of the following events -:

(i) If the Bidder has abandoned or repudiated the Contract;
(ii) If the Bidder has without valid reason failed to commence work on the project promptly;
(iii) If the Bidder has persistently failed to execute the works/express deliverable in accordance with the Contract or persistently neglects to carry out its obligations under the Contract without just cause;
(iv) If the Bidder defaults in proceeding with the works/job with due diligence and continues to do so after a notice in writing of fifteen (15) days from BECIL;
(v) If the Bidder has obtained the contract as a result of undue of influence or adopted unethical means/ corrupt practices.
(vi) if the information submitted/furnished by the Bidder is found to be incorrect;

c. Termination due to Insolvency

a) If the Agency/Bidder dissolves or become bankrupt or insolvent or cause or suffer any receiver to be appointed for its business of any assets thereof compound with his Creditors, or being a corporation commence to be wound up, not being a member's voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a Receiver for the benefits of its Creditors any of them, then BECIL shall be at liberty :-

b) To terminate the contract forthwith upon coming to know of the happening of any such event as aforesaid by a fifteen day notice in writing to the Agency/Bidder or to give the Receiver or liquidator or other person, the option of carrying out the contract subject to its providing a guarantee upto an amount to be agreed upon by BECIL for due and faithful performance of the contract.

d. Termination for Convenience

BECIL can terminate the Agreement by serving a 30 day notice without assigning any cause or reason to the Bidder/ selected agency. The contract shall be deemed terminated after a period of 30 days from the date of termination notice.

18 POST TERMINATION RESPONSIBILITY

18.1 In all cases of termination herein set forth, the obligations of BECIL to pay shall be limited to the period upto the date of termination, subject to the receipt of such payment from the Client.

18.2 That any pending bills raised by the Bidder, prior to or post the termination of the Contract on account of the breach of the terms and conditions of the contract, shall be put on hold, till the time, the corresponding payment is received from the Client and any amount deducted by the Client against the bills raised by BECIL shall be consequently deducted from the bills raised by the Bidder respectively.

18.3 The Bidder shall forthwith stop any of its work then in progress, except such work as BECIL may, in writing, require to be executed at the designated site/premises.

18.4 That in the event of termination under clause 17.1 and 17.2 the whole or part of the performance security furnished by the Agency/Bidder is liable to be forfeited without prejudice to the right of BECIL to recover from the Agency/Bidder any accruing or incurred losses or damages, on account of termination of contract due to unsatisfactory performance/ delay in execution of work.

19 NOTICES

19.1 Any notice, invoice, approval, advice, report or notification in connection with this Contract shall be in writing and any notice or other written communication pursuant hereto shall be signed by the party issuing the same and shall be addressed to the BECIL or the Bidder and may be given by delivering the same by hand or sending the same-by prepaid registered mail, official e-mail or facsimile to the relevant address forth below or such other address as each Party may notify in writing to the ether Party from time to time. Any such notice given as aforesaid shall be deemed to be served or received at the time upon delivery (if delivered by hand) or upon actual receipt (if given official e-mail or facsimile) or Fifteen (15) clear days after posting (if sent by post) at the Party's principal or registered office address as set out below:

Mr. Binay Kumar Tiwari, DGM, BECIL
Broadcast Engineering Consultants India Ltd,
C-56/ A-17, Sector-62, Noida-201307, U.P., India.
Email: binaytiwari@becil.com

20 NO WAIVER

20.1 No waiver of any term, provision, or condition of this Contract, whether by conduct or otherwise, in any one or more instances, will be deemed to be or be construed as a further or continuing waiver of any such term, provision, or condition or as a waiver of any other term, provision, or condition of this Contract, unless the same is agreed upon and recorded in writing with mutual consensus of both the parties.

21 AMENDMENT:

21.1 Unless otherwise stated expressly, this Contract shall be modified only by an instrument in writing duly executed by both the parties.

22 ARBITRATION

22.1 Conciliation of Dispute

a. Any dispute(s) /difference(s)/issue(s) of any kind whatsoever between/amongst the Parties arising under/out of/in connection with this contract shall be settled mutually and amicably between the Parties, within a time span of **thirty days** from the date of invocation of dispute vide a written notice by the Aggrieved party. The Aggrieved Party shall notify the other party in writing about such dispute(s)/difference(s)/issue(s) between/amongst the Parties and that such a Party wishes to refer the dispute(s)/ difference(s)/issue(s) to Conciliation. Such Notice/Invitation for Conciliation shall contain sufficient information as to the dispute(s)/

difference(s)/issue(s) to enable the other Party to be fully informed as to the nature of the dispute(s)/ difference(s)/issue(s), as well as the amount of monetary claim.

b. That in the event of reference of dispute for Conciliation, a committee comprising of two members, nominated by each party i.e. the Bidder and BECIL respectively shall try to amicably resolve/settle the dispute.

22.2 Reference of Dispute to Arbitration proceeding post conciliation

a) In the event of failure in mutual resolution of the issue, any dispute(s)/ controversy(s)/ issue(s) arising out of or in connection with the contract, including any question regarding its existence or validity shall be referred to and finally resolved by Arbitration administered by the Delhi International Arbitration Centre as per the Delhi International Arbitration Centre proceeding Rules 2023.

b) The Aggrieved party wishing to refer a dispute to Arbitration shall give a notice to the Defaulting Party specifying all the points of dispute(s) with details of corresponding the claim amount.

c) The Arbitration Proceeding shall commence within a span of **thirty days** from the date of receipt of Invocation Notice complete in all respects as mentioned above,

d) The dispute(s)/ difference(s)/controversy(s) shall be adjudicated by a single/sole Arbitrator empaneled with the Delhi International Arbitration Centre.

e) The seat of Arbitrations shall be at New Delhi and the Arbitration proceeding shall be conducted in English.

f) The award of Sole Arbitrator shall be final and binding on the parties and unless directed/awarded otherwise by the Sole Arbitrator, the cost of arbitration proceedings shall be shared equally by both the parties.

g) The provision of the Arbitration and Conciliation Act, 1996 as amended and applicable from time to time shall apply to the Arbitration proceedings under this Contract.

h) That any claim of damage(s) or losse(s) incurred by BECIL as a consequence of the invocation of the litigation/arbitration proceeding owing to the suspension or abandonment of work by the Bidder/Agency shall be reimbursed by the Bidder/Agency.

i) That if BECIL considers that a dispute under this contract, involves an issue that is related to a dispute under the main contract, then in that event, the Bidder shall assist the main contract, then in that event, the Bidder during the course of arbitration/legal proceedings emanating from the main contract. Then in that event of initiation of arbitration/legal proceeding , under the main contract , no dispute tied directly to the main contract shall be concurrently referred by the Bidder

23 JURISDICTION

23.1 This Agreement, and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation, shall be governed by, and construed in accordance with, the laws of India. The Courts at Delhi shall have the exclusive jurisdiction to entertain any matter arising out of or in relation to this Contract.

24 Force Majeure

24.1 For the purpose of this Contract, the term “Force Majeure” shall mean 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 impractical as reasonable to be considered impossible in the circumstance, inclusive of but not limited to war, riots, civil disorder, earthquake, fire, 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 nay other action by the Government Agencies.

24.2 Force Majeure shall not include (i) any event which is the caused by the negligence or intentional action of a Party or by 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 acceptance of the work order under this RFP, and avoid or overcome with persistent effort in carrying out its respective obligations.

24.3 In the case of failure to perform this Agreement due to any force majeure, neither party shall be liable for such failure, and this Agreement shall be terminated automatically, if the persistence of such force majeure event continues for more than three months. In the case of failure to perform any part of this Agreement due to any force majeure, the party suffering from such force majeure may be exempted from corresponding liability to the extent of the impact of such force majeure. However, such party shall continue to perform other obligations under this Agreement which have not been affected by such force majeure.

25 SUBCONTRACTING

25.1 The Bidder shall not subcontract the entire or any portion of the work to be performed by it, without the prior written consent of BECIL.

26 EXTENSION OF TIME

26.1 It is hereby agreed that BECIL shall by mutual agreement update and extend the timeline/ milestone for the completion of work after discussion with the Client and its officials.

26.2 Any period within which Bidder is unable to complete the work or perform its obligations due to persistence of force majeure event, shall be extended for a period equal to the time during which the Bidder was unable to perform such action.

26.3 Any extension of time agreed upon mutually shall be documented in writing and signed by both the parties to be affected.

27 ASSIGNMENT:

27.1 All terms and provisions of this RFP and subsequent Contract/ Agreement / work order with the successful Bidder shall be binding on both the parties and their respective successors and permitted assigns.

27.2 Subject to clause mentioned above, the selected Agency shall not be permitted to assign its rights and obligations, under the Contract/ Agreement / work order, to any third party.

27.3 BECIL may assign or novate all or any part of the Contract/ Agreement / work order and the Agency shall be a party to such novation, to any third party contracted to provide outsourced services to BECIL or any of its nominees.

28 COMPLIANCE WITH APPLICABLE LAW:

Each Party to the Contract/ Agreement / work order accepts that its individual conduct shall (to the extent applicable to it) always comply with all laws, rules and regulations of government and other bodies having jurisdiction over the area in which the Services are undertaken. In case of changes in such laws, rules and regulations which result in a change to the Services, shall be dealt with as an exceptional situation with the objective to realign the part getting violated under the revised laws with minimal changes to achieve the objective existent prior to the change. For avoidance of doubt, the obligations of the Parties to the Contract are subject to their respective compliance with all local, state, national, supra- national, foreign and international laws and regulations.

29 SEVERABILITY:

29.1 If any provision of the Contract/ Agreement / work order, or any part thereof, shall be found by any court or administrative body of competent jurisdiction to be illegal, invalid or unenforceable; the illegality, invalidity or un-enforceability of such provision or part provision shall not affect the other provisions of the Contract/ Agreement / work order or the remainder of the provisions in question which shall remain in full force and effect. The concerned Parties shall negotiate in good faith to agree to substitute for any illegal, invalid or unenforceable provision with a valid and enforceable provision which achieves to the greatest extent possible the economic, social, legal and commercial objectives of the illegal, invalid or unenforceable provision or part provision.

30 ENTIRE CONTRACT:

30.1 The Contract/ Agreement / work order with all Appendices and Schedules appended thereto, contents and scope/ specifications of the RFP, all the corrigendum's, response to queries etc. that may be issued against this RFP and the Bidder's offer including presentation and all supporting documents shall constitute the entire Contract/ Agreement / work order between the Parties with respect to their subject matter, and as to all other representations, understandings or agreements which are not fully expressed herein, provided that nothing in this clause shall be interpreted so as to exclude any liability in respect of fraudulent misrepresentation.

31 LIQUIDATED DAMAGES

31.1 If the Bidder fails to achieve the completion of the work in accordance with the scheduled completion date as given in the Contract or the subsequent Work Order issued thereto, BECIL may without prejudice to any other right or remedy available to it as under the Contract or Law:

31.2 In case of any liquidated damages imposed on BECIL by the Client, BECIL shall pass on the entire quantum of liquidated damages to the bidder/ selected agency on back-to-back basis.

31.3 The amount towards Liquidated Damages shall become leviable from the scheduled completion date or from the expiry of the extension, if any, given by BECIL without the levy of Liquidated damages.

31.4 BECIL may without prejudice to its right to effect recovery by any other method, deduct the amount of Liquidated Damages from any money belonging to the Bidder which has become due or payable (which shall also include BECIL 's right to claim such amount against Bidder's Bank Guarantee) from this Contract or any other contract with BECIL.

31.5 Any such recovery of Liquidated Damages shall not in any way relieve the Bidder from any of its obligations to complete the works or from any other of its other obligation and liabilities under the Contract.

32 PENALTY

As per client RFP, Bidder in this EOI will be liable for back to back penalties and other terms and conditions, if levied by the client on BECIL.

33 INSURANCE

The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in the manner specified in the clients RFP/this EOI.

34 POWER OF ATTORNEY

Duly filled Technical Bid with proper seal and signature of authorized person on each page of the bid submitted. The person signing the bid should be the duly authorized representative of the firm/ company whose signature should be verified and certificate of authority should be submitted. The power of attorney or authorization or any other document consisting of adequate proof of the ability of the signatory to bind the firm/ company should be annexed to the bid.

38. SIGNING OF NON-DISCLOSURE AGREEMENT

Except with the written consent of the Buyer, the bidder shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party.

Bidders interested to participate in this RFP, shall have to sign a NON-DISCLOSURE AGREEMENT with BECIL on a non-judicial stamp-paper of Rs. 100. Participation without undertaking for compliance to above shall be invalid and such bids shall not be considered by BECIL.

39. MSME

39.1. The Bidder acknowledges and confirms that BECIL shall be liable to make payments only upon receipt of corresponding payments from the Principal Employer/client. Accordingly, the Bidder shall not raise any claims, demands, interest, compensation, or initiate any legal proceedings against BECIL for any delay in payment arising out of delayed release of funds by the Principal Employer/client.

39.2. Since the payment is agreed to be on back-to-back basis upon receipt by BECIL from the Client, the Bidder agrees to waive any rights under the Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act) or any similar legislation or regulation, to the extent such rights conflict with the agreed payment terms under the Bidder

Agreement. The Bidder further waives its right to claim Interest on delayed payment by BECIL, under the Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act) or any similar legislation or regulation for the time being in force in India.

39.3. The bidder to give the undertaking as per Annexure – M, on a non-judicial stamp-paper of Rs. 100.

SECTION –IV

SCOPE OF WORKS

SCOPE OF WORKS

41. SCOPE OF WORK/SCHEDULE OF REQUIREMENTS

41.1 For detailed scope of work of the project & the Bill of Material, the bidders may refer the Client's Tender document, and its amendments & corrigenda issued subsequently (if any); **Tender details references are as below and the same is also attached along with this EOI.** (*Bidders are instructed to check for any new corrigendum/amendments etc. before bidding*)

Client's Tender Reference No:. 13/PR/BSPHCL/2026 dated 01/04/2026 Titled '**Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application**'

Website: https://eproc2.bihar

41.2 All the Scope of work and relevant General Condition as well as special condition of the client tender shall be applicable to the selected bidder on back to back basis and the same shall be part of the agreement signed between BECIL and selected bidder.

41.3 The bidder must ensure full compliance with all Government of India (GOI) regulations, (including "Safety, Health and Environment At Work Place", e-Waste and NGT guidelines). Any violation resulting in non-compliance of any Policy/Law/Rules may lead to financial liability, fines, or cost recovery.

SECTION –V

ELIGIBILITY CRITERIA AND EVALUATION

42. ELIGIBILITY CRITERIA AND EVALUATION

S.No.	Eligibility Criteria	Documents to be submitted
1	The Sole Bidder should be a company registered under the provisions of the Indian Companies Act, 1956 / 2013 or a partnership firm under the Indian Partnership Act, 1932 or the Limited Liability Partnerships Act, 2008. 1.2 The **Bidder** should be in existence of at least 5 completed years.	a. RoC certificate in case of Company. b. Partnership Deed in case of Partnership Firm. c. Self-Declaration on Letter head with PAN & GST numbers in case of Proprietary Firm. d. Memorandum and Article of Association e. Other relevant documents in case of company, proprietors and Partnership firm indicating details of Director/ proprietors/ Partner f. The bidder shall have the registration with EPFO and ESIC. g. Other registration certificate, if any required.
2	The **bidder** should not be insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended and not be the subject of legal proceedings for any of the foregoing.	Certificate by the Bank. **Note: certificate must be issued after the publishing of this EOI.**
3	The **Bidder** should not be blacklisted/ debarred/ banned/ restricted by any Union Govt./State Govt./ PSU/Autonomous bodies as on date of submission of the Bid.	"Self-declaration for blacklisting as per the given annexure" duly signed by authorized signatory signing the bid, Should be submitted.
4	The Bidder should have a minimum average annual turnover of at least Rs. 170 Crores (Rs One hundred and Seventy Crores) per annum from its Indian Operations during the last three (03) Financial Years ending on 31st March 2025, to show it has adequate financial capabilities to carry out the task as per the scope of work.	a. Certificate by the CA as per Annexure - D. b. Audited financial statements of last three financial years along with Balance Sheet, Profit & Loss A/c, and its annexures as a complete set. c. ITR Acknowledgment last three financial years. d. Net worth must be positive for each of the three years. **Note: CA certificate must be issued after the publishing of this EOI.**
5	The bidder should have positive net worth as per the audited financial results for the three Financial Years ending 31 March 2025 (FY 2022-23, 2023-24 & 2024-25).	
6	**Bidder** must have the solvency /credit facility / financial capability from the bank for minimum value of **25% of project value (i.e. INR 10 crore against estimated project value of 30 Crore).**	Certificate/ Sanction letter from the Bank. Certificate must be issued after the publishing of this EOI.

7	The bidder should have 500+ Full time Resources on its payroll as on date of bidding.	Undertaking regarding Full time Resources on its Payroll, firm can use its own format for this.
8	The bidder must be ISO 9001:2015, CMMI level 5 or above and ISO 27001. The certification should be valid on the date of bid submission.	Attested copies of certificate
9	Should have Experience in supply of Hardware/cloud services, Software, licenses along with installation, configuration, customization, implementation, roll Out as well as providing FMS services / System Operation services during the last Five (05) financial years in Central/State PSU or Govt. Organization in India. (One project value @ Rs. 25 Crore OR Two Projects value Rs. 15 Crore OR Three Project value@ Rs. 10 Crore)	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.
10	Should have Experience in Creation of central database/ Data warehouse/ Data lake/Data Lakehouse having minimum 50 Lakhs records datasets during the last Five (05) financial years in Central/State PSU or Govt. Organization in India.	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.
11	Should have Experience in Unified Dashboard/ Analytics projects using AI/ML in Central/State PSU or Govt. Organization in India in last Five (05) years (One project value Rs. 7 Crore OR Two Projects value Rs. 5 Crore OR Three Project value Rs. 4 Crore)	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.
12	All Annexure and Undertakings/ information requested by client in tender document should be submitted to BECIL on back to back basis.	Relevant annexures as per bidder eligibility to be provided as per original tender.
13	Should have Experience in Power Sector (Generation, Transmission or Distribution) in Central/State PSU or Govt. Organization in India in last Five (05) years (One project value Rs. 7 Crore OR Two Projects value Rs. 5 Crore OR Three Project value Rs. 4 Crore)	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.
	Criteria for OEM	
	The proposed Software Analytics Platform including components like Data Ingestion (Data Pipelines), Data Transformation, Data Governance & Security, Data Visualization & Analytics system, ML Framework) should have been deployed in at least 2 Govt./PSU projects in India in last 5 years with minimum value of INR 10 crore each.	Purchase Order / Client Certificate along with user certificate.

	The proposed Platform shall be deployed on premise. The proposed solution should be either COTS product solution or Open-Source. The Enterprise support for proposed Platform components must be available with OEM in India.	The proposed Software Analytics Platform
	All proposed OEMs should have Positive Net worth of Last 3 FYs.	Submit relevant documents to validate the criterion
	The OEM should have minimum 5-year presence in India.	Submit relevant documents to validate the criterion
	The bidder should have a back-end support agreement/arrangement for services for Advanced Analytics solution support with the OEMs	Submit relevant documents to validate the criterion

43. PRELIMINARY EVALUATION

a) BECIL shall evaluate the proposals to determine that they are complete, technically complying, no computational errors have been made, required documents as mentioned in the EOI have been furnished, the documents have been properly signed and the response is generally in order.

b) BECIL may waive off any minor infirmity or non-conformity or irregularity in the proposal which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.

c) In case only one bid is received or during the Technical Evaluation only one bidder qualifies for the next stage of the evaluation process, BECIL reserves the right to accept/ reject the bid.

d) In case two bids are received from the same bidder, both the bids will be rejected.

44. EVALUATION PROCESS

44.1 No enquiry/ query shall be made by the bidders during the course of evaluation of the EOI, after opening of bid, till final decision is conveyed to the successful bidder. However, the Evaluation Committee/ its authorized representative and office of BECIL can make any enquiry/ seek clarification from the bidders, which the bidder must furnish within the stipulated time else the bids of such defaulting bidders will be rejected. The proposal will be evaluated on the basis of its content, not its length.

44.2 The bidder's proposals will be evaluated as per the requirements specified in the EOI and adopting the evaluation criteria spelt out in subsequent paras of this EOI document. The bidders are required to submit all required documentation as per evaluation criteria specified in EOI.

44.3 Upon verification, evaluation/ assessment, if in case any information furnished by the bidder is found to be incorrect, their bid will be summarily rejected and no correspondence on the same shall be entertained. Submission of false/ forged documents will lead to forfeiture of security deposit/ EMD and blacklisting of agency for a minimum period of 3 years from participating in BECIL EOI/EOIs.

44.4 BECIL will review the proposal to determine whether the proposals are as per the requirements laid down. Proposals that are not in accordance with these requirements will be liable to be disqualified at BECIL's discretion.

44.4.1 Evaluation of proposals shall be based on:

44.4.2 Information contained in the proposal, the documents submitted there to and clarifications provided, if any.

44.4.3 Experience and Assessment of the capability of the bidders based on past record.

44.5 BECIL reserves the right to seek any clarifications on the already submitted bid documents. BECIL also reserves the right to cross verify the information with any agency.

44.6 Conditional proposals shall NOT be accepted on any ground and shall be rejected straightway. If any clarification is required by the bidders, the same should be obtained before submission of the proposals.

44.7 Even though bidder satisfy the necessary requirements they are subject to disqualification if they have:

44.7.1 Made untrue or false representation in the form, statements required in the EOI document.

44.7.2 Records of poor performance such as abandoning work, not properly completing contract, financial failures or delayed completion.

44.8 Bidder meeting the eligibility criteria as per Clause 42 shall be evaluated based on Evaluation Matrix. **The bidder securing highest marks (as per Evaluation Matrix) will adjudged BECIL consortium Partner for further process. In case, the RFP is floated by BPHCL after acceptance of BECIL response (in consortium with selected backend agency) against EOI.**

a) BECIL will seek price quote from the selected Backend Consortium Partner subsequent to receipt of request and BOQ format from client after selection of our EOI response.

b) Bidders are advised to quote the lump sum amount of the BOQ as per the Price bid format provided. The successful bidder will be determined by Client EOI (to be shared after selection of partner)

c) Selected bidder may be called for further negotiations, if required.

d) A Pre-Bid agreement shall be signed by BECIL with the successful bidder.

e) The final price quoted in the end client’s tender will include the BECIL margin, as determined by BECIL.

Evaluation matrix

S. No.	Technical Criteria	Score	Maximum Marks
1	The Bidder should have a minimum average annual turnover of at least Rs. 170 Crores (Rs One hundred and Seventy Crores) per annum during the last three (03) Financial Years ending on 31st March 2025, to show it has adequate financial capabilities to carry out the task as per the scope of work.	1. 170 Cr. to 250 Cr. = 3 marks 2. 250 Cr. to 500 Cr. = 5 marks 3. 500 Cr. and above = 10 Marks	10 marks
2	The bidder should have 500+ Full time Resources on its payroll as on date of bidding.	1. 500 to 700 = 5 marks 2. 700 and above = 10 marks 3.	10 marks
3	The bidder must be ISO 9001:2015, or CMMI level 5 above and ISO 27001. The certification should be valid on the date of bid submission.	1. ISO 9001:2015 - 3 Marks 2. ISO 27001 - 3 Marks 3. CMMI level 5 - 4 Marks 4.	10 marks
4	The bidder should have experience in Large Scale IT Project in Central/State Govt / PSU. in India. • One (01) project of value 150 Crores or more OR • Two (02) projects, each with a value of 100 Crores or more OR • Three (03) projects, each with a value of 60 Crores or more in the last five (05) years till the day of the RFP publication	1. Three Projects more than 60 Cr. each = 3 marks 2. Two Project more than 100 Cr. each = 5 marks 3. One Project 150 Cr. and above = 10 Marks	10 marks
5	Should have Experience in Creation of central database/ Data warehouse/ Data Lake/Data Lakehouse having minimum 50 Lakhs records datasets during the last Five (05) financial years in Central/State Govt / PSU. in India.	50 Lakhs records – 3 Mark 70 Lakhs records – 6 Marks More than 1 Crore records – 10 Marks	10 marks

S. No.	Technical Criteria	Score	Maximum Marks
6	Should have Experience in Unified Dashboard/ Analytics/ AI/ML projects in Central/State Govt / PSU. in India. during last Five (05) years	1. One Project = 3 marks 2. Two Projects = 5 marks 3. Three Projects = 10 Marks **Note: Project value should not be less than 30 Cr.**	5 marks
7	Should have Experience in IT/ITES in Central/State Govt / PSU. in India. during last Five (05) years	1. Three Projects. = 3 marks 2. Five Projects = 5 marks 3. Seven or more Project = 10 Marks **Note: Project value should not be less than 10 Cr.**	10 marks
8	STPI Empanelment: The Bidder holding a valid empanelment with STPI as on the date of bid submission.	• Valid STPI Empanelment Certificate / Letter	5 Marks
9	Technical presentation	➢ **Understanding of the Project** ➢ **Approach and Methodology** ➢ **Solution Architecture** ➢ **Project Management plan** ➢ **Risk and Mitigation Measures** ➢ **Implementation Plan**	30 Marks

SECTION –VI

ENCLOUSERS AND ANNEXURES

ENCLOUSERS AND ANNEXURES

(Annexure-A)

PRE-CONTRACT INTEGRITY PACT

Between

Broadcast Engineering Consultants India Limited (BECIL) hereinafter referred to as **"Principal")**

And

….. hereinafter referred to as **"The Bidder/Contractors"**

Preamble:

The Principal intends to award, under laid down organizational procedures, contracts **for……………………………………………………………………….** The Principal values full compliance with all relevant laws of the land, rule, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder(S) and / Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

1.1. The Principal commits itself to take all measures necessary to prevent Corruption and to observe the following principles: -

a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or Immaterial benefit which he/she is not legally be entitled to.

b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

c) The Principal will exclude all known prejudiced persons from the process.

1.2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

2.1. The bidder(s) Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

a) The Bidder(s) Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract/ or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b) The Bidder(s) Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

c) The Bidder(s) Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d) The Bidder(s) Contractor(s) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Bidder(s) Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" Shall be disclosed by the Bidder(s) / Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/ representative have to be in Indian Rupees only.

e) The Bidder(s) Contractor(s) will, when presenting himself, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract/Agreement.

2.2. The Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder(s) Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s) Contractor(s) from the tender process or take action as per the defined procedure.

Section 4 – Compensation for Damages

If the Principal has disqualified the contractor from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages Equivalent to Earnest Money Deposit

4.1. / Bid Security If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

5.1. The Bidder(s) contractor declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the Anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

5.2. If the contractor makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banking of business dealings".

Section 6 – Equal treatment of all Bidders/Contractors/Subcontractors

6.1. The Bidder(s) Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact and to submit it to the Principal before contract signing.

6.2. The Principal will enter into agreement with identical conditions as this one with all Bidders, Contractors and Subcontractors.

6.3. The Principal will disqualify from the tender process all bidder who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidder(s)/ Contractor(s)/Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same Chief Vigilance Office.

Section 8 – External Independent Monitor/Monitors

8.1. Principal may appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

8.2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD of M/s Broadcast Engineering Consultants India Limited (BECIL).

8.3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.

8.4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

8.5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

8.6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the ‘Principal’ and, should the occasion arise, submit proposals for correcting problematic situations.

8.7. If the Monitor has reported to the CMD of the BECIL, a substantiated suspicion of an offence under relevant APC/PC Act, and the Chairman BECIL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Chief Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.8. The word ‘Monitor’ would include both singular and plural.

Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 20 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by CMD, M/s. Broadcast Engineering Consultants India Limited.

Section 10 – Other provisions

10.1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the head office of the Principal, i.e., New Delhi.

10.2. Changes and supplements as well as termination notices need to be made in writing. Side agreement have not been made.

10.3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.

10.4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

FOR AND ON BEHALF OF CONTRACTOR FOR AND ON BEHALF OF PRINCIPAL

Annexure-B

(BANK MANDATE FORM)

यूनियन बैंक ऑफ इंडिया Union Bank of India

आन्ध्रा Andhra | Corporation

(A Govt. of India Undertaking)
MID CORPORATE BRANCH, DELHI SOUTH
D -26-28, Connaught Place, NEW DELHI -110001
Tel:+91-9137849790; Fax: 01-11 23414330 ; Swift: UBININBBNDL
Email: ubin0549797@unionbankofindia.bank

Ref.: MCB:ADV:ATL:2022-23: Date: 18.01.2023

TO WHOMSOEVER IT MAY CONCERN

A	Name of the Beneficiary	BROADCAST ENGINEERING CONSULTANTS INDIA LIMITED
i	Address with Pin Code	BECIL Bhawan, C-56/A17, Sector -62, Noida - 201307 (U.P)
ii	Permanent Account Number (PAN)	AAACB2575L
iii	(a) Telephone No.	0120-4177861
	(b) Fax Number	0120-4177879
	(c) Contact Person	Sh. Awadhesh Pandit General Manager - (Finance and Accounts)
	(d) E-mail Address	panditmd@becil.com
	(e) Mobile No.	+91-8130918866
B	Bank Particulars	
i	Bank Name	UNION BANK OF INDIA
ii	Bank Contact No	+91-9137849790
iii	Branch Address with Pin Code	26/28, 1st Floor, D Block, Connaught Place, New Delhi, 110001.
iv	BSR Code	549797
v	MICR	110026046
vi	SWIFT CODE	UBININBBNDL
Vii	11 Character IFSC Code of the Bank (Either enclosed a cancelled Cheque or obtain Bank Certificate as appended)	UBIN0549797
VIII	Bank Account Number as appearing on the Cheque Book	565101000065461
ix	Bank Account Type	Overdraft
X	If other, Specify	--

***This certificate is issued on the specific request of our customer without any risk and responsibility on the part of the bank or any of its employees.**

Chief Manager

Bank Stamp with Authorized Signatory

Date 20-01-2023

Page 1 of 1

<u>(Annexure – C)</u>

Particulars of The Bidder

Name of Bidder:-...

<table>
<tr><th colspan="4">Broadcast Engineering Consultants India Ltd.</th></tr>
<tr><td colspan="4">CHECKLIST</td></tr>
<tr><td colspan="4">Proposer should fill in the cells shown below.</td></tr>
<tr><td colspan="3">NAME OF PROPOSER/ Bidder</td><td></td></tr>
<tr><td colspan="3">Place</td><td></td></tr>
<tr><td colspan="3">Date</td><td></td></tr>
<tr><td colspan="3">Name</td><td></td></tr>
<tr><td colspan="3">Designation</td><td></td></tr>
<tr><td colspan="3">Address</td><td></td></tr>
<tr><td colspan="3">Phone Number</td><td></td></tr>
<tr><td colspan="3">Mobile & e-Mail</td><td></td></tr>
<tr><td>Sl. No.</td><td colspan="2">Name of Document</td><td>Details / Page No.</td></tr>
<tr><td>1</td><td colspan="2">Registration of firm / agency / company (Attach Copy)</td><td>Reg. No-..
Reg. Date-..
Issuing Department-............................</td></tr>
<tr><td></td><td colspan="2">Annexure-F - Bid Covering Letter</td><td></td></tr>
<tr><td rowspan="5">3</td><td rowspan="5">Annual Financial Turnover for Financial years. (Attach Copy of Audited PL Account)
- Also attach Annexure-D</td><td>FY 2024-25</td><td>Rs.</td></tr>
<tr><td>FY 2023-24</td><td>Rs.</td></tr>
<tr><td>FY 2022-23</td><td>Rs.</td></tr>
<tr><td>FY 2021-22</td><td>Rs.</td></tr>
<tr><td>FY 2020-21</td><td>Rs.</td></tr>
<tr><td rowspan="3">4</td><td rowspan="3">Net Worth For last 3 years (Attach Copy of Audited &
Balance Sheet) - Also attach Annexure-D</td><td>FY 2024-25</td><td>Rs.</td></tr>
<tr><td>FY 2023-24</td><td>Rs.</td></tr>
<tr><td>FY 2022-23</td><td>Rs.</td></tr>
<tr><td>5</td><td>All documents as required in ELIGIBILITY CRITERIA</td><td></td><td></td></tr>
</table>

6	Firm Registration Certificate/ Certificate of incorporation of Company / Memorandum & Articles of Association of a Company/Partnership deed of Registered partnership firm / Memorandum of Association and Rules & Regulations any Bylaws if any of a Society	
7	PAN and Income Tax Return of previous financial Year (Attach Copy)	
8	Goods & Services Tax (GST) Registration Certificate (Attach copy)	
9	Declaration regarding Non-Blacklisting & Non-Conviction from any court of Law. (Annexure-H) Whether even blacklisted, if yes then give details and present status.	
10	All Annexures of BECIL's EOI (A-M)	
11	Any other additional information bidders feels to be provided for betterment of scope of work and components	

Signature of Authorized Signatory

Place: ____________________
Date: _______________
Address: _________________________
Mobile: _______________________
Email ID: _______________________

(Annexure – D)

Annual Turnover & Net worth

(To be printed on implementing agency's letterhead and signed by Authorized signatory.)

To
The General Manager,
Broadcast Engineering Consultants India Limited
BECIL Bhawan, C-56, A/17,
Sector-62, Noida-201307

Full Name of Bidder (Supplier) entity:

S. No.	Financial Year	Turnover of Bidder	Profit (PAT)	Net worth	Remarks
1	2024-25				
2	2023-24				
3	2022-23				
	Average				

***Enclose Audited Financial statement for above mentioned period along with audit report, Balance Sheet, Profit & Loss A/c, and its annexures as a complete set. Net worth must be positive for each of the three years.**

Note: The required certificate from CA with UDIN stating Turnover, Profit (PAT), and Net Worth is enclosed along with this form. Certificate without UDIN No. will be rejected.

Signature of Authorized Signatory

Place: ______________________________
Date: _______________________________
Address: ____________________________
Mobile: _____________________________
Email ID: ___________________________

(Annexure – E)

Performa of letter of Undertaking for Bid Validity

To
General Manager
Broadcast Engineering Consultants India Limited
BECIL Bhawan, C-56, A/17, Sector-62, Noida-
201307

Reference: EOI No. <<>> dated << 202X>>

I/We hereby submit our Bid and undertake to keep our Bid valid for the period of 240 days from the date of submission of the Bid.

I/We also agree to abide by and fulfill all the terms, conditions of provision of the bid document.

Signature of Authorized Signatory

Place: ________________________
Date: ___________________
Address: ____________________________
Mobile: ___________________________
Email ID: __________________________

(Annexure – F)

Bid Covering Letter

To
General Manager
Broadcast Engineering Consultants India Limited
BECIL Bhawan, C-56, A/17, Sector-62, Noida-
201307

Reference: EOI No.<<>> dated << 202X>>

Dear Sir/Madam,
We, the undersigned, offer to provide Systems Implementation solutions/ services to the Purchaser on <Name of the Systems Implementation engagement> with your Expression of Interest dated <insert date>and our Proposal. We are hereby submitting our Proposal, which includes our Technical bid sealed on the <URL of e-Procurement portal> portal.

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

We undertake, if our Proposal is accepted, to initiate the Implementation services related to the assignment not later than the date indicated in Fact Sheet.

We agree to abide by all the terms and conditions of the EOI document. **We would hold the terms of our bid valid for <240> days as stipulated in the EOI document.**
We understand you are not bound to accept any Proposal you receive.

Signature of Authorized Signatory

Place: ________________________
Date: ___________________
Address: ____________________________
Mobile: ___________________________
Email ID: __________________________

(Annexure – G)

Credentials Summary

S. No.	Project Name	Client Name	Client Type	Project Value (in INR)	Documentary evidence provided (Yes or No)	Project Status (Completed or Ongoing or Withheld)
1						
2						
3						
4						
5						

Signature of Authorized Signatory

Place: ________________________
Date: ___________________
Address: ____________________________
Mobile: ___________________________
Email ID: __________________________

(Annexure – H)

Self-Declaration For Non Black Listing

ON BIDDER'S LETTER HEAD

Bidder Ref. No.
……………………… Dated :
……………………………….
.

To
General Manager
Broadcast Engineering Consultants India Limited
BECIL Bhawan, C-56, A/17, Sector-62, Noida-
201307

We, M/s. -- hereby declare that the firm/company namely M/s. ------------------------, as on the date of bid submission, has not been blacklisted or debarred by any of the Central Government or State Government or any organization under Central/ State Government or any Statutory Authority, or any Public- Sector Undertaking.

M/s …………………………. has not been found guilty of any criminal offence by any court of law in India or abroad.

M/s ……………………, its directors and officers have not been convicted of any criminal offence related to their professional conduct or the making of false statement or misrepresentations as to their qualifications to enter into procurement contract within a period of three years preceding the commencement of the procurement process or have not been otherwise disqualified pursuant to debarment proceedings.

Yours faithfully

For,

Signature of Authorized Signatory
Place: ______________________
Date: _________________
Address: __________________________
Mobile: _________________________
Email ID: ________________________

(Annexure – I)

Undertaking Regarding Payment Of GST/ Filing Of GST Return

Ref………………………………….. Date

To,
The Chairman and Managing Director,
Broadcast Engineering Consultants India Limited, 56-A/17, Block-C, Sector-62, Noida-201307 (U.P.)

Subject: Undertaking regarding Payment of GST/ Filing of GST Return

Dear Sir,

This is in connection to the works awarded by M/s Broadcast Engineering Consultants India Limited (BECIL), we hereby undertake that we will comply with Goods and Services Tax 2017 and subsequent amendment and Various Rules Relating to GST Act, 2017(herein after referred to as GST Act and Rules) wherever we are obliged to comply with the GST Act and GST Rules.

We further hereby undertake that we will issue proper **"Tax Invoice"** and/or any other Relevant Document as required under GST Act and Rules. We will furnish appropriate GST return and pay GST as required under GST Act and Rules on timely basis and will provide GST credit on timely basis through GST Portal (and/or by any other means as provided by GST Act and Rules).

We hereby certify & undertake that we will not alter, delete or modify the tax invoices and other details uploaded at GST Portal unless approved by BECIL in writing. We hereby certify all the relevant document along with tax invoice as the case may be

We also hereby certify & undertake that we indemnify BECIL on account of any loss of GST input credit as well as any interest, penalty, demands or other costs, expenses suffered by BECIL because of any failure on our part to file appropriate Return on time and/or pay Tax to Government/Appropriate Authority.

In case we do not make payment the tax/interest/penalty/other expenses etc. on demand raised by Government/Tax Authorities due to default/delay on our part/action, we also authorize BECIL to forfeit/deduct from security held by BECIL, equivalent amount of interest/penalty/tax etc. for the amount so withheld.

Signature of Authorized Signatory on behalf of

Agency Address: ______________________
Mobile: ____________________________
Email ID: ____________________________

(Annexure- J)

Power of Attorney for signing the Bid on Rs. 100 Stamp Paper

KNOW ALL MEN BY THESE PRESENTS,

We, [Name of Bidder] do hereby irrevocably constitute, nominate, appoint and authorize **________**, who is presently employed with us and holding the position of **"_______"**, as our true and lawful attorney *(hereinafter referred to as the "Attorney")* to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for qualification and submission of our bid for the Project "**Name of Project"** of "__________________**"** (the "client") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in pre-applications and other conferences and providing information/ responses to the client, representing us in all matters before the client, signing and execution of all contracts including the Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the client in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/or till the entering into of the Agreement with the client. The act done by **_**(Name of authorized person) will be binding on the selected bidder.

IN WITNESS WHEREOF WE, (Name of Bidder)_, THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF

Date**________.**

For **Name of Bidder**,

Executed

Accepted

Witnesses -

(Annexure- K)

LAND BORDER DECLARATION CERTIFICATE

Restrictions on procurement from Bidders from a country or countries, or a class of countries under Rule 144(xi) of the General Financial Rules 2017.

EOI Document No: …………………………………… Date: …………………….
Bidder's Name, Address & contact details:
………………………………………. Bidder's Reference No.
………………………………….. Date: …………………….

Restrictions on procurement from Bidders from a country or countries, or a class of countries under Rule 144(xi) of the General Financial Rules 2017.

I/We certify that this Bidder is not from such a country or if from such a country has been registered with the Competent authority. I hereby certify that this bidder fulfills all requirements in this regard

I/We certify that this Bidder is not from such a country or if from such a country has been registered with the competent authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

Penalties for false or misleading declarations:

We hereby confirm that the particulars given above are factually correct and nothing is concealed and also undertake to advise any future changes to the above details. We understood that any wrong or misleading self-declaration by us would be violation of Code of integrity and would attract penalties as mentioned in this tender document, including debarment.

____

(Signature with date)

____

(Name and designation)

Duly authorized to sign Bid for and on behalf of

____

(Name & address of the Bidder and Seal of Company)

(Annexure- L)

SOR (Schedule of Rates)

Note: To be submitted after at later stage.

MSME UNDERTAKING **(Annexure – M)**

(To be given on a Rs. 100/- Stamp Paper)

This Undertaking is made on this ___ day of _______*, 2025*, by: _________________

M/s. [Name of Bidder], having its registered office at………. [**address**] (hereinafter referred to as the "**Bidder**", which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors, legal representatives, and permitted assigns);

IN FAVOUR OF:

Broadcast Engineering Consultants India Limited (BECIL), a distinguished Mini Ratna Public Sector Enterprise, having its Corporate Office at BECIL Bhawan, C-56, A/17, Sector-62, Noida - 201307(UP) (hereinafter referred to as the "**BECIL**", which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors, legal representatives, and permitted assigns).

WHEREAS:

1. The **Principal Employer/client**, have awarded the work for execution of the project to BECIL.
2. BECIL through this EOI intends to onboard on agency / agencies for Procurement and Installation of CCTV Cameras and Accessories.
3. As per the terms of the EOI, BECIL shall release payment to the selected Bidder/bidders only after receiving the payment from the Principal Employer**/**client.

NOW THEREFORE, the bidder hereby undertakes and agrees as follows:

1. The bidder acknowledges and confirms that the BECIL shall be liable to make payments only upon receipt of corresponding payments from the Principal Employer/client. Accordingly, the bidder shall not raise any claims, demands, interest, compensation, or initiate any legal proceedings against the BECIL for any delay in payment arising out of delayed release of funds by the Principal Employer/client.

2. The Bidder waives any rights under the Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act) or any similar legislation or regulation, to the extent such rights conflict with the agreed payment terms under the Subcontract Agreement. The bidder further waives its right to claim Interest on delayed payment by the BECIL, under the Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act) or any similar legislation or regulation for the time being in force in India.

3. This obligation shall survive the termination or expiry of the Contract signed with the successful bidder selected through this EOI process.

Signature & Stamp of Bidder

(Annexure- N)

PRE-BID AGREEMENT

between

Broadcast Engineering Consultants India Ltd
(A Government of India Enterprise)
C-56 / A-17, Sector- 62 Noida- 201307, U.P.

and

[vendor name]
[Vendor Address]

TABLE OF CONTENTS

PRE-BID AGREEMENT

This Pre-Bid Agreement is executed at Noida on this **__th day of _______ 2025** (“**Effective Date**”).

Between

Broadcast Engineering Consultants India Limited, a Mini Ratna Public Sector Enterprise of the Government of India having its Registered Office at 56-A/17, Block-C, Sector-62, Noida -201301 (U.P.) and Head Office at 14-B IP Estate Ring Road, New Delhi -110002 acting through **Binay Kumar Tiwari** (hereinafter referred to as **"BECIL or First Party")** which expression shall unless repugnant to the context or meaning thereof, include its successors, authorized representatives and permitted assigns.

AND

M/s [Vendor full Name], registered under the Companies Act, 2013, having registered office at [Vendor full Address] acting through Mr. [Vendor representative name] (hereinafter referred to as “[**Vendor short name]” or “Second Party”**) which expression shall unless repugnant to the context or meaning thereof, include its successors, authorized representatives and permitted assigns.

BECIL and [vendor name] are individually referred to as “**Party**” and collectively as “**Parties**”.

ARTICLE 1: PREAMBLE

WHEREAS BECIL represents that it is an ISO 9001:2015, 27001:2013, ISO/IEC 20000:2012 certified, Mini Ratna, Central Public Sector Enterprise (CPSE) of Government of India, which was established on 24th March 1995. BECIL provides Project Consultancy services, Turnkey solutions, System integration, Operation & Maintenance for the entire gamut of radio and television broadcast engineering. BECIL has also diversified into the domain of businesses pertaining to Strategic National Importance and has won major Projects/ Tenders in the field of Security & Surveillance, IT Networking & Data Centre and Communication Intelligence, Third Party Audit of Optical Fiber Networks.

WHEREAS [vendor name]______________intro___________________________________.

WHEREAS [Client full name] (hereinafter called “[**client short name]**”) has issued a tender vide tender no. ________________dated DD.MM.YYYY for [clients Tender Name] hereinafter referred to as “Tender”/”Work”/”Project” (hereinafter called as **Tender or [client short name] Tender or Primary Tender**)

WHEREAS BECIL published EOI No. _______________dated DD.MM.YYYY (hereinafter referred as “**BECIL’s EOI**”) for [EOI title/name].

AND WHEREAS [vendor name] has been selected as back end partner through the BECIL’s EOI process.

AND WHEREAS Parties have accepted to execute the contract if awarded by [Client Name] and shall abide by all terms and conditions of such contract signed thereof.

AND WHEREAS BECIL & [vendor name] **have jointly accepted to collaborate to prepare and submit its competitive bid against the** Tender for [Client Tender Name] floated by [Client Name] vide tender No. ______________________dated DD.MM.YYYY.

AND WHEREAS, this Pre-bid agreement is executed solely for the purpose to bid for the tender issued by

[Client name] for [Client Tender Name] and may be superseded by an inter se agreement once the tender is awarded to BECIL.

AND WHEREAS the parties agreed to join its hand on following terms & conditions:

1.1 In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the agreement documents referred to.

1.2 The Parties wish to work together with the understanding that BECIL shall act as the bidder (sole bidder) and **[vendor name]** as Back end partners for participating in the [Client Name] tender.

1.3 The following documents shall be deemed to form and be read and construed as part of this Agreement–

1.3.1. Tender for [Client Tender Name] vide tender No. ____________________dated DD.MM.YYYY.

1.3.2 BECIL's EOI No. _______________dated DD.MM.YYYY for [EOI name].

1.3.2 [vendor name]'s bid received against the BECIL's EOI.

ARTICLE 2: GENERAL

1.1. PURPOSE:

BECIL, as the sole bidder, shall participate in the bidding process in primary tender of [Client Name] . The other party shall function as a back-end partner to support BECIL in fulfilling its obligations under the bid.

The back-end partner hereby undertakes not to participate individually, directly or indirectly, or as part of any other ~~consortium~~/ arrangement for said tender, either independently or through any of its associates.

2.2 Representation of the Parties: [vendor name] represents to BECIL that as on date of signing this Agreement:

2.2.1 [vendor name] is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement.

2.2.2 That the execution, delivery and performance by [vendor name] of this Agreement has been authorized by all necessary and appropriate corporate or governmental action, and will not, to the best of its knowledge:

(a) Require any consent or approval not already obtained;

(b) Violate any Applicable Law presently in effect and having applicability to it;

(c) Violate the Agreement and articles of association, by-laws or other applicable organizational documents thereof;

(d) Violate any clearance, permit, concession, grant, license or other governmental authorization, approval, judgment, order or decree or any mortgage contract, indenture or any other instrument to which [vendor name] is a party or by which [vendor name] or any of their properties or assets are bound or that is otherwise applicable to [vendor name];

(e) Create or impose any license, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of [vendor name] so as to prevent such Parties from fulfilling their obligations under this Agreement.

2.2.3. [vendor name] has not been black-listed by Central/ State Government or any other Government PSU and are not facing/ likely to face any disciplinary proceedings under Indian or under laws of any other country.

2.2.4. That this aforementioned TENDER is the legal and binding obligation of such Parties, enforceable in accordance with its terms against it;

2.2.5. That there is no litigation pending or, to the best of [vendor name] knowledge, threatened to which it or any of its affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfillment of its obligations under this Agreement.

2.2.6. That there is no legal action/dispute initiated or pending on [vendor name] at the time of signing of this Agreement which is likely to concern or affect BECIL in any manner. If any such case is found pending, the agreement will automatically become invalid and the agency will be penalized by withholding the EMD/ PBG and legal action will be initiated as deemed fit by the competent authority. All ongoing and future business association with BECIL will also be terminated.

ARTICLE 3: PROJECT BACKGROUND AND SCOPE OF WORK

3.1 Project Background

From Client's Primary Tender

3.2 Scope of Work

The detailed scope of work for System Integrator has been given in the Schedule- I to this Agreement. For the detailed scope of work [vendor name] shall also refer to the primary tender document, its amendments in the form of corrigenda and subsequent contract signed between BECIL and [Client Name]in the event of award of tender.

ARTICLE 4: ROLES AND RESPONSIBILITIES

4.1 BECIL and [vendor name] hereby mutually agree that both of them shall remain as irrevocable members of this tie-up for the complete execution and completion of [Client Name] Tender/Work/Project (as per scope of aforementioned BECIL's EOI & [Client Name] tender).

4.2 DUTIES & OBLIGATIONS OF [vendor name]

4.2.1. [vendor name] will supply entire range of services for efficient completion of scope of works under the [Client Name] tender**.**

4.2.2. For the project to be undertaken, [vendor name] would formulate state-of-the-art, optimum and **General Standards of performance.** [vendor name] shall carry out the Services with due diligence and efficiency, and shall exercise such skill and care in the performance of the services as is consistent with recognized professional standards. [vendor name] shall act at all times so as to protect the interests of BECIL.

4.2.3. [vendor name] have read and understood the terms and conditions of the [Client Name] tender and it agree to support BECIL in abiding by those terms and conditions.

4.2.4. [vendor name] confirms that they understood on-ground technical complication and they agree to have taken into consideration the manpower required on the basis of the scope of work.

4.2.5. [vendor name] **has understood the requirement in terms of ROW, Terrain and other clearances required to execute the project. They agree to manage these requirements at their own cost without any liability on BECIL in this regard.**

4.2.6. [vendor name] **have agreed to accept all the challenges with regard to Time Overrun, Cost Overrun, payment terms & Liquidated Damages & Penalties & Liability/cost due to implication of new law and confirm, to abide by the timeline in-case the project is awarded.**

4.2.7. [vendor name] **has agreed to accommodate the change in scope of work by [Client Name] whether or not incidental and ancillary, to achieve the objective as per the [Client Name] tender requirement, without any additional cost to BECIL.**

4.2.8. [vendor name] **have agreed to abide by all the terms on back to back basis as per the System Integrator duties and Obligations as specified in the [Client Name] tender.**

4.2.9 [vendor name] **shall be responsible for the detailed Scope of Work at Clause 3.2 and Schedule 1 of this agreement.**

4.2.10 Since payment conditions are on back to back basis and time is the essence of the project; [vendor name] should maintain sufficient liquidity/funds for timely and smooth execution of the project.

4.3. DUTIES AND OBLIGATIONS OF BECIL

4.3.1. BECIL shall act as coordinator/ Project Management Consultant. Providing timely feedbacks and correspondences with the [Client Name] on the various stages of project deliverables.

4.3.2. To ensure the technical, commercial and administrative coordination of the project.

4.3.3. To lead the contract negotiations of the project with the [Client Name] authority.

4.3.4. In the event of project getting awarded, BECIL shall act as the only channel of communication between the [Client Name] authority and [vendor name] to execute the project/ Agreement.

4.4. RESPONSIBILITY MATRIX

In addition to the aforementioned duties and obligations of the parties, the Agreement will cover the following scope to be undertaken by Parties as mentioned in the Responsibility Matrix given below.

P-Primary Responsibility
S-Secondary
Responsibility J- Joint
Responsibility
N- No Responsibility

S.NO.	Description	BECIL	[vendor name]
	PRE-BID RESPONSIBILITY		
1.	Pre-bidding site survey, if any	**S**	**P**
2.	Fully complied technical bid response preparation as per tender Terms & Conditions.	**J**	**J**
3.	Competitive commercial bid preparation as per tender	**J**	**J**
4.	Documentation and correspondence with the customer.	**P**	**N**
5.	Provisioning of EMD/ Bid Securityas per tender requirement.	**P**	**S**
6.	Provision of Back to Back EMD except by MSE/Start Ups as per GoI guidelines.	**N**	**P**
7.	Provisioning of any other required document for bidding.	**J**	**J**
8.	Submission of complete techno-commercial offer to the customer in requisite mode.	**J**	**J**
9.	Any Presentation if required during the tender evaluation.	**S**	**P**
10.	Any other relevant follow up, correspondence and meetings with customer.	**P**	**S**
	POST-BID RESPONSIBILITY (In the event of winning the contract)		
1.	Signing of contract with the [Client Name]	**P**	**N**
2.	Submission of PBG to [Client Name]	**J**	**J**

3.	Submission of back to back PBG to BECIL	**N**	**P**
4.	Any relevant follow up, correspondence and meeting with the customer	**P**	**S**
5.	Executing the entire Scope of Work to the satisfaction of the [Client Name] .	**S**	**P**
6.	Providing project finance/working capital for timely execution of the project.	**N**	**P**

4.5 **COVENANTS:** The Parties hereby undertake that in the event the BECIL is declared the selected Bidder and awarded the project, BECIL shall enter into an Agreement with [Client Name] for performing all the obligations as **System Integrator**.

ARTICLE 5: COOPERATION OF THE TRANSACTION

5.1 The parties agree to abide by the broad Responsibility Matrix mentioned above and forms an integral part of this Agreement including all the tender terms such as General Requirements, Technical Parameters, Commercial Aspects, Evaluation and Acceptance criteria of the tender, Guarantee/ Warranty terms etc.

5.2 Expenses towards preparation of proposal, submission of bid and other allied activities for submission of bid will be undertaken by the respective parties at their own cost.

5.3 The cooperation for execution of the Project between the parties hereto shall be exclusive, i.e., neither of them shall without the other party's consent - alone or together with another PARTY take part in any agreement or proposal with regard to this tender.

ARTICLE 6: PERIOD OF AGREEMENT

6.1 The term of this agreement shall be for___Months ("Term") from the date of signing of this agreement ("Effective Date") or till the completion of the project & release of all payments thereof whichever is later. All obligations hereunder shall only apply during the Term of this agreement and to such obligations and commitments in relation to the Tender/Work/Project under the scope of BECIL's EOI & [Client Name] tender, as may have been undertaken by the Parties during the Term with validity exceeding the Term. The Term of this agreement can be extended by mutual agreement between the Parties, depending upon the requirement

NB- Completion shall mean certificate of Completion issued by BECIL.

ARTICLE 7: PAYMENT AND COMMERCIAL

7.1. BECIL will Provision the EMD to [Client Name] as per the Primary tender requirement.

7.2 [vendor name] will provision for Back to Back EMD of equal amount to BECIL, except in case the [vendor name] is MSME/Start Ups and are exempted from paying EMD as per GOI guidelines.

7.3. BECIL shall furnish Performance Security in the form of PBG as per the terms and conditions of primary tender.

7.4 [vendor name] will furnish back to back performance Security of equivalent amount in the form of PBGs to BECIL as per the terms & conditions of the primary tender. The PBG shall remain valid up to 60 days beyond the date of expiry/date of claim of the PBG submitted by BECIL to [Client Name] .

7.5. [vendor name] will raise its invoices to BECIL based on milestone completion. BECIL will then raise the invoices to [Client Name] (as per relevant clause of primary tender) after getting the relevant documentary proofs of successful completion of the said milestones from [vendor name]. The payment shall be released strictly as per Clause 7 "Payment terms of Client RFP"

7.6 BECIL shall be entitled to keep__**%** of the project value (of bid value including taxes submitted by BECIL to [Client Name]) as its project management consultancy.

7.7 Upon receipt of corresponding payment from the [Client Name] , BECIL shall disburse the payment to [vendor name] within 15 days of receipt of the payment from [Client Name] after deduction of BECIL project management consultancy as per clause 7.6 and expenses as per clause 7.9 and BG making charges, if any.

7.8 All Invoices received from [vendor name] would be inclusive of all statutory taxes/ GST. BECIL will consider invoices raised by [vendor name] to submission of all relevant documents and in case the documents are not proper, BECIL is liable to reject the invoices.

7.9 In case BECIL is required to open the offices, the office rent (including the maintenance & electricity charges as applicable) shall be recovered by BECIL from [vendor name]. Also, the Salaries paid to the manpower deployed on the payroll of BECIL, specifically employed for this project shall be recovered from [vendor name].

7.10 Salaries paid to the manpower deployed on the payroll of BECIL and Office rent paid for this project as per clause 7.9 above, shall be recovered by BECIL from the stage-wise Milestone payments payable to [vendor name].

7.11 Notwithstanding anything contained in any other agreement, document, correspondence, arrangement between the parties in respect of [Client Name] Tender/ Works / Projects, [vendor name] understands, agrees and undertakes that:

7.11.1 [vendor name] participated in BECIL's EOI and that all terms & conditions of the BECIL's EOI shall apply to [vendor name].

7.11.2 The payments terms between BECIL & [vendor name] are on back-to-back basis and the payment shall be released by BECIL only if and when received by BECIL from [Client Name] and subject to terms & conditions of agreement and submission of complete required documents.

7.11.3 [vendor name] will not demand or make any claim under any law with respect to the pending payment till the time corresponding payment is received by BECIL from [Client Name] . BECIL shall not be responsible in any manner whatsoever for any delay in releasing the payments or withholding of payments by [Client Name] .

7.11.4 The (day) date of delivery of goods and/or rendering of services by [vendor name] shall be the date or realization of payment from the [Client Name] once the goods and/or services are accepted by

[Client Name] .

7.11.5 The stage wise invoices raised by [vendor name] maybe accepted by BECIL, however, the date of completion of the milestone / delivery of goods or services shall only be recognised for invoice and its payment when the respective acceptance of goods or services and payment thereof is received from [Client Name] .

7.11.6 If in the instant contract, [vendor name] is acting only as trader / reseller / distributor/ authorized agents and/ or is engaged in a WORKS contract, no benefits under MSME Act 2006 and PPP Policy 2012 as per MSE Guidelines issued by Ministry of MSME would be applicable to it on account of acceptance of back to back payment terms as above. By agreeing to the terms of [Client Name] Tender, the [vendor name] agrees to forgo its rights under this Act and Policy.

7.11.7 [vendor name] hereby agrees to ensure timely GST compliances as per the statutory requirements. All the costs pertaining to any GST non-compliance including but not limited to any loss of eligible input tax credit due to non-payment/non-filing of GST return and applicable interest/penalties shall be borne/indemnified by [vendor name]. Further [vendor name] hereby agrees that BECIL reserves the right for reimbursement of any such cost incurred out of the aforesaid noncompliance(s). [vendor name] will provide proof of payment of GST i.e. GSTR-1, GSTR-3B, etc. for taking GST payment from BECIL against invoices.

7.12 Any sum of money due and payable to [vendor name], under this contract for [Client Name] tender entered between the parties herein whether continuing or completed may be appropriated by BECIL and set off against any claim of BECIL of any nature whatsoever, arising under this contract or any other contract entered into between the parties, herein whether continuing or complete.

7.13 There is also expenses towards Office establishments/ Purchase of fixed assets (with mutual consent) in the project. All such expenditure must be treated as direct expenditure and will be borne by directly [vendor name].

7.14. Payments shall be released to [vendor name] only on satisfactory acceptance of the deliverables by [Client Name] for each task and release of payment by [Client Name] as per the schedule given at clause________ primary tender of [Client Name] and Corrigendum issued thereof.

7.15. PROVISION REGARDING INVOICE FOR REDUCED VALUE OR CREDIT NOTE TOWARDS PRS

PRS is the reduction in the consideration / contract value for the goods / services covered under this contract. In case of delay in supply/ execution of contract, supplier should raise invoice for reduced value as per Price Reduction Schedule Clause (PRS clause of client tender). If supplier has raised the invoice for full value, then supplier should issue Credit Note towards the applicable PRS amount with applicable taxes.

In such cases if supplier fails to submit the invoice with reduced value or does not issue credit note as mentioned above, BECIL/BSPHCL will release the payment to supplier after giving effect of the PRS clause with corresponding reduction of taxes charged on vendors invoice, to avoid delay in delivery/collection of material.

In case any financial implication arises on BECIL/BSPHCL due to issuance of invoice without reduction in price or non-issuance of Credit Note, the same shall be to the account of supplier. BECIL/BSPHCL shall be entitled to deduct / setoff / recover such GST amount (CGST & SGST/UTGST or IGST) together with penalties and interest, if any, against any amounts paid or becomes payable by BECIL / BSPHCL in future to the Supplier under this contract or under any other contract.

ARTICLE 8: GENERAL TERMS & CONDITIONS

8.1 AGENCY

This Agreement between the parties is on a principal to principal basis and it is agreed that [vendor name] is not and shall not represent itself as an agent of BECIL.

8.2 CONFIDENTIALITY AND NON-DISCLOSURE

8.2.1 The [vendor name]. recognizes, accepts and agrees that disclosure of Confidential information to the Staff shall be only on a need-to-know basis and only those staff who are involved in rendering the services and need to have access would alone be informed of Confidential information.

8.2.2 The [vendor name]. recognizes, accepts and agrees that all tangible and intangible information obtained or disclosed to the Bidder's and/or its staff, including all details, documents, data, business/ customer information and the BECIL 's practices and trade secrets (all of which are hereinafter collectively referred to as "confidential information") which may be communicated to the[vendor name]. 's and/or its facility staff may be privy under or pursuant to this Contract and/or in the course of performance of the [vendor name]. 's obligations under this Contract shall be treated, as absolutely confidential and the [vendor name]. irrevocably agrees and undertakes and ensures that all its facility staff shall keep the same as secret and confidential and shall not disclose the same at all in whole or part to any Person or persons (including legal entities) an any time or use nor shall allow information to be used for any purpose other than that as may be necessary for the due performance of the [vendor name] obligations hereunder except when required to disclose under the due process and authority of law.

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8.4. INTELLECTUAL PROPERTY RIGHTS

8.4.1. Deliverable, outputs, plans, drawings, specifications, designs, reports and other documents and software submitted by the Bidders under this EOI and subsequent to this EOI in relation with this tender shall become and remain the property of BECIL/procuring entity and subject to laws of copyright, must not be shared with third parties or reproduced, whether in whole or part, without BECIL's/ the procuring entity's prior written consent.

8.4.2 The [vendor name] shall, not later than upon termination or expiration of this Contract and/or subsequent Agreement/Contract signed with the [vendor name] , deliver all such documents and software to BECIL/the procuring entity, together with a detailed inventory thereof.

8.4.3 The [vendor name] shall not incorporate any materials, technology or any item or thing that involves the use of intellectual property rights or proprietary rights that the [vendor name] does not have the right to use or that may result in claims or suits against BECIL arising out of claims of infringement of any intellectual property rights or other proprietary rights.

8.4.4 The [vendor name] shall perform all acts necessary to obtain and continue to have all necessary licenses, approvals, consents of third parties free from any encumbrances and all necessary technology, hardware and software to enable it to perform its obligations under this Contract . If license agreements are necessary or appropriate between the [vendor name] and third parties for purposes of enabling, enforcing or implementing the provisions hereinabove, the Bidder shall be under an obligation to enter into such agreements at its own sole cost, expense and risk.

8.5 RISK & COST CLAUSE

8.1 In case of persistent breach/default of the terms and conditions of the Contract and due to abnormal delay (beyond the maximum late delivery in the Liquidated damages clause) in supplies, defective supplies or non-fulfilment of any of the terms and conditions of the RFP and the Work Order, BECIL may cancel the contract/Work Order in full or part thereof, and will procure supplies/equipment's or ensure the execution of work or any pending service in case of service contract from other willing vendor at the risk and cost of the Bidder/Agency.

8.2 Risk & Cost Clause, in line with Conditions of Contract may be invoked in any of the following cases:

8.2.1 Agency/ Bidder's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to Agency including unexecuted portion of work/ supply does not appear to be executable within balance available period.

8.2.2 Withdrawal from or abandonment of the work by Agency/Bidder before completion of the work as per contract.

8.2.3 Non completion of work/ Non-supply by the Agency/ Bidder within scheduled completion/delivery period as per RFP or as extended from time to time, for the reason attributable to the Agency/ Bidder.

8.2.4 Termination of Contract on account of any other reason (s) attributable to Agency/ Bidder.

8.2.5 Assignment, transfer, subletting of Contract by the Agency/Bidder without BECIL's written permission resulting in termination of Contract or part thereof by BECIL.

8.6 Extension of time

8.6.1 It is hereby agreed that BECIL shall by mutual agreement update and extend the timeline/ milestone for the completion of work after discussion with the Client and its officials.

8.6.2 Any period within which [Vendor name] is unable to complete the work or perform its obligations due to persistence of force majeure event, shall be extended for a period equal to the time during which the [Vendor name] was unable to perform such action.

8.6.3 Any extension of time agreed upon mutually shall be documented in writing and signed by both the parties to be affected.

8.7 LIQUIDATED DAMAGES

If the [Vendor name] fails to achieve the completion of the work in accordance with the scheduled completion date as given in the RFP or the subsequent Work Order issued thereto, BECIL may without prejudice to any other right or remedy available to it as under the Contract or Law:

8.7.1 Any liquidated damages imposed on BECIL by the Client, BECIL shall pass on the entire quantum of liquidated damages to the bidder/ selected agency on back-to-back basis.

8.7.2 The amount towards Liquidated Damages shall become leviable from the scheduled completion date or from the expiry of the extension, if any, given by BECIL without the levy of Liquidated damages.

8.7.3 BECIL may without prejudice to its right to effect recovery by any other method, deduct the amount of Liquidated Damages from any money belonging to the Bidder which has become due or payable (which shall also include BECIL 's right to claim such amount against Bidder's Bank Guarantee)

8.7.4 Any such recovery of Liquidated Damages shall not in any way relieve the Bidder from any of its obligations to complete the works or from any other of its other obligation and liabilities under the Contract.

8.8 Undue Influence

8.8.1 The [Vendor name] undertakes that it has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the BECIL or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favor or disfavor to any person in relation to the present Contract or any other Contract with the Government of India.

8.8.2 Any breach of the aforesaid undertaking by the [Vendor name] or any one employed by it or acting on its behalf (whether with or without the knowledge of the Agency) or the commission of any offers by the Agency or anyone employed by him or acting on his behalf, as defined in the Bharatiya Nyaya Sanhita, erstwhile known as the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle BECIL to cancel the contract and all or any other contracts with the [Vendor name] and recover from the [Vendor name] the amount of any loss arising from such cancellation.

8.9 Unethical Practice

8.9.1 If the [Vendor name] has engaged in corrupt, fraudulent, collusive and coercive practices or defaulted commitments under integrity.

8.9.2 Any intentional omission or misrepresentation in the documents submitted by the [Vendor name] for the purpose of due diligence or for the execution of any act essential for the execution of the Project.

8.9.3 If the [Vendor name] uses intimidation / threats or bring undue outside pressure on BECIL or any of its official for acceptance / performances of the deliverable/qualified work under the contract:

8.10 Penalty for Unethical Practice and Undue Influence

8.10.1 Forfeiture of Bank guarantee or any other bond or bid security submitted by the [Vendor name].

8.10.2 Cancellation/ termination of the Contract with the liberty to recover the accrued losses/damages from the pending bills raised by the Bidder against the delivery of material and execution of work.

8.10.3 Initiation of arbitration /legal proceedings to recover losses or damages incurred by BECIL due to the violation of ethical practice or use of undue influence by the [Vendor name].

8.11 PENALTIES

8.11.1 In the event of any penalties, deductions, disincentives, or charges levied by the [Client Name] due to poor or substandard quality of work, non-compliance with service standards, or any deficiencies related to the assigned scope of work, the same will be recovered from the bills submitted by the System Integrator.

8.11.2 The System Integrator shall bear the full financial responsibility for such penalties or deductions imposed on BECIL by [Client Name] and will not be entitled to claim any reimbursement or adjustment for the same.

8.12 TERMINATION

8.12.1 Termination of Contract by BECIL due to unsatisfactory performance

8.12.1.1 If the [Vendor name] refuses or fails to execute the specified quantum of work or any separate part thereof with diligence or ensure its completion within the time specified in the RFP, or subsequent work order issued thereto, then it shall be open to BECIL at its option by written notice to the [Vendor name] to-:

8.12.1.2 To terminate the contract without prejudice to any other remedy available under the Contract. That a notice of cure, highlighting the deficiency or problem shall be served on the [Vendor name] by BECIL, with an opportunity to cure the same within a window period of 15 days. That on the non-resolution of deficiency, a notice of termination shall be served on the [Vendor name] and the Contract shall be deemed terminated after a period of 15 days from the date of notice of termination.

8.12.1.3 That the contract shall stand terminated and shall cease to be in force and in effect after a fifteen day period from the date of the notice of termination. The [Vendor name] in consequence of the above, shall stop forthwith any of its work then in progress, except such work as BECIL may, in writing, require to be executed at the designated site/premises.

8.12.1.4 That the whole or part of the performance security furnished by the [Vendor name] is liable to be forfeited without prejudice to the right of BECIL to recover from the [Vendor name] any accruing or incurred losses or damages, on account of termination of contract due to unsatisfactory performance/ delay in execution of work.

8.12.2 Termination due to breach

8.12.2.1 BECIL may, without prejudice to any other remedy available for the breach of contract, may terminate the contract in sub-sequence to non –resolution of deficiency after the service of a notice of cure with a window period of fifteen days. After the end of the cure period, a 15 (fifteen) days' notice shall be served on the [Vendor name], and the contracts shall be deemed terminated after the end of the period of fifteen days from the date of notice of termination.

8.12.2.2 The following sub-clauses shall attract the provision of termination, in the event if -:

a. If the [Vendor name] has abandoned or repudiated the Contract;

b. If the [Vendor name] has without valid reason failed to commence work on the project promptly;

c. If the [Vendor name] has persistently failed to execute the works/express deliverable in accordance with the Contract or persistently neglects to carry out its obligations under the Contract without just cause;

d. If the [Vendor name] defaults in proceeding with the works/job with due diligence and continues to do so after a notice in writing of fifteen (15) days from BECIL;

e. If the [Vendor name] has obtained the contract as a result of undue influence or ahs adopted unethical means/corrupt practices.

f. if the information submitted/furnished by the [Vendor name] is found to be incorrect;

8.12.2.3 That any pending bills/ invoices raised by the [Vendor name] , prior to or post the termination of the contract on account of its breach of terms and conditions shall be put on hold for a period of six weeks, and any amount deducted by the Client against the bills raised by BECIL shall be consequently deducted from the bills raised by the [Vendor name], respectively.

8.12.3 Termination due to Insolvency

8.12.3.1 If the [Vendor name] dissolves or become bankrupt or insolvent or cause or suffer any receiver to be appointed for its business of any assets thereof compound with his Creditors, or being a corporation commence to be wound up, not being a member's voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a Receiver for the benefits of its Creditors any of them, then BECIL shall be at liberty :-

8.12.3.2 To terminate the contract forthwith upon coming to know of the happening of any such event as aforesaid by a fifteen day notice in writing to the [Vendor name] or to give the Receiver or liquidator or other person, the option of carrying out the contract subject to its providing a guarantee upto an amount to be agreed upon by BECIL for due and faithful performance of the contract.

8.12.4 Termination for Convenience

BECIL can terminate the Agreement by serving a 30 day notice without assigning any cause or reason on the part of [Vendor name]. The contract shall be deemed terminated after a period of 30 days from the date of termination notice.

8.13 Post Termination Responsibility :

8.13.1 In all cases of termination herein set forth, the obligations of BECIL to pay shall be limited to the period upto the date of termination, subject to the receipt of such payment from the Client.

8.13.2 That any pending bills raised by the [Vendor name]. , prior to or post the termination of the Contract on account of the breach of the terms and conditions of the contract, shall be put on hold, till the time , the corresponding payment is received from the Client and any amount deducted by the Client against the bills raised by BECIL shall be consequently deducted from the bills raised by the Bidder respectively.

8.13.3 The[Vendor name]. shall forthwith stop any of its work then in progress, except such work as BECIL may, in writing, require to be executed at the designated site/premises.

8.13.4 That in the event of termination under clause 8.12.1 and 8.12.2 the whole or part of the performance security furnished by the [Vendor name]. is liable to be forfeited without prejudice to the right of BECIL to recover from the[Vendor name]. any accruing or incurred losses or damages, on account of termination of contract due to unsatisfactory performance/ delay in execution of work

8.14 TAXES

8.14.1 [vendor name] shall bear all taxes and duties etc. levied or imposed on them under the Agreement including but not limited to, Customs duty, Excise duty, GST, any other taxes and all Income Tax levied under Indian Income Tax Act – 1961 or any amendment thereof during the entire Agreement period.

8.14.2 Should [vendor name] fail to submit returns/ pay taxes in times as stipulated under applicable Indian/ State Tax Laws and consequently any interest or penalty is imposed by the concerned authority, [vendor name] shall pay the same. [vendor name] shall indemnify BECIL against any and all liabilities or claims arising out of this Agreement for [Client Name] tender for such taxes including interest and penalty by any such Tax Authority may assess or levy against the BECIL.

8.15 Indemnity

8.15.1 The Bidder shall indemnify, save, hold harmless and defend BECIL and its officers, servants, employees and agents promptly upon demand and at its expense, from and against any and all suits, proceedings, actions, demands, losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which BECIL may become subject, insofar as such losses arise out of, in any way relate to, arise or result from:

a) Any Compensation/ claim or proceeding by any third party against BECIL arising out of any act, deed or omission by the[vendor name] ;

b) Any breach by the [vendor name] of any of its obligations under this Contract or from any negligence under the Contract, including any errors or deficiencies in the performance its scope of work.

8.15.2 That BECIL shall have no liability whatsoever for any injury/death to the staff of [vendor name] caused or suffered during the performance of it's obligations hereunder

8.16 ASSIGNMENT AND SUB-CONTRACTING

8.16.1 Neither this agreement nor any of the rights and obligations under it can be assigned by any party. Parties may engage sub-contractors by mutual consent.

8.16.2 [vendor name] shall not participate directly or indirectly whether in ~~consortium~~ or separately in [Client Name] Tender and shall not quote rates to any other party participating/pre-qualified for the current [Client Name] Tender directly or indirectly through its subsidiary, partnership, ownership, individual firm etc.

8.17 FORCE MAJEURE

8.17.1 For the purpose of this Contract, the term "Force Majeure" shall mean 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 impractical as reasonable to be considered impossible in the circumstance, inclusive of but not limited to war, riots, civil disorder, earthquake, fire, 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 nay other action by the Government Agencies.

8.17.2 Force Majeure shall not include (i) any event which is the caused by the negligence or intentional action of a Party or by 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 acceptance of the work order under this RFP, and avoid or overcome with persistent effort in carrying out its respective obligations.

8.17.3 In the case of failure to perform this Agreement due to any force majeure, neither party shall be liable for such failure, and this Agreement shall be terminated automatically, if the persistence of such force majeure event continues for more than three months. In the case of failure to perform any part of this Agreement due to any force majeure, the party suffering from such force majeure may be exempted from corresponding liability to the extent of the impact of such force majeure. However, such party shall continue to perform other obligations under this Agreement which have not been affected by such force majeure.

8.18 GOVERNING LAW AND JURISDICTION

8.18.1 This agreement is governed by the laws of India and each Party irrevocably and unconditionally submits to the exclusive jurisdiction of the Courts at New Delhi, India.

8.18.2 Where the [vendor name] has not agreed to dispute resolution, the dispute/ claims arising out of the tender and this agreement shall be subject to the jurisdiction of the competent courts at New Delhi, India.

8.19 ARBITRATION CLAUSE

8.19.1 Conciliation of Dispute

8.19.1.1 Any dispute(s) /difference(s)/issue(s) of any kind whatsoever between/amongst the Parties arising under/out of/in connection with this contract shall be settled mutually and amicably between the Parties, within a time span of thirty days from the date of invocation of dispute vide a written notice by the Aggrieved party. The Aggrieved Party shall notify the other party in writing about such dispute(s)/difference(s)/issue(s) between/amongst the Parties and that such a Party wishes to refer the dispute(s)/ difference(s)/issue(s) to Conciliation. Such Notice/Invitation for Conciliation shall contain sufficient information as to the dispute(s)/ difference(s)/issue(s) to enable the other Party to be fully informed as to the nature of the dispute(s)/ difference(s)/issue(s), as well as the amount of monetary claim.

8.19.1.2 That in the event of reference of dispute for Conciliation, a committee comprising of two members, nominated by each party i.e. the [VENDOR NAME] and Becil respectively shall try to amicably resolve/settle the dispute.

8.19.2 Reference of Dispute to Arbitration

8.19.2.1 In the event of failure in mutual resolution of the issue, any dispute(s)/ controversy(s)/ issue(s) arising out of or in connection with the contract, including any question regarding its existence or validity shall be referred to and finally resolved by Arbitration administered by the Delhi International Arbitration Centre as per the Delhi International Arbitration Centre proceeding Rules 2023.

8.19.2.2 The Aggrieved party wishing to refer a dispute to Arbitration shall give a notice to the Defaulting Party specifying all the points of dispute(s) with details of corresponding the claim amount.

8.19.2.3 The Arbitration Proceeding shall commence within a span of thirty days from the date of receipt of Invocation Notice complete in all respects as mentioned above,

8.19.2.4 The dispute(s)/ difference(s)/controversy(s) shall be adjudicated by a single/sole Arbitrator empanelled with the Delhi International Arbitration Centre.

8.19.2.5 The seat of Arbitrations shall be at New Delhi and the Arbitration proceeding shall be conducted in English.

8.19.2.6 The award of Sole Arbitrator shall be final and binding on the parties and unless directed/awarded otherwise by the Sole Arbitrator, the cost of arbitration proceedings shall be shared equally by both the parties.

8.19.2.7 The provision of the Arbitration and Conciliation Act, 1996 as amended and applicable from time to time shall apply to the Arbitration proceedings under this Contract.

8.19.2.8 That any claim of damage(s) or losse(s) incurred by BECIL as a consequence of the invocation of the litigation/arbitration proceeding owing to the suspension or abandonment of work by the [vendor name] shall be reimbursed by [vendor name]

8.19.4.2 In the event of initiation of AMRCD proceedings between BECIL and the client, the decision / mutual settlement arrived at, on the conclusion of the proceeding between the parties, shall in turn become applicable on [vendor name]

8.21 RIGHT TO INSPECTION

8.21.1 That BECIL and its field officers or its Auditors, shall have the right to carry out inspection checks and tests, and do audit of the Bidder's premises, personnel and records relating to the project in order to ensure there is no compromise on the quality of goods/services provided by the Bidder to the BECIL and its Client. The BECIL has a right to review and monitor the security practices and control procedures adopted by the Bidder. The Bidder shall produce and make available all such books, records, information, etc., related to project work for the purpose of Inspection/ audit as sand when required.

8.21.2 That BECIL shall have the right to review and monitor the performance of the Bidders on a continuous basis system integrator shall furnish necessary particulars, statements, etc., as desired by the BECIL in a periodical manner for the purpose of assessment of their performance.

8.22 NOTICES

8.22.1 Any notice, invoice, approval, advice, report or notification in connection with this Contract shall be in writing and any notice or other written communication pursuant hereto shall be signed by the party issuing the same and shall be addressed to the BECIL or the System Integrator and may be given by delivering the same by hand or sending the same-by prepaid registered mail, official e-mail or facsimile to the relevant address forth below or such other address as each Party may notify in writing to the ether Party from time to time. Any such notice given as aforesaid shall be deemed to be served or received at the time upon delivery (if delivered by hand) or upon actual receipt (if given official e-mail or facsimile) or Fifteen (15) clear days after posting (if sent by post).

(a) Any notice or other document which may be given by either Party under the Contract/ Agreement shall be given in writing in person or by pre-paid recorded delivery post, email.

(b) In relation to a notice given under the Contract/ Agreement, any such notice or other document shall be addressed to the other Party's principal or registered office address as set out below:

Name: Mr. Binay Kumar Tiwari **Designation:** Dy. General Manager **Address:** Broadcast Engineering s India Ltd, C-56/ -17, Sector- 62, Noida- 201307, U.P. **Email:** binaytiwari@becil.com	**Name:** Mr. [vendor representative name] **Designation:**_____ **Address:** [Vendor Address] **Email:** [Vendor Email]

8.22.2 In relation to a notice given under the Contract/ Agreement, a Party shall specify the Parties address for service of notices, any such notice to be copied to the Parties at the addresses set out in this tender.

8.22.3 Any such notice or other document shall be deemed to have been given to the other Party (or, if relevant, its relevant associated company) if delivered between the business hours of 9.00 am and 5.30 pm at the address of the other Party set forth above, or on the next working day thereafter if delivered outside such hours, and 7 days from the date of posting (if by letter).

8.22.4 Either Party to the Contract may change its address, telephone number, and nominated contact for notification purposes by giving the other Party reasonable prior written notice of the new information and its effective date.

8.24 No Waiver

No failure on the part of the either party hereto to exercise, and no delay on its part in exercising, any right or remedy under this Contract will operate as a waiver thereof nor will any single or partial exercise of any right or remedy preclude any other or further exercise thereof or the exercise of any other right or remedy and the same shall not affect in any manner the effectiveness of any of the provisions of this Contract.

8.25 SURVIVAL

8.25.1 The Rights and obligations under this Agreement that by their nature should survive and will remain in effect after termination or expiration of this Agreement.

8.25.2 Each indemnity and guarantee arising in respect of this agreement survives the performance of obligations arising out of or under this agreement and the termination of this agreement and will continue in force as long as necessary to affect their purpose.

8.26 AMENDMENT

Unless otherwise stated expressly, this Contract shall be modified only by an instrument in writing duly executed by both the parties.

8.27 SEVERABILITY

If any provision of this agreement is held invalid by any law or regulation of any government or by any court or arbitrator, that invalidity will not affect the enforceability of any other provision.

8.28 DAMAGES

Once the Bid has been submitted for primary tender of [Client Name] , [vendor name] cannot withdraw from the Agreement. Any damage/ loss caused to BECIL due to failure on the part of the [vendor name] to enter into a detailed agreement with [Client Name] shall be borne by the [vendor name] and will be made good by the [vendor name] in case BECIL has to make payment of any damages/penalty to [Client Name].

8.29 LIMITATION OF LIABILITY:

With the exception of any breach of confidentiality obligations, neither party will be liable to the other party for any costs, damages, expenditure, loss of profits, prospective profits of any kind or nature etc. arising from the termination or alleged breach of this agreement or in any manner arising from this agreement.

8.30 By signing this Agreement, BECIL, and [vendor name] acknowledge that it correctly records the understanding they have reached with regard to the Project.

8.31 [vendor name] shall be liable to BECIL to compensate any losses or damages if so suffered by BECIL for any breach of this agreement and/ or action initiated by the [Client Name] for non-performance of the contract.

8.32 Nothing in this agreement shall constitute, create or give effect or recognize a , partnership or business entity of any kind.

8.33 On award of the work of the [Client Name] tender to BECIL, BECIL may enter into a detailed Inter-se Agreement with [vendor name] based on the terms and Conditions of the agreement, BECIL EOI, [Client Name] tender as well as the Contract signed between BECIL & [Client Name] .

8.34 After mutual consultation, a joint team consisting of representatives of the parties will be formed for various activities like, technical discussions, deciding the preparation of final Bid/ offer, terms & conditions and demonstration of functionality required in the [Client Name] Tender/Work/Project.

8.35 Expenses towards bid preparation would be borne by the individual Parties viz. BECIL and [vendor name] for their respective work. BECIL will not reimburse any such expenses to [vendor name] towards preparation and submission of the bid.

8.36 Notwithstanding anything contained in any other agreement, document, correspondence, arrangement between the parties in respect of [Client Name] Tender/ Works / Projects, the [vendor name] understands, agrees and undertakes that:

8.36.1 At any given point of time, [vendor name] may not assign or delegate its rights, duties or obligations under this agreement to any other party, without prior written consent of BECIL.

8.36.2 In the event of breach of any of the terms & conditions of this agreement or in case of any default of any terms & conditions of this agreement, on the part of [vendor name], BECIL reserves the right to take necessary steps / action as per available documents, including but not limited to, termination of contract, forfeiture of Performance Security / EMD, blacklisting / banning etc. and execute the work at the risk & cost of the [vendor name].

8.37 BLACKLISTING/ DEBARMENT

[vendor name] shall be debarred/blacklisted from bidding for the contract/tender/EOI floated by BECIL for a period of two years, for violation of the code of integrity, Conflict of Interest as well as for the material breach of terms and conditions of the tender as per the General Financial Rules 2017 and the Guidelines for debarment of firms from bidding issued by the Department of Expenditure, Ministry of Finance no. F1/20/2018 –PPD dated 02.11.2021.

8.38 MSME

8.38.1 The Subcontractor acknowledges and confirms that the Main Contractor shall be liable to make payments only upon receipt of corresponding payments from the Principal Employer/client. Accordingly, the Subcontractor shall not raise any claims, demands, interest, compensation, or initiate any legal proceedings against the Main Contractor for any delay in payment arising out of delayed release of funds by the Principal Employer/client.

8.38.2 The Subcontractor waives any rights under the Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act) or any similar legislation or regulation, to the extent such rights conflict with the agreed payment terms under the Subcontract Agreement. The Subcontractor further waives its right to claim Interest on delayed payment by the Main Contractor, under the Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act) or any similar legislation or regulation for the time being in force in India.

8.39 COUNTERPARTS

This agreement is executed in two counterparts, with each party retaining one original.

8.40 ENTIRE AGREEMENT

This agreement hereto constitutes the entire agreement between the Parties with regard to the subject matter contained in this agreement and supersedes all prior negotiations, representations, agreement and understandings, written or oral preceding the execution of this agreement.

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have executed this Pre-Bid Agreement as of the date first above mentioned.

This Agreement has been signed on behalf of the parties by their respective duly authorized representatives as of the Effective Date.

On Behalf of BECIL	On Behalf of [vendor name]
(Binay Kumar Tiwari) Dy General Manager	(vendor representative) title
Signature of Witness: Name: Title:	Signature of Witness: Name: Title:

SCHEDULE 1: DETAILED SCOPE OF WORK

[from client primary tender]

BIHAR STATE POWER HOLDING COMPANY LIMITED
(Regd. Office: Vidyut Bhawan, Bailey Road, Patna)
IT Department
CIN No. U40102BR2012SGC018495

NIT NO:-13/PR/BSPHCL/2026

INVITATION FOR EXPRESSION OF INTEREST

Bihar State Power Holding Company Limited (BSPHCL), a Government of Bihar Undertaking, invites Expression of Interest (EoI) for Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application (Supply, Design, Develop/customize, Implement, Operational support and Maintenance of a responsive Dashboard and Mobile Application that leverages Artificial Intelligence (AI) and Machine Learning (ML) technologies to provide advanced analytics, reports, and actionable insights to all existing IT systems currently in use/to be implemented in future in BSPHCL and its subsidiary companies for a period of 5 Years post Go Live). Online EoI from eligible and experienced Agencies / Firms / Companies / State or Central Govt. undertaking who have necessary experience are welcome.

Particulars	Cost of EoI document
Invitation for EoI for Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application	Rs. 5,000/-

Period of Sale/download of Invitation for EoI document	From: 01.04.2026 (up to 15:00 Hrs.) through website www.eproc2.bihar.gov.in
Submission of EoI through website www.eproc2.bihar.gov.in	Up to - 22.04.2026 (up to 17:00 Hrs.)
Date of Vendors (Pre Bid) meeting	07.04.2026 at 11:30 Hrs.
Opening date of EoI:	23.04.2026 at 15:00 Hrs.
Date of Presentation:	To be notified after opening of EoI (www.eproc2.bihar.gov.in)

The EoI document can be downloaded from website www.eproc2.bihar.gov.in. Submission of EoI must be accompanied with receipt of payment towards EoI document failing which the EoI shall be summarily rejected.

Chief Engineer (STF & Project Monitoring)
BSPHCL

INVITATION

FOR

EXPRESSION OF INTEREST (EoI)

FOR

Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application

BY

तमसो मा ज्योतिर्गमय

बिहार स्टेट पावर (होल्डिंग) क० लि०

BIHAR STATE POWER HOLDING COMPANY LIMITED

VIDYUT BHAWAN, PATNA

DISCLAIMER

The information contained in this Expression of Interest document (hereafter referred to as **"EoI")** or subsequently provided to Applicant(s), whether verbally or in documentary or any other form, by or on behalf of the Company or any of its employees or advisors, is provided to Applicant(s) on the terms and conditions set out in this EoI and such other terms and conditions subject to which such information is provided.

This EoI is not an agreement and is neither an offer nor invitation by the Company to the prospective Applicants or any other person. The purpose of this EoI is to provide interested parties with information that may be useful to them in the formulation of their application for qualification and thus selection pursuant to this EoI. This EoI includes statements, which reflect various assumptions and assessments arrived at by the Company in relation to the Project/s. Such assumptions, assessments and statements do not purport to contain all the information that each applicant may require. This EoI may not be appropriate for all persons, and it is not possible for the Company, its employees or advisors to consider the objectives, financial situation and particular needs of each party who reads or uses this EoI. The assumptions, assessments, statements and information contained in this EoI may not be complete, accurate, adequate or correct. Each Applicant should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this EoI and obtain independent advice from appropriate sources.

Information provided in this EoI to the Applicant(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Company accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

BSPHCL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder, 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 EoI or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the EoI and any assessment, assumption, statement or information contained therein or deemed to form part of this EoI or arising in any way with selection of Applicants for participation in the Bidding Process.

The Company also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any applicant upon the statements contained in this EoI.

The Company may, in its absolute discretion but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this EoI. The issue of this EoI does not imply that the Company is bound to select and shortlist Applications and the Company reserves the right to reject all or any of the Applications or Bids without assigning any reasons whatsoever.

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

SECTION 1. TABLE OF CONTENTS

1. EXPRESSION OF INTEREST

1. The Notice Inviting EoI intends to invite the prospective applicants to suggest the efficient solution to setup centralized data Repository and create AI/ML based dashboard. The BSPHCL through this EoI wants to understand applicants' perspective about the objectives and requirements of the BSPHCL, propose solution for implementation of centralized data repository from different IT systems and able to create AI/ML based dashboards, reports etc., to meet the objectives mentioned in this document.
2. Seek inputs from prospective bidders for defining eligibility criteria, scope of work, technical architecture, SLAs etc.
3. Identify best practices for setting up Data Lakehouse / centralized data repository.
4. Obtain recommendations on:
    - Deployment model (Cloud vs On-Premise vs Hybrid)
    - Technology selection (Open Source vs COTS)
    - Estimate ICT infrastructure sizing (Compute, Storage, Network)
    - Identify AI/ML use cases and dashboard requirements
    - Finalize a robust and future-ready RFP document
5. Bidders are requested to provide inputs on the following:
    - Centralized Data Repository Architecture (Data Lakehouse or Next Generation Data ware house)
    - Data Integration across existing IT systems
    - AI/ML-based analytics and dashboards
    - Mobile application for real-time monitoring
    - Data governance, security, and cyber security framework
    - Deployment strategy (Cloud / On-Prem / Hybrid)
    - Technology stack (Open Source / COTS)
    - ICT infrastructure sizing
    - Implementation roadmap and cost estimates
6. This EOI is non-binding and intended only for information gathering.
7. Participation in EOI does not guarantee qualification in the subsequent RFP.
8. Bidders are required to submit responses in the prescribed formats (Annexures).
9. BSPHCL reserves the right to:
    - Accept or reject any or all responses
    - Modify scope and requirements based on inputs received
10. All information provided by bidders will be treated as non-confidential unless explicitly marked.
11. Bidders may propose innovative approaches and alternative solutions
12. Eligibility Criteria related inputs (Indicative)
    - Experience in Data Lake / Data Warehouse / Analytics projects
    - Experience in Power Sector / Utilities (preferred)
    - Experience in AI/ML-based analytics solutions
    - Financial capability (turnover criteria to be finalized)
    - Certifications (ISO, CMMI, etc.)
    - Final eligibility criteria will be decided post-EOI
13. Eligible bidders may be requested for technical presentation followed by a technical demonstration (Proof of Concept) of the technology proposed to be provided by the applicant.
14. After examining various aspects of EoI received, Purchaser would issue RFP for final selection of suitable agency to operationalize the complete concept.

2. ELIGIBILITY CRITERIA

1. In this EoI, single bidder/ Consortium (Max 2) is only allowed for participation. Any bid not found to be in conformance eligibility conditions may be summarily rejected and not be considered for further evaluation. The invitation to online bid is open to all the agencies, firms, companies, LLPs, State

Government and Central Government agencies, who meet the requisite requirements stipulated herein under and the prospective Bidder (referred as Lead Member) and the 2nd consortium member (in case of a consortium; referred as Consortium Member) shall have to enclose all documentary evidence in support of criteria :

Sr. No.	Particulars	Details
1.	**Registration:** The **Sole Bidder** should be a company registered under the provisions of the Indian Companies Act, 1956 / 2013 or a partnership firm under the Indian Partnership Act, 1932 or the Limited Liability Partnerships Act, 2008. **In case of consortium,** the consortium member should be a company registered under the provisions of the Indian Companies Act, 1956 / 2013 or a partnership firm under the Indian Partnership Act, 1932 or the Limited Liability Partnerships Act, 2008.	**Duly attested copies of:** **a.** Certificate of Incorporation **b.** Certificate of Conversion to LLP/ Consortium (Max 2) **Issued by** **a.** The Registrar of companies **b.** Registrar of Firms
2.	**Turnover & Net Worth** **a.** The Bidder should have a minimum average annual turnover of at least Rs. 500 Crores (Rs Five hundred Crores) per annum from its Indian Operations during the last three (03) Financial Years ending on 31st March 2025, to show it has adequate financial capabilities to carry out the task as per the scope of work. In case of a consortium, Lead Member and Consortium Member combined should meet this requirement of turnover, with Lead meeting minimum 51% , the Consortium Member meet at least 26% of the required MAAT. **b**. The Bidder (with consortium member, if any) should have a positive Net worth for the all the last three (03) Financial Years ending on 31st March 2025.	**a.** Audit statement of accounts the last three Financial Years ending on 31-Mar-2025 (P&L Account, Balance Sheet) duly certified by the Chartered Accountant **b.** Valid Pan Registration **c.** GST Registration *Please note if the audit accounts of FY ending Mar-2025 is not available, the bidder can provide audited statement of accounts the last three Financial Years ending on 31-Mar-2024, 31-Mar-2023 and 31-Mar-2022 respectively (P&L Account, Balance Sheet) duly certified by the Chartered Accountant*
3.	**No Blacklisting** -The Bidder & Consortium Member shall not have been blacklisted from business by any Central or State Ministries / PSUs / State/Central Govt. Department or its subsidiaries as on date of bid opening _ Non-debarment by BSPHCL or its subsidiaries companies as on date of bid opening	a. Undertaking as per Annexure III: Undertaking towards No-Blacklisting. **b.** Undertaking Non-debarment by BSPHCL or its subsidiaries companies as on date of bid opening, firm can use its own format for debarment.

Sr. No.	Particulars	Details
4.	The bidder should have 500+ Full time Resources on its Payroll as on the date of bidding. In case of a consortium, the requirement may be met jointly by the Lead Member & Consortium Member.	Undertaking regrading Full time Resources on its Payroll, firm can use its own format for this.
5.	**Self-declaration** that the information provided by the Bidder & Consortium Member(if any), is true to the best of its knowledge, specifically pertaining to the experience furnished & conflict issues	Undertaking to be submitted as per Annexure I
6.	Valid PAN plus GST Certificate	Duly attested copies issued by the competent authority.
7.	The bidder must be ISO 9001:2015, CMMI level 5 or above and ISO 27001. The certification should be valid on the date of bid submission. In case of a consortium, this requirement needs to be met either by the Lead or 2nd Member and 2nd Member must be ISO 9001:2015 or above certified.	Duly attested copies issued by the competent authority.
8.	**Turnkey IT System Integration (TSI) project Experience** Should have Experience in supply of Hardware/cloud services, Software, licenses along with installation, configuration, customization, implementation, roll Out as well as providing FMS services / System Operation services during the last Five (05) financial years in Central/State PSU or Govt. Organization in India. (One project value @ Rs. 70 Crore OR Two Projects value Rs. 40 Crore OR Three Project value@ Rs. 30 Crore) (In case of a consortium, this requirement needs to be met by either of the Member)	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.
9.	**Experience of similar projects with Integration of multiple department(s) databases** Should have Experience in Creation of central database/ Datawarehouse/ Data lake/Data Lakehouse having minimum 50 Lakhs records datasets during the last Five (05) financial years in Central/State PSU or Govt. Organization in India. (In case of a consortium, this requirement needs to be met by either of the Member)	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.

Sr. No.	Particulars	Details
10.	**Experience in Unified Dashboard/ Analytics using AI/ML** Should have Experience in Unified Dashboard/ Analytics projects using AI/ML in Central/State PSU or Govt. Organization in India in last Five (05) years (One project value Rs. 20 Crore OR Two Projects value Rs. 15 Crore OR Three Project value Rs. 12 Crore) (In case of a consortium, this requirement needs to be met by either of the Member)	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.
11.	**Experience in Power Sector** Should have Experience in Power Sector (Generation, Transmission or Distribution) in Central/State PSU or Govt. Organization in India in last Five (05) years (One project value Rs. 20 Crore OR Two Projects value Rs. 15 Crore OR Three Project value Rs. 12 Crore) (In case of a consortium, this requirement needs to be met by either of the Member)	Work Order/Letter of Award/ Letter of Intent / Contract Agreement and Work Completion/Performance Certification having details to verify the eligibility condition. Certificate to be attached as proof.
	Criteria for OEM	
12.	The proposed Software Analytics Platform including components like Data Ingestion (Data Pipelines), Data Transformation, Data Governance & Security, Data Visualization & Analytics system, ML Framework) should have been deployed in at least 2 Govt./PSU projects in India in last 5 years with minimum value of INR 10 crore each.	Purchase Order / Client Certificate along with user certificate.
13.	The proposed Platform shall be deployed on-premise. The proposed solution should be either COTS product solution or Open-Source. The Enterprise support for proposed platform components must be available with OEM in India.	Undertaking from OEM for availability of enterprise support of proposed products in India.
14.	All proposed OEMs should have Positive Net worth of Last 3 FYs.	Submit relevant financial documents
15.	The OEM should have minimum 5-year presence in India.	Submit relevant documents to validate the criterion
16.	The bidder should have a back-end support agreement/arrangement for services for Advanced Analytics solution support with the OEMs	Submit relevant documents to validate the criterion

2. The applicant must possess the requisite experience, strength and capabilities in providing the services necessary to meet the requirements as described in the Notice Inviting EoI document. Keeping in view the complexity, applicant must also possess the Technical know-how and the Financial wherewithal that would be required to successfully provide the required support services sought by BSPHCL. The EoI/ application must be complete in all respect.
3. EoI can be submitted by Joint Venture/ Consortium of firms. The Joint Venture / Consortium should not consist of more than two parties (including the lead applicant). The conditions mentioned in eligibility can be met jointly in case of consortium.

3. Right of BSPHCL

1. BSPHCL reserves the right to:
    1. Delete, modify, rename, etc. any of the conditions, procedures, etc. given in this Invitation for EoI document for which prior information will be published and a maximum time limit of 7 (seven) days will be given to the participants to respond accordingly.
    2. Reject any application on the basis of furnishing false information/declaration in the application.
    3. Withhold the issue of RfP, and also annul the bidding process without assigning any reason whatsoever.
    4. Obtain confirmation from the principal owner to verify the content of the supporting documents submitted by the applicant/bidder.

4. Limited Tendering

BSPHCL in usual course shall be assessing technical and financial strength of applicants who have submitted EoI at this stage. Based on the assessment BSPHCL may proceed with limited tender inviting only capable/competent applicants for RFP stage. However this Invitation for EoI does not restrict the BSPHCL from awarding the work mentioned in this document through open tender at any time if need arises.

5. One EoI Per Applicant

Each applicant shall submit only one EOI either by himself or as a partner in joint venture or as a member of consortium. If an applicant or if any of the partners in a joint venture or any one of the members of the consortium participate in more than one EoI, the EoIs are liable to be rejected.

6. Cost OF EoI And Fees

The applicant shall bear all costs associated with the preparation and submission of his EoI and the BSPHCL shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the EOI process.
Cost of EOI document (non-refundable): Rs. 5,000 (Rs. Five thousand only). Cost of EOI document has to be paid online on the website www.eproc2.bihar.gov.in

7. EOI Document

1. Contents of EOI Document

This 'Invitation for EoI' Document has been prepared for the purpose of inviting interest of applicants. This document comprises of following:

A. Notice inviting Expression of Interest.
B. Detailed Document of Invitation for EOI comprising the terms and conditions
C. Annexures/Forms to be filled and submitted by the applicants

The applicant is expected to examine all instructions, Forms, Terms and Conditions in this Invitation for EOI document. Failure to furnish all information required as mentioned in the EOI document, or submission of bid not substantially responsive to the EOI document in every respect will be at the applicant's risk and may result in rejection of his EoI. In case of any clarifications/doubts, the applicant(s) shall raise their queries in writing to the BSPHCL authority.

The applicant shall not make any alteration, erasure or obliteration to the text of the EOI document.

2. Clarification on EOI Document

In case the applicant has any doubt about the meaning of any clause of the EOI document, he shall seek clarification from the Office of CE(STF & PMC), BSPHCL, not later than one week before last date of submission of EoI. Any such clarification, together with all details on which clarification had been sought, will be copied to all applicants. All communications between the applicant and BSPHCL shall be carried out in writing/email.

Except for any such written clarification by the BSPHCL, which is expressly stated to be an addendum to the EOI document issued by BSPHCL, no written or oral communication, presentation or explanation by any other employee of BSPHCL shall be taken to bind or fetter BSPHCL under the contract.

8. **Pre-Bid Meeting**

i The Bidder's designated representative(s) is/are invited to attend a pre-bid meeting at Bidder's expense.
ii The purpose of the meeting will be to clarify any issues regarding this EoI document in general and the scope of work in particular.
iii The Bidder may submit any question or query to BSPHCL in writing through e-mail in editable format (MS Word/ XLS only), the scan/image form of query may not be entertained and must reach up to the pre-bid meeting date to BSPHCL. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted as indicated hereafter.
iv Clarification/Corrigendum if any, including the text of the questions raised and the responses given, together with any responses prepared after the meeting, will be transmitted through the e-Procurement System.
v A Pre-Bid Meeting will be held as per the details below**:**

[Date of Pre-Bid Meeting: As per NIT Notice
Venue of Pre-Bid meeting: Vidyut Bhawan, Bailey Road, Patna-800021 (Bihar)
E-mail to share pre-bid queries: itprojectbsphcl@gmail.com by day end of the pre-bid meeting date.
Format to raise pre-bid queries is given below:

Name of Agency:_______________

Name of Contact person with designation, mobile No:_______________

Complete Address Agency: ________________

S.No.	EoI/Tender Clause	Query/Concern	Justification/Remark
1			
2			
..			
..			
n			

Name of contact person & Designation: ------------

e-mail & Mobile No:------------

9. Preparation of EoI

1. LANGUAGE:

The EoI application and all accompanying document shall be in English. In case any accompanying documents are in other languages, it shall be accompanied by an English translation. The English version shall prevail in matters of interpretation.

2. DOCUMENTS COMPRISING THE APPLICATION:

1. The document issued for the purposes of EOI and any amendments issued shall be deemed as incorporated in the application.

2. The applicant shall submit his EoI on or before the date given in the Notice Inviting EOI. The applicant shall submit its application online through EProc website.
3. The applicant should submit its suggestions as requested in EoI document. It should also submit his suggestions regarding additions deletions and modifications in solution being sought by BSPHCL. It may also suggest any additional information to included in final RFP such as Qualification Requirement, Experience etc. for bidders.
4. The applicant shall also be required to submit and deliver a presentation on proposed solution, Technical Data Architecture, technical components of solution stack detailing its concept, working methodology etc. In the presentation applicants shall describe its perspective about the objectives and requirements of the BSPHCL, proposed solution design to improve the decision making of officials of BSPHCL and applicants' technical & financial competency for meeting the desired objectives of the project**.** The format of the presentation would be as detailed below:

a) Applicant Understanding about the project requirements & end objectives.
b) Proposed Data & Functional Architecture for Central Data Repository.
c) Proposed technical stack for Central Data Repository.
d) Demonstration of some sample use cases, data ingestion, data Governance, data analytics etc.
e) Data architectures models type or a hybrid such as Medallion Architecture/ Lambda Architecture/ Kappa Architecture etc.
f) Details about scalability of Storage and processing, how it can be scalable horizontally (Petabyte-scale capacity, High throughput analytics workloads etc.).
g) Details of different methodology how different types of data (Structured, Semi- Structured, un-Structured) shall be ingested in Central Data Repository with proposed technology/solutions including license details.
h) Details of different methodology how different ways (Batch, in-stream) data shall be ingested in Central Data Repository with proposed technology/solutions including license details.
i) Details of Integration of IT and OT data sources securely so as it has minimum impact on source systems as some systems are on cloud and some are in own DC.
j) Detailing about automation of the data pipelines end-to-end starting from data ingestion the source systems, data transformation to the data consumption in data platform with proposed technology/solutions including license details.
k) Detailing about Enterprise-grade data governance and security, data governance including data lineage, metadata management, data quality, Data Lifecycle Management, Data Catalogue, Data Security, Data Encryption, Data Masking and Anonymization etc.
l) Detailing about MLOps to manage the overall model lifecycle development, testing, training and refinement.
m) Detailing about resiliency, high availability, data loss prevention, disaster recovery, and backup/restore capabilities in proposed data Architecture.
n) Detailing about storage layer, Type of storage (Object storage, Block storage, mix), Type of storage media of storage (SAS, SSD, NVME etc.), type of storage device (SAN, Object, DAS etc), Size of each type of storage as per requirements given in document(like Raw Zone, Curated Zone, Production Zone etc).
o) Details about Types of formats supported by storage Parquet/ORC/Avro/JSON/CSV/Arrow etc.
p) Details about modern analytical table capabilities such as ACID transactions, Time travel and data versioning, Schema evolution, Efficient upserts and deletes, Partition pruning, Statistics-based query optimization etc.
q) Details about job orchestration to manage data processing activities that shall ensure smooth and efficient data flow from ingestion through data insights generation.
r) Details about data processing solutions which shall perform required key activities to transform raw data into usable format which shall include and not limited to data extraction, standardization, consistency across datasets, de-duplication, normalization to prepare data for analysis and machine learning operations
s) Details about Dashboards/ Analytics solution including query engines etc.
t) Details of information provided in from Annexure V.1 till Annexure V.18.

10. FORM OF EoI

The Form of EoI shall be completed in all respects and duly signed and stamped by an authorized and empowered representatives of the Applicant. If the Applicant comprises a Joint Venture or consortium, the Form of EoI shall be signed by a duly authorized representative of each member of participant thereof. Signatures on the Form of EoI shall be witnessed and dated. Copies of relevant power of attorney shall be attached.

11. Format and Signing of EoI

The documents comprising the EoI shall be typed all pages of the EoI shall be signed by a person or persons duly authorized to sign on behalf of the applicant. All pages of the bid, where entries or amendments have been made, shall be signed by the person or persons signing the bid.

The EoI shall contain no alterations, omissions or additions except those to comply with instruction issued by the BSPHCL, or are necessary to correct errors made by the applicant, in which case such corrections shall be initialed/signed and dated by the person or persons signing the bid.

12. Submission of EoI

a) The applicant shall submit the EoI online on www.eproc2.bihar.gov.in
b) The applicant shall also submit details of the firm/agency with name, official's details, Office/Residential address and office Telephone numbers, whether the applicant is a sole proprietor/partnership firm and if partnership firm, names addresses and telephone numbers of Directors/Partners also (As per Annexure-II)
c) Self-attested copy of PAN No. card under Income Tax Act;
d) Self-attested copy of GST Registration Number;
e) Self-attested copy of Valid Registration No. of the Agency/Firm;
f) CVs of competent resources (Experience/Qualification)
g) Self-attested copies of documents as mentioned in this document.
h) Duly filled and signed Annexure- I
i) Declaration of Non-Blacklisting as per Annexure-III
j) CA certified details of financial parameters (Turnover, Net Worth and Liquid Asset) as per Annexure-IV
k) All documents required to verify the details mentioned in different clauses of Eligibility criterion.
l) Approach and Suggestions as per different Annexure-V.1 …. V.20

13. Background

1. Bihar State Power (Holding) Company Limited (BSPHCL) is the successor company of erstwhile Bihar State Electricity Board, which has been re-organized w.e.f. 01st November 2012, into Bihar State Power (Holding) Company Limited, Bihar State Power Transmission Company Limited (Transmission), Bihar State Power Generation Company Limited (Generation), South Bihar Power Distribution Company Limited and North Bihar Power Distribution Company Limited (Distribution).
2. Bihar State Power (Holding) Company Limited (BSPHCL) being the holding company of the two DISCOMs is responsible for effective monitoring of the physical and financial progress of all the infrastructure works, consumer service, revenue monitoring, power procurement and other commercial activities across BSPHCL and its subsidiaries.
3. BSPHCL and its subsidiaries have implemented islands of IT software applications to meet the requirements of business and for delivering services to consumers and other stakeholders. These IT applications are working as per business requirements. During the process of various operations these IT systems generate lots of data.
4. There are different kinds of challenges BSPHCL and its subsidiaries is facing while managing the data of various existing systems. Indicative list of the same is given below:
    4.1. Limited Cross-Functional Insights: Inability to correlate data across systems.
    4.2. Fragmented View of Operations: Management does not get a 360-degree view of business performance.

4.3. Limited Data-Driven Culture: Time lag in consolidating and validating data affects timely decisions.

4.4. Lack of Predictive Insights: Absence of advanced analytics (forecasting, demand prediction, loss analysis) by using AI/ML/Deep Learning.

4.5. Different Versions of Reporting: Multiple versions of reports leading to confusion at management level.

4.6. Data Silos: Multiple applications (Billing, Smart Metering, SCADA, ERP, Payroll etc.) store data independently, leading to fragmented datasets.

4.7. Heterogeneous Data Formats: Different systems use different data structures, schemas, and standards, making integration complex.

4.8. Data Redundancy & Inconsistency: Same data (e.g., consumer details) exists in multiple systems with mismatches.

4.9. Lack of Single Source of Truth (SSOT): No unified, authoritative dataset for enterprise-wide use.

4.10. Latency in Data Availability: Delay in data consolidation impacts near real-time visibility.

4.11. Manual KPI Computation: Heavy dependence on manual data extraction and Excel-based reporting.

4.12. Lack of Real-Time Metrics: KPIs are often available with significant delay (daily/monthly instead of real-time).

4.13. Limitations in Data Ownership: No clear accountability for data across systems and departments.

4.14. Lack of Data Standards: No enterprise-wide standards for data definitions, formats, and naming conventions.

4.15. Inadequate Master Data Management (MDM): Poor control over key master data like consumers, assets, feeders.

4.16. Data Access: Difficulty in enforcing role-based access across multiple systems.

4.17. Challenges in real time monitoring: Difficulty in tracking real-time operational performance and exceptions.

4.18. Risk of Data Leakage: Data exchange between systems/vendors increases exposure

14. Expected Proposed Solution

1. BSPHCL is inviting EoI for “Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application” in BSPHCL and its subsidiary companies.
2. There is a requirement that all the data/information available in different existing information systems needs to be collected, transformed, analyzed to discover trends and made available in form of reports, dashboards, charts, graphics, key performance indicators etc. through various visualization options for decision makers. Consolidated data needs to be stored in separate platform/system then processed and deliver advanced integrated dashboards, analytics, data-driven reports, and actionable insights as per requirements of various stakeholders by leveraging the latest data analytics technologies like Artificial Intelligence (AI) and Machine Learning (ML), Deep Learning etc.
3. The proposed Dashboard/Analytics/AI system should support BSPHCL and its subsidiaries in converting service delivery data into meaningful insights, enabling stakeholders to identify actual problem areas and improve overall performance. This will lead to enhanced service delivery, better planning, informed decision-making, and strengthened governance. The proposed Artificial Intelligence (AI) /Business Intelligence (BI) system's robust analytics and dashboards must offer easy and quick interpretation of complex data. It should also accommodate the current data landscape of various IT initiatives and projects. The proposed dashboard shall be available as a responsive web application and also as a native mobile application. The proposed system may further be utilized for generating analytics reports and dashboards to support future requirements and evolving business needs.
4. The proposed AI/ML-enabled platform shall be designed to support timely corrective actions, facilitate informed decision-making, and assist in strategic planning by identifying existing issues and forecasting future trends based on historical data patterns. The Integrated Dashboard aims to enhance the purchaser's capacity to anticipate and respond to emerging scenarios effectively, thereby strengthening strategic responsiveness, operational efficiency, and stakeholder confidence.

5. The proposed system needs to be developed by following formal and disciplined approach like Data Mining (Identifying and extracting relevant data from data sources), Data Cleansing (removing errors and duplicate data in preparation for analysis), Statistical analysis (using statistical methods and artificial intelligence to interpret result and develop insights), Data Presentation (communicating results using a variety of techniques including visualization and data story telling).
6. The proposed system needs to include all types of data analytics like descriptive analytics (What happened?), diagnostic analytics (Why did it happened?), predictive analytics (What may happens?), prescriptive analytics (What should be done?)
7. It is envisaged that the proposed analytics solution shall be capable of continuously collecting data from all existing automated systems and performing analytics in accordance with the requirements of BSPHCL. In addition, the solution is expected to support the creation of digital workflows to capture process-related information that is currently recorded in physical paper form, by leveraging technologies such as Low Code/No Code (LC/NC) platforms and/or Digital Experience Platforms (DXP). This will ensure that all operational, process, and service-related aspects of BSPHCL and its subsidiaries are comprehensively captured and reflected within a centralized analytics platform.
8. The system will ingest, process, and transform large volumes of structured, semi-structured, and unstructured data to support Artificial Intelligence (AI), Business Intelligence (BI), and Advanced Analytics use cases. The proposed solution shall be hosted in BSPHCL own DC/DR.
9. It is envisaged that the proposed analytics solution shall be able to collect data from all automated systems continuously and perform the analytics as per requirements of the BSPHCL. It is also expected that create workflows to capture information related process which are presently captured in physical paper form using various technologies like Low Code/No Code (LC/NC) platform and or Digital Experience Platform (DXP) so that all aspects of BSPHCL and its subsidiaries getting reflected on centralized analytics platform.
10. The primary objective of the proposed system is to design and implement a Next-Generation Data Lake and Integrated Analytics Platform that consolidates data from multiple IT ecosystems across power distribution, transmission, and generation companies in Bihar. This includes systems from:
    10.1. DISCOMs: Billing, Smart Metering, Suvidha, CRM, RT-DAS, Outage Management, CGRF, Raid FIR, FAR, SCADA, etc.
    10.2. Transmission: ERP, SLDC, ABT Metering (Energy Accounting), SAMAST, ASBM etc.
    10.3. BSPHCL: Power Procurement, APAR, etc.
    10.4. Generation Companies: Renewable Energy (RE) systems and others.
11. The system will ingest, process, and transform large volumes of structured, semi-structured, and unstructured data to support Artificial Intelligence (AI), Business Intelligence (BI), and Advanced Analytics use cases.
12. Develop Integrated Dashboards for Decision-Makers: Design and implement a multi-layered, role-based dashboard system to serve various stakeholders:
    12.1. CMD, MDs, Directors, and Senior Management: 360-degree view of organizational performance.
    12.2. CEs, GMs, ESEs, EEEs: Operational analytics and service-level KPIs.
    12.3. Field-Level Officials: Circle/Division/Sub-Division/Section level dashboards.

15. Tentative proposed Technical solution

1.1. Enterprise Data Platform Architecture

Agency shall design/ architecture data platform to deliver services of a modern data lakehouse or Next-Generation Data Warehouse solution combining the flexibility of data lakes with the performance and governance of data warehouses, supporting both streaming and batch ingestion at petabyte scale and able to ingest, process, and transform large volumes of structured, semi-structured, and unstructured data to support Artificial Intelligence (AI), Business Intelligence (BI), and Advanced Analytics comply with modern data architecture patterns.

1.2. Key Capabilities of the proposed solution:

1. Establish an Enterprise Data Analytics Platform with a centralized data store to enable data-driven decision making, advanced analytics, regulatory reporting, operational optimization, and predictive intelligence by Installing suitable software and infrastructure components to build Enterprise Data Platform.
2. Perform data engineering tasks including ETL/ELT, and develop various data repositories as part of the overall data platform.
3. The platform is expected to support petabyte scale. It is expected to seamlessly scale both horizontally and vertically and support parallel processing at scale.
4. Create suitable data models and schemas to facilitate fast and relevant reporting and dashboarding.
5. Ingest data (structured, semi-structured, and unstructured) from multiple internal and external sources in real-time and batch mode.
6. The platform should be able to efficiently consume and store data of all popular formats – including structured, unstructured, semi-structured – logs, audio, video, clickstream, IoT, etc.
7. The solution should automate the data pipelines end-to-end starting from data ingestion the source systems, data transformation to the data consumption in data platform. In addition, it should identify and document the meta-data, perform data quality and leakage checks and detect data anomalies and trigger corresponding alerts.
8. Enable end to end data governance including data lineage, metadata management, data quality, etc.
9. Implement MLOps to manage the overall model lifecycle development, testing, training and refinement.
10. Implement and establish a data science workbench.
11. Develop, test, and deploy models according to stated requirements.
12. Integrate MLOps with DevSecOps to manage automated releases into production.
13. Implement and deploy the reporting solution.
14. Develop, test, and deploy reports according to stated requirements.
15. Make the ad-hoc reporting solution available for end-users.
16. The data platform will need to be able to consume and process real time data streams and be able to respond in real time with analytics-based output. The platform should be able to generate reports and dashboards rapidly with minimal / no wait time.
17. The solution must support fine-grained access control and usage framework for each data objects. It should support configuration of users and groups, classification of data according to sensitivity, protecting data in transit and in rest, etc.
18. The data platform solution should support resiliency, high availability, data loss prevention, disaster recovery, and backup/restore capabilities.
19. The current requirement is to have all components on-premise. But the architecture should enable seamless movement of some / all components to public cloud as desired by Purchaser.
20. The proposed solution shall provide:
    - 20.1. A centralized enterprise data repository
    - 20.2. Integration of IT and OT data sources
    - 20.3. Support for advanced analytics and machine learning
    - 20.4. Enterprise-grade data governance and security
    - 20.5. Scalable petabyte-scale data storage and processing
21. The solution may be implemented using either of the following:
    - 21.1. Modern Data Lakehouse platforms
    - 21.2. Next-Generation Data Warehouse architectures
    - 21.3. Hybrid analytical data platforms

22. The proposed platform shall integrate data from diverse sources of different IT systems of purchaser in both real-time and batch data processing at petabyte scale:
    - 22.1. DISCOM IT systems (hosted on own Data Centre [Billing system, Suvidha, RT-DAS, CGRF, Raid FIR, FAR, SCADA etc.], hosted on different Clouds [Smart Metering systems, CRM, Outage System, ERP etc.]
    - 22.2. Transmission IT systems (Hosted on Sate Data Centre [ERP], hosted on own Data Centre [SLDC, ABT Metering, Energy Accounting, SAMAST, C-SOC etc.])

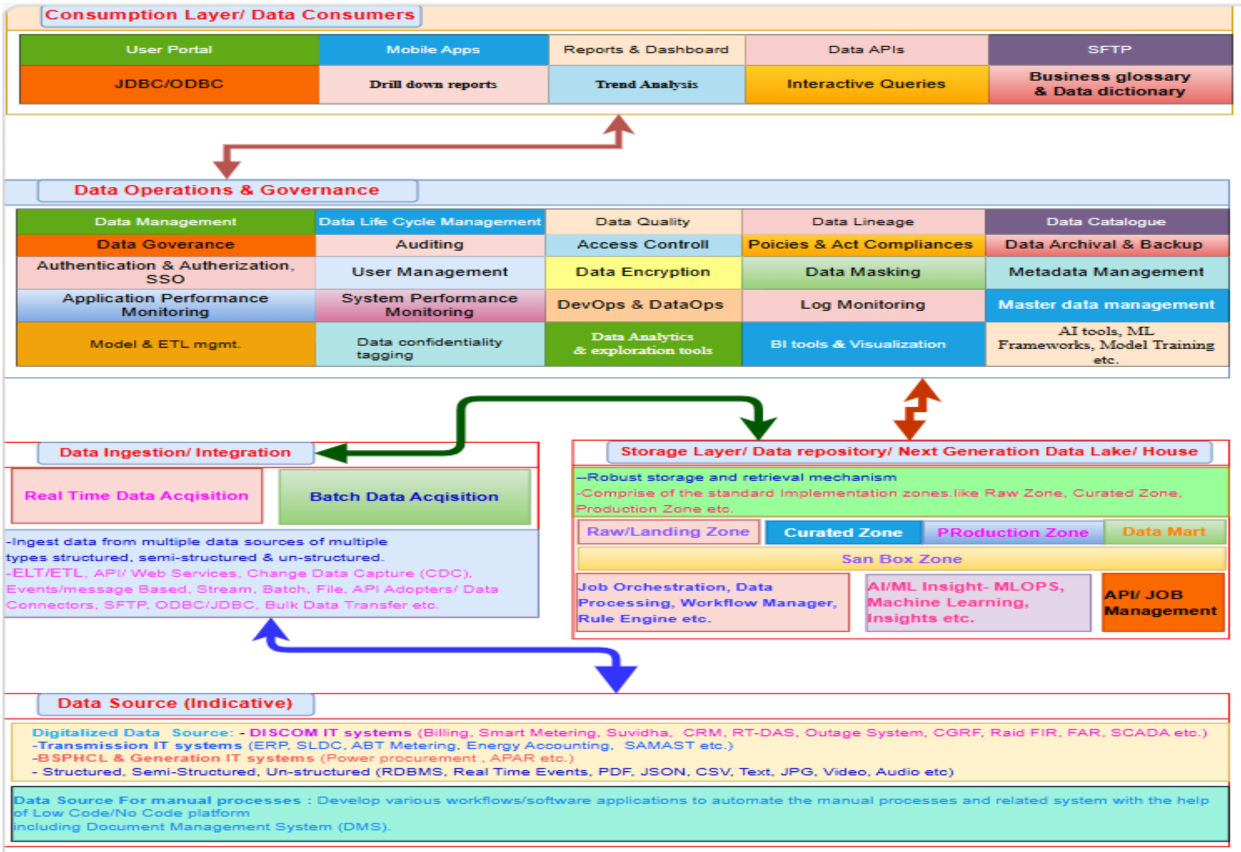
22.3. BSPHCL & Generation IT systems (hosted on different Clouds[Power procurement system] , hosted on own Data Centre [Payroll, APAR etc.])
23. Design, implement and support an on-premises Enterprise Data Lakehouse/Next Generation DWH platform to meet the BI/AI requirements of BSPHCL and its subsidiaries
24. The platform shall serve as a single, authoritative analytics foundation for operational (OT) and enterprise (IT) data, enabling data-driven decision-making across the electricity value chain while meeting government, regulatory, and cybersecurity requirements.
25. Advanced analytics and machine learning, analytics (AI/BI) across distribution, transmission, generation, power procurement etc.
26. Enterprise-grade governance, security, auditability, and regulatory compliance
27. Multi-persona dashboard /data access (Top Management, Middle management, executives, grid operators, planners, analysts, data scientists)
28. Tiered storage supporting long-term regulatory data retention
29. Vendor-neutral, future-proof architecture support open standards for:
    29.1. Data formats
    29.2. APIs
    29.3. Metadata exchange
    29.4. Security integration
30. The platform shall provide a centralized analytical data store capable of storing and processing:
    30.1. Structured data
    30.2. Semi-structured data
    30.3. Unstructured data
31. The proposed platform must support any of the following data architectures models or a hybrid implementation:
    31.1. Medallion Architecture [Layered data processing model consisting of Bronze Layer (Raw source data), Silver Layer (Cleansed and standardized data), Gold Layer (Aggregated business datasets)
    31.2. Lambda Architecture [hybrid architecture supporting batch data processing, real-time streaming processing, unified serving layer]
    31.3. Kappa Architecture [A streaming-first architecture where both real-time and historical processing occur through streaming pipelines]

1.3. High-Level Architecture Overview

The proposed platform data architecture must follow a multi layered, modular architecture designed for mission-critical power-sector workloads, supporting both Information Technology (IT) data & Operational Technology (OT). The selected bidder is required to do thorough assessment of scope of work and propose a comprehensive solution architecture for implementation.
Key design considerations in proposed solution are as under:

- High Availability – Active-Active mode in DC
- Single Availability – Active/Passive mode in DR
- Scalability – Horizontal & vertical scalability
- Security – Security for the application and the endpoints
- Support Open source and open standards
- Vendor/ OEM Agnostic

Tentative High level functional & technical components of proposed analytics platform are depicted in below diagram:



The requisite requirement from various layered components as represented in the indicative solution architecture are described below:

1.3.1. Data Ingestion Layer

The proposed solution shall ingest data from multiple data sources. These data sources may be structured, semi-structured or un-structured in nature. The selected bidder is required to design and create data pipelines which shall move the data from various data sources to the Data Lake/ Data Lakehouse which shall constitute the Data Ingestion Layer.

1. It is required that the system shall have an automated workflow driven system that shall orchestrate data ingestion tasks and should be able to efficiently manage job execution, including the capability to automatically initiate any pending jobs.
2. For an effective data ingestion, it is essential that the ingestion job completes either successfully or rollback completely on any failure in its workflow
3. It is envisaged that the Data ingestion layer shall be fault tolerant, and the system must not duplicate the already ingested data into Data Lake/ Data Lakehouse
4. Data Ingestion Layer must be capable of storing and providing logs. Such data validation activities shall ensure that the system detects and addresses anomalies, and any discrepancies are resolved promptly
5. The proposed solution should support streaming and batch processing of structured / semi structured / unstructured data.
6. Real-time stream Ingestion: Provide ingestion of high-volume streaming data (millions of events per second) from different sources like Smart meter events from different AMISP systems, Billing system etc.
7. Batch Ingestion: Provide scheduled ingestion of bulk data from different enterprise systems such as Billing systems, ERP, Procurement systems, Asset management systems, GIS, Consumer service platforms etc.
8. Ingestion solution shall provide following features:
   1. Synchronous & Asynchronous processing in data pipelines
   2. Serialization and deserialization of data

3. Dynamically scale up or down to accommodate varying data ingestion demands
4. Reliability and durability are critical considerations in the data ingestion stages of pipelines, hence appropriate level of redundancy and self-healing mechanisms to be provided.
5. Detecting and handling upstream and downstream schema changes
6. Schema registries, Metadata management
7. Push, pull, or poll patterns
8. Handle bounded & unbounded data
9. Manage ingestion frequency
10. Data Handling and Transfer capabilities for structured, semi-structured, unstructured
11. Provide Time-interval batch ingestion, Size-based batch ingestion, Snapshot or differential/ incremental extraction, File-based export and ingestion
12. Handling Late-Arriving Data
13. Support various methods for ingesting data like ODBC or JDBC, API, Web Services, Change data capture (CDC)[Batch-oriented CDC, Continuous CDC] etc.
14. Managed Data Connectors, create custom connectors.
15. Secure Data Transfer like bastion host, secure FTP, secure copy (SCP)

9. Data Sources to be Integrated

The platform must support ingestion from the various existing IT systems and upcoming IT systems.

9.1. Enterprise Systems
- Billing systems
- Consumer relationship management systems
- ERP systems
- Procurement systems
- Financial accounting systems
- Fixed Asset Register (FAR)

9.2. OT Systems
- SCADA
- Substation automation systems
- Outage management systems
- Distribution management systems

9.3. AMI Ecosystem
- Smart meters
- Head End Systems (HES)
- Meter Data Management Systems (MDM)

9.4. External Systems
- Weather data
- Market power price data
- Renewable generation data

1.3.2. Centralized Data Storage Layer (Data Lake / Data Lakehouse)

1. A robust storage and retrieval mechanism needs to be established to enable smooth handling of structured, semi structured, unstructured data. Thus, the selected bidder is required to implement a Data Lake/ Data Lakehouse as part of this assignment. The proposed Data Lake/ Data Lakehouse solution shall comprise of the standard Implementation zones, namely:

1.1. Raw Zone: To act as a data landing zone to store data from various sources in the raw/ native format as fetched through various data pipelines. The data must be validated for consistency, accuracy and completeness.

1.2. Curated Zone: The data from the Raw Zone post performing activities namely Data cleaning, de-duplication, conflict resolution, data discrepancy resolution and other related data processing activities shall be stored in the Curated Zone. This zone shall enforce the schema on data stored. The data stored is structured and available for performing analysis.

1.3. Production Zone: In this zone, selected data from curated zone shall be stored for AI/ML processes and advanced analytics and also for model training, and realtime decision-making using Data Marts.

2. The platform shall implement a highly scalable centralized data storage architecture capable of supporting both data lake–style storage and analytical warehouse workloads.
3. The storage architecture must support:
   3.1. Petabyte-scale capacity
   3.2. Horizontal scalability
   3.3. High throughput analytics workloads
4. The storage system must support open data formats including:
   4.1. Parquet
   4.2. ORC
   4.3. Avro
   4.4. JSON
   4.5. CSV
   4.6. Arrow
5. The system must support modern analytical table capabilities including:
   5.1. ACID transactions
   5.2. Time travel and data versioning
   5.3. Schema evolution
   5.4. Efficient upserts and deletes
   5.5. Partition pruning
   5.6. Statistics-based query optimization
6. The storage platform must support multiple storage tiers.
   6.1. HOT Tier: High-performance storage for frequently accessed datasets.
   6.2. WARM Tier: Moderate-performance storage for operational analytics.
   6.3. COLD Tier: Cost-optimized archival storage.

1.3.3. Data Processing/ Operation & Compute Layer

1. The proposed data processing/ operation layer is required to perform job orchestration and manage data processing activities that shall ensure smooth and efficient data flow from ingestion through data insights generation.
2. It is required that the data processing mechanism shall leverage parallel processing and scalability to ensure high performance in processing high volumes of data and should comply with the defined security and governance requirements.
3. The bidder shall propose data processing solutions which shall perform required key activities to transform raw data into usable format which shall include and not limited to data extraction, standardization, consistency across datasets, de-duplication, normalization to prepare data for analysis and machine learning operations.
   3.1. Job Orchestration & Workflow: The job orchestration shall ensure all data processing activities are executed in the correct sequence. Further, the bidder shall also propose workflow in its solution that is required to oversee and coordinate entire lifecycle of data processing activities/jobs/tasks.
   3.2. The workflow shall integrate job scheduling and orchestration to ensure that tasks are triggered through time-based or event-driven scheduling and executed correctly.
4. API Management is essential for ensuring secure, scalable, and efficient communication between various data sources, applications, and services within the Data Lake/ Data Lakehouse architecture. API Management shall enable seamless integration, data exchange, and governance across different systems while ensuring proper security and monitoring of APIs. The bidder shall leverage the existing API gateway solution.
5. AI/ML & Insights: The bidder in its proposed solution must provide a layer for AI/ML & Insights that shall leverage advanced analytics and machine learning to extract actionable insights from

both structured, semi structured and unstructured data within the Data Lake/ Data Lakehouse. It is required that the proposed system shall be highly scalable, reliable and supports parallel processing, optimizing performance to handle increasing data demands. The Insights component shall provide stakeholders with intuitive reports and dashboards, promoting transparency and data-driven strategies. The proposed solution shall have AI capabilities. In addition, the bidder shall propose 3 AI/ GenAI use-cases as part of its proposal which shall be related to the scope of RFP. The bidder shall also be required to demonstrate at least 2 GenAI use-cases as part of the formal Technical Evaluation.

6. Batch Processing: High-performance distributed batch processing for large datasets.
7. Interactive SQL Analytics: High-concurrency SQL analytics for Business analysts, Reporting tools, Data exploration etc.
8. Stream Processing: Real-time data processing capabilities for various data generated by different systems like various events of smart metering systems, Grid monitoring, Operational alerts, Billing systems etc.
9. Machine Learning & AI: The platform must provide distributed machine learning frameworks capable of Model training, Model deployment, Real-time inference etc.

1.3.4. Dashboards & Analytics/ Consumption Layer

1. The platform must support enterprise analytics capabilities to create different Dashboards (Executive Dashboards, Operational Dashboards) perform Advanced Analytics and create report as per the business requirements.
2. In the proposed solution, the bidder shall factor a data consumption layer. The Data Consumption Layer shall encompass programs that expose APIs to provide access to the final data and insights. This layer shall include dashboards, query engines, reports, and scheduled batch processes to deliver data insights to end users.
3. The bidder shall ensure responsiveness and high performance of this layer for delivering query results. Additionally, it is required that this layer supports parallelism to further enhance performance.
4. The broad objective of this layer is:
   4.1. Reporting: The bidder shall provide comprehensive reporting catering to Departmental Users / Top Level Functionaries, Role based Dashboards, BI Reports, Customized Reports as per business requirements.
   4.2. Data Sharing through API: The bidder shall provide the facility for Data sharing through APIs that shall enable seamless integration and communication between different systems and applications, facilitating real-time access to curated datasets. In the proposed solution it is required that it shall enhance data interoperability and shall enable stakeholders to efficiently retrieve and exchange information while maintaining security and compliance standards.

1.3.5. Data Operation & Data Management

1. Data Management: The proposed solution shall have Data Management Layer which shall be responsible for managing the entire data lifecycle, from data ingestion to data consumption by various stakeholders and departments. This is required that it shall ensure data is properly catalogued, archived, secured and monitored, supporting ongoing data-driven operations across the platform. The solution must include:
   1.1. Data Catalogue: component for all system users to easily discover, understand, and access data across various departments. It is required that the catalogue shall include information on classifications, and quality metrics, ensuring that the data is well-documented, searchable, and governed.
   1.2. Data Lineage: to ensure transparency, compliance, and traceability of data from its source to its destination and required to be used for regulatory compliance and auditing, enabling stakeholders to understand data transformations and the flow of information across the system.

1.3. Data Lifecycle Management: to ensure that data is efficiently handled from its creation to its eventual archival or deletion and shall cover data ingestion, storage, processing, access, and retention according to regulatory requirements and business needs.

2. Data Governance: The bidder in the solution shall provide data governance framework that shall govern data across its lifecycle, enforcing role-based access controls and ensuring compliance with industry regulations and internal policies. This is required that it shall have Data stewardship and classification shall be applied to ensure quality, integrity, and proper handling of sensitive information, while enabling collaboration between departments.

3. Monitoring & Logging: the bidder shall design a platform management and monitoring layer to oversee the overall performance of the Data Lake/ Data Lakehouse ensuring that all components operate smoothly and efficiently. This is required that the proposed solution includes continuous monitoring of system performance, conducting regular health checks, and shall track the status of data pipelines to ensure, data flows seamlessly between various stages. Furthermore, it is required that the layer shall provide automated alerts and dashboards which shall enable administrators to maintain optimal system uptime, enhance platform reliability, and ensure seamless operations across the Data Lake/ Data Lakehouse environment.

4. Security: The system shall handle sensitive and critical data, making security and governance a top priority. The selected bidder should ensure that the proposed system adheres to stringent security policies. Below are the security and governance requirements that the bidder should address, including data protection, user access control, and compliance with regulatory standards.

4.1. Data Security The proposed solution shall ensure that all data processed, stored, and transmitted within the proposed system is secure. The bidder is responsible for implementing robust data security mechanisms that protect data at every stage of its lifecycle.

4.2. Data Encryption: The bidder shall ensure that required data, whether at rest or in transit, is encrypted using industry-standard encryption algorithms. The encryption must be integrated with existing security framework, ensuring that sensitive data is protected against unauthorized access or breaches. Encryption would be applied to structured, semi-structured, and unstructured data, especially in the AI/ML processing pipelines where large datasets are transmitted between compute nodes and storage resources.

4.2.1. Data Masking and Anonymization: The solution shall support data masking and anonymization techniques to protect sensitive information, especially when used in non-production environments like UAT/ development. This ensures that sensitive data remains confidential while allowing AI/ML models to process anonymized or masked datasets for training and analysis without compromising data integrity.

4.2.2. Data Integrity and Auditing: To maintain data integrity, the solution should include mechanisms for monitoring and verifying data consistency across different environments. The bidder shall propose solutions for detecting and alerting administrators to any unauthorized data modifications or integrity violations. Additionally, the system must support auditing capabilities that track all data access and modification events, ensuring that any anomalies or breaches are quickly identified.

4.2.2.1. Single Sign-On (SSO) and Multi-Factor Authentication (MFA): The bidder should use existing Single Sign-On (SSO) of purchaser to streamline user authentication across the proposed system.

4.2.2.2. Role-Based Access Control (RBAC): The proposed solution shall implement Role-Based Access Control (RBAC), ensuring that users can access only the data and resources necessary for their role. This granular access control approach shall limit potential security risks and ensure compliance with organizational policies. RBAC policies should be enforced across all system components, including databases, applications, and storage layers.

16. Details Data and Sizing Inputs for Capacity Planning for the Solution and other relevant details

The bidder shall be responsible for the design and do appropriate sizing of the underlying compute and storage infrastructure required to host the proposed system. This should be done taking into account the specified data volumes to be ingested, stored, processed, and used for generating various dashboards and reports for users in a near real-time manner.

1. Minimum number of users who will have access to proposed solution for Dashboards, Reports, BI, Analytics and Mobile apps: 4000 (Approximate).
2. Minimum number of users who will have access to proposed solution to develop the Dashboards, Reports, BI, Analytics and Mobile apps: 50 (Approximate).
3. No of Environments to be considered: Production, Quality & Development.
4. The present data size/ Volumetrics: 500 TB (Approximate).
5. The expected minimum data size/ Volumetrics requirements during next 5 years: 2,500 (Approximate).
6. Daily Data generation rate: 800 GB
7. Tentative details of existing systems to be integrated is given below:
    a. **Billing systems:** There are two billing systems in NBPDCL & SBPDCL, one is SAP billing systems and other is Rural billing system. New Unified Revenue management system (RMS) /Billing system under RDSS scheme is under implementation where all consumers of two existing system shall be migrated in near future.
        i. Approximate Data size/ Volumetrics:
            1. The database size of SAP Billing system is around 34 TB other unstructured data around 50 TB with Oracle DB.
            2. The database size of Rural Billing system is around 10 TB and other unstructured data around 60 TB with Oracle DB.
        ii. All legacy data needs to be stored in proposed system which is available in existing Billing systems for analytics including incremental transactional data.
        iii. Frequency of Data Upload from billing system to new proposed Analytics system: Minimum daily or as and when required as per load of the source system.
        iv. Data Growth: 7-10 TB/Month (Approximate)
        v. Data Volume that should be considered for Analysis(Monthly, bimonthly, quarterly, yearly)
    b. **Smart Metering systems:** Presently there are 8 AMISPs implementing the smart metering system (namely M/s Intellismart, M/s Genus, M/s Adani, M/s Hi-Print, M/s NCC, M/s EESL, M/s Secure, M/s Gram Power). The Smart metering system has been hosted on different CSPs (cloud service providers).
        i. Data size/ Volumetrics: The database size of 300 TB.(Approximate)
        ii. All legacy data needs to be stored in proposed system which is available in existing system for analytics including incremental transactional data.
        iii. Frequency of Data Upload from existing system to new proposed Analytics system: Minimum daily
        iv. Data Growth: 7 - 12 TB/Month (Approximate)
        v. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)
    c. **SAMAST systems (Grid monitoring and control):** SAMAST is deployed in BSPTCL for scheduling, accounting, metering and settlement of transaction.
        i. Data size/ Volumetrics: The database size of 6 TB with Oracle, My SQL and MS SQL DBs.
        ii. All legacy data needs to be stored in proposed system which is available in existing SAMAST system for analytics including incremental transactional data.
        iii. Frequency of Data Upload from SAMAST system to new Analytics proposed system: Minimum daily
        iv. Data Growth: 20% per annum
        v. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)
    d. **Energy Accounting using Availability based tariff (ABT) systems (Energy accounting and real-time monitoring):** This ABT system is deployed in BSPTCL for energy accounting.
        i. Data size/ Volumetrics: The database size of 8 TB with MS SQL DB.

ii. All legacy data needs to be stored in proposed system which is available in existing system for analytics including incremental transactional data.
iii. Frequency of Data Upload from existing system to new proposed Analytics system: Minimum daily
iv. Data Growth: 20% per annum
v. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)

e. **SCADA & Energy Scheduling:** This system is deployed in BSPTCL for energy scheduling for real-time monitoring and control system to ensure balance of supply and demand, Load Forecasting, Regulatory Compliance etc.
   i. Data size/ Volumetrics: The database size of 3 TB OSI OEM Costs product.
   ii. All legacy data needs to be stored in proposed system which is available in existing system for analytics including incremental transactional data.
   iii. Frequency of Data Upload from existing system to new proposed Analytics system: Minimum daily
   iv. Data Growth: 20% per annum
   v. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)

f. **ASBM – Load Balancing & Curtailment (Cloud-hosted):** This system is deployed in BSPTCL for transmission-level safeguard tool that ensures fair, automated, and real-time load balancing & curtailment to protect the grid.
   i. Data size/ Volumetrics: The database size of 3 TB with mongo DB.
   ii. All legacy data needs to be stored in proposed system which is available in existing system for analytics including incremental transactional data.
   iii. Frequency of Data Upload from existing system to new proposed Analytics system: Minimum daily
   iv. Data Growth: 20% per annum
   v. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)

g. Systems hosted at Data Center(DC) and Disaster recovery Centre (DR): BSPHCL and its subsidiary companies has automated various process and these systems has been hosted in DC & DR, the availability status of these systems along with up-time, down-time, ICT infra usage etc. needs to be collected from various devices and solutions of DC and DR. Presently in DC & DR around 100 racks installed [approximate ICT Infra-80 servers (7,000 cores), 30 Networking devices including firewalls, around 1800 TB SAN storage etc.)

h. **Other existing and upcoming IT systems:** Other IT systems like ERP, C-SOC, SCADA to be available in near future for BSPHCL and its subsidiary companies, Data from these upcoming systems needs to be ingested in proposed analytics system, brief details of other systems is given below:
   i. ERP system in DISCOM
      1. Under RDSS Scheme this project has been already awarded and to be implemented in SAS model on Cloud. This system shall be implemented using SAP Technology Stack on Cloud for 7 years from the Go-Live, having different user licenses(Full use-ERP Application Users: 3000, Payroll: 32000, Self Service: 10500) for functional modules Human Capital Management, Finance & Accounts, Projects Systems, Maintenance Management, e-Office etc.
      2. All data needs to be stored in proposed system which shall be available in new ERP system including Master Data and Transaction Data for analytics including incremental transactional data.
      3. Frequency of Data Upload from ERP system to new proposed Analytics system: Minimum daily
      4. Data Growth: 20% per annum

5. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)

ii. Preparation of FAR(Fixed Asset Register) for all power companies of Bihar

1. This project has been already awarded and to be implemented in in DISCOM DC & DRC. This system shall maintain all assets Data of all Electrical Companies including complete life cycle management of asset from procurement till retirement including GIS system.
2. All data needs to be stored in proposed system which shall be available in new FAR system including Master Data and Transaction Data for analytics including incremental transactional data.
3. Frequency of Data Upload from FAR system to new proposed Analytics system: Minimum daily
4. Data Growth: 20% per annum
5. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)

iii. Implementation of C-SOC(Cyber Security Operation Centre) for DISCOM

1. This project in final stage of awarded and to be implemented in in DISCOM DC & DRC. This system shall protect from all cyber security threats of all field users, devices including devices installed at DC & DR. The estimated EPS size of this system is 30K.
2. All relevant data needs to be stored in proposed system which shall be available in new c-SOC system so that it can provide the present status of cyber security threat posture like new cuber incidents reported, Closed incidents, open incidents etc.
3. Frequency of Data Upload from c-SOC system to new proposed Analytics system: Minimum daily
4. Data Growth: 20% per annum
5. Data Volume that should be considered for Analysis (Monthly, bimonthly, quarterly, yearly)

iv. SI shall be responsible to integrate other future IT systems to be implemented during the contract period

17. Minimum Estimate ICT infrastructure

1. The Bidder should carefully analyze the project requirements related to DC & DR ICT Infrastructure to be delivered and the SLA criteria while deriving the right DC & DR ICT resources. The Bidder will provide the design document along with details of solution, equipment‘s, software, throughput, and other services offered with supporting documents.
2. The Bidder will be responsible for adequately sizing the necessary compute, memory, and storage required, building the redundancy with horizontal and vertical scaling into the architecture (N+1) (including storage) and load balancing to meet the requirements of their proposed solution and the service levels mentioned in the RFP. The utilization of underlying ICT infra should not exceed more than 70% at any moment, bidder needs to do the proper sizing considering this. The response time of all services at any time as per SLA. In case if utilization of underlying ICT infra exceed 70% or application response time more than SLA then Bidder needs to increase the ICT infra (at DC, DR) to get back the application response within the limit without any extra cost to purchaser.
3. Bidder needs to calculate IOPS requirements of storage and accordingly provide high-performance disk for OLAP kind of workload without any performance issues and meet the SLAs
4. Bidder should have object storage, block storage, file storage to address different kind of Project needs.
5. The Bidder needs retain all data ingested from different source systems for entire duration of contract accordingly do storage sizing.
6. Bidder needs to increase the required ICT infrastructure (Servers, Storage, Networking devices etc.) to meet the SLA without any additional cost to purchaser.

7. Bidder are free to use existing ICT infrastructure available at DC and DRC without affecting existing solutions running. Bidder shall be accountable to maintain all the used devices either new or existing (in case used old devices).
8. Bidder needs to suggest total minimum DC and DR physical cores and storage (SAN/Object) requirements based on the estimated Data Volume.

18. High Level View of Functional Requirements

1. The scope of the project covers the supply, Design, Develop/customize, Implement and Maintenance of a responsive Dashboard and Mobile App. The Integrated Dashboard is envisioned as a powerful tool that leverages Artificial Intelligence (AI) and Machine Learning (ML) technologies to provide advanced analytics, reports, and actionable insights. This AI/ML-powered solution will not only support corrective measures but also enable informed decision-making and long-term planning by accurately predicting future trends and identifying existing issues through historical data patterns. The Integrated Dashboard will significantly enhance the purchaser’s capability to proactively monitor, analyse, and respond to emerging developments, thereby improving strategic planning and operational efficiency. It will also foster greater transparency, credibility, and trust by facilitating timely interventions. Comprehensive analytics shall examine the interrelationship between parameters and providing valuable insights and correlations. This analysis should aim to assist stakeholders in deriving meaningful information.
2. As part of the solution, a comprehensive reporting and analytics system will be developed to seamlessly integrate data from all existing IT systems. This system will generate both individual and unified dashboards, ensuring that stakeholders have access to intuitive and meaningful reports through a centralized analytics platform. The high level scope of work for the agency shall include the following but not limited:
3. Analytics: Explains what is happening currently and what has happened in the past. In Utility Context:
   - 3.1. Analysis of billing, collection, consumption, arrears, outages, and meter data
   - 3.2. Monitoring KPIs such as AT&C loss, billing efficiency, and collection efficiency
   - 3.3. Consumer-wise, feeder-wise, DT-wise performance dashboards
4. Diagnostic: Explains why something has happened. In Utility Context:
   - 4.1. Identifies reasons for billing inefficiency (wrong meter mapping, faulty meters, estimated bills)
   - 4.2. Diagnoses causes of high arrears (never-paid consumers, wrong bills, disputes, payment behavior)
   - 4.3. Root-cause analysis of losses at feeder/DT/consumer level
5. **Predictive Analytics:** Forecasts what is likely to happen next based on historical data and patterns. Some of the sample use cases envisaged for predictive analytics are listed below:
   - 5.1. Predicts consumers likely to default or pay late.
   - 5.2. Identifies high-risk areas for theft, bypass, or meter tampering.
   - 5.3. Forecasts future arrear growth and revenue risk.
   - 5.4. Anticipates abnormal consumption or billing patterns.
   - 5.5. Transformer Failure Prediction services that may be required by purchaser based on transformer overload or failure using SCADA, smart meter, and other historical load data.
   - 5.6. Feeder Load Forecasting: Forecast short- and medium-term feeder-wise demand using historical data, weather, and event signals.
   - 5.7. Substation Equipment Failure Forecasting
   - 5.8. Preventive Maintenance Scheduling: Use analytics to predict asset aging, insulation failure, overheating, etc., for better O&M planning.
   - 5.9. Theft Detection / Non-Technical Loss Prediction- Identify abnormal usage patterns, meter bypass, or tampering via anomaly detection in smart meter data.
   - 5.10. High Loss Feeder Prediction- Predict which feeders or DTs are likely to show high AT&C losses in the next cycle based on trends.
   - 5.11. Technical Loss Forecasting- Use historical load and network parameters to forecast technical losses.

5.12. Metering Data Anomaly Detection- Predict anomalies in ABT meters or energy accounting meters using trend-based forecasting and peer comparison.
5.13. Billing Irregularity Detection- Identify sudden drop in billed consumption compared to recorded consumption (smart meter vs billing data).
5.14. Consumer Payment Default Prediction- Predict which consumers are likely to delay or default on payment based on past payment behavior, consumption pattern, and socio-economic data.
5.15. Demand-Based Tariff Optimization- Forecast peak usage and design tariff recommendations for consumer categories based on usage clusters.
5.16. Load Profiling & Consumer Segmentation- Classify consumers into clusters (agriculture, residential, commercial, etc.) using smart meter data for targeted interventions.
5.17. Spare Parts Requirement Forecasting- Predict spare parts needs for transformers, switchgear, etc., using failure and maintenance logs.
5.18. Crew Dispatch Optimization- Predict likely outage areas during storm/monsoon to pre-position repair crews for rapid response.
5.19. Complaint Volume Forecasting- Forecast complaint volume by division/circle for better call center staffing.
5.20. Customer Churn Risk Prediction- Predict likelihood of high-value customers shifting to open access (industrial, HT) based on usage trends.
5.21. Weather-Driven Demand Prediction- Use ML models with weather data (temp, humidity) to predict peak load hours, aiding in DSM actions.
5.22. Predict which transmission lines are likely to be overloaded based on real-time load flow and weather conditions.
5.23. Short-Term/Long term Load Forecasting.
5.24. The bidder shall suggest other suitable cases for predictive analytics post reviewing and analyzing the data collated from different sources.

6. Predictive: Forecasts what is likely to happen next based on historical data and patterns. In Utility Context:
   6.1. Predicts consumers likely to default or pay late
   6.2. Identifies high-risk areas for theft, bypass, or meter tampering
   6.3. Forecasts future arrear growth and revenue risk
   6.4. Anticipates abnormal consumption or billing patterns
7. Prescriptive: Recommends what actions should be taken to achieve the best outcome. In Utility Context:
   7.1. Suggests prioritized consumer lists for collection drives
   7.2. Recommends targeted vigilance actions in theft prone areas
   7.3. Prescribes billing corrections or meter replacement actions
   7.4. Optimizes communication strategy (SMS, IVR, WhatsApp, field visit) per consumer profile
8. **Semantic Analytics:** Some of the sample use cases envisaged for semantic analytics are listed below:
   8.1. Consumer Complaint Analysis: Use NLP (Both Hindi & English) to categorize and extract root causes from text complaints (CRM portal/emails, app, Feedback provided by consumer).
   8.2. Semantic Search in Asset Records-Enable intuitive search across asset registers, maintenance logs, and inspection reports using natural queries.
   8.3. Knowledge Graph for Fault Diagnosis-Create a knowledge graph linking faults, transformers, weather, past maintenance, and field crew notes.
9. **Ad-hoc Analysis and Planning**
   9.1. Develop functionalities to support ad-hoc analysis, enabling users to explore data and identify trends.
   9.2. Integrate data mining and machine learning techniques to support data-driven planning and forecasting activities.
   9.3. Capable of producing dashboards without the help of IT team for system integration and publish it for the consumption of department users.
   9.4. Capable of making ad-hoc query through SQL commands as well as GUI based design (drag and drop) along with rich analytical functions.
10. **Data Management**

10.1. Compatible with different data storages like Flat file storage, relational databases, No SQL Databases and big data storages like Hive/HBase.

10.2. Supports on-demand processing with its own data ETL process.

10.3. Supports integration with existing or market leading data preparation/ management platforms.

10.4. Functionality for admin users to create new dimensions, derived metrics etc.

19. Tentative Business Use Cases

The following indicative business use cases outline key areas where data analytics and visualization capabilities can be applied to enhance decision-making, operational efficiency, and stakeholder responsiveness across the Power companies are listed below:

Financial Monitoring Perspective

- 1. ACS–ARR Gap (Average Cost of Supply – Average Revenue Realized)
- 2. Revenue Collection Percentage
- 3. Outstanding Arrear Aging Distribution
- 4. Percentage of Subsidy Receivables Received
- 5. Cost of Power Purchase
- 6. Cost per Unit Supplied
- 7. Capex Utilization (Monitaring Project Progress)
- 8. Prepaid Meter Related Metrics

Customer Service Monitoring

- 1. Consumer Grievance Redressal Time
- 2. Call Centre Performance
- 3. Percentage of Resolved Complaints
- 4. New Connection Time

Prepaid Meter Service Related

- 1. Prepaid Recharge Success Rate
- 2. Recharge Channel Usage Diversity
- 3. Average Number of Recharge Transactions per Month per Customer
- 4. Customer Complaint Rate (Prepaid) per 1000 Customers
- 5. Timely Low Balance Warning Rate
- 6. Issue Resolution Time for Prepaid Consumers
- 7. Prepaid Meter Activation Rate
- 8. Prepaid Meter Fault Reporting Rate
- 9. Recharge Failure Rate

Process Monitoring

- 1. Aggregate Technical & Commercial (AT&C) Losses
- 2. Distribution Loss
- 3. Collection Efficiency
- 4. Billing Efficiency
- 5. SAIFI (System Average Interruption Frequency Index)
- 6. SAIDI (System Average Interruption Duration Index)
- 7. Feeder-wise Energy Accounting
- 8. Energy Input vs. Energy Billed (MU)
- 9. Feeder/DT-wise Loss Monitoring
- 10. Rural vs. Urban Loss Differential
- 11. Transmission System Metrics
- 12. Total Units of Electricity Procured
- 13. Renewable Energy Share in Power Purchase
- 14. Cost of Power Purchase

Real-Time Dashboards

- 1. Arrear collection trends
- 2. Real-time billing and collection data
- 3. Outage and fault alerts
- 4. Prepaid recharge trends
- 5. Loss patterns by feeder
- 6. Load curves and demand-supply mismatch
- 7. Strategy impact monitoring (e.g., campaign-wise performance)

Cyber Security Compliance & Threat Monitoring KPIs

- 1. Number of Cybersecurity Incidents Detected
- 2. Incident Response Time (Detection to Containment/Resolution)
- 3. Number of Systems with Known Vulnerabilities
- 4. Patch Management Compliance Rate
- 5. Endpoint Protection Coverage
- 6. Compliance with Cybersecurity Frameworks

Data Center & IT System Performance KPIs

- 1. Data Center Uptime (Availability %)
- 2. Server Resource Utilization (CPU/RAM/Storage)
- 3. Backup Success Rate
- 4. Mean Time to Repair (MTTR)
- 5. Network Latency & Downtime Tracking
- 6. Data Storage Utilization & Forecasting
- 7. Patch and Firmware Status of DC Assets
- 8. Environmental Monitoring (Temperature, Humidity, Fire)

Other business Use Cases/KPIs

- 1. AI-Powered Demand Forecasting
- 2. Anomaly Detection
- 3. Customer Segmentation
- 4. Automated Alerts & Visualizations
- 5. Power Supply & Consumption Trends
- 6. Predictive Risk Scoring
- 7. Receivables Ageing & Credit Risk Modeling
- 8. Collection Score & Field Strategy Recommendation
- 9. Field Workforce Optimization
- 10.Workforce Productivity & HR Analytics
- 11.Asset Health & Maintenance Analytics
- 12.Workforce Productivity & HR Analytics
- 13.Legal Compliance Monitoring
- 14.Court Case Timeline and Outcome Prediction

Above use case are described below briefly:

a. Financial Monitoring Perspective

1. **ACS–ARR Gap (Average Cost of Supply – Average Revenue Realized)**
   1.1. Description: Tracks the difference between the cost of supplying power and the revenue realized.
   1.2. Reason: Helps evaluate cost recovery efficiency.
   1.3. Benefit: Supports sustainable tariff planning and financial viability of the utility.
   1.4. Tentative Data Source: Consumer Billing systems, Finance system (Telly/ERP), Energy Accounting records etc..
2. **Revenue Collection Percentage**
   2.1. Description: Measures the ratio of revenue collected against total billed revenue.
   2.2. Reason: Indicates collection performance.
   2.3. Benefit: Enables focused interventions to improve cash flow and reduce financial gaps.

2.4. Tentative Data Source: Consumer Billing systems, prepaid meter recharge logs etc.

3. **Outstanding Arrear Aging Distribution**
   3.1. Description: Breaks down arrears by time buckets (e.g., 0–30, 31–60 days).
   3.2. Reason: Identifies long-pending dues.
   3.3. Benefit: Helps prioritize recovery efforts and target chronic defaulters.
   3.4. Tentative Data Source: Consumer Billing systems, prepaid meter recharge logs etc.
4. **Percentage of Subsidy Receivables Received**
   4.1. Description: Monitors the inflow of committed government subsidies.
   4.2. Reason: Ensures dependency on subsidy inflows is well tracked.
   4.3. Benefit: Supports subsidy claim optimization and budget planning.
   4.4. Tentative Data Source: Subsidy claim records, treasury systems, Billing systems, ERP/Finance system etc.
5. **Cost of Power Purchase**
   5.1. Description: Tracks total procurement cost from various sources.
   5.2. Reason: A major contributor to overall expenses.
   5.3. Benefit: Enables renegotiation, optimization, and better procurement strategies.
   5.4. Tentative Data Source: Power procurement/payment records/system, SLDC/SCADA data, PPAs, ERP/Finance system etc.
6. **Cost per Unit Supplied**
   6.1. Description: Measures the unit cost of delivering electricity to consumers.
   6.2. Reason: Helps evaluate operational and procurement efficiency.
   6.3. Benefit: Aids in benchmarking and controlling per-unit expenditure.
   6.4. Tentative Data Source: Billing system, energy accounting records, power procurement records/system etc.
7. **Capex Utilization**
   7.1. Description: Monitors how effectively allocated capital funds are used in projects.
   7.2. Reason: Ensures timely and efficient deployment of capital investments.
   7.3. Benefit: Enhances infrastructure development and project accountability.
   7.4. Tentative Data Source: Project physical/financial progress records, accounting records finance system, work order records etc.
8. **Prepaid Meter Related Metrics**
   8.1. Arrear Recovery from Prepaid Migration (%)
   8.2. Penalty Recovery Rate
   8.3. Grace Period Arrear Clearance Rate
   8.4. Average Prepaid Daily Recharge (per consumer)
   8.5. Revenue Collection Efficiency (Prepaid vs. Postpaid)
   8.6. Reason: Important for evaluating the impact and success of prepaid metering.
   8.7. Benefit: Drives customer behavioural insights, ensures better revenue predictability, and reduces arrear risks.
   8.8. **Tentative Data Source**: Prepaid metering platform, billing system, consumer service records

b. Customer Service Monitoring

9. **Consumer Grievance Redressal Time**
   9.1. Description: Measures the average time taken to resolve consumer complaints.
   9.2. Reason: Indicator of service responsiveness.
   9.3. Benefit: Improves customer trust and compliance with regulatory service levels.
   9.4. Tentative Data Source: Call center system /Complaint management system (1912), CRM, mobile app logs etc.
10. **Call Centre Performance**
   10.1. Description: Assesses KPIs like average wait time, abandonment rate, and resolution rate.
   10.2. Reason: Provides insights into customer service quality.

10.3. Benefit: Enhances consumer satisfaction and operational planning.
10.4. Tentative Data Source: Call center system/IVRS, CRM etc.

11. **Percentage of Resolved Complaints**
    11.1. Description: Measures the proportion of complaints resolved out of total received.
    11.2. Reason: Tracks grievance handling effectiveness.
    11.3. Benefit: Supports continuous improvement and transparency in service delivery.
    11.4. Tentative Data Source: Call centre system/IVRS, CRM etc.
12. **New Connection Time**
    12.1. Description: Time taken to provide new electricity connections to consumers.
    12.2. Reason: Key metric for regulatory and customer service compliance.
    12.3. Benefit: Improves process streamlining and reduces consumer onboarding friction.
    12.4. Tentative Data Source: Billing system (New service connection module/SUVIDHA), mobile app, Prepaid metering platform etc.

c. Prepaid Meter Service Related

13. **Prepaid Recharge Success Rate**
    13.1. Description: Indicates percentage of successful recharge attempts.
    13.2. Reason: Ensures transaction reliability for consumers.
    13.3. Benefit: Reduces consumer grievances and enhances trust in digital systems.
    13.4. Tentative Data Source: Billing system, Prepaid metering system, payment gateway APIs etc.
14. **Recharge Channel Usage Diversity**
    14.1. Description: Tracks usage percentage across various recharge platforms (app, portal, CSCs, BBPS etc.).
    14.2. Reason: Helps evaluate digital adoption.
    14.3. Benefit: Enables channel optimization and outreach strategy.
    14.4. Tentative Data Source: Billing system, Prepaid metering system, payment gateway APIs, Payment system logs, mobile app etc.
15. **Average Number of Recharge Transactions per Month per Customer**
    15.1. Description: Indicates recharge frequency and behaviour.
    15.2. Reason: Helps understand consumer consumption and payment trends.
    15.3. Benefit: Supports campaign planning and load forecasting.
    15.4. Tentative Data Source: Billing system, Prepaid metering system, payment gateway APIs, Payment system logs, mobile app etc.
16. **Customer Complaint Rate (Prepaid) per 1000 Customers**
    16.1. Description: Complaint rate specifically for prepaid services.
    16.2. Reason: Monitors service quality and reliability.
    16.3. Benefit: Identifies areas for technical and customer service improvement.
    16.4. Tentative Data Source: Prepaid meter support logs, Call centre system /Complaint management system (1912), CRM, mobile app logs etc
17. **Timely Low Balance Warning Rate**
    17.1. Description: % of consumers receiving timely alerts before disconnection.
    17.2. Reason: Critical for proactive customer engagement.
    17.3. Benefit: Reduces involuntary disconnections and improves satisfaction.
    17.4. Tentative Data Source: Prepaid platform, Billing system, Alert system logs, SMS gateway etc.
18. **Issue Resolution Time for Prepaid Consumers**
    18.1. Description: Measures time to resolve prepaid billing/recharge-related complaints.
    18.2. Reason: Ensures smooth consumer experience.
    18.3. Benefit: Builds confidence in prepaid adoption.
    18.4. Tentative Data Source: Prepaid meter support logs, Call centre system /Complaint management system (1912), CRM, mobile app logs etc.
19. **Prepaid Meter Activation Rate**
    19.1. Description: % of installed prepaid meters successfully activated.

19.2. Reason: Indicates effectiveness of implementation.
19.3. Benefit: Ensures asset utilization and monitoring.
19.4. Tentative Data Source: AMI system, MDMS, prepaid backend etc.

20. **Prepaid Meter Fault Reporting Rate**
20.1. Description: Frequency of faults reported in prepaid meters.
20.2. Reason: Monitors technical reliability of meters.
20.3. Benefit: Helps plan preventive maintenance and vendor accountability.
20.4. Tentative Data Source: Field service app, fault logging system, MDMS, Prepaid meter support logs, Call center system /Complaint management system (1912), CRM etc.

21. **Recharge Failure Rate**
21.1. Description: Tracks number of recharge failures.
21.2. Reason: Indicates system stability.
21.3. Benefit: Drives system hardening and consumer trust.
21.4. Tentative Data Source: Billing system, Payment gateway, prepaid backend logs etc.

d. Process Monitoring

22. **Aggregate Technical & Commercial (AT&C) Losses**
22.1. Description: Measures the total percentage of energy loss due to technical inefficiencies and non-revenue factors like theft or billing issues.
22.2. Reason: A critical metric to gauge overall efficiency in power distribution.
22.3. Benefit: Helps in identifying and reducing system inefficiencies, thereby improving revenue.
22.4. Tentative Data Source: Billing systems, Smart Metering systems, Energy accounting records/systems, feeder meters, billing systems etc.

23. **Distribution Loss**
23.1. Description: Represents the energy lost in the distribution network before it reaches consumers.
23.2. Reason: Points to technical flaws like poor equipment, outdated lines, or unauthorized connections.
23.3. Benefit: Targeted investments and upgrades can be planned in high-loss zones.
23.4. Tentative Data Source: DT meters, feeder meters, SCADA, GIS, Billing systems etc.

24. **Collection Efficiency**
24.1. Description: Ratio of revenue collected to total billable revenue.
24.2. Reason: Reflects how efficiently bills are being recovered.
24.3. Benefit: Ensures cash flow for sustainable operations.
Tentative Data Source: Billing systems, Smart Metering systems etc.

25. **Billing Efficiency**
25.1. Description: Percentage of energy billed out of the energy supplied.
25.2. Reason: Helps detect unbilled consumption and theft.
25.3. Benefit: Increases billing coverage and accountability.
25.4. Tentative Data Source: Billing systems, Smart Metering systems, AMI/MDM etc.

26. **SAIFI (System Average Interruption Frequency Index)**
26.1. Description: Average number of interruptions per consumer per year.
26.2. Reason: Reliability metric used to monitor service frequency.
26.3. Benefit: Drives service quality improvements.
26.4. Tentative Data Source: Outage management system (OMS), fault logs, SCADA, GIS etc.

27. **SAIDI (System Average Interruption Duration Index)**
27.1. Description: Average duration of outages experienced by consumers annually.
27.2. Reason: Complements SAIFI to measure reliability.
27.3. Benefit: Helps reduce downtime and improve response times.
27.4. Tentative Data Source: OMS, SCADA, fault logs etc.

28. **Feeder-wise Energy Accounting**
28.1. Description: Tracks the input and output of electricity on each feeder.
28.2. Reason: Helps isolate high-loss or inefficient feeders.

28.3. Benefit: Enables prioritization of upgrades and interventions.
28.4. Tentative Data Source: Billing systems, Smart Metering systems, Feeder meters, energy accounting records etc.

29. **Energy Input vs. Energy Billed (MU)**
29.1. Description: Compares supplied energy to that which is actually billed.
29.2. Reason: Measures metering and billing accuracy.
29.3. Benefit: Reduces revenue leakage.
29.4. Tentative Data Source: Billing systems, Smart Metering systems, AMI/MDM, SLDC/SCADA/ABT etc.

30. **Feeder/DT-wise Loss Monitoring**
30.1. Description: Tracks losses at transformer and feeder level.
30.2. Reason: Localizes technical and commercial loss points.
30.3. Benefit: Supports micro-level improvement strategies.
30.4. Tentative Data Source: Billing systems, Smart Metering systems, SCADA, DT meters, feeder meters etc.

31. **Rural vs. Urban Loss Differential**
31.1. Description: Compares losses between rural and urban areas.
31.2. Reason: Highlights service disparities and operational challenges.
31.3. Benefit: Better policy planning and subsidy targeting.
31.4. Tentative Data Source: Billing systems, Smart Metering systems, energy accounting records etc.

32. **Transmission System Metrics**
32.1. Description: Covers transmission losses, availability, peak load, and charges.
32.2. Reason: Transmission is a major cost and reliability factor.
32.3. Benefit: Facilitates better power procurement and grid planning.
32.4. Tentative Data Source: SLDC, RLDC, transmission utility reports, grid meters etc.

33. **Total Units of Electricity Procured**
33.1. Description: Total energy purchased from various sources.
33.2. Reason: Tracks procurement volume and source mix.
33.3. Benefit: Supports demand forecasting and cost analysis.
33.4. Tentative Data Source: SLDC, power purchase agreements, procurement logs, Billing systems etc.

34. **Renewable Energy Share in Power Purchase**
34.1. Description: Measures the percentage of power sourced from renewable sources.
34.2. Reason: Tracks environmental compliance and RPO targets.
34.3. Benefit: Aids in sustainable planning.
34.4. Tentative Data Source: PPA records, SLDC, billing software etc.

35. **Cost of Power Purchase**
35.1. Description: Total cost incurred on energy procurement.
35.2. Reason: Major component of total expenses.
35.3. Benefit: Basis for cost optimization and tariff design.
35.4. Tentative Data Source: PPA records, Procurement logs, Power purchase system, regulatory filings etc.

e. Real-Time Dashboards

35.5. Description: These dashboards provide real-time insights into key operational, financial, and customer service metrics through interactive interfaces.
35.6. Reason: Continuous monitoring allows timely decisions and rapid corrective actions.
35.7. Benefit: Enhances operational efficiency, improves customer responsiveness, and supports management oversight.

Key Metrics Covered:

36. Arrear collection trends
37. Real-time billing and collection data
38. Outage and fault alerts
39. Prepaid recharge trends

40. Loss patterns by feeder

41. Load curves and demand-supply mismatch

42. Strategy impact monitoring (e.g., campaign-wise performance)

- **Tentative Data Source:** Billing systems, Smart Metering systems, SCADA, AMI, MDM, OMS, CRM, GIS, mobile app analytics etc.

f. Other business Use Cases

43. **AI-Powered Demand Forecasting**
    - 43.1. Description: Uses machine learning models to forecast demand over short-, medium-, and long-term horizons.
    - 43.2. Reason: Essential for reliable load planning and procurement.
    - 43.3. Benefit: Minimizes power procurement costs and avoids shortages.
    - 43.4. Tentative Data Source: SCADA, load data archives, weather feeds, historical billing, PPA records, Procurement logs etc.
44. **Anomaly Detection**
    - 44.1. Description: Identifies unusual consumption patterns that may suggest theft or meter tampering.
    - 44.2. Reason: Theft and leakages are major contributors to losses.
    - 44.3. Benefit: Enables proactive action and revenue protection.
    - 44.4. Tentative Data Source: Billing systems, Smart Metering systems, AMI/MDM, analytics engines, past consumption history etc.
45. **Customer Segmentation**
    - 45.1. Description: Groups customers based on behaviour, risk, and payment history.
    - 45.2. Reason: Allows for personalized outreach and targeted interventions.
    - 45.3. Benefit: Improves service, collection, and complaint resolution.
    - 45.4. Tentative Data Source: Billing systems, CRM, payment history, Smart Metering systems etc.
46. **Automated Alerts & Visualizations**
    - 46.1. Description: Real-time triggers and dashboards for KPIs.
    - 46.2. Reason: Alerts ensure timely response to critical issues.
    - 46.3. Benefit: Enhances situational awareness and responsiveness.
    - 46.4. Tentative Data Source: Billing systems, Smart Metering systems, Monitoring systems, analytics platform, notification engine.
47. **Power Supply & Consumption Trends**
    - 47.1. Description: Analysis of demand, consumption, load growth, and operational metrics.
    - 47.2. Reason: Aids long-term planning and benchmarking.
    - 47.3. Benefit: Supports investment decisions and regulatory reporting.
    - 47.4. Tentative Data Source: Load dispatch center, billing, AMI etc.
48. **Predictive Risk Scoring**
    - 48.1. Description: Assigns likelihood scores for default or theft.
    - 48.2. Reason: Helps prioritize enforcement and recovery.
    - 48.3. Benefit: Reduces non-performing consumers and improves cash flows.
    - 48.4. Tentative Data Source: Billing systems, Smart Metering systems, Payment history, consumption trends, CRM etc.
49. **Receivables Ageing & Credit Risk Modeling**
    - 49.1. Description: Tracks the maturity profile of receivables and models credit risk.
    - 49.2. Reason: Identifies vulnerable accounts and systemic risks.
    - 49.3. Benefit: Enables better financial provisioning.
    - 49.4. Tentative Data Source: Billing systems, Smart Metering systems etc.
50. **Collection Score & Field Strategy Recommendation**
    - 50.1. Description: Recommends optimal collection strategy per consumer type or area.
    - 50.2. Reason: Ensures higher efficiency in field operations.
    - 50.3. Benefit: Reduces cost of collection and increases recovery.

50.4. Tentative Data Source: Billing systems, Smart Metering systems, mobile app usage etc.

51. **Field Workforce Optimization**
    51.1. Description: Allocates and tracks field teams based on workload, geography, and performance.
    51.2. Reason: Effective resource management.
    51.3. Benefit: Improves productivity and turnaround time.
    51.4. Tentative Data Source: CRM/1912, Workforce management system, mobile apps, ERP etc.

g. Cybersecurity Compliance & Threat Monitoring KPI

52. **Number of Cybersecurity Incidents Detected**
    52.1. Description: Tracks the total count of detected security events like malware attacks, phishing attempts, intrusions, or DDoS.
    52.2. Reason: Indicates the threat landscape and effectiveness of detection mechanisms.
    52.3. Benefit: Helps identify vulnerable points and adjust defenses.
    52.4. Tentative Data Source: C-SOC systems, SIEM logs, firewall logs, IDS/IPS, endpoint protection systems etc.

53. **Incident Response Time (Detection to Containment/Resolution)**
    53.1. Description: Measures the average time taken to detect, respond, and contain a cyber incident.
    53.2. Reason: Critical for limiting damage and reducing downtime.
    53.3. Benefit: Improves resilience and business continuity.
    53.4. Tentative Data Source: SOAR platform, incident management system, SOC tools, Manual Records etc.

54. **Number of Systems with Known Vulnerabilities**
    54.1. Description: Shows how many assets are exposed to known CVEs (Common Vulnerabilities and Exposures).
    54.2. Reason: Highlights the patching backlog and risk posture.
    54.3. Benefit: Supports prioritization of vulnerability remediation.
    54.4. Tentative Data Source: Vulnerability assessment tools, endpoint security dashboard, SOC etc.

55. **Patch Management Compliance Rate**
    55.1. Description: Percentage of systems updated within a defined compliance window.
    55.2. Reason: Delayed patching is a major cause of breaches.
    55.3. Benefit: Maintains IT hygiene and reduces exploit risks.
    55.4. Tentative Data Source: Patch management software, endpoint agents, SOC etc.

56. **Endpoint Protection Coverage**
    56.1. Description: Percentage of endpoints (desktops, laptops, servers) under antivirus, EDR etc. protection.
    56.2. Reason: Ensures threat detection at the edge of the network.
    56.3. Benefit: Reduces endpoint-level breach risks.
    56.4. Tentative Data Source: Endpoint management dashboards, security agents, SOC etc.

57. **Compliance with Cybersecurity Frameworks**
    57.1. Description: Tracks adherence to standards like CEA, CERT-IN guidelines, etc.
    57.2. Reason: Compliance ensures baseline security posture.
    57.3. Benefit: Reduces audit risk and improves regulatory alignment.
    57.4. Tentative Data Source: Audit reports, compliance checklist platforms, SOC records etc.

h. **Data Center & IT System Performance KPIs**

58. **Data Center Uptime (Availability %)**
    58.1. Description: The percentage of time the data center is available without failure.
    58.2. Reason: Reflects infrastructure reliability.
    58.3. Benefit: Supports uninterrupted operations of critical services.
    58.4. Tentative Data Source: EMS/NMS systems, BMS, UPS logs etc.

59. **Server Resource Utilization (CPU/RAM/Storage)**
    59.1. Description: Tracks real-time resource usage of all servers.
    59.2. Reason: Ensures optimal capacity planning and performance.

59.3. Benefit: Avoids wastage and delays in service delivery.
59.4. Tentative Data Source: Virtualization platforms, server monitoring tools, NMS etc.

60. **Backup Success Rate**
    60.1. Description: Percentage of completed and verified backups over a defined period.
    60.2. Reason: Data loss can severely disrupt operations.
    60.3. Benefit: Ensures disaster recovery readiness.
    60.4. Tentative Data Source: Backup management systems, logs etc.
61. **Mean Time to Repair (MTTR)**
    61.1. Description: Average time taken to repair a failed hardware or service.
    61.2. Reason: Indicates efficiency of maintenance and support.
    61.3. Benefit: Reduces service downtime and improves trust.
    61.4. Tentative Data Source: Helpdesk/ticketing systems, incident logs, AMC records etc.
62. **Network Latency & Downtime Tracking**
    62.1. Description: Monitors latency spikes or network unavailability impacting applications.
    62.2. Reason: Network is the backbone of any service delivery.
    62.3. Benefit: Improves user experience and application responsiveness.
    62.4. Tentative Data Source: Network monitoring tools (NMS), ISP reports etc.
63. **Data Storage Utilization & Forecasting**
    63.1. Description: Shows current utilization and predicted storage exhaustion date.
    63.2. Reason: Unplanned storage shortages can halt operations.
    63.3. Benefit: Enables proactive procurement and budgeting.
    63.4. Tentative Data Source: SAN/NAS storage dashboards, file servers, virtualization platforms etc.
64. **Patch and Firmware Status of DC Assets**
    64.1. Description: Tracks the firmware and OS patch status of all data center hardware.
    64.2. Reason: Ensures security and performance stability.
    64.3. Benefit: Minimizes risk of firmware exploits or instability.
    64.4. Tentative Data Source: Patch manager, server management consoles etc.
65. **Environmental Monitoring (Temperature, Humidity, Fire)**
    65.1. Description: Real-time tracking of data center environmental parameters.
    65.2. Reason: Environmental issues can damage IT infrastructure.
    65.3. Benefit: Prevents overheating, fires, or humidity-related damage.
    65.4. Tentative Data Source: HVAC, BMS, fire alarm systems etc.
66. **Workforce Productivity & HR Analytics**
    66.1. Description: Analyze staff performance, training compliance, and absenteeism across departments.
    66.2. Purpose: Improve workforce efficiency and planning.
    66.3. Benefit: Enables informed HR decisions and better workforce deployment.
    66.4. Data Sources: HRMS, training records, biometric attendance**.**
67. **Asset Health & Maintenance Analytics**
    67.1. Description: Use condition data to track health of transformers, breakers, and substations.
    67.2. Purpose: Avoid failures and optimize asset life.
    67.3. Benefit: Reduces downtime and improves reliability.
    67.4. Data Sources: SCADA, ERP, smart sensors, maintenance logs etc
68. **Legal Compliance Monitoring**
    68.1. Description: Monitor adherence to statutory and regulatory requirements across departments.
    68.2. Purpose: Detect compliance lapses or high-risk zones.
    68.3. Benefit: Minimizes legal exposure and supports internal audits.
    68.4. Tentative Data Source: Compliance registers, audit reports, internal control logs, ERP systems etc.
69. **Court Case Timeline and Outcome Prediction**
    69.1. Description: Use historical data to estimate probable duration and outcomes of pending cases.
    69.2. Purpose: Prioritize critical or high-stake cases.
    69.3. Benefit: Helps in proactive case planning and settlement strategy.

69.4. Tentative Data Source: Historical court data, legal archives, government case dashboards etc

70. Litigation Cost Analytics

70.1. **Description:** Monitor legal expenditure by type, firm, department, or case.

70.2. **Purpose:** Evaluate cost-efficiency of legal strategies and external counsel.

70.3. **Benefit:** Enables better budgeting and legal cost optimization.

70.4. **Tentative Data Source:** Finance system, legal billing records, external counsel invoices.

71. AI Driven Other misclaneous use cases

71.1. Consumer Profiling (Know your Consumer):

71.1.1. Identification of consumers load behavior, category and its neighbourhood.

71.1.2. Consumer load demand management & increasing serviceability.

71.1.3. Consumer prepaid meter behavior

71.2. Energy Audit (Consumer Tagging):

71.2.1. It establishes a logical and electrical relationship between Feeder -> DT - > Consumer

71.2.2. Accurate mapping of consumers with DT and feeder

71.2.3. Accurate energy balance calculation

71.2.4. Identification of technical & commercial losses

71.3. Billing Improvement:

71.3.1. Identifying abnormal billing behavior for consumers:

71.3.1.1. Voltage Imbalance, Current Imbalance

71.3.1.2. Consumption Pattern, Load Variation

71.3.1.3. Bypass connections,

71.3.1.4. Parallel Service usage,

71.3.1.5. Misuse of Tariff

71.4. Improve Consumer Reliability:

71.4.1. Consumer rating-based A/ ML model with below input parameters:

71.4.1.1. Payment aspect: Consumer with Payment in due date

71.4.1.2. Load usage: Consumer consumption not exceeding the sanctioned load

71.4.1.3. Sustainability: Consumer payment mode (digital, cash, counter, cheque)

71.4.1.4. Arrear: Consumer with Arrear amount and longevity

71.4.1.5. Theft behaviour prediction

71.4.1.6. Meter image analysis

71.4.2. Pilferage: Consumer with lower suspected for theft/pilferage

71.4.3. Categorization of consumers into:

71.4.3.1. A+ (Best) | A (Good) | B (Border Line) | C (Follow up) | D (Defaulters)

71.4.4. Based on predicted rating; consumer can be rewarded.

71.4.5. Consumer services improvement.

71.5. Strategized Collection:

71.5.1. Improved resources for following up/ chasing of consumer by making use of AI based system over human call center for the consumers who have delayed payment behavior.

71.6. Reduction in Arrear:

71.6.1. Identification of wrong billing and meter reading errors causing arrears.

71.6.2. AI based follow up with consumers who are paying regular bills but not paying arrears.

71.6.3. Identifying consumers with modelling of intentional (knowingly not paying)/ unintentional (due to system errors) arrears.

71.7. Outage Alerts & Notification to Consumer:

71.7.1. Communicating to consumer for the planned outages in the network beforehand.

71.7.2. Communicating to consumer for the unplanned outages

71.8. Consumer e-KYC:

71.8.1. Personalized KYC for consumer through SMS based video of data present with utility

71.8.2. Consumer can upload relevant document to correct their information

71.8.3. Reaching out to consumer with AI based SMS/ IVRS/ WhatsApp/ email

71.9. Knowing consumer demand behaviour:

71.9.1. Using non-intrusive modelling, identifying load behaviour of various appliances at consumer end

71.9.2. Driving out consumer appliance rating as per BEE standards.

71.9.3. Driving energy efficiency campaigns for consumer at societies and public spaces.

71.10. Consumer participation in Demand Response:

71.10.1. Domestic and Commercial consumers can be intimidated for Demand shift depending upon load behaviour and load profiling.

71.10.2. Implementing demand response consumer to be rewarded.

20. Proposed Phase Wise Implementation

High level implementation plan is mentioned below. The user quantities mentioned is tentative and it may vary.

Sl. No.	Milestones	Time Period in Months
1.	System Design : Submission & Approval (System Architecture Document, System Requirement Specification, Business Requirement Document, High- & Low-Level design)	T0 +2 T0 : Project Kickoff date
2.	Hardware delivery for DC & DR alongwith Installation, production &other environment set-up	T0+4
3.	Delivery of software licenses & installation on all applicable environments	T0+6
4.	User Acceptance Testing and Pilot Go-Live	T0+9
5.	Complete Go-Live	T0 + 12
6.	3 Months post Go-Live, upon Purchaser’s confirmation, that the system meets the RfP performance requirements	T0 +15

21. Late and Delayed EOI

Bids must be submitted online as per the timelines mentioned in the document. Delayed submission will be summarily rejected. BSPHCL may, at its discretion, extend the deadline for submission of bids in which case all rights and obligations of BSPHCL and the Applicant will remain the same.

22. EoI Opening & Presentation

a) The authorized representatives of BSPHCL will open the EoI in the presence of the Applicants or of their representatives who choose to attend at the appointed place and time.

b) The EoI of any applicant who has not complied with one or more of the conditions shall be summarily rejected.

c) The date and time of presentation will be informed to the applicants through e-mail after the EoI opening.

23. EOI Processes briefing

Firm may request through e-mail regarding future course of action of the result of EoI.

24. FORCE MAJEURE

"Force Majeure" shall mean any event beyond the reasonable control of the employer or of the Vendor, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected, and shall include, without limitation, the following:

War, hostilities or warlike operations (whether war be declared or not), invasion, act of foreign enemy and civil war, rebellion, revolution, insurrection, mutiny, usurpation of government, conspiracy, riot and civil commotion, epidemics, earthquake, quarantine restrictions, freight embargoes, landslide, volcanic activity, flood or cyclone, or other inclement weather condition, nuclear and pressure waves or other natural or physical disaster

Neither party shall be considered to be in default or in breach of his obligations under the Contract to the extent that performance such obligation is prevented by any circumstances of Force majeure, which arises after date of Notification of Award.

If either party is prevented, hindered or delayed from or in performing any of its obligations under the EoI by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event. The Engineer-in-Charge shall be the point of contact in such case.

The party who has given such notice shall be excused from the performance or punctual performance of its obligations for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended.

The applicant who are agreeable to accept the above terms of general conditions will only be considered and other will outright be rejected.

25. Service Level Agreements

Service level agreement is detailed below for various service components. SLA measurement shall be carried out on monthly basis. These are applicable during the complete tenure of the project subject to maximum cap of 10% payment of monthly invoice. In case of one defaulted SLA, if penalty on multiple SLA comes into effect, then penalty on the SLA with maximum penalty will only be applicable i.e., Penalty will be charged only on one SLA and not for multiple SLA defaults. Penalty will be computed on the milestones/components which are delayed:

Sl.	Service Level Objective	Measurement	Target Service Level	Penalty
1.	Backup/ Restore Management	The Supplier should take backup as per the backup schedule defined by utility	100%	If the negligence is found in monthly audit, the Bidder would be penalized a sum of Rs. 10,000/- per negligence.
		Utility would periodically (once a quarter on a Random day) request the Supplier to restore the backup data	100%	Rs 10,000/- for every restore test failure
2.	Change Management/ BPR required on account of any commercial instructions or otherwise as required by BSPHCL & its subsidiaries.	Amendment of system as per the requirement of UTILITY within a period of 1 month of Change Management	100%	Rs 10,000/- per week of delay beyond 1 month

Sl.	Service Level Objective	Measurement	Target Service Level	Penalty
3.	Operations Response Time	Loading of Home Page & response time for all complaint registration pages	Target >=98.5 &<98.0% 15 seconds to 25 seconds	Rs 10,000/- per failure. Bidder shall be given 1 week to correct, and the same test shall be conducted again till it is resolved
4.	Delay in any of the project phase implementation timelines agreed	Measured as the difference between the agreed implementation milestone date and actual implementation date.		For each additional week or part thereof after agreed implementation date, 0.1% of the particular milestone value. With a cap of 10% of respective milestone value.
5.	Resolution of the incidents	1. High Impact – within 8 business hours 2. Major – within 16 business hours 3. Minor – within 24 business hours 4. Standard – within 48 business hours.	As per agreed timelines	Rs. 2,500/- per day per incident.

Target Service Level for Operations Response Time : Measured over internet over 512 kbps Internet broadband. Measured through continuous scripts every 10 minutes on 24 X 7 basis. (Measured as http request and response cycle).

Sl.	Service Level Objective	Measurement	Target Service Level	Penalty
6	Availability/Uptime of Centralized Data Repository	**System Availability / Uptime:** Percentage of time the centralized data repository is accessible and operational	≥ 99.9% uptime per month	0.5% of monthly contract value per 0.1% drop below 99.9%
		Data Ingestion Success Rate: Percentage of scheduled data ingestion jobs completed successfully	≥ 99.5% success rate monthly	0.3% of monthly contract value per 0.1% drop below 99.5%
		Backup & Recovery: Successful completion of daily backups and recovery	100% daily backup success; RTO ≤ 2	₹10,000 per failed backup incident; ₹20,000 per hour

Sl.	Service Level Objective	Measurement	Target Service Level	Penalty
		time objective (RTO) ≤ 2 hours	hours	delay beyond RTO
7	Security and Privacy breach including Data Theft / Loss/ Corruption/	Any incident where in system compromised, privacy breached, data is corrupted, data is mined or any case wherein data theft occurs (including internal incidents) impacting business operations in a major way		Any security incident detected INR 1 Lakhs. This penalty is applicable per incident. These penalties will not be part of overall SLA penalties cap per month. In case of serious breach of security wherein the data is stolen, mined, privacy breached or corrupted, Client reserves the right to terminate the contract.
8	Incident/Problem/Issues Acknowledgement & Resolution	Incident Acknowledgement time	≤ 15 minutes	₹2,000 per incident per 15 min delay beyond target
		Incident Resolution Time	Critical Priority Incident ≤ 4 hours	₹10,000 per hour delay for Critical & High ₹2,000 per day delay for Medium & Low
			High Priority Incident ≤ 4 hours	
			Low & Medium Priority	

Critical Priority: Dashboard or central repository is down or unusable; major business impact; data loss impacting multiple users

High Priority: Incidents related with significant degradation in dashboard performance or critical feature malfunction, work-around not viable.

Medium & Low Priority: Minor issues affecting non-essential features, General queries, cosmetic issues with no immediate impact on operations

1. ANNEXURE I - Letter of Technical Submission

To,

Chief Engineer (STF & Project Monitoring),

BSPHCL,

Vidyut Bhawan,

Patna- 800021, Bihar

Sub: - Submission of Expression of Interest for Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application

Sir,

We, the undersigned, express our interest against **Expression of Interest for Creation of centralized data repository from different IT systems and creation of AI/ML-Based Dashboard & Mobile Application.**

We are hereby submitting our Proposal, which includes Technical submissions sealed under covers and properly marked and signed as required.

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.

We confirm that this proposal will remain binding upon us and may be accepted by you at any time before the expiry date.

We agree to bear all costs incurred by us in connection with the preparation and submission of the proposal and to bear any further pre-contract costs.

We understand that the BSPHCL is not bound to accept the EoI or any proposal or to give any reason for shortlisting or for the rejection of any proposal.

We confirm that we have the authority of ………………………………………………………[Insert Name of the Agency/Firm] to submit the proposal and to negotiate on its behalf.

Yours Faithfully,

[Signature and Details of the Authorized Representative}

2. Annexure II - Organizational Structure of the Agency / Credentials

Name of Bidder:-...
NIT NO- 13/PR/BSPHCL/2018

South Bihar Power Distribution Company Limited, Patna			
CHECKLIST			
Proposer should fill in the cells shown below.			
NAME OF PROPOSER			
Place			
Date			
Name			
Designation			
Address			
Phone Number			
Mobile & e-Mail			
Sl. No.	Name of Document		Details/Page No.
1	Registration of firm / agency / company (Attach Copy)		Reg. No-.. Reg. Date-.. Issuing Department-..........................
2	Annexure-I Letter of Technical Submission		
3	Annual Financial Turnover for Financial years. (Attach Copy of Audited PL Account) -Also attach Annexure-IV	FY 2024-25	Rs.
		FY 2023-24	Rs.
		FY 2022-23	Rs.
		FY 2021-22	Rs.
		FY 2020-21	Rs.
4	Net Worth For last 3 years (Attach Copy of Audited & Balance Sheet) -Also attach Annexure-IV	FY 2024-25	Rs.
		FY 2023-24	Rs.
		FY 2022-23	Rs.
5	All documents as required in ELIGIBILITY CRITERIA		
6	Firm Registration Certificate/ Certificate of incorporation of Company / Memorandum & Articles of Association of a Company/Partnership deed of Registered partnership firm/Memorandum of Association and Rules & Regulations any Bylaws if any of a Society		
7	PAN and Income Tax Return of previous financial Year (Attach Copy)		

8	Goods & Services Tax (GST) Registration Certificate (Attach copy) (Attach Copy)	
9	Declaration regarding Non-Blacklisting & Non- Conviction from any court of Law. (Annexure-III) Whether even blacklisted, if yes then give details and present status.	
10	Details of all Annexures from Annexure-V.1 till Annexure-V.1.20	
11	Complete details of Consortium partner (if any)	
12	Any other additional information bidders feels to be provided for betterment of scope of work and components	

3. Annexure III – Self Declaration Undertaking towards No-Blacklisting

Date : ___________________________

Ref: ___________________________

To,

Chief Engineer (STF & Project Monitoring)
BSPHCL,
Patna.

In response to the invitation No. ___________________, Dt: ____________. Of Ref. Ms. /Mr. __________________, as a_________________________, I / We hereby declare that our Agency ______________________________is having unblemished past record and was not declared ineligible for corrupt & fraudulent practices either indefinitely or for a particular period of time by any Govt./PSU agency. We also declare to best of our belief that we have properly completed all the work/purchase Orders of NBPDCL/ SBPDCL/ BSPTCL/ BSPGCL without inordinate delays

Signature of witness	Signature of the Applicant
Date:	Date:
Place:	Place:

Company _______________________ Seal:-

4. Annexure IV - Certificate for Turnover, Net Worth and Net Profit

To,

Chief Engineer (STF & Project Monitoring)
BSPHCL,
Vidyut Bhawan,
Patna- 800021, Bihar

Sub: < REFERENCE NUMBER> Dated <DD/MM/YYYY>

Dear Sir,

We certify that ____________, the Sole Applicant/ Lead Member had a Net worth of INR ______ Crores or equivalent USD____ based on unconsolidated audited annual accounts (refer ** below) as of close of last financial years on __________.

I/We, ___________, the Statutory Auditor of the Applicant hereby declares that:

i. The Applicant has a minimum average turnover of INR ___ Crores for the last three financial years from all its businesses and a minimum average turnover of INR __ Crores for the last three financial years from all its IT infrastructure services businesses.

ii. Sole Applicant / Lead Member of the Consortium has recorded a positive net worth for each of the last three financial years.

iii. Minimum net worth of the Sole Applicant/ Lead Member at the end of last financial year was INR ___, which is more than INR ___ Crores.

iv. The Sole Applicant/ Lead Member of the Consortium has positive earnings (net profit), for atleast the last three financial years.

*Conversion to INR will be done as per average conversion rates published by Reserve Bank of India applicable 60 days prior to the EoI Due Date.

** The column for ‚Relationship with Bidding Company‛ is to be filled in only in case financial capability of Parent/Affiliate has been used for meeting Networth Requirements.

Yours faithfully
(Signature and stamp of* any *Director of Bidding Company/ Lead Member of Consortium)

Name:
Date:
Place:
(Signature and Stamp of Chartered Accountant)

Name:
Date:
Place:
Date:

Note:

1. Along with the above format, in a separate sheet, please provide details of computation of Net worth duly certified by a Chartered Accountant.

2. Audited consolidated annual accounts of the Applicant may be used for the purpose of financial criteria provided the Applicant has at least 50% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

5. ANNEXURE-V- APPROACH AND SUGGESTIONS

[Bidder needs to provide complete details of proposed solution along with any other suggestions for Creation of Centralized Data Repository and AI/ML-Based Dashboard & Mobile Application]

6. Annexure-V.1: Bidder Profile

i. Organization Name
ii. Year of Incorporation
iii. Ownership Type
iv. Turnover (Last 3–5 Years)
v. Relevant Experience (Project details)
vi. Certifications
vii. Consortium Details (if any)

7. Annexure-V.2: Understanding of Requirement

i. Understanding of BSPHCL requirements & IT ecosystem
ii. Key challenges identified
iii. Proposed approach and strategy
iv. Key differentiators

8. Annexure-V.3: Proposed Solution Architecture with detailed explanation

i. Data Architecture Diagram
ii. Data Ingestion Approach
iii. Data Storage Layers (Raw, Curated, Consumption)
iv. Processing Framework
v. Metadata & Catalog
vi. Data Governance Tools
vii. Security Framework
viii. Technology Stack (Open Source / COTS)

9. Annexure-V.4: AI/ML Dashboard & Mobile Application

i. Types of dashboards proposed
ii. AI/ML use cases
iii. Visualization tools
iv. Mobile app features
v. Real-time analytics capability

10. Annexure-V.5: Deployment Model (Cloud vs On-Premise)

i. Provide comparative analysis
ii. Recommended model
iii. Justification
iv. Pros & Cons:

- Cost
- Scalability
- Security
- Performance
- Control & Flexibility

v. CSP suggestions (if applicable)
vi. Compliance considerations

11. Annexure- V.6: Open Source vs COTS

i. Components proposed under Open source & COTS
ii. Justification
iii. Pros & Cons:
iv. Cost
v. Flexibility
vi. Vendor lock-in
vii. Support

12. Annexure- V.7: ICT Infrastructure Sizing

i. Compute (Servers, CPU, RAM)
ii. Storage (Capacity, Type, Growth)
iii. Network (Bandwidth, Architecture)
iv. DR Strategy (RPO/RTO)
v. Assumptions used for sizing

13. Annexure- V.8: Data Integration/Ingestion & Migration

i. Integration/ Ingestion approach
ii. Tools & technologies
iii. Data cleansing strategy
iv. Migration approach
v. Handling historical data

14. Annexure- V.9: Data Governance & Security

i. Governance framework
ii. Data ownership & stewardship
iii. Data quality framework
iv. Security measures
v. Cyber security integration

15. Annexure- V.10: Implementation Roadmap

i. Phase-wise plan
ii. Timelines
iii. Key milestones

iv. Dependencies

16. **Annexure- V.11: Indicative Costing**

i. Software Cost

ii. Hardware / Cloud Cost

iii. Implementation Cost

iv. O&M Cost (5 years)

v. Licensing model

17. **Annexure- V.12: Risks & Mitigation**

i. Key risks identified

ii. Mitigation strategies

iii. Critical success factors

18. **Annexure- V.13: Value-Added Suggestions**

i. Innovative ideas

ii. Global best practices

iii. Future scalability recommendations

19. **Annexure-V.14: Technical Manpower Deployment detail**

Bidders are required to provide details in the following format

1. Implementation Phase Manpower

Sl. No.	Role	No. of Resources	Qualification	Experience (Years)	Key Skillset	Responsibility	Deployment (Onsite/Offsite)
1	Project Manager (PM)					Overall project execution, stakeholder coordination	
2	Solution Architect					Overall architecture design	
3	Data Architect					Data modeling, Data lakehouse design	
4	Data Engineer					ETL/ELT pipelines, ingestion	
5	Big Data Engineer					Distributed processing	
6	AI/ML Developer					Model development, deployment	
7	Data Scientist					Analytics, forecasting, ML models	
8	BI/Dashboard Developer					Dashboard & reporting	
9	Mobile App					Mobile application	

	Developer					development	
10	DevOps Engineer					CI/CD, automation	
11	Security Expert					Data & cyber security	
12	DBA / Platform Engineer					Database & platform management	
	Add Any other suitable roles if required						

2. Support & Maintenance Phase Manpower (Post Go-Live)

Sl. No.	Role	No. of Resources	Support Type (L1/L2/L3)	Availability (24x7/Business Hours)	Key Responsibilities
1	Support Manager				Overall support coordination
2	Data Engineer				Pipeline monitoring & fixes
3	BI Developer				Dashboard support
4	AI/ML Engineer				Model tuning & monitoring
5	Infra/Cloud Engineer				Infra maintenance
6	Security Analyst				Security monitoring
	Add Any other suitable roles if required				

3. Resource Loading & Effort Estimation

i. Phase-wise effort (in person-months)
ii. Peak vs steady-state resource requirement
iii. Justification of manpower sizing

20. Annexure-V.15: Technical Specifications – Data Lakehouse Platform components

Bidders shall provide detailed specifications of proposed platform components:

1. Data Ingestion Layer
   - Batch and real-time ingestion capability
   - Support for APIs, streaming
   - Integration with existing systems (MDM, SAP IS-U, GIS, etc.)
2. Data Storage Layer
   - Support for Data Lakehouse architecture or equivalent
   - Multi-layer storage (Raw, Processed, Curated)
   - Storage formats (Parquet, ORC, etc.)
   - Scalability and compression features
3. Data Processing Layer
   - Distributed processing
   - ETL/ELT capabilities
   - Workflow orchestration

4. Metadata & Data Catalog
    - Data discovery and lineage
    - Business glossary
    - Metadata management tools
5. Data Governance & Quality
    - Data quality checks
    - Master Data Management (MDM)
    - Role-based access control
6. Security Framework
    - Encryption (at rest & in transit)
    - Identity & Access Management
    - Data masking and anonymization
    - Compliance with CERT-In / ISO standards
7. Analytics & Visualization Layer
    - BI tools
    - Self-service analytics
    - AI/ML integration
8. AI/ML Platform
    - Model development, training, deployment
    - MLOps capabilities
    - Integration with dashboards
9. Interoperability & Open Standards
    - API support
    - Vendor neutrality
    - Avoidance of lock-in

21. Annexure-V.16: ICT Infrastructure Specifications (DC/DR Setup)

Bidders shall provide indicative specifications and architecture:

1. Compute Infrastructure
    - No. of servers/nodes
    - CPU (cores), RAM
    - GPU requirements (for AI/ML, if any)
    - Virtualization/containerization support
2. Storage Infrastructure
    - Type (SAN/NAS/Object Storage)
    - SSD/NVMe-based storage
    - Tiering strategy
    - Capacity (usable vs raw)
    - Data growth assumptions
3. Network Infrastructure
    - Network architecture (Leaf-Spine, etc.)
    - Bandwidth requirements
    - Redundancy design
    - Integration with existing DC/DR
4. DC/DR Architecture
    - Active-Active / Active-Passive
    - Data replication mechanism
    - RPO/RTO targets
    - Failover strategy
5. Backup & Archival

- Backup frequency
- Retention policy
- Archival strategy

6. Security Infrastructure
   - Firewalls, IDS/IPS
   - DDoS protection
   - Integration with SOC
7. Monitoring & Management
   - Infra monitoring tools
   - Log management
   - Performance monitoring
8. Sizing Assumptions
   - No. of smart meters
   - Data ingestion rate
   - Log generation
   - User concurrency

22. **Annexure-V.17: Compliance to Technical Standards**

- Compliance with MeitY / CERT-In guidelines
- Open standards adherence
- Interoperability with existing BSPHCL systems
- Scalability for future requirements (Smart Grid, EV, etc.)

23. **Annexure-V.18: Low-Code / No-Code / DXP Platform for Application Development & Workflow Automation**

BSPHCL seeks inputs from bidders for adoption of a Low-Code / No-Code / Digital Experience Platform (DXP) to enable rapid development and deployment of departmental applications, digitization of manual processes, and workflow automation across various business units (Finance, HR, O&M, Consumer Services, Stores, Projects, etc.). Bidders are encouraged to propose innovative solutions leveraging Low-Code/No-Code platforms for rapid digital transformation and reduction of manual processes across BSPHCL and its subsidiaries.

1. Proposed Platform Overview

   Bidders shall provide details of the proposed platform:

- Platform Name & Type (Low-Code / No-Code / DXP)
- Deployment Model (Cloud / On-Premise / Hybrid)
- Licensing Model (User-based / App-based / core based etc.)
- OEM / Technology Provider Details
- Open Source / COTS / Hybrid

2. Details of projects completed/used by proposed (Low-Code / No-Code / DXP) Platform in Government Central/ Sate, PSU

   a. Complete details of Client

   b. Name of project

   c. Value of project

   d. Year of award & Completion

   e. Number of end users

   f. Number of Developer Users

   g. Details of platform (Size of ICT Infra (Servers, Storage etc.), System Software (OS, RDBMS, Web Server, App Server etc)

   h. Scope of work of project

3. Key Capabilities of Platform

4. Application Development

- Drag-and-drop UI builder
- Pre-built templates for enterprise applications
- Custom form creation
- Multi-device compatibility (Web & Mobile)
- Multi-language support

5. Workflow Automation

- Visual workflow designer
- Rule engine for approvals and escalations
- Configurable SLA management
- Parallel and conditional workflows
- Integration with email/SMS/alerts

6. Integration Capabilities

- API-based integration (REST/SOAP)
- Integration with existing systems (ERP, Billing, MDM, GIS, etc.)
- Support for middleware / ESB
- Data exchange with Data Lakehouse

7. Data Management

- Form data storage
- Integration with centralized data repository
- Master data linkage
- Audit trail and versioning

8. User & Access Management

- Role-based access control (RBAC)
- Integration with LDAP/AD/SSO
- Multi-level user hierarchy
- Audit logs

9. Analytics & Reporting

- Built-in dashboards
- Custom report generation
- Integration with central BI platform

10. Security Features

- Data encryption
- Secure authentication mechanisms
- Compliance with CERT-In / ISO standards
- Vulnerability management

11. DevOps & Lifecycle Management

- Version control
- CI/CD pipeline support
- Testing and staging environments
- Application lifecycle management

12. Use Cases for BSPHCL

Bidders should propose sample use cases for digitization:

- Project monitoring and approvals
- Employee grievance handling workflows
- Employee service requests (HRMS workflows)
- Workflows for vendor management and approvals
- Work order and maintenance workflows

13. Technical Architecture

- Architecture diagram
- Scalability and performance features

- Offline capability (if any)
- Performance limitations
- Customization constraints
- Suggested mitigation strategies

14. Infrastructure Requirements

- Compute and storage requirements
- Network requirements
- Cloud/on-prem deployment considerations
- Scalability approach

15. Commercial & Licensing Inputs (Indicative)

- Licensing model and cost drivers
- Cost comparison (Low-Code vs Traditional Development)
- Total Cost of Ownership (TCO) considerations

16. Future Scalability & Roadmap

- Support for enterprise-wide adoption
- Integration with emerging technologies (AI/ML, Chatbots, RPA)
- Capability to evolve as DXP

24. Annexure-V.19: Enterprise E-Mail Solution (On-Premise) – Technical & Commercial Inputs

BSPHCL intends to implement a secure, scalable, and enterprise-grade on-premise e-mail solution for approximately 10,000 users across BSPHCL and its subsidiaries for 5 years. The solution shall include end-to-end components such as e-mail servers, storage, security, archiving, backup, migration, and support.

Bidders are requested to provide detailed inputs, some expected Key features are mentioned below however bidders can suggest exhaustive technical & Functional specifications of proposed e-mail solution:

1. Proposed Solution Overview:

- Proposed E-mail Platform
- Deployment Architecture (On-Premise – DC/DR)
- OEM / Product Details
- Open Source / COTS / Hybrid
- Version and roadmap support

2. Technical Architecture

- Detailed Architecture Diagram (to be attached)
- Components proposed:
- Mailbox Servers
- Client Access Services
- Edge / Gateway Servers
- Load Balancers
- Archival & Backup systems
- High Availability (HA) and Fault Tolerance
- DR Architecture (Active-Active / Active-Passive)

3. Expected Key Functional Features

- Core Email Features
    - Secure email (Send/Receive)
    - Webmail interface
    - Mobile access (Android/iOS)
    - Calendar, Contacts, Tasks
    - Shared mailboxes & distribution lists
- Collaboration Features
    - Meeting scheduling
    - Resource booking
    - Integration with office productivity tools

- Mobility & Access
  - Outlook / Web / Mobile access
  - Offline access capability
  - Multi-device synchronization

4. E-Mail Security Features
   - Anti-Spam and Anti-Phishing
   - Anti-Malware / Anti-Ransomware
   - Email Encryption (TLS, S/MIME)
   - Data Loss Prevention (DLP)
     - Email Authentication like SPF, DKIM, DMARC etc.
   - Secure Email Gateway
   - Protection against spoofing and impersonation attacks
5. Archival, Backup & Compliance
   - Email Archival Solution (with search capability)
   - Retention policies (configurable)
   - Legal hold capability
   - Backup strategy (Full/Incremental)
   - Restore (granular mailbox/email level)
   - Compliance with Govt. of India guidelines
6. ICT Infrastructure Requirements (DC/DR) for following approximate count of users with email data is as listed below
   - Users data (>50 GB and <100 GB): 400 Users
   - Users data (>15GB and <20GB): 600 Users
   - Users data (>10GB and <30GB): 4000 Users
   - Users data (>2GB and <5GB): 5000 Users

- Compute
  - No. of servers (Mailbox, Application, Gateway, etc.)
  - CPU cores, RAM sizing
  - Virtualization support
- Storage
  - Storage type (SAN/NAS/Object)
  - Mailbox size assumptions (e.g., 5–10 GB/user or as proposed)
  - Total storage (Primary + Archive + Backup)
  - IOPS and performance requirements
- Network
  - Bandwidth requirements
  - Load balancing requirements
  - Redundancy
- DR Setup
  - Replication mechanism
  - RPO/RTO
  - Failover mechanism

7. Integration Requirements
   - Integration with Active Directory / LDAP
   - Integration with existing IT systems (if required)
   - Integration with DLP/SOC systems
   - API support
8. Migration Strategy
   - Migration approach from existing email system
   - Tools/Utilities for migration
   - Handling of:
   - Existing mailboxes
   - PST/archives
   - Contacts & calendars
   - Migration timeline
   - Downtime minimization strategy
9. Licensing & Commercial Model

- Bidders shall provide:
- Licensing model:
  - Per user / subscription / perpetual
- Breakup:
  - Email server licenses
  - Security licenses
  - Archival licenses
- Third-party dependencies (if any)
- Total estimated Cost including implementation, e-mail migration, support maintenance and ATS for 5 years

10. Performance & Scalability
    - Support for 10,000 users (scalable to future growth)
    - Concurrent users supported
    - Mail delivery performance
    - Storage scalability
11. Monitoring & Management
    - Centralized administration console
    - Monitoring tools
    - Alerts & reporting
    - Audit logs
12. Support & Maintenance (O&M)
    - Bidders shall provide:
    - Support model (L1/L2/L3)
    - SLA:
      - Uptime
      - Response & resolution time
    - Onsite/Offsite support
    - Patch & upgrade management
    - OEM support details
13. Security & Compliance
    - Compliance with CERT-In guidelines
    - Role-based access control (RBAC)
    - Audit trails
    - Data privacy compliance
14. Risks & Mitigation
    - Vendor lock-in
    - Security risks
    - Migration risks
    - Mitigation strategies
15. Value-Added Features (Optional)
    - AI-based spam filtering
    - Email analytics
    - Integration with collaboration tools
    - Chat/Video integration (if any)

25. Annexure-V.20: Data Loss Prevention (DLP) Solution – Technical & Commercial Inputs

BSPHCL intends to implement a comprehensive Data Loss Prevention (DLP) solution to safeguard sensitive and personal data across its IT ecosystem. The solution shall cover:

- Endpoint DLP for ~6,000 users
- Network DLP at Data Centre (DC) and Disaster Recovery (DR)
- Email DLP integration
- Identification and protection of Personally Identifiable Information (PII)
- Alignment with Digital Personal Data Protection (DPDP) Act, 2023

Bidders are requested to provide detailed inputs, some expected Key features are mentioned below however bidders can suggest exhaustive technical & Functional specifications of proposed DLP solution:

1. Proposed Solution Overview
    - Proposed DLP Platform / OEM
    - Deployment Model (On-Premise)
    - Solution Type:
        - Endpoint DLP
        - Network DLP
        - Email DLP (integration with email solution)
    - Open Source / COTS / Hybrid
    - Version and product roadmap

2. C. Solution Architecture
    - Detailed Architecture Diagram (to be attached)
    - Key Components:
        - DLP Management Server
        - Endpoint Agents
        - Network Sensors / Appliances
        - Email DLP Gateway Integration
    - Deployment across: DC & DR, End-user systems
    - High Availability and redundancy design
3. Key Functional Capabilities
    - Data Discovery & Classification
        - Discovery of sensitive data across endpoints, servers, databases
        - Predefined and customizable policies
        - Content inspection (structured & unstructured data)
        - Context-aware classification
    - PII Data Identification & Management
        - Detection of: Aadhaar numbers, PAN numbers, Mobile numbers, Financial data, Consumer data etc.
        - Pattern matching and dictionary-based detection,
        - Tagging and labeling of sensitive data
        - Data lineage and tracking
    - Endpoint DLP (6,000 Users)
        - Control over: USB / removable media, Printing, Clipboard / screen capture, File copy/move etc.
        - Application control
        - Offline protection capability
        - Policy enforcement even without network
    - Network DLP (DC & DR)
        - Monitoring of: HTTP/HTTPS traffic, FTP/SFTP, Email traffic etc.
        - Deep packet inspection (DPI)
        - Real-time blocking / alerting
        - Integration with firewall / proxy / gateway
    - Email DLP Integration
        - Integration with enterprise email solution
        - Inspection of outgoing emails
        - Attachment scanning
        - Blocking / quarantine / encryption actions
    - Policy Management
        - Centralized policy creation and enforcement
        - Role-based policies
        - Context-aware policies (user, device, location)
        - Policy simulation and testing
4. DPDP Act Compliance Features: Bidders must specify how the solution supports compliance with Digital Personal Data Protection (DPDP) Act, 2023:

- Identification and protection of personal data
- Consent-based data handling support (where applicable)
- Data minimization principles
- Audit trails and reporting
- Breach detection and reporting
- Data retention and deletion policies
- Data localization considerations

5. Security Features
    - Encryption (data at rest & in transit)
    - Role-Based Access Control (RBAC)
    - Multi-factor authentication (MFA) support
    - Tamper-proof agents
    - Incident response workflows
6. ICT Infrastructure Requirements (On-Prem DC/DR)
    - Compute
        - No. of servers for: DLP Management, Analytics
        - CPU, RAM specifications
    - Storage
        - Storage for logs, incidents, and data classification
        - Retention period minimum 9 (Nine) Months
        - Performance requirements
    - Network
        - Bandwidth impact
        - Integration with existing network security devices
    - DR Setup
        - Replication mechanism
        - RPO/RTO
        - Failover capabilities
7. Integration Requirements
    - Integration with: Active Directory / LDAP, Email system, SIEM/SOC, Data Lakehouse
    - API support
8. Monitoring & Reporting:
    - Centralized dashboard
    - Incident tracking
    - Real-time alerts
    - Compliance reporting (DPDP, audit reports)
9. Deployment Strategy
    - Approach for deployment across 6,000 endpoints
    - Phased rollout plan
    - User impact minimization strategy
10. Licensing & Commercial Model
    - Licensing model: Per endpoint / per user
    - Per appliance (network DLP)
    - License components: Endpoint DLP, Network DLP, Email DLP etc
    - Subscription / perpetual model
    - Total estimated cost for 5 years including implementation, support & AMC
11. Performance & Scalability
    - Scalability beyond 6,000 users
    - Performance impact on endpoints
    - Network latency considerations
12. Support & Maintenance (O&M)
    - Support model (L1/L2/L3)
    - SLA commitments: Uptime, Incident response, Patch & upgrade management

  - OEM support

13. Risks & Mitigation
  - False positives / false negatives
  - User resistance
  - Performance overhead
  - Suggested mitigation strategies
14. Value-Added Features
  - AI/ML-based anomaly detection
  - Insider threat detection
  - UEBA (User & Entity Behavior Analytics)
  - Integration with Zero Trust framework
15. Assumptions
  - Assumptions for sizing

2. Details of Proposed Service levels for monitoring the proposed solution components :

3. Description of proposed solution components:

4. Description of proposed solution components to be deployed at DC/DRC:

5. Suggestions in Scope of Work:

6. Suggestions in Qualification Requirement:

7. Any other Suggestions: