West Bengal Zoo Authority
North Bengal Wild Animals Park

Memo No.361/ E Tender-20 Dated: 15/9/15 NBWAP, Siliguri

NOTICE INVITING E TENDER

Notice Inviting e-Tender No 20/**NORTH BENGAL WILD ANIMALS PARK /2015-16** of The Director, North Bengal Wild Animals Park, Jalpaiguri district invites e-tender for the work detailed in the table below. (Submission of Bid through **online**)

List of Schemes: Improvement of surrounding and development of NORTH BENGAL WILD ANIMALS PARK at Jalpaiguri district

Sl	Project no	Name of the Work	Estimated Amount (without contingency) (Rs)	Earnest Money @2% of estimated value (Rs)	Price of Technical & Financial Bid documents & other annex only for L1 at the time of Award of Contract (AOC)	Period of Completion (days)	Eligibility of contractor
1	F10A	Development of Boundary wall of 150m	9,05,400/-	18,108/-	1000	30	As per clause 5
2	F11A	Development of Boundary wall of 150m	9,05,400/-	18,108/-	1000	30	As per clause 5
3	EF5	Installation of Energized fence Base units(3) of Ibex-Gallagher, compatible with existing system	5,40,000/-	10,800/-	1000	30	As per clause 5

1. In the event of e-filling, intending bidder may download the tender documents from the website https://wbtenders.gov.in directly with the help of Digital signature Certificate. Necessary Earnest Money may be remitted through Demand Draft issued from any Authorized Banks & Banks included in Finance Dept Memo no 6426-F(Y) Kolkata 25/7/12 in favor of

the "**Director, North Bengal Wild Animals Park, Siliguri** and only scanned copy to be uploaded during online submission of tenders. The original Demand Draft against Earnest Money Deposit (EMD) should be submitted physically **only by L1 bidder** vide notification of 2254-F(Y) dt 24/4/2014 at the time of Financial evaluation to the Office of The **Director, North Bengal Wild Animals Park, Siliguri**, West Bengal Zoo Authorities. Failure to submit the said hardcopy by L1 bidder within prescribed time would be considered as attempt to disturb the tendering process and may be be blacklisted. No person of Agency /others will be allowed to handover the EMD to the office or drop in tender box by hand or by post. In that case that particular EMD will be treated cancelled**.**

2. Both **Technical Bid** and **Financial Bid** are to be submitted concurrently duly digitally signed in the website https://wbtenders.gov.in
3. Tender documents may be downloaded from website and submission of Technical Bid and Financial Bid will be done as per Time Schedule stated in Sl. No. 12 of instant Tender Notice
4. The **FINANCIAL OFFER** of the prospective tenderer will be considered only if the **TECHNICAL BID** of the tenderer is found qualified by the **'Tender Committee' formed by the Director, NORTH BENGAL WILD ANIMALS PARK**, West Bengal Zoo Authority, Government of West Bengal. The decision of the 'Tender Committee' will be final and absolute in this respect.
5. **Eligibility criteria for participation in the tender.**
    a. Contractors and Labour & Engineer Co-Operative Societies having credential during the last 3 (*three*) years from the date of issue of this Notice as a prime agency & at least one work should be of same nature (Sl 1,2 Fencing/bolder related work ; Sl 3 Energized Fencing of Ibex Gallagher) under authority of State / Central Government, State / Central Government undertaking / Statutory Bodies Constituted under the Statute of the Central / State Government at

least in the magnitude of 40% (*forty percent*) of the amount put to tender.

b. Contractor preferably having experience in similar type of works Zoo/NBWAP/ in adjoining areas only & must have machineries e.g JCB, vibrators, concrete mixer machine etc as mentioned in clause 41 for work Sl 1,2.

[*Non-statutory documents*]

c. Income Tax Acknowledgement Receipt for the latest Assessment year, P.T. Deposit Challan for the year 2014-15/15-16 , PAN Card, VAT Registration Certificate, Copy of Latest VAT return, Service tax registration/return of ST-2/Copy of Latest ST-3 (if any), PF (preferably), are to be accompanied with the Technical Bid Documents.

[*Non-statutory documents*]

d. The prospective bidders or any of their constituent partner shall neither have abandoned any work nor any of their contract have been rescinded or blacklisted during the last 3 (*three*) years by any Government or PSU. Such abandonment or rescission will be considered as disqualification towards eligibility. (A declaration in this respect through affidavit has to be furnished by the prospective bidders without which the Technical Bid shall be treated as non-responsive.)

e. Registered Labour Co-operative Societies are required to furnish valid Bye Law, Current Audit Report, Minutes of last A.G.M (preferably),valid certificate from A.R.C.S. along with other relevant supporting papers.

[*Non-statutory documents*]

f. Joint Ventures will not be allowed.

6. A prospective bidder shall be allowed to participate in a particular job either in the capacity of individual. The firm /individual or any of their associate partners, if already applied for any project under this Park of NBWAP, the firm must have successful completion (of good quality) of above 70% of the earlier all jobs of similar type & under no circumstances Engineer-In-charge of NBWAP became dissatisfied with his earlier civil works as revealed by written documents.
7. Running payment for work may be made to the executing agency as per availability of fund. The executing agency may get a running payment if the gross amount of each running bill is 50% & more of the tendered amount.
8. Security Deposit: Retention money towards performance Security amounting to 10% (*ten percent*) inclusive of EMD, of the value of the work shall be deducted from the running account bill of the tenderer as per prevailing order. No interest will be paid on Security Deposit.
9. All materials required for the proposed work including **53 grade cement** (preferably Lafarge/Ambuja/ACC), **Steel, fencing materials & all other coarse materials** shall be of specified grade and approved brand inconformity with relevant code of practice (latest revision) and manufactured accordingly and shall be procured and supplied by the agency at their own cost only preferably from "dealers" as defined u/s 2(11) of the West Bengal Value Added Tax Act, 2003, including all taxes. **Authenticated evidence for purchase of 53 grade cement and steel are to be submitted along with receipted Challan and authenticated test certificate before start of work**. If required by the Engineer-in-Charge, further testing from any Government approved Testing Laboratory shall have to be conducted by the agency at their own cost.
10. Constructional Labour Welfare CESS @ 1% (*one percent*) of cost of construction will be deducted from every Bill of the executing agency.

11. Bid shall remain valid for a period not less than 180 days from the last date of submission of Financial Bid / Sealed Bid. If the bidder withdraws the bid during the validity period of bid, the earnest money as deposited will be forfeited forthwith without assigning any reason thereof.

12. Date and Time Schedule(Sequence of tender)

Sl	Particulars	Date & time
1	**Date of uploading of N.I.T. Documents (online) (Publishing Date)**	**16/9/2015**
2	**Documents download/sell start date & time (Online)**	**16/9/2015**
3	**Bid submission and download start date (On line)**	**16/9/2015**
4	**Bid Submission closing (On line)**	**22/9/2015 (6pm)**
5	**Date of opening of Technical Bid (Online)**	**23/9/2015**
6	**Date for opening of Financial Bid (Online)**	**24/9/2015**

13. There shall be no provision of Arbitration. Hence Clause 25 of 2911(ii) stands omitted vide notification no 558/SPW dt. 13.12.2011 of Pr. Secretary, PW & PW (Roads) Deptt. In any dispute, which is even not solved after appealing to Member Secretary, WBZA dispute redressed committee vide GO no 8182-F(Y) Kolkata 26/9/2012 is to be followed

14. No Mobilization /Secured advance will be allowed.

15. The Prospective Bidder shall have to execute the work in such a manner so that steady progress of the work is maintained during execution of work and a period of 24 (twenty four) months from the date of successful completion of the work to the entire satisfaction of the Engineer-in-Charge is mandatory while releasing security deposit. If any defect / damage are found during the period as mentioned above, the contractor shall make the same good at his own cost true to the specification at par with instant project work. On failure to do so, penal action against the contractor will be imposed by the Department as deemed fit. The contractor may quote his rate considering the above aspect. Refund of Security Deposit will only be made after successful maintaining of

appropriate service level of the work as mentioned above for at least 24 (twenty four) months from the date of completion of the work.

16. Site of work and necessary drawings may be handed over to the agency phase wise. No claim in this regard will be entertained.

17. Earnest Money: The amount of Earnest Money @ 2% (*two percent*) of the Estimated Amount put to tender in the shape of Bank Draft of any authorized banks & banks included in Finance Dept Memo no 6426-F(Y) Kolkata 25/7/12 drawn in favour of the "**Director, NORTH BENGAL WILD ANIMALS PARK, Siliguri" payable at Siliguri**. This clause is also applicable for all categories of applicants.

18. The Bidder, at his own responsibility and risk is advised to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Financial Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, before submitting offer with full satisfaction, the cost of visiting the site & expenditure, if any, shall be at his own expense. This office is not liable for any local problems/hindrance and bidders are requested to follow necessary steps as per Laws & procedure thereof.

19. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the Department. The Director, NORTH BENGAL WILD ANIMALS PARK, Siliguri, West Bengal Zoo Authorities, reserves the right to accept or reject any offer without assigning any reason whatsoever and is not liable for any cost that might have been incurred by any Tenderer at any stage of Bidding.

20. Refund of EMD: The Earnest Money of all the unsuccessful tenderers deposited in favor of the concerned Director will be refunded by the said DIRECTOR, NORTH BENGAL WILD ANIMALS PARK, Siliguri on receipt of application from tenderers & after the issue of work order.

21. Conditional / Incomplete tender will not be accepted under any circumstances.

22. The intending tenderer are required to quote the rate *online.*

23. Contractor shall have to comply with the provisions of (a) the contract labour (Regulation Abolition) Act. 1970 (b) Apprentice Act. 1961 and (c) minimum wages Act. 1948 d) Indian Forest Act, 1927 & amendments e) Wildlife (Protection) Act 1972 & amendments of the notification thereof or any other laws relating thereto and the rules made and order issued there under from time to time.

24. During scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect / manufactured / fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected without any prejudice.

25. The Director, NORTH BENGAL WILD ANIMALS PARK, Siliguri ,West Bengal Zoo Authorities, Government of West Bengal reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.

26. If there be any objection regarding prequalifying the Agency that should be lodged on line to the Chairman of Tender Committee within 2 (*two*) days from the date of publication of list of qualified agencies and beyond that time schedule no objection will be entertained by the Tender Evaluation Committee.

27. Before issuance of the WORK ORDER, the tender inviting authority will verify the credential and other documents of the lowest tenderer if found necessary. After verification if it is found that the documents submitted by the lowest tenderer is either manufactured or false in that case work order will not be issued in favour of the said Tenderer under any circumstances.

28. If any discrepancy arises between two similar clauses on different notification, the clause as stated in later notification will supersede former one in following sequence:

    a. N.I.T.
    b. Special Terms & Conditions
    c. Technical Bid
    d. Financial Bid

29. Qualification criteria: The tender inviting and Accepting Authority through a "Tender Committee" will determine the eligibility of each bidder. The bidders shall have to meet all the minimum criteria regarding:

    a. Financial Capacity
    b. Technical Capability comprising of personnel & equipment capability
    c. Experience / Credential

30. The eligibility of a bidder will be ascertained on the basis of the document(s) in support of the minimum criteria as mentioned in (a), (b) & (c) above and the declaration executed through prescribed affidavit in non-judicial stamp paper of appropriate value duly notarized. If any document submitted by a bidder is either manufactured or false, in such cases the eligibility of the bidder / tenderer will be rejected at any stage without any prejudice

31. Escalation of Price on any ground and consequent cost overrun shall not be entertained under any circumstances. Rates should be quoted accordingly. A Tenderer is required to quote rates in figures as well as in words.

32. The Earnest Money Deposit (E.M.D.) as mentioned in the schedule of Tender should be deposited in form of **Bank draft (scanned copy)** in favour of **"Director, NORTH BENGAL WILD ANIMALS PARK, Siliguri". Only L1 bidder would submit hardcopy of EMD as per direction from this office only.**

33. The payment for the works will be made by the Director/NBWAP after fulfilling the necessary official formalities and checking by Engineer-in-charge and the office of Director, NBWAP, Siliguri.

34. The construction of the project work as mentioned in the schedule will have to be undertaken immediately on receipt of work order and the work must be completed as mentioned in the work order in conformity with "BAR CHART".

35. No extension of time will be allowed under any circumstances. (Except flood, earthquake)Penalty of 1% for delay of 0-15days, 5% for16-30days, 10% above 31 days for time overrun beyond time of completion. After 45 days Authority reserves the right to complete the remaining work by engaging any other agency or utilizing its own source or by any Corporation under Govt of WB including Forest Development Corporation Ltd.

36. Materials will have to be procured by the contractors by themselves following the standard & specifications of PWD/PHE Schedules of the district, subject to the approval of the undersigned or his authorized Officers. In case of supply of any material by the department, the cost of such material will be recovered from the bill of the Contractor.

37. The tenderers are required to inspect the sites, site plans and specifications of the works before submission of the tender and future ignorance of any such item will not be entertained. Presence of Civil Engineer for the bidders, in the site is required. Name & details of Civil Engineer must be mentioned in online documents.

38. All works are required to be carried out as per plan and specification & estimate of the project subject to the modification by the undersigned at any point of time during execution of the work and duly notified to the contractor.

39. The undersigned or Member Secretary, WBZA reserves the right to increase or decrease the volume of any item of work to the extent of 25% of financial value and add new item of work upto 25% or withdraw any item(s) at his discretion at any point of time during execution of the works.

40. Royalty for any material, if obtained from Forest area, will have to be paid by the contractor. Even if the material is procured from other Govt. Deptt's resources, the receipt for payment of such material must be shown and photocopies to be attached with the bill. Extra payment for such payment of Royalty etc. will not be entertained by the undersigned.

41. All tools & plants required for execution of the works should be owned by the in his name/Company by the contractor at his own cost. **(Concrete mixer machine, vibrator, JCB/truck for carriage of materials in forests in other works for sl1,2). <u>All machineries should be available during the entire work period on the area of work</u>.** The standard of such tools & plants will be as per the specification of the P.W. Deptt./P.H.E & shall have to arrange land for erection of Plant & Machineries, storing of materials, labor shed, laboratory for the testing purpose etc. at their own cost and responsibility. **<u>No damage is to be claimed for any loss due to wildlife or others including rain waters, rivers, soil erosion etc</u>.**

42. Brick works, cement concrete works & plastering works and similar works which require curing should be done for the period as prescribed in the P.W.D. Schedule of Rates.

43. The Security Deposit will be released to the contractor after 24 (twenty four)months from the last date of completion of work for the project, if no defect is noticed within this period. In case of any defect, the Security Deposit will be forfeited, in addition to any legal action as deemed fit & required.

44. The undersigned reserves the right to cancel the agreement at any point of time of execution of the work within the schedule of time of completion of the tendered work. If works are not satisfactory, or delayed or violate any term & condition as per agreement by contractor.

45. The contractor is liable to pay the skilled, unskilled and other labour wages as per existing rules. Local skilled Forest Protection committee members may be involved but is not mandatory.

46. Deduction of STDS, TDS, Service Tax & Other tax, if applicable shall be made as per rule in vogue.

47. The successful tenderers will not assign the work or part of the work to any other contractor.

48. The successful renderers may, however authorize any person to supervise the day to day work, submit the requisition of materials, attend the measurement when taken by the authorized officer and record his signature on the work measurement note books. The authority there to duly approved and accepted by the undersigned or Engineer-In-Charge, NBWAP will be operative /acceptable.

49. In case of any dispute the decision of the tender committee and or Member Secretary, WBZA will be final and binding.

50. The tender notice along-with all terms & conditions mentioned above will form the part of the agreement to be executed by the tenderer.

51. Rate offered in the estimate is the final and tenderers will not have any further claim for any revision, based on field reality.

52. The Tender inviting authority reserves the right to split the work amongst the lowest Tenderers, based on field reality.

53. The undersigned has the authority to reject any or all Tenders received without assigning any reason thereof.

54. The fund against contingency will be at the disposal of the Director and tenderer will not be having any claim for that.

55. Location of the works will be finalized by the by The Director, NBWAP after joint inspection.

56. For any typographical mistake in case of Unit, Rate, Quantity, Amount, any type of nomenclature in items of works / item itself including description etc. whatsoever as stated in documents, that can't be claimed during agreement or so.

57. **Work order will be issued subject to approval of fund from higher Authority**.

Director,
NORTH BENGAL WILD ANIMALS PARK, Siliguri,

Memo No.361/ E Tender-20 Dated: 15/9/15 NBWAP, Siliguri

Copy forwarded for information to:-

- The Principal Chief Conservator of Forests, West Bengal, GOWB
- The Additional Principal Chief Conservator of Forests, North
- The Member-Secretary, West Bengal Zoo Authority
- Joint Secretary, NBDD, Branch Secretariat ,"Uttarkanya", Fulbari
- Sri N Pal, Governing Body Member, WBZA
- The Sabhadhipati, Jalpaiguri Zilla Parishad.
- The District Magistrate, Jalpaiguri District, Jalpaiguri
- The BDO, Rajganj Block
- The Executive/Sub Assistant Engineer, NBWAP
- Office Display Board

Director,
NORTH BENGAL WILD ANIMALS PARK, Siliguri,

SECTION - A
INSTRUCTION TO BIDDERS

General guidance for e-Tendering:

Instructions / Guidelines for electronic submission of the tenders have been annexed for assisting the contractors to participate in e-Tendering.

i. Registration of Contractor:

Any contractor willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System, through logging on to https://wbtenders.gov.in The contractor is to click on the link for e-Tendering site as given on the web portal.

ii. Digital Signature certificate (DSC):

Each contractor is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders from the approved service provider of the National Informatics Centre (NIC) or other certified agencies of Government of India on payment of requisite amount. Details are available at the Web Site stated in Clause A.1. above. DSC is given as a USB e-Token.

iii. The contractor can search & download N.I.T. & Tender Document(s) electronically from computer once he logs on to the website mentioned in Clause A.1. Using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

iv. Participation in more than one work:

A prospective bidder shall be allowed to participate in the job either in the capacity of individual or as a partner of a firm.

v. Submission of Tenders: Tenders are to be submitted through online to the website stated in Clause A.1. In two folders at a time for each work, one in Technical Proposal & the other is Financial Proposal before the prescribed date &time using the Digital Signature Certificate (DSC). The documents are to be

uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

Technical Proposal:

The Technical proposal should contain scanned copies of the following in two covers (folders)

(a). Statutory Cover Containing the following documents:

1. NIT
2. Scan copy of EMD
3. Section B- AFFIDAVIT – "Y"

(b). Non-statutory Cover Containing the following documents:

i. N.B.: Failure of submission of any of the above mentioned documents as stated in Sl. No. A.5.(a). and Sl. No. A.5.(b). will render the tenderer liable to be rejected for both statutory & non statutory cover.

THE ABOVE STATED NON-STATUTORY/TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER

Click the check boxes beside the necessary documents in the My Document list and then click the tab " Submit Non Statutory Documents' to send the selected documents to Non-Statutory folder. Next Click the tab " Click to Encrypt and upload" and then click the "Technical" Folder to upload the Technical Documents.

1. Tender Evaluation Committee (TEC)1. Tender Committee constituted as per Order of the Director, NORTH BENGAL WILD ANIMALS PARK, WBZA, Department of Forests, Government of West Bengal will function as Chairman of Committee for selection of technically qualified contractors.

2. Opening of tender:
Will be made as per sequence.

3. Opening of Technical Proposal:
Technical proposals will be opened by the Director, NORTH BENGAL WILD ANIMALS PARK, Siliguri, West Bengal Zoo Authorities and his authorized Nodal officer electronically from the website using their Digital Signature Certificate (DSC).

4. Intending tenderers may remain present if they so desire.

5. Cover (folder) for Statutory Documents (Ref. Sl. No. A.5.(a).) Will be opened first and if found in order, cover (folder) for Non-Statutory Documents (Ref. Sl. No.A.5.(b).) will be opened. If there is any deficiency in the Statutory Documents the tender will summarily be rejected.

6. Decrypted (transformed into readable formats) documents of the non-statutory cover will be downloaded & handed over to the "Tender Committee".

7. Summary list of technically qualified tenderers will be uploaded online.

8. Pursuant to scrutiny & decision of the "Tender Committee" the summary list of eligible tenderers & the serial number of work for which their proposal will be considered will be uploaded in the web portals

9. During evaluation the committee may summon of the tenderers & seek clarification /information or additional documents or original hard copy of any of

the documents already submitted & if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

2. Financial Proposal

1. The financial proposal should contain the following documents in one cover (folder) i.e. Bill of Quantities (BOQ). The contractor is to quote the rate Presenting Above /below / At per) online through computer in the space marked for quoting rate in the BOQ.

2. Only downloaded copies of the above documents are to be uploaded virus scanned &Digitally Signed by the contractor. Financial capacity of a bidder will be judged on the basis of information furnished in Section - B.

vi. Penalty for suppression / distortion of facts:

If any tenderer fails to produce the original hard copies of the documents like Completion Certificates and any other documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies, it may be treated as submission of false documents by the tenderer and action may be referred to the appropriate authority for prosecution as per relevant IT Act.

vii. Rejection of Bid:

Tendering Authority reserves the right to accept or reject any Bid and to cancel the Bidding Processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for such action of Tendering Authority.

viii. Award of Contract

The Bidder whose Bid has been accepted will be notified by the Tender Inviting & Accepting Authority through acceptance letter / Letter of Acceptance. The notification of award will constitute the formation of the Contract. All the tender documents including N.I.T. & B.O.Q. will be the part of the contract. documents. After receipt of Letter of Acceptance, the successful bidder shall have to submit requisite copies of contract documents downloading from the website stated in Sl.No. 1 of N.I.T. along with requisite cost through Demand Draft / Pay Order issued from any any authorized banks & banks included in Finance Dept Memo no 6426-F(Y) Kolkata 25/7/12 in favor of the Director, NORTH BENGAL WILD ANIMALS PARK, Siliguri of the concerned work within time limit to be set in the letter of acceptance.

Director,
NORTH BENGAL WILD ANIMALS PARK,
West Bengal Zoo Authority

SECTION – B
AFFIDAVIT – "Y"

(To be furnished in Non Judicial Stamp paper of appropriate value duly notarized)

1) I, the under-signed do certify that all the statements made in the attached documents are true and correct. I have all machineries as per NIT & all will be at site during entire period of work. In case of any information submitted proved to be false or concealed, the application may be rejected and no objection/claim will be raised by the under-signed.

2) The under-signed also hereby certifies that neither our firm M/S…… nor any of constituent partner had been debarred to participate in tender by the any Government Department during the last 5 (*five*) years prior to the date of this N.I.T.

3) The under-signed would authorize and request any Bank, person, Firm or Corporation to furnish pertinent information as deemed necessary and/or as requested by the Department to verify this statement.

4) The under-signed understands that further qualifying information may be requested and agrees to furnish any such information at the request of the Department.

5) Certified that I have applied in the tender in the capacity of individual/ as a partner of a firm/authorized representative of company or society and I have not applied severally for the same job.

Signed by an authorized officer of the firm.

Title of the officer
Name of the Firm with Seal

Date:

TECHNICAL SPECIFICATIONS OF ENERGIZER AND REQUIRMENTS OF VARIOUS COMPONENTS

Component	Specification	Remarks
Base Unit		
Energizer(Ibex Gahaller)	Each Energizer must be capable to emit High Voltage impulse when connected to a 12VDC source. The Energizer must have the following mentioned on it: 1. Energizer Model No: 2. Energizer Sl. no. 3. IP rating 4. Supply voltage and type 5. LED indicator for Energizer and Fence status 6. Switch to operate the Energizer 7. Power Settings: High, Medium and Low. 8. Color coded terminals to facilitate correct connection **Technical parameters**: a) Peak Voltage on 50K load must not exceed 10KV in High mode b) Output Energy must not exceed 6.5Joules with 1K load in High mode c) Peak output voltage with 1K load not exceed 8KV in High mode d) Pulse duration with 1K load not exceed 3.0m Sec in High mode e) Pulse interval with 1K load must be within 2sec in High mode	• Should be according to IS 302 Based on IEC 60335. • Manufacturers Test / QC division report must be provided for the same sl. no. • Manual must be provided
Solar PV Module	80 Watts, 12 Volts rated with minimum 10 years warranty against manufacturing/ performance defects. The terminal box on the module should have a provision of opening it for replacing the cable, if required. (a) Module shall contain crystalline silicon solar cells. (b) Minimum Power output under STC should be 37 W. (c)Operating voltage at 37/75 watts should be 16.4 V. (d) Minimum O/C voltage under STC should be 21.0 V. On the SPV module, a strip containing the following details should be laminated inside the module so as to be clearly visible from the front side. a) Name of the Manufacturer or distinctive Logo b) Model and / or Type No. c) Serial No. d) Year of manufacture	• MNRE approved make. • Charge regulator must be provided.
Lightning diverter	Must be capable of diverting stray lightening. The diverter assembly must be adjustable for spark gaps. Must have good insulation.	Must be installed with proper earthling arrangement
Housing box with post	Made of sheet metal. The enclosure must be provided with good quality paint finish. The enclosure must be mounted firmly on a structure / pipe arrangement and must be firmly grouted.	Should be capable of safely housing Energizer and Battery

Seal & Signature of Tenderer Director/NBWAP

Module stand	Must be made 50NB dia pipe Hot Dip galvanized. Must have a provision to secure mount the solar module.	Size of the module stand must suit PV module
Battery	12 Volts, 100 Ah tubular plate, flooded electrolyte, low maintenance battery with 2 year guarantee.	Exide/ Amaron
Accessories		
Earthing System	Each earth kit must be min 4 feet long, with 10mm.dia stainless steel rod IS 304 grade. The kit must contain earth mixture which is capable of retaining ground moisture.	Should be capable of providing proper earthing to the system.
Strain Insulators	Must be of Polycarbonate material and should withstand upto 15 KV voltage.	Rainwater run-off should be provided on the insulator. Should be UV stabilized
Polypropylene Insulators	Must be of virgin plastic material. Designed with rain-water run-off type	Should be UV stabilized
High tensile wire	High tensile 2.5 mm. dia galvanized steel wire with minimum of 230gms zinc coating (Zn purity above 99 %.) /sq.m of the surface area of wire.	UTS 140.5kg/mm2, Break strength of 740kgs. TATA make or equivalent
14 Gauge Wire	14 Gauge wire for binding polypropylene insulators.	With high quality Zinc Coating TATA make or equivalent
Wire Tightner	Made of non rusting quality Aluminum alloy for proper tightening and tensioning of wires.	Should have multiple lock points.
Tension spring	Made of spring steel and capable of taking compression loads.	Must be galvanized finish
Joining Clamp	Positive locking mechanism. With Zinc coating of more than 25 microns.	Suitable to secure lock multiple fence strands (i.e. bare conductors)
Warning sign Board	Poly ethylene plastic with statutory colors and signs	Yellow with black lettering in local language
Lead out cable	Must be double insulated to withstand upto 15 KV voltages. Inner core wire must be single core.	For Base unit and undergate connections.
Rope gate kit	Steel ropes with handles and spring assembly. Handles must be made of polyethylene and shock resistant.	Length of rope to suit gate width.
Fabricated Gate	6.5 feet high Double wing 4 Meter wide gates for vehicles and Single swing 1Meter wide gate for human movement with provision for energizing and locking the gates.	Must be firmly anchored
Tool kit	Should contain: Wire tightner handle, Twisting tool, Pliers, Double ended spanner for clamp tightening.	
Drop chains	12.5 mm loop size made of 12 gauge wire. Galvanized finish.	For rivers and streams
Flood gate controller	Should be capable to automatically cut off the current in drop chains, in case of floods.	To be used with drop chains
Cut out switch	Should be tamper proof & capable of withstanding high voltage. This is installed at select interval of the fence and is to switch off power of a section of the fence.	Must be provided with appropriate enclosure.

Elephant toupees	2.5 mm dia galvanized iron wire and G.I. Clamps should be used.	For protection of posts from elephants.
Posts		
Section/ Corner/End/ Pull through posts	50NB Class 'B' pipe, 8.5 feet long, painted/hot dip galvanized to more than 60 microns. Stay support 25-mm. diameter hot dip galvanized pipes with brackets. Must include fasteners.	1.5 feet length of the posts must be grouted in 2X2X2 feet size P.C.C. in 1:2:4 cement sand & stone ballast.
Intermediate posts	8.5 feet long, 25X25X3 mm size T Section post, galvanized to more than 60 microns	To be inserted 1.5 feet deep in ground.
Testing equipments		
Digital volt meter	Must display fence voltage digitally up to 12 KV. Auto ON/OFF switch should activate when fence pulse is detected. Body must be electric resistant, waterproof with impact resistant case.	Must displays fence voltage in 100V increments under 10 KV and in 1,000 V increments, from 10KV to 12KV
Xenon flash tube	Must be capable of flashing with each pulse to monitor the fence.	Must be visible from a distance of 1000 meters.
Neon tester	Must be with 5 Neon lights, measuring the fence for excellent, very good, good and poor and not working grading.	Should be made of tough and durable ABS plastic.

OTHERS:

a) The system should ensure good shock ability at the beginning and end of the fence.
b) After commissioning of the system, it shall be technically audited after installation, to show output characteristics values as per specifications shown in the technical parameters of Energizer. Must be compatible with the existing system of elephant and leopard fencing.
c) The minimum zinc coating thickness for all galvanized steel components must be 25 microns.
d) Warranty certificate must be submitted
e) Presence of one field level staff initially at least for 12 months in the room provided by Park/Forest(share basis) for immediate maintenance
f) Parts availability guarantee for next 10 years from the date of commissioning of the system must be provided in the form of Declaration.
g) The contractor shall provide copy of Energized fence manual for every system installed. The manual must contain-

NOTE:

(A) Along with the tender document, the bidder shall have to submit attested photocopies of all the following –

1. Copy of ISO/IS certificate from OEM for Energizer
2. Copies of Test reports (all major electrical instruments)
3. Test reports from any government approved test laboratory to confirm the required technical specification of other major components

(B) All the electronic components used in the system must comply with the temperature resistant standards for electronics. Contractor must provide a Declaration in this regard.