

Tender Notification for

AWARD OF WORK FOR DRONE/MAST SYSTEM INSPECTION ON 1233 NOS. OF POLES ON 11 KV HT OH LINE AND IDENTIFICATION OF FAULT USING AI/ML BASED VSENSE PLATFORM FOR REDUCTION OF NCC AND BREAKDOWN IN FY25-26.

NIT NO. BR/ENQ/25-26/FK/CR/AG/2680

Tender issue date: 13.03.2025

Date & time of Submission: 20.03.2025, 03:30 PM

BSES RAJDHANI POWER LIMITED,

BSES Bhawan, Nehru Place, New Delhi-110019

Corporate Identification Number: U40109DL2001PLC111527

Telephone Number: +91 011-4910 7235,

Website: www.bsesdelhi.com

(This document is meant for the exclusive purpose of bidding against this NIT Number /Specification and shall not be transferred, reproduced, or otherwise used for purposes other than that for which it is specifically issued).



REQUEST FOR QUOTATION (RFQ)

1. GENERAL

BSES Rajdhani Power Limited invites sealed envelope for Limited tenders on a "Two Stage: Two Envelope" bidding basis (Envelope –I, Techno-Commercial Bid & Envelope-II, Price Bid) from eligible Bidders for "AWARD OF WORK FOR DRONE/MAST SYSTEM INSPECTION ON 1233 NOS. OF POLES ON 11 KV HT OH LINE AND IDENTIFICATION OF FAULT USING AI/ML BASED VSENSE PLATFORM FOR REDUCTION OF NCC AND BREAKDOWN IN FY25-26" in our distribution Company BRPL.

- 1.1. The bidder must qualify the requirements as specified in heading "Qualifying Requirements" of this RFQ.
- 1.2. The sealed envelopes shall be duly super-scribed as:

"NIT NO. BR/ENQ/25-26/FK/CR/AG/2680 Dated: 13.03.2025"

For

"AWARD OF WORK FOR DRONE/MAST SYSTEM INSPECTION ON 1233NOS. OF POLES ON 11 KV HT OH LINE AND IDENTIFICATION OF FAULT USING AI/ML BASED VSENSE PLATFORM FOR REDUCTION OF NCC AND BREAKDOWN IN FY25-26."

1.3. Schedule of the tendering process is given below. Detailed Specification, Scope of Work, Terms & Conditions, etc are mentioned in the Tender documents, which is available on our website.

| Duration of the Work | 1 Year from date of issue of LOI/order |
|---|--|
| Date & time of Submission of Bid | 20/03/2025 till 15:00 HRS |
| Date & time of opening of Techno- Commercial Bid | 20/03/2025 at 15:30 HRS |

2.0 POINTS TO BE NOTED

- 2.1. Works envisaged under this contract are required to be executed in all respects up to the period of completion/ duration of work mentioned above.
- 2.2. Only those agencies, who fulfil the qualifying criteria as mentioned in clause 3 should submit the tender documents.



- 2.3. BSES Rajdhani Power Ltd reserves the right to accept/reject any or all bids without assigning any reason thereof and alter/amend/modify/add/reduce the amount and quantity mentioned in the tender documents at the time of placing Order
- 2.4. The bid will be summarily rejected if:
 - (a) Bid received after due date and time.

3.0 QUALIFYING REQUIREMENTS (QR)

The prospective bidder must qualify for all of the following requirements to be eligible to participate in the bidding. Bidders who meet the following requirements will be considered the successful bidder and a bidder who does not meet these requirements shall be disqualified.

(A.1) TECHNICAL CRITERIA:

Technical Qualification Criteria for AI/ ML based Predictive maintenance of the Electrical network:

1. Analytical Platform:

Bidder has to provide the license for subscription to Cloud Platform for Precision Predictive Analytics based Model fitting, machine learning and big data leading to better predictive Maintenance. The Analytical platform must be capable to conduct the following **through use of AI and Machine Learning models:**

a) Incipient Fault pin pointing:

- i) Artificial intelligence and machine learning algorithms on the client's data, high resolution picture capturing through Drone/ Mast/satellite/helicopter or even through Mobile and provide actionable items with exact fault location of the network elements with Clear demarcation. The AI model based platform shall have analytical feature vectors at various degrees of freedom (DoF) to pin point faults that would get missed by ground patrolling team otherwise.
- ii) The innovative predictive analytics must provide the insight of the existing assets and helps in isolating fault types which remain uninspected due to human error or that are beyond the capability of human eye.
- b) **Identify early onset of Rusting:** Analytical platform must be capable to Identify the early onset of rusting up to 6 months prior to being visible to human eye and help to take right remedial intervention on time aimed at increased returns on invested assets by increasing the asset life.



- c) **Vegetation management:** Analytical platform must be capable to identify the early onset of vegetation growth up to 6 months prior to being visible to human eye based on type of plant and photosynthesis rate which will help to take right remedial intervention on time.
- d) Uniform grading of Faults based on criticality: AI & Machine Learning platform must be able to do uniform grading of faults criticality using Machine Learning based on criticality with much more uniformity as opposed to human error involved due to difference experience levels of ground patrol teams. E.g Ground Patrol team will consist of several line-man with varied experience levels (i.e 1yr, 3 yrs or 5 years.) when asked to rate same fault by all different people might grade them differently and can cause loss of resources in fixing less critical fault, merely because it was wrongly graded. Thus, machines must treat all of the faults under uniform experience level to correctly grade the faults based on criticality.

e) Access control & management, Exception reporting & Escalation matrix:

- i) The product allows the operations managers to better track their maintenance activity with proper hierarchy like field team, Project lead, Project Manager and Management with escalation matrix. The email/SMS can be sent to the responsible manager for further action.
- ii) The login IDs and Passwords at different levels will be provided to access the platform for acknowledging the pin pointed faults, assigning the job for corrective actions, uploading of the corrected data (Pictures) and tracking of maintenance activities.
- iii) The login IDs and Passwords at different levels will be provided to access the for acknowledging the pin pointed (isolated) faults, which are segregated and classified based on criticality as Red (Critical Major Faults, scores 5&4), Amber (Critical Minor Faults, scores = 3,2 &1) and Green (Healthy), assigning the job for corrective actions, uploading of the corrected data (Pictures) and tracking of maintenance activities.
- iv) BRPL Engineers can also communicate and keep a history of actions taken etc and leave no room for accidental miss out on any activity, since the platform should also create an auto alert. The module shall have facility of generating online MIS and tracking pendancies based on pre-defined TATs.
- v) No maintenance task is marked as complete till such time as the maintenance personnel takes a picture of the corrected component using their mobile phones and uploads



these images on to platform and algorithms then analyse these images for the quality of repair, and escalate the issue in case the corrective measures taken aren't sufficient.

- f) **Inventory and scheme management:** The Platform must be capable to integrate with Sap and GIS System for inventory management and create a digital inventory using AI to provide a quick overview of the existing physical asset.
- g) **IT Platform management:** The platform must be managed and safeguard by the vendor and made available for use at any time during the project time line. Data transfer from Data collection media to the analytical platform shall also be within the scope of the vendor.
- h) The analytical platform should be capable for increasing asset life by providing actionable leads and reducing future capital expenditure and operational expenditure while generating revenues from assets which otherwise would have been written-off.
- i) Data Storage and Handing Over: Collected data must be stored during contract period and handed over to utility within 30 days after expiring the contract.
- j) GNSS Mapping of the asset using Global Navigation satellite System (GNSS) to nullify the offset error of GIS.
- k) Data ownership shall be with BSES. Vendor shall provide complete access to the IT platform, MIS and reports generated thereof.
- 1) Platform must adhere the data security policy of BRPL.

2. Data Collection:

Data acquisition can be carried out by Drone/Helicopter/ satellite for Aerial Vantage Point or Mast to analyse the following critical but not limited to following activities / faults analysis:

- a) Accurate Geo Location tagging of EHV towers through Global Navigation Satellite System (GNSS).
- b) The exact location of hot spots either on bus, Line or various clamps / connectors, other hardware fittings and termination/connection points by thermal imaging of Grid assets/ Line.
- c) Any metallic / foreign objects / wire/ thread lying on bus/ Line/Grids.
- d) Condition of bus bar / line conductors i.e Broken conductor strands, weak conductors in Line/ Grid Bus.
- e) Snapped insulator/Insulator assembly, Disc or Hair cracks / spots therein.
- f) Any oil leakage from top cover/body of PTR / CTs etc.
- g) Horizontal and vertical clearance of line, highlighting/pinpointed vulnerable locations of lines.



- h) Vegetation growth along line infringing clearance leading to line earthing/tripping.
- i) Loose or snapped earthing structure / Line.
- j) Condition of ground wire/ guard wire; identifying missing, loose spans.
- k) Sag condition, Mid span clearance, Clearance among conductors of different phase.
- l) Loose Nut bolts at Insulators/structures or any other location.
- m) Missing Tower members if any.
- n) Tilted insulators on rail pole line.
- o) Rusting / missing paint in structures of Grid/ Lines.
- p) Theft or UUE (Unauthorized utilization of electricity) detection.
- q) Locating unauthorized construction along the route of transmission/distribution line for statutory compliances.
- r) GIS Mapping of assets upto LT Poles.
- s) Locating weak points in Overhead Network such as AB joints, which are frequent cause of failure of HT AB network.
- t) Capturing the bending radius of cables at towers and identifying location where cable is strained beyond permissible limits.
- u) Capturing rain sheds orientation on end termination of UG cables.
- v) Capturing gap between outer sleeve of joint and cable outer sheath, from where water could seep in.
- w)Locating deformities, distortions in heat shrink joint outer sleeve to capture air pockets below heat shrink tube, near the semi conducting screen cutback.

3. Data readings:

The data collection media shall have capability to generate following data readings of Overhead lines which when fed in the analytical platform, the AI/Machine learning Models in the software should be able to generate actionable network maintenance leads aimed at increasing returns on invested assets by increasing the asset life.

| Close-up high-resolution images Visual data 4K video for dynamic analysis Infrared images | |
|--|--|
|--|--|



| Structural data | Surface and subsurface corrosion Cracks, delaminations, and deformations Cavities and porosity measurements Wall thickness and protective coating measurements Alignment and deformations |
|-----------------------|---|
| Environmental data | Heat signatures and hot spot patterns Gas emissions Dust levels |
| Acoustic data | Ultrasonic measurements Acoustic vibration analysis |
| Geospatial data | Topographic measurements Vegetation index maps 3D terrain models Landform classification |

(A.2) COMMERCIAL CRITERIA:

- a) The average annual turnover of the Bidder, in the preceding three (3) financial years (i.e., FY 2021-22 & FY 2022-23 & FY 23-24) should not be less than Rs 20 Lakhs. The bidder shall submit the Annual Turnover Report of the last 3 FYs duly certified by a Chartered Accountant. The Turnover certificate must have UDIN Number.
- b) The bidder must have valid PAN and GST Registration Number.
- c) Bidder should have fulfilled all statutory compliances like PF, ESI registration, etc.
- d) Entities that have been currently debarred/blacklisted by any Private/central/state government institution including electricity boards in India, any of the DISCOM in India shall lack qualifying pre-requisites to participate in this tender and will not be considered. Accordingly, an undertaking by the Authorized Person along with other documents to be provided by the bidder on its letterhead in this regard, confirming in clear terms, that the contractor has not been debarred/blacklisted as of the date of submission of the bid. Bidders who are currently debarred/blacklisted/ suspended by BRPL will not be considered in this tender.
- e) The bidder shall submit an undertaking on their letterhead that all the documents/certificates/information submitted by them against the tender is genuine/true/correct and the copies of documents have been made from the original document/s. Further, in case any of the documents/certificates/information submitted by the bidder is found to be false or, BRPL at its



- sole discretion shall be free to take all actions as permitted under law, and disqualification from participation in the future tenders of BRPL& its group companies for an indefinite period or period as may be decided by BRPL.
- f) The bidder should submit an undertaking for "No Litigation / No Legal case" is pending with BRPL or its Group Companies. Bidders having any litigation/ legal case pending with BRPL shall not be considered qualified for this tender.

(A.3) OTHER REQUIREMENTS:

- (a) The company reserves the right to carry out technical capability/infrastructure assessment of the Bidders by factory/office/site inspection or by any other means and the company's decision shall be final in this regard.
- (b) No joint ventures /consortiums are allowed.
- (c) The bidder shall submit all necessary documentary evidence to establish that the Bidder meets the above qualifying requirements including but not limited to the following:
 - i. Details of formation/registration of the firm (Proprietary/ Partnership) or Company along with all relevant details)
 - ii. Memorandum & Articles of Association of the Company/ Partnership Deed of the Firm /other registration documents, as applicable
 - iii. Organization Chart of the Bidder's Company/organization
 - iv. Experience details with credentials
 - v. Details of office/s in Delhi, Details of Registered and Corporate offices and details of other offices/establishments in India.
 - vi. Work order / Agreement copies along with performance certificates in support of relevant experience
 - vii. Copy of PAN/GST no.
 - viii. Non-Disclosure Agreement (NDA) as per the format attached
 - ix. Bidder's details as per the format attached
- (d) The bidder should enclose performance certificates in support of relevant experience.
- (e) For Existing vendors of BRPL, the evaluation will also include the performance in the existing contracts. BRPL reserves the right to qualify or disqualify their bid based on the contract performance despite them meeting the above-mentioned qualification requirements.
- (f) BRPL may ask for such other documents as it deems fit for substantiating/ justifying the submissions made by the bidder.

4.0 BID SUBMISSION

4.1. The bidders are required to submit the bid in 2(two) parts and in original& duplicate (total 2 copies) at the following address:

Head of Department,



Contracts & Material Deptt. BSES Rajdhani Power Ltd. 1st Floor, "D" Block, BSES Bhawan Nehru Place New Delhi-110019.

- 4.2. Technical bid documents along with commercial terms and conditions shall also be submitted in Pen Drive. No price bid shall be submitted in Pen Drive. The PEN Drive should be owned by Bidder. The bidder shall ensure that the Pen Drive is free from all viruses/malware. The pen drive once submitted shall not be returned.
- 4.3. This is a two part bid process. Bidders are to submit the bids in 2(two) parts. Both these parts should be furnished in separate sealed covers super scribing NIT no. DUE DATE OF SUBMISSION, with particulars as PART-A Techno-Commercial Bid and Part-B PRICE BID and these sealed envelopes should again be placed in another sealed envelope which should be super scribed with "Tender Notice No.& Due date of opening". The same shall be submitted before the due date & time specified.

4.3.1 PART A: TECHNO-COMMERCIAL BID, UNPRICED (Envelop-1):

The first sealed envelope shall contain an Unpriced Techno-commercial bid in paper form (hard copies) and envelope super-scribing **PART-A Techno-Commercial Bid**. The details to be submitted in techno-commercial bids are given below:

- a) General information about bidder
- b) Documentary evidence in support of all the qualifying criteria as per clause 3.0,
- c) Technical Literature if any.
- d) Details of experience of works of the same or similar nature. Copy of work orders and performance certificates.
- e) Power of attorney
- f) Acceptance to Commercial Terms and Conditions viz Delivery schedule/period, Payment terms etc
- g) Any other relevant document to support bidder meeting QR

Techno-Commercial Bid should not contain any cost information whatsoever and shall be submitted within the due date. After techno-commercial evaluation, the list of techno-commercially qualified bidders will be posted immediately on the BSES website.



The bidder should submit complete tender document along with all corrigendum (if any) published against this NIT at our website, signed and stamped with bidder's seal as an acceptance of all the terms & conditions of the Tender.

4.3.2PART B: PRICE BID (Envelop-2):

The second sealed envelope shall contain Price bids in paper form (hard copies and envelope super-scribing **PART-B Price Bid** on it. The details to be submitted in the Price bid are given below:

- (a) **PRICE BID** shall Comprise of Prices **strictly** in the Format enclosed in SECTION VII. Any change in price bid format, content may lead to rejection of the bid.
- **(b)** Price Bid will be opened after techno-commercial evaluation of all the bids and only of the qualified bidders.

4.3.3 FINANCIAL BID EVALUATION THROUGH REVERSE AUCTION

Reverse Auction (RA) shall be conducted for finalization of contract and the details of the price bid shall not be shared with bidders. The qualified bidders will participate in reverse auction through SAP-SRM tool. The RA process shall be governed by the terms and conditions enclosed as Annexure-III in this tender document. Training/details shall be provided to bidders before participation in auction. In case RA is not conducted /concluded for any reasons, a "final no regret" financial bid in a sealed envelope will be called for from all qualified bidders. Notwithstanding anything stated above, the Company reserves the right to assess bidders' capability to perform the contract, should the circumstances warrant such assessment in the overall interest of the Company. In this regard, the decision of the Company shall be final and binding on the bidders.

5. TIME SCHEDULE

The activities and their timelines are given hereunder which needs to be adhered by the bidders.

| S. No. | Activity | Description | Due date |
|-----------|---|--|--|
| 1 | Submission of Techno- Commercial & Price Bid | Unpriced Techno- Commercial & Price Bid in separate sealed envelopes | 20.03.2025 |
| 2 | Opening of Techno- Commercial Bid | Opening of PART-A | 20.03.2025 |
| 3 | Reverse Auction | As per RA terms | Schedule will be intimated to eligible bidders through email |



| DOES KAJUHANI PUWEK LIU. | | | |
|--------------------------|----------|------------------|--------|
| | from | email | id: |
| | BRPL.Eau | ıction@reliancea | da.com |

6. AWARD DECISION

- 6.1. Company intends to award the business on a lowest bid basis, so bidders are encouraged to submit the bid competitively. The decision to place order/LOI solely depends on Company on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that Company may deem relevant.
- 6.2. The Company reserves all the rights to award the contract to one or more bidders who meet the execution requirement or nullify the award decision without assigning any reason thereof.
- 6.3. In case the performance of any contractor is found unsatisfactory during the execution process, the award will be cancelled and BRPL reserves the right to award the work to another contractor(s) who will be found eligible/fit.
- 6.4. The abnormally higher or abnormally lower bids shall not be considered with respect to estimated cost. The criteria decided by BRPL on this shall be final and binding on the bidders.
- 6.5. The bidding firms are advised to quote their Margin / Administrative Service Charges accordingly. BRPL reserves the right to reject the bids quoted with abnormally higher or abnormally lower individual activity rates. The criteria decided by BRPL on this shall be final and binding on the bidders and will not be open for discussion under any circumstances.

7. MARKET INTEGRITY

We have a fair and competitive marketplace. The rules for the bidders are outlined in the Terms & Conditions of the tender documents. Bidders must agree to these rules prior to participating in the tender. In addition to other remedies available, we reserve the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the Terms & Conditions. Bidder(s) who violate the marketplace rules or engage in behavior that disrupts the fair execution of the marketplace restricts a bidder from participation in future tenders of BRPL to a length of time as decided by BRPL, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honour prices submitted to the market place.
- Breach of the terms published in Request for Quotation/NIT
- Misrepresentation of facts, submitting false and fabricating documents



All information contained in this tender document is confidential and may not be disclosed, published or advertised in any manner without written authorization from BRPL. This includes all bidding information submitted.

All tender documents remain the property of BRPL and all bidders are required to return these documents to BRPL upon request.

Bidder(s) who do not honour these confidentiality provisions will be excluded from participating in future bidding events.

The bidder shall sign a Non-Disclosure Agreement (NDA) in the format attached in tender document and submit along with its bid.

9. CONTACT INFORMATION

Technical & Commercial clarification, if any, regarding this tender shall be sought in writing and sent by e-mail to the following e-mail IDs:

| Address | Name/ Designation | Email Address / Phone Number |
|---|----------------------------|---------------------------------------|
| | Technical | <u> </u> |
| | Mr.Abhinav Srivastava | Abhinav R Srivastava/REL/RelianceADA, |
| | AsVP – (Head CES) | 9350134826 |
| C&M Dept, 1st Floor, C | | |
| Block,BSES Rajdhani Power Ltd.,BSES | Commercial | |
| Bhawan, Nehru Place, New Delhi – 110019. | Ms. Anima Gaur | anima.gaur@relianceada.com |
| New Benn 110019. | DGM(Contracts) | 011-49209429 |
| | Mr. Amitava Nandi, | Amitava.Nandi@relianceada.com |
| | AsVP - (Head Contracts) | 011-4920 9619 |



TERMS & CONDITIONS

1. DEFINITION:

The following terms & expressions as used in this work order shall have the meaning defined and interpreted here under:

- **1.1. COMPANY:** The terms "Company" shall mean BSES Rajdhani Power Ltd. having its office at BSES Bhawan, Nehru Place, New Delhi-110019, Corporate Identification Number: U74899DL2001PLC111527, Telephone Number: +91 1149207235, Website: www.bsesdelhi.com and shall included its authorized representatives, agents, successors and assigns.
- **1.2 CONTRACTOR**: The terms "Contractor" shall mean Contractor shall mean successful vendor to whom the contract will be awarded and shall include its authorized representatives, agents, successors and assigns.
- **1.3 RATE**: The unit rates for the work to be carried out at site shall be as per finalized unit rates through tender. The Invoice of the Contractor will be processed as per the actual work done and the quantities of each items performed by the Contractor as per the site requirement to be certified by Engineer In-charge.

The finalized rates shall be firm for the entire duration of work to be carried out by the Contractor under the work order and are not subject to escalation for any reason whatsoever.

- **1.4 WORK ORDER SPECIFICATION**: The terms "work order Specification" shall mean the Technical specification of the work as agreed by you and description of work as detailed in ANNEXURE enclosed and all such particulars mentioned directly/referred to or implied as such in the work order.
- **1.5 SITE**: The terms "Site" shall mean the working location mentioned in the work order.

2. ENGINEER IN-CHARGE:

The term "Engineer In-Charge" shall mean the Company's nominated representative for the purpose of carrying out the work.

3. EXAMINATION OF SITE AND LOCAL CONDITIONS:

The contractor is deemed to have visited all the sites comes under BRPL licensed area under the work order and ascertained therefore all site conditions and information pertaining to his work. The company shall not accept any claim whatsoever arising out of the difficulties at site/terrain/local conditions, if any.

4. LANGUAGE AND MEASUREMENT:

The work order issued to the contractor by the company and all correspondence and documents relating to the work order placed on the Contractor shall be written in English language. Metric System shall be followed for all dimension, units etc.



5. SCOPE OF WORK:

DRONE/MAST SYSTEM INSPECTION ON 1233 POLES ON 11 KV HT OH LINE AND IDENTIFICATION OF FAULT USING AI/ML BASED VSENSE PLATFORM FOR REDUCTION OF NCC AND BREAKDOWN IN FY25-26.

Faults in 11KV OH HT lines due to Close Vegetation require immediate attention due to their significant impact on network reliability. Hence Tree Pruning on 1233 Nos. of Poles on 11KV HT OH Line based on Drone/Mast system inspection and identification of Fault using AI/ML based Vsense platform for reduction of NCC and breakdown in FY25-26 is considered on priority.

- I. Data Capture using drone/ mast system due to limited working envelope
- II. Cloud Data Storage, Sanitization, Hosting for Time Series Analysis
- III. 11KV HT asset and vegetation based Asset health Monitoring Predictive Analytics for fault identification
- IV. Identification of Faults - Categorization based on Severity Score
- V. Actionable item list on Excel Sheet to easily circulate between teams and upload into ERP System.
- VI. Following Activities/ Faults to be covered/Analysed.
- VII. Accurate Geo Location tagging of EHV towers through Global Navigation Satellite System (GNSS).
- VIII. The exact location of hot spots either on bus, Line or various clamps / connectors by thermal imaging of Grid assets/Line.
 - IX. Any metallic / foreign objects / wire/ thread lying on bus/Line.
 - X. Condition of bus bar / line conductors i.e Broken conductor strands, weak conductors in Line/ Grid Bus.
 - XI. Snapped insulator / Insulator assembly, Disc or Hair cracks / spots therein.
- XII. Horizontal and vertical clearance of line, highlighting/pinpointed vulnerable locations of lines.
- XIII. Vegetation growth along line infringing clearance leading of line earthing/tripping.
- XIV. Loose or snapped earthing to structure / Line.
- XV. Condition of ground wire/ guard wire; identifying missing, loose spans.
- XVI. Sag condition, Mid span clearance, Clearance among conductors of different phase.
- XVII. Loose Nut bolts at Insulators/ structures or any other location.
- XVIII. Missing Tower members if any.
 - XIX. Tilted insulators on rail pole line.



XX. Rusting / missing paint in structures of Grid/ Lines.

Detail scope of work attached as Annexure A-1.

Any additional work beyond the scope enumerated in the work order above shall be carried out as per the instructions of Engineer-In Charge. The company shall not entertain any claim or increase in the Work Order value due to execution of such additional work if the same is not approved by Engineer In Charge.

6. VALUE OF THE WORK ORDER:

The unit rate & value of the tender for above scope of work will be work out on the basis of finalized rates. The rates shall be firm for the entire duration of work carried out by the Contractor under the order and are not subject to escalation for any reason whatsoever.

The Contractor shall also make his own arrangement for the accommodation/conveyance requirements for its staff. All the transport / lifting facilities at site shall be arranged by you at no extra cost to us. We shall provide at site the adequate open space for construction of site store for storing the materials, tools, tackles etc. All the Contractors storage will be within the site premises. All the incoming and outgoing materials, equipment, tools, tackles and any other items related to said work shall be entered into the register kept for this purpose and shall be in the custody of Contractor, however company does not hold any responsibility for any loss or damage caused to Contractors material etc.

The cost of transit insurance, freight, loading/unloading of materials/ equipments during its handling/erection at site is included in the above mentioned value in the tender.

7. TAX & DUTIES:

Prices are inclusive of all taxes and duties including labour cess (except GST).

However, IT as per applicable rate will be deducted from your bills as Tax Deduction at Source (TDS).

GST at actual shall be paid on submission of GST Registration and self declaration on your letter head stating that you have deposited/or will deposit the Tax as per the applicable GST laws.

- 1. As Per Notification No. 39/2021 Central Tax dated 21st December, 2021 w.e.f 01/01/2022 registered person (ie, Recipent/Purchaser) can avail tax credit on those invoices only which have been reflected in GSTR 2A or GSTR2B (it means 100% matching of invoice is required). Also, GST has to be deposited by Supplier/Contractor by filing of GSTR-1 and GSTR-3B.
- 2. In view of above, if the same is not complied with by the supplier/contractor and the Recipient/Purchaser is not in position to avail / utilize Input Tax Credit due to non-compliance or non-filing of GSTR-1 and GSTR-3B for the month/quarter (as applicable) in which the supply was made, then Recipient/Purchaser has right to hold 100% GST amount from next payment due of the subsequent month till the time default is not cured.



- 3. For releasing of the payment kept on hold on account of GST supplier shall submit payment proof i.e GST Portal screenshot reflecting name of Recipient/Purchaser alongwith GSTR-1 and GSTR-3B for month/quarter (as applicable) in which the same has been discharged. Payment shall not be released, till the time proof of payment of GST as mentioned above is not submitted.
- 4. Further, the recipient/purchaser shall also be entitled to recover any financial loss incurred (including tax, interest and penalty) due to non-compliance or non-filing of GSTR-1 and GSTR-3B by the supplier.
- 5. In case where delivery of goods is being made on FOR site basis, the Supplier is responsible to comply with rules applicable for E-way bill. Any violation in provision of E-way Bill will attract penalty and seizure of Transit Material. Any Penalty and Pre-Deposit due to violation of rules/provision shall be paid and borne by Supplier. Also, Supplier is responsible for releasing of goods from Authority whether CGST/SGST. Delay in supply due to seizure of goods shall attract liquidated damages as per Order / Contract provisions."

8. TERMS OF PAYMENT:

100% payment shall be made within 30 days of completion of job on submission of Bill duly certified by Engineer in charge. The work completion certificate shall be issued by our Engineer-In-charge by certifying that the work has been completed in full satisfaction of all relevant clauses applicable under the order and the entire document in support of certification to be enclosed. All the payments shall be done within 30 days on receipt of certified bills at our office.

9. VALIDITY:

The tender shall be effective for one year from date of issue of order. However the same shall be reviewed after one year based on performance assessment and continuation to the next year. After expiry of the validity period, it may be extended/renewed/replaced for such further period on such terms and conditions as may be mutually agreed to between the COMPANY and the CONTRACTOR.

10.0 PENALTY FOR DELAY:

- 10.1 Penalty: A penalty of 2.5% of bill amount shall be levied in each case of non-compliance of safety practices and site cleanliness.
- 10.2 Liquidated Damages: In the event of any delay in completion of the work beyond the stipulated time given by in work order due to reasons solely attributable to the Contractor, the Contractor shall pay to the Company liquidated damages.

If the Contractor failed perform the services within the time period specified in the work order, the Company shall, without prejudice to its other remedies under the contract, deduct liquidated damages a sum equivalent to 1.0% of the Contract Value for each week or part there of delay until the actual date of completion up to a maximum deduction of 10% of the Contract Value. Once the maximum is reached to Company may consider termination of contract without any liabilities to Company.

Incase the contractor has not mobilized / taking up the job as per the direction of Engineer In-charge, the company have all rights to cancel / re-allocate the order allotted to the contractor.



Engineer In charge should specifically mention the amount of LD levied on the bill of contractor for this job.

11.0 WORK COMPLETION CERTIFICATION:

The work carried out by the Contactor under this order has to be certified as being satisfactorily completed by the Engineer In-charge at work site. In case of modification/correction to be carried out, Contractor shall carry out the said modifications/ corrections. The Contractor shall remain in close contact with Engineer In-charge at site to report the general findings of the field work during the initial as well as later stage of the work at site, If required, there shall also be joint meetings at site/ Customer's office at Nehru Place, New Delhi to discuss the field findings and for revision of the method for site work if required. Work Completion Certificate shall be issued by the Engineer In-charge within 10 days of satisfactory work completion & handed over to the Contractor for further submission of the same along with their Bill to BSES Rajdhani Power Ltd., Nehru Place, New Delhi.

12.0 INDEMNITY:

Contractor shall indemnify and save harmless CUSTOMER against and from any and all liabilities, claims, damages, losses or expenses arising due to or resulting from:

- a)any breach non-observance or non-performance by contractor or its employees or agents of any of the provisions of this Work Order.
- b)any act or omission of contractor or its employees or agents.
- c)Any negligence or breach of duty on the part of contractor, its employees or agents including any wrongful use by it or them of any property or goods belonging to or by CUSTOMER.

Contractor shall at all times indemnify CUSTOMER against all liabilities to other persons, including the employees or agents of CUSTOMER or contractor for bodily injury, damage to property or other loss which may arise out of or in consequence of the execution or completion of Works and against all costs charges and expenses that may be occasioned to CUSTOMER by the claims of such person.

13.0 STATUTORY OBLIGATIONS:

The Contractor shall take all steps as may be necessary to comply with the various applicable laws/rules including the provisions of contract labour (Regulation & Abolition Act) 1970 as amended, Minimum wages Act, 1984,

Workman Compensation Act, ESI Act, PF Act, Bonus Act and all other applicable laws and rules framed there under including any statutory approval required from the Central/State Governments, Ministry of Labour.

Before commencing the work it would be mandatory for the Contractor to furnish the CUSTOMER the permanent PF code no and ESI of the employees (If applicable).

14.0 WORKMEN COMPENSATION:



The Contactor shall take insurance policy at his own cost under the Workman Compensation Act to cover such workers who are not covered under ESI and PF by the Contractor however engaged to undertake the jobs covered under this order and a copy of this insurance policy will be given to Company for reference and records. This insurance policy shall be kept valid at all times. In case there are no worker involve other than those who are covered under ESI and PF by the Contractor, the Contractor shall certify for the same,

The contractor shall keep the company indemnified at all times, against all claims of compensation under the provision of Workmen Compensation Act 1923 and as amended from time to time or any compensation payable under any other law for the time being workman engaged by the contractor/sub-contractor/sub-agent in carrying out the job involved under this work order and against costs and expenses, if any, incurred by the company in connection therewith and without prejudice to make any recovery.

The company shall be entitled to deduct from any money due to or to become due to the Contractor, moneys paid or payable by way of compensation as aforesaid or cost or expenses in connection with any claims thereto and the Contractor shall abide by the decision of the Company as to the sum payable by the Contractor under the provisions of this clause.

15.0 THIRD PARTY INSURANCE:

Before commencing the execution of the work the contractor shall take third party insurance policy at his own cost to insure against any damage or loss or injury which may occur to any property / public property or to any person or any employee or representative of any outside Agency/ the company engaged or not engaged for the work of the company, by or arising out of the execution of the work or temporary work or in carrying out of this Agreement. For third party insurance policies, the contractor shall be responsible for settlement of claims with the underwriters without any liability on the purchaser / owner and will arrange replacements / rectification expeditiously without a waiting settlement by insurance claim at contractor's own cost.

16.0 Environmental, Health & Safety Plan: Not Used.

16.1 Measures related to the Tree Pruning, excavation near tree and construction & demolition: Not Used.

B. DUST MITIGATION MEASURES FOR CONSTRUCTION & DEMOLITION ACTIVITIES: NOT USED.

17. SAFETY CODE:

The Contractor shall ensure adequate safety precautions at site as required under the law of the land to facilitate safe working during the execution of work and shall be entirely responsible for the complete safety of their workmen as well as other workers at site and premises during execution of contract.

The contractor shall observe the safety requirements as laid down in the contract and in case of sub-contract (only after written approval of company), it shall be the responsibility of main contractor that all safety requirements are followed by the employees and staff of the sub-contractor.



The contractor employing two hundred employees or more, including contract workers, shall have a safety co-ordinator in order to ensure the implementation of safety requirements of the contract and a contractor with lesser number of employees, including contract workers, shall nominate one of his employees to act as safety co-ordinator who shall liaise with the safety officer on matters relating to safety and his name shall be displayed on the notice board at a prominent place at the work site.

The contractor shall be responsible for non-compliance of the safety measures, implications, injuries, fatalities and compensation arising out of such situations or incidents.

In case of any accident, the contractor shall immediately submit a statement of the same to the owner and the safety officer, containing the details of the accident, any injury or casualities, extent of properly damage and remedial action taken to prevent recurrence and in addition, the contractor shall submit a monthly statement of the accidents to the owner at the end of each month.

18.0 ARBITRATION:

To the best of their ability, the parties hereto shall endeavor to resolve amicably between themselves all disputes arising in connection with the proposed Agreement. If the same remain unresolved, within fifteen (15) days of the matter being raised by either party, either party may refer the dispute for settlement by arbitration. The arbitration to be undertaken by a sole arbitrator to be appointed by the company. The decision of the arbitrator is final and binding upon both the parties. The arbitration proceeding shall be conducted in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996 and the venue of such arbitration shall be New Delhi only.

19.0 FORCE MAJEURE:

The conditions of Force Majeure shall means the events beyond control of the parties effected such as act of God, Earthquake, Flood, Devastating fire, War, Civil Commotion, Cyclone, Industrial Lockout and Statutory Act of the Government having bearing on the performance of the Contract.

The party affected by Force Majeure shall be obliged to notify the other party within 48 hours, by fax/cable, of the commencement and the end of the Force Majeure circumstances preventing its performance of all or any of its obligations under this order.

If performance of obligations under this order is delayed for more than one months due to a continuous Force Majeure, the party not affected by Force Majeure may at any time thereafter while such Force Majeure continues, by notice in writing forth with terminate all or any part of the unperformed portion this order.

If this work order or any portion thereof is terminated under Force Majeure conditions, the Contractor shall be liable to the company for any damages, losses or liabilities as result thereof.

21.0 SECRECY CLAUSE:

The technical information, drawing and other related documents forming part of order and the information obtained during the course of investigation under this order shall be the CUSTOMER's exclusive property and shall not be used for any other purpose except for the execution of the order. The



technical information drawing, records and other document shall not be copied, transferred, or divulged and/or disclosed to third party in full/part, not misused in any form whatsoever except to the extent for the execution of this order. These technical information, drawing and other related documents shall be returned to the CUSTOMER with all approved copies and duplicates including drawing/plans as are prepared by the Contactor during the executions of this order, if any, immediately after they have been used for agreed purpose.

In the event of any breach of this provision, the contractor shall indemnify the CUSTOMER against any loss, cost or damage or claim by any party in respect of such breach.

22.0 EVENTS OF DEFAULTS:

CUSTOMER may, without prejudice to any of its other rights or remedies under the Work Order or in law, terminate the whole or any part of this Work Order by giving written notice to the Contractor, if in the opinion of CUSTOMER, contractor has neglected to proceed with the works with due diligence or commits a breach of any of the provisions of this work order including but not limited to any of the following cases:

- a) Failing to complete execution of work within the terms specified in this work order.
- b) Failing to complete works in accordance with the approved schedule of works.
- c) Failing to meet requirements of specifications, drawings, and designs as approved by CUSTOMER.
- d) Failing to comply with any reasonable instructions or orders issued by CUSTOMER in connection with the works.
- e) Failing to comply with any of the terms or conditions of this work order.

In the event CUSTOMER terminates this work order, in whole or in part, on the occurrence of any event of default, CUSTOMER reserves the right to engage any other subcontractor or agency to complete the work or any part thereof, and in addition to any other right CUSTOMER may have under this work order or in law including without limitation the right to penalize for delay under clause 16.0 of this work order, the contractor shall be liable to CUSTOMER for any additional costs that may be incurred by CUSTOMER for the execution of the Work.

23. RISK & COST:

If the Contractor of fails to execute the work as per specification / as per the direction of Engineer's Inchange within the scheduled period and even after the extended period, the contract shall got cancel and company reserves the right to get the work executed from any other source at the Risk & Cost of the Contractor. The Extra Expenditure so incurred shall be debited to the Contractor.

24.0 SUB-CONTRACTING / SUBLETTING:

CONTRACTOR shall not assign or transfer the whole or any part of this Work Order or any other benefits accruing there from nor shall it subcontract / sublet the whole or any part of the Works.



Acceptance of this order implies and includes acceptance of all terms and conditions enumerated in this work order in the technical specification and drawings made available to you consisting of general conditions, detailed scope of work, detailed technical specification & detailed equipment, drawing. Complete scope of work and the Contractor's and CUSTOMER's contractual obligation are strictly limited to the terms set out in the order. No amendments to the concluded order shall be binding unless agreed to in writing for such amendment by both the parties.



ANNEXURE - A

ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

(To be signed and stamped by the bidder prior to participation in the auction event)

BRPL intends to use the reverse auction through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as techno commercially qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:

- 1. BRPL shall provide the user id and password to the authorized representative of the bidder. (Authorization letter in lieu of the same be submitted along with the signed and stamped acceptance form)
- 2. BRPL will make every effort to make the bid process transparent. However, the award decision by BRPL would be final and binding on the supplier/Contractor.
- 3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of BRPL, bid process, bid technology, bid documentation and bid details.
- 4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
- 5. In case of bidding through internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs; power failure or any other reason shall not be the responsibility of BRPL.
- 6. In case of intranet medium, BRPL shall provide the infrastructure to bidders, further, BRPL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
- 7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out rightly rejected by BRPL.
- 8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
- 9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at BRPL site.
- 10. The prices submitted by a bidder during the auction event shall be binding on the bidder. No further communication will be there.
- 11. No requests for time extension of the auction event shall be considered by BRPL.



| 12 | . The original price bids of the bidders shall be reduced on pro-data basis against each line item |
|----|---|
| | based on the final all-inclusive prices offered during conclusion of the auction event for arriving a |
| | contract amount. |

| For | |
|--------------|--|
| Signature: | |
| Name: | |
| Designation: | |



ACCEPTANCE FOR NO DEVIATION NO DEVIATION -A

NIT NO & DATE:

We hereby accept all terms and conditions of the technical scope of work as mandated in the tender documents subject to the following deviations as mentioned against the applicable technical qualifying requirement:

| S.NO. | SL.NO OF TECHNICAL SPECIFICATION/SCOPE OF WORK | DEVIATIONS, IF ANY |
|-------|--|--------------------|
| | | |
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SIGNATURE & SEAL OF BIDDER

NO DEVIATION -B

NIT NO & DATE:

We hereby accept all terms and conditions of the commercial requirement as mandated in the tender document subject to the following deviations as mentioned against the applicable commercial qualifying requirement:

| S.NO. | S. NO OF COMMERCIAL REQUIREMENTS | DEVIATIONS, IF ANY |
|-------|----------------------------------|--------------------|
| | | |
| | | |
| | | |

Note:-It is important to explicitly include all such terms and conditions which are considered absolutely necessary to be accepted by the bidder without any deviation. The tender document should have a stipulation that deviation to such criteria shall make the bid liable for rejection.

NAME OF BIDDER

SIGNATURE & SEAL OF BIDDER



PRICE FORMAT

| S.NO. | Description of Services | No Of poles | Rate/Pole | Total Price |
|-------|---|-------------|-----------|--------------------|
| | | Numbers | (in INR) | (in INR) |
| 1 | Baseline Data Capture | 1233 | | |
| 2 | 11KV HT Line Predictive Analytics Precision Predictive Analytics for baseline data. Fault isolation, segregation, categorisation based on Severity and criticality (Line item A) Asset Type: 11KV HT Line | 1233 | | |
| 3 | Reporting | 1233 | | |
| 4 | Project Management | 1233 | | |
| 5 | Safeguard | 1233 | | |
| 6 | Site travel work – 4 person (Board & Lodging + Flights + Site Vehicle) | | | |
| | Total without taxes in Rs. | I | | |

All Taxes extra on above values.

Drone Survey of 11KV HT O/H line for locating Densely Vegetated areas

| S.NO | Division | Sub- division | Name of O/H Feeder for Tree Trimming | Location | Length (Mtr) | No of Poles |
|------|-----------------|-------------------|--|--|--------------|-------------|
| 1 | SKT-U | MIG Flats Saket | Sports Complex | M.B road Opp. E&G-Blk Saket | 1200 | 25 |
| 2 | Vant Kunj Rural | Bijwasan | 11kV O/G FDR Bijwasan | Palam Vihar Road | 3000 | 112 |
| 3 | Vant Kunj Rural | Bijwasan | 11kV O/G FDR Interconnector No 1 | Inside Pushpanjali Farm and Shahi Road | 4500 | 100 |
| 4 | Vant Kunj Urban | B-1 VKJ | 11kV O/G FDR Ward No 2 Mehrauli | Samshan Ghat to Eidgah DP | 1800 | 26 |
| 5 | Vant Kunj Urban | B-1 VKJ | 11kV O/G FDR T.B Hospital | TB Hospital to Bhulbhalaiya | 1500 | 22 |
| 6 | TGN | Mukherjee park | Nursingh garden | FSS Jwala heri market red light to Nala | 600 | 15 |
| 7 | JFP | Issapur | Issapur Feeder | Issapur Village | 3000 | 70 |
| 8 | Nangloi | Baprolla | Baprola Old O/H fedder from Nilothi Grid | Najafgarh Nagloi road,TP kotla phase 1&2 ,TP kotla village,Akkash vihar,Ranholla,Jai Vihar H block, | 4500 | 30 |
| 9 | Nangloi | Baprolla | Rajive Ratan -2 feeder from Nilothi Grid | Satyam Vihar,Bakkarwala police chauki,Baprola village,Jai vihar G2 block,G block ,F & D block Jai vihar, | 5500 | 25 |
| 10 | PJB | B-3 Paschim Vihar | 11KV Capital Mall | Bhao Rao Devras Marg | 1000 | 20 |
| 11 | NFC | Kalindi Colony | Mathura Road Grid to Geeta Nursari (HT) | Okhla Tank near Apollo hospital | 800 | 17 |
| 12 | NFC | Kalindi Colony | Maharani Bagh (LT) | D-2, D-4 , C-BLK , Western Avenue | 1000 | 28 |
| 13 | ALN | g block kalkaji | C-LAL CHOWK / GIRI NAGAR-1 | GOVINDPURI | 700 | 14 |
| 14 | ALN | DDA FLATS KALKAJI | 11 KV O/G TARA APPARTMENT | TUGHLAKABAD EXTN. | 600 | 11 |
| 15 | Khanpur | Prahladpur | 11kV FDR O/G LAL KUAN | Airforce Station Near Tuglakabad Fort to Northern Basti Lal Kuan | 2100 | 40 |
| 16 | СНР | Fatehpur Beri | Chadha Murgi | Chadha Farm 2, FPR197 - Suri Farm Ansal Villa, FPR150 | 4000 | 85 |
| 17 | СНР | Fatehpur Beri | Rajswaraj | Complete Feeder | 10000 | 205 |
| 18 | Vikas Puri | LIG Hastsal | Kali Basti from Hastsal Grid | Hastsal Grid to Central School | 1100 | 27 |
| 19 | Vikas Puri | LIG Hastsal | Hastsal Society from Hastsal Grid | Hastsal Grid to Central School Hastsal Society to F-Block Hastsal Vihar. | 1900 | 47 |
| 20 | Mohan Garden | Sewak Park | 11kV Ranaji Enclave | DJB Najafgarh drain to Vijay Block Vipin Garden | 1200 | 26 |
| 21 | Mohan Garden | Vipin Garden | 11kV Sainik Enclave | DJB Najafgarh drain to Sainik Enclave | 2200 | 49 |
| 22 | SARITA VIHAR | SOV | Sourav Vihar No 02 | Luv kush to aali lohiya pul | 1500 | 40 |
| 23 | SARITA VIHAR | KCK | Jaitpur O/h | DTL grid to aali lohiya pul | 4500 | 100 |
| 24 | SARITA VIHAR | SVR | S/stn no 04 Sarita Vihar | dairy to M pkt | 1500 | 20 |
| 25 | JKP | B-1 JKP | ITI PARTAP NAGAR (MAYA PURI GRID TO SHIV NAGAR O/H FEEDER | ITI PARTAP NAGAR (MAYA PURI GRID TO SHIV NAGAR O/H FEEDER | 600 | 9 |
| 26 | UTTAM NAGAR | CHANAKYA PLACE | 11kV R&S BLOCK CHANKYA PLACE | R&S Block Chanakya Place | 2500 | 70 |