

# Tender for Procurement of IT Storage Equipment

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## ODISHA POWER TRANSMISSION CORPORATION LIMITED

(A Govt. of ODISHA Undertaking)

Registered Office: Janpath, Bhubaneswar – 751022

TENDER NOTICE No. TW-IT/OT/04/2013-14

Chief General Manager(IT), OPTCL, 3<sup>rd</sup> Floor, OPTCL TOWER, Janpath, Bhubaneswar on behalf of GRIDCO invites bids from reputed eligible bidders for **Procurement of IT Storage Equipment** confirming to the terms and conditions mentioned in the tender document.

The interested eligible bidders may visit our website [www.optcl.co.in](http://www.optcl.co.in) on or after after 04-Jan-2014 to go through / download the scope of supply and terms and conditions in detail. The techno-commercial bid shall be due on dated 18-Jan-2014 13.30 Hrs.

Chief General Manager (IT)

## CONTENTS OF TENDER

	<b>Chapter</b>	<b>Page</b>
<b>SECTION - I:</b>	<b>General Information to Bidders</b>	<b>3</b>
<b>SECTION - II:</b>	<b>Instructions to Bidders General</b>	<b>7</b>
	<b><a href="#">See List of Documents to be attached</a></b>	<b>10</b>
<b>SECTION - III:</b>	<b>General Conditions of Contract</b>	<b><a href="#">12</a></b>
<b>SECTION - IV:</b>	<b>Schedule of Requirements Technical</b>	<b>24</b>
<b>SECTION - V:</b>	<b>Specifications</b>	<b>25</b>
<b>SECTION - VI:</b>	<b>Forms and Schedules etc.</b>	<b>30</b>

## SECTION- I

### GENERAL INFORMATION TO BIDDERS

Name of the Project: Procurement of Storage Equipment

1. The ODISHA Power Transmission Corporation Ltd. (OPTCL) invites sealed bids from eligible bidders for the under mentioned project as per description and schedule of quantity given here below:

#### **A. Equipment**

Sl No	Item	Qty
1	SAN Storage 8TB	1
2	Two drive tape library	1
3	Back-up Software	1
4	SAS Disk Drive (400 GB)	43
5	Industrial Sockets (16A)	6
6	Industrial Sockets (32A)	6
7	Tape Medias	12
8	48 port L-2 switch	3
9	Cat-6 UTP Cable	2
10	36U Network Rack	1
11	RHEL Server O/s with std support for 3 yrs	8
12	Server Anti Virus for 3 years	8

#### **B.**

#### **Service Components**

Sl no	Description	Unit of Measurement	Quantity
1	AMC Charges for 3 years after the warranty period for Storage Equipment	Lump sum	Lump sum

**Note: The end of life of all the storage equipment quoted by the bidder should be a minimum Six(6) years from the bid submission date.**

The **Scope of work** includes the Supply, Installation, seamless Integration, Testing, Commissioning of the above-mentioned items, at GRIDCO Data Center, Bhubaneswar. It also includes annual maintenance contract for a period of three years after expiry of the warranty period for three years defined in the bidding document.

2. Interested eligible Bidders may obtain further detailed information on the tender in the bidding document issued by I.T Dept. OPTCL and hosted under "Current Tenders" in our website [www.optcl.co.in](http://www.optcl.co.in).

3. A complete set of bidding documents may be purchased by any interested eligible bidder or their “authorized representative” on submission of written application to Chief General Manager(IT) and upon payment of non-refundable fee as indicated below, either in cash or by a demand draft payable to THE DRAWING AND DISBURSING OFFICER, OPTCL HEAD QUARTERS, BHUBANESWAR.
4. The bidding documents may be obtained from the office of the Chief General Manager (IT), OPTCL during office hours, from 10.00 hrs to 17.00 hrs. on all working days either in person or by post.
  - a) Price of bidding document : 10,500/- (non-refundable)) including VAT@5%
  - b) Postal charges, inland : Free of charge
  - c) Postal charges, overseas : Free of charge
  - d) Date of commencement of Sale of bidding document : 04-Jan-2014 10:00 Hrs
  - e) Pre-Bid Query : 15-Jan-2014 13.30 Hrs.
  - f) Last date of sale of bidding document : 18-Jan-2014 13.30 Hrs
  - g) Last date and time for Receipt of bids : 18-Jan-2014 13.30 Hrs
  - h) Time and date of opening of Techno-commercial bids : 18-Jan-2014, **16.00 Hours**
  - i) Time and date of opening price bids : Will be Intimated Later
  - j) Place of opening of bids : Office of Chief General Manager (IT), 3<sup>rd</sup> Floor, OPTCL Tower, OPTCL, Janpath, Bhubaneswar – 751022.
  - k) Address for communication : Chief General Manager (IT), 3<sup>rd</sup> Floor, OPTCL Tower, OPTCL, Janpath, Bhubaneswar – 751022.
5. Bid document can also be downloaded from our website as mentioned at clause-2 above. However, the bidder has to submit the cost of bidding document i.e. Rs.10,500/ including VAT by Demand Draft payable to Drawing and Disbursing Officer, Headquarters office, OPTCL, Bhubaneswar. The DD must be issued by a nationalized bank **on or before the last date for sale of bidding documents**, as per Section-I.4(e).
6. **Two-part bidding procedure shall be adopted.** All bids must be accompanied by a bid security (EMD) in the amount of Indian Rupees Seventy Six Thousand Thirty only (Rs76, 030/-), and must be delivered to the above office on or before 13.30 hrs. on last date for receipt of bids. [Please see Section II Clause 10.](#)
7. Bids will be opened in the presence of Bidders or Bidder’s representatives who choose to attend at the specified date and time. BIDDER’s representatives should submit authorisation letter from the Bidder to OPTCL to attend opening of Bids.
  - a) **Part–I (OPTCL-STR-Techno-commercial bid)** shall be opened on the stipulated date and time mentioned under clause 4(g) of the GENERAL INFORMATION TO BIDDERS.

- b) After technical evaluation, the **Part-II (OPTCL-STR-Price-bid)** of successful/eligible bidders shall be opened as per Schedule mentioned in 4(h) above or a latter date as may be decided by the purchaser.

The bidders shall be intimated of the price bid opening date through Notice Board and through OPTCL's web site in case of any change in the date of opening of the price bid.

8. In the event of the date specified for bid receipt and opening being declared as a closed holiday for purchaser's office, the due date for submission of bids and opening of bids will be the following working day at the appointed times.
9. OPTCL reserves the right to cancel/withdraw the invitation for bids without assigning any reasons and shall bear no liability whatsoever consequent upon such a decision.

## 10. QUALIFICATION OF THE BIDDER

- 10.1 The bidder must be an Authorised Systems Integrator (ASI) having a direct purchase and support agreement with the OEMs of the Storage equipment. The bidder should provide Manufacturer's **Authorisation Letter** for all storage equipments quoted (except the items for which the bidder itself is the OEM) along with the bid. **The ASI should also submit declaration, as a mandatory requirement, by OEMs that the quoted items shall not be outdated within 6(six) years of supply and that OEM renders necessary spares support to ASI.**
- 10.2 Bidder shall be financially sound and must not be anticipating any ownership change for three years from bid submission. **An undertaking to this effect shall be submitted by the Bidder.**
- 10.3 Bidder shall submit **audited financial reports** for at least three years (2010-11, 2011-12, 2012-13) preceding the date of bid submission. The annual turnover of the bidder shall not be less than **Rs.5 crores** for above-mentioned financial years and estimated financial projection for the next three years.
- 10.4 Bidder shall provide satisfactory evidence to the Purchaser of their capability and adequacy of resources to carry out the Contract effectively. **The bidder is to include** the following with the bid.
- (a) **Copies of original documents** defining the constitution or legal status, place of registration and principal place of business; written power of attorney of the signatory of the bid to commit the bidder;
  - (b) **Description** of manufacturing facilities, if applicable.
  - (c) The Bidder's key technical engineers should have OEM certifications to install and maintain the storage equipment quoted by the Bidder.
  - (d) **No subcontracting of the contract shall be entertained.**
  - (e) **A list** of bidder's banks and authority to seek reference from the banks.
  - (f) Information regarding any current litigation in which the bidder is involved, the parties concerned, and disputed amount; **Declaration** to be submitted.

- (g) The bidder shall give an undertaking as a part of this contract to provide technical consultancy and guidance at no extra cost to GRIDCO for proper configuration and performance and integration with Servers, of the Storage equipment. **The Bidder shall submit an undertaking to this effect.**

10.5 In addition to the above the Bidder shall submit the following.

- (a) The Bidder must be having valid ISO 9001-2000 certified “**Systems Integrator**”. Bidder has to **submit photocopy** of the original certificate along with their bid.
- (b) The bidder must have executed
- i) At least three nos of similar I.T equipment projects of value more than **Rs.50** Lakhs during last three years. At least one such project should have been executed for any Govt office / PSU / autonomous Govt body.
  - ii) Installed and configured storage equipments on Linux platform.
  - iii) The bidder should also submit a list of important customers with documentary evidence along with tender.
- (c) The bidder must have full-fledged service center at Bhubaneswar equipped with spare stock and certified manpower.
- (d) For all storage equipments, the bidder has to quote for 3 years comprehensive on-site warranty / OEM warranty wherever applicable.

11. Manner to submit the bid

- a) Both Techno commercial Bid and Price Bid of the Tender shall be submitted with a forwarding letter duly signed in the bidders letter head and shall be neatly typed, clearly readable, free from cuts, over writings and erases etc. Please see note below.
- b) Amounts quoted in the Price-Bid mentioned in figures must be described in words also. In case of any ambiguity, the fact furnished in words shall only be considered.
- c) Any correction whatsoever in the bid shall be signed by the authorized person competent to sign the bid along with company seal.
- d) Submission of the technical bid must be indexed properly in the chronological manner mentioned below failing which the bid shall be liable for rejection. All the supporting documents in respect of Clause 10, Section –I shall be submitted by the Bidder.
- e) Conditional offers shall not be accepted
- f) In the event of discrepancy or arithmetical error in the schedule of price, the decision of the purchaser shall be final and binding on the tenderer.
- g) For evaluation the price mentioned in words shall be taken as final, if there is any difference in figure and words in the price bid.

**Please See List of Documents to be attached at Page 10**

**Note:**

- All the pages in the technical bid shall be numbered.
- Information sheets shall be chronologically placed in the manner stated above.

- A proper index shall be furnished with starting page number of each category of document mentioned above.

**The techno commercial bid and price bid shall be sealed in separate covers super scribing as Part – I (OPTCL-STR-Techno-commercial bid) due on -----and Part – II (OPTCL-STR-Price bid) ” respectively. Both the sealed Bids shall be put in another envelope and sealed, super scribing as “Procurement of Storage Equipment”.**

## SECTION : II

### INSTRUCTIONS TO BIDDERS

1. Sealed Tenders in duplicate on two part bid basis (each complete with all details in the manner specified together with drawings, test reports, descriptive literature if any) and declaration from duly signed are to be submitted in the Office of Chief General Manager (IT) ODISHA Power Transmission Corporation Ltd., Bhubaneswar. Each part of the bid i.e. Techno-commercial Bid(part-I) and Price Bid (Part-II) shall be placed in separate covers duly sealed with the relevant Part No., Tender specification number and due date of opening indicated in the “Notice Inviting Tenders” duly super scribed on each cover.
2. The Specification is divided into six Sections:
  - i) Section-I : General Information to Bidders.
  - ii) Section-II : Instructions to Bidders.
  - iii) Section-III : General Conditions of Contract.
  - iv) Section-IV : Schedules of Requirements.
  - v) Section-V : Technical Specifications.
  - vi) Section-VI: Forms & Schedules etc.
3. These tender specifications cover the required quantity of materials. These quantities are to be supplied by the vendor on receipt of the order. The initial order will be supplied within the stipulated period. If required, the vendor may be additionally required to supply up to 25% of the initial ordered quantity within six months of the issue of the order without any change in the price and other terms and conditions of the original purchase order.
4. Tenders will be opened in the office of the Chief General Manager (IT) on the stipulated date and time in the presence of such of the tenderers or their authorized representatives (limited to one person) only as may desire to be present, at the time of opening the bids. The Chief General Manager (IT) or his authorized representatives, on opening each bid will read aloud the name of the bidder, price(s) quoted, overwriting and corrections if any in each page of Price bid when it is due to be opened.
5. The tenderer may deviate from the specification while quoting if in his opinion such deviation is in line with the manufacturer’s standard practice and conducive as better and more economical offer. All such deviations should however be clearly indicated giving full justifications for such deviation in a separate sheet(s) under “Deviations” title in the format described in Schedule-VI.
6. The purchaser reserves the right to reject the lowest or any other tenders or all tenders without assigning any reason what so ever if it is considered expedient in the overall interest of GRIDCO.
7. Tenders shall be submitted in person / by Registered Post with A.D / by Speed Post. Any other means of delivery shall not be accepted.
8. (i) Tenders received after due date and time shall be considered invalid.  
(ii) Telegraphic or Fax Tenders shall not be accepted under any circumstances.



10. (i) The tender shall be accompanied by Earnest Money Deposit of value specified under clause 4 in Section-I.

**THE EARNEST MONEY DEPOSIT** shall be offered in one of the following forms subject to the conditions mentioned below:

- a) **Bank Draft:** A crossed bank draft/pay order/bank certified cheque drawn in favour of *Drawing and Disbursing Officer*, OPTCL Headquarters, Bhubaneswar – 751022.
- b) **Bank Guarantee :** The bid security may be submitted in one of the following forms:
- (a) a Bank Guarantee or irrevocable letter of credit issued directly by a nationalized bank, in the form provided in the bidding documents, or from any Nationalised Bank as per enclosed proforma.
- The validity of any of the above guarantees shall be at least 240 days** from the date of opening of tender, failing which these bids will be liable for rejection.
- (ii) No interest shall be paid on Earnest Money Deposit.
- (iii) No adjustment towards Earnest Money Deposit shall be permitted against any outstanding amount with OPTCL.
- (iv) In the case of un-successful tenderer, the Earnest Money will be refunded immediately after the tender is decided. In the case of successful tenderer, this will be refunded only after furnishing of security money referred to Clause-24 Section–III. Suits, if any arising out of this clause shall be filed in a Court of law to which the jurisdiction of High Court of ODISHA extends.
- (v) Earnest Money will be forfeited if the tenderer fails to accept the letter of indent and / or Purchase orders issued in his favour as well as satisfactory completion of the project.
- (vi) Tenders not accompanied by Earnest Money, Tender Cost shall be dis-qualified.

11. The tenders should be kept valid for a period of **180** days from the date of opening of the tender as notified in the tender notice failing which the tenders will be rejected.
12. a) After opening of tenders and within the validity period no reduction or enhancement in price will be entertained. However, after opening of “Unpriced” bid **if some modification of specification is agreed upon by** OPTCL, Revised price offer will be considered. In such case revised offers will have to be submitted in separate sealed envelopes super-scribing “Revised Priced Bid” within 7 days of written notice to the bidder.
- b) If required, the tenderer may be requested to revalidate the tender after expiry of the validity period if required under the same terms and conditions as per original tender except for the change in delivery period, if necessary. In such an event the tenderers are free to change any or all conditions of their bids including price at their own risk.

13. Tenderers are expected to be fully conversant with the meaning of all the clauses of the specifications before submitting their tenders. In case of doubt regarding the meaning of any clause the tenderer may ask for clarification in writing from the Chief General Manager (IT) , OPTCL, Bhubaneswar. This however, does not entitle the tenderer to ask for time beyond due date fixed for receipt of tender.

### List of Documents in the bid to be submitted by the Bidder:

1. The Bidder must submit the following documents along with the Tender failing, which the tender shall be treated as incomplete and liable for cancellation. The schedule of prices should be filled up fully carefully to indicate the break-up of prices including taxes and duties. (Section – VI).

Sl No	Document / Description	Page No of the Bid Document
1	Forwarding letter duly signed in the bidders letter head	
2	Bid Declaration Form.	
3	Earnest Money Deposit (EMD) Bank Guarantee / Irrevocable letter of credit / crossed bank draft / pay order / Bank certified cheque as the case may be towards EMD.	
4	Authorisation certificate from OEM/Principal to execute the contract or submit the bid.	
5	<i>OEM's declaration that the equipment shall not be outdated for six(6) years and for necessary spare support to ASI.</i>	
6	Copies of audited financial report/ Balance Sheet for last 3 years in chronological manner i.e. 2010-11, 2011-12, 2012-13 each page duly numbered.	
7	Manufacture ship /authorized system integrator ship certificate.	
8	Declaration, as a mandatory requirement, by OEMs / ASI that the quoted items shall not be outdated within <u>6(six) years of supply</u> and that OEM renders necessary spares support to ASI	
9	<b>An undertaking that there will be no ownership change for three years from bid submission</b>	
10	<b>Audited financial reports</b> for at least three years (2010-11, 2011-12, 2012-13) preceding the date of bid submission	
11	Constitution or legal status, place of registration and principal place of business; written power of attorney of the signatory of the bid to commit the bidder	
12	<b>Description</b> of manufacturing facilities, if applicable	
13	OEM certifications if any of the Bidder's key technical engineers to install and maintain the Storage equipment	
15	Qualification and experience sheet for key Personnel	
14	Declaration of <b>No subcontracting of the contract shall be made</b>	
15	<b>A list</b> of bidder's banks and authority to seek reference from the banks	

16	Information regarding any current litigation in which the bidder is involved, the parties concerned, and disputed amount; <b>Declaration</b> to be submitted	
17	Declaration to provide technical consultancy and guidance at no extra cost to GRIDCO for proper configuration and performance and integration with Servers, of the storage equipment	
18	Valid ISO 9001-2000 certified “ <b>Systems Integrator</b> ” certificate	
19	Details of maintenance and support infrastructure at Bhubaneswar	
20	Technical literatures and original specifications sheets of each item offered <b>(Tenderers shall quote for all the items under Section – IV: Schedule of Requirement. Tenders not quoted for all the items shall not be considered)</b>	
21	Technical Deviation Statement if any	
22	validity period of EMD	
23	validity period of Tender	
24	Price Schedule (Section-VI)	
25	Xerox copy of PAN.	
26	Attested copy of TIN	
27	Service Tax Regn No	
28	Sales Tax Clearance	
29	An undertaking to provide goods and services confirming to vendor specifications	
30	Performance as supplier of goods & Services of similar nature over the last three years, and <b>details of orders</b> executed as per Section I clause 10.5 b). Copy of purchase orders and completion certificate from Govt./ PSU / reputed organizations showing order value for not less than <b>Rupees 50 Lakhs</b> in a single order	
31	A list of important customers in last three years i.e. 2010-11, 2011-12 & 2012-13	
32	Attested copy of power of Attorney, if any	
33	Attested copy of partnership Deeds, if any	
34	Check list in respect of General Compliance	
35	All other schedules provided in Bid document	

## **SECTION - III**

### **GENERAL CONDITIONS OF CONTRACT (GCC)**

#### **1. SCOPE OF THE CONTRACT:**

The **Scope of work** includes the Supply, Installation, Integration, Testing, Commissioning of the items mentioned in Section – I, on General Supply at GRIDCO Office, Bhubaneswar. It also includes annual maintenance contract for a period of three years after expiry of the warranty period for three years defined in the bidding document, in accordance with the enclosed Technical Specification, bill of quantity and render technical services as per delivery schedule.

#### **2. DEFINITION OF TERMS:**

In writing these General Conditions of Contract, the Specification and bill of quantity, the following works shall have the meanings hereby indicated unless there is something in the subject matter or contract inconsistent with such constructions.

- 2.1 “The Purchaser” shall mean the ODISHA POWER TRANSMISSION CORPORATION LTD or OPTCL.
- 2.2 “The Engineer” shall mean the engineers appointed by the Purchaser for the purpose of this contract.
- 2.3 “Purchaser’s representative” shall mean any person or persons or consulting firm appointed and remunerated by the Purchaser to supervise, inspect, test and examine workmanship and materials of the equipment to be supplied.
- 2.4 “The Contractor” shall mean the Bidder whose bid has been accepted by the Purchaser and shall include the Bidders executions, administrators successors and permitted agencies.
- 2.5 “Equipment” shall mean and include all machineries, apparatus, materials, articles and services to be provided under the contract by the contractor.
- 2.6 “Contract Price” shall mean the sum named in or calculated in accordance with the provisions of the contract as the “contract price” which shall include packing, forwarding freight, Insurance, Excise Duty, Sales Tax, Octroi and other taxes and duties if applicable.
- 2.7 “General Condition” shall mean these General Condition of Contract.
- 2.8 “The Specification” shall mean the specification annexed to or issued with the General Conditions and shall include the schedules and drawings attached thereto as well as all samples and pattern, if any.
- 2.9 “Month” shall mean of calendar month.
- 2.10 “Writing” shall include any manuscript, type written printed or other statement re-produced in any visible form and whether under seal or under hand.

- 2.11 “F.O.R. Destination” costs shall mean the cost of equipment and material at the consignee’s store. The cost is exclusive of Excise Duty, Sales Tax and other local Taxes, but is inclusive of packing, forwarding and insurance & Freight charges.
- 2.12 The “term” contract shall mean & include General Conditions, Specifications, Schedules, Drawings, form of tender, covering letter, schedule of prices or the final General Condition, any special conditions applying the particular contract, specifications and drawings and agreement to be entered in.
- 2.13 Terms and condition not herein defined shall have the same meaning as are assigned to them in the Indian Contract Act, failing that in the ODISHA General Clauses Act.

**3. GUIDELINES FOR THE BIDDER:**

The Contractor shall examine the instructions to Tenderers, General Conditions of Contract, Specification, the Schedules of Quantity and delivery and rest of the bidding document to satisfy himself as to all terms and conditions and circumstances affecting the contract price. He shall quote price (s) according to his own allowances except as otherwise provided therein will be levied. The purchaser shall not be responsible for any misunderstanding or incorrect information obtained by the contractor other than information given to the contract in writing by the purchaser.

**4. PATENT RIGHTS ETC:**

Any dispute arising in respect of copy right act for the equipment supplied or software configured by the vendor and used by the purchaser shall be the responsibility of the vendor and the purchaser in no way shall be held responsible in any form or court of law in this regard.

**5. MANNER OF EXECUTION:**

All equipment supplied under the contract shall be manufactured in the manner set out in the specification and to the reasonable satisfaction of the purchaser. All the storage equipment supplied by the contractor shall be new, unused and conforming to relevant standards.

**6. INSPECTIONS AND TESTING**

- 6.1.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. The Purchaser shall notify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing, of the identity of any representatives retained for these purposes.
- 6.2 The inspections and tests may be conducted on the premises of the Manufacturer or Supplier at point of dispatch. The Supplier shall provide all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 6.3 Should any inspected or tested Goods fail to conform to the Specifications, the Purchaser may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 6.4 The Purchaser’s right to inspect, test, and where necessary, reject the Goods after the Goods’ arrival at Project Site shall in no way be limited or waived by reason of the Goods having

previously been inspected, tested, and passed by the Purchaser or its representative prior to the Goods' shipment.

- 6.5 Nothing in GCC Clause 6 shall in any way release the Supplier from any warranty or other obligations under this Contract.

**NOTE:**

The inspection of the Goods shall be carried out to check whether the Goods are in conformity with the technical specifications attached to the contract and shall be in line with the inspection/test procedures laid down in the Technical Specifications and the General Conditions of Contract. Following broad test procedure will generally be followed for inspection and testing of equipment. The supplier will dispatch the Goods to the ultimate consignee after Purchaser's inspection and testing, approval of inspection report and manufacturer's warranty certificate. The Purchaser may again test the equipment after completion of the installation and commissioning at the site of the installation. All the Storage equipments shall be installed, 100%, and inspected on lab-simulated integration basis.

**7. DESPATCH INSTRUCTIONS:**

The actual dispatch instruction shall be issued within 7 days of inspection.

**8. DELIVERY & INSTALLATION SCHEDULE:**

- a) Free delivery should be made at the place as specified in the firm's work order.
- b) The delivery period of *the items ordered, as specified, should not exceed 30 days* from the date of receipt of purchase order.
- c) *The Installation and commissioning of the items ordered should be completed within 7 (Seven) weeks* from the date of issue of dispatch instruction.

**9. MANUALS AND DRAWINGS**

- a) Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals together with Linux installation procedures, drawings of the goods, equipment, network connectivity and computer architecture designs. These shall be in such detail as will enable the Purchaser to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications.
- b) The manuals and drawings shall be in the English language and in such form and numbers as stated in the contract.
- b) Unless and otherwise agreed, the goods and services shall not be considered to be completed for the purpose of taking over until such manuals and drawings have been supplied to the Purchaser.

**10. DOCUMENTATION:**

The Supplier shall provide complete and legal documentation of all Storage equipments and the associated software. The supplier shall also indemnify the purchaser against any levies/penalties on account of any default in this regard.

**11. ACCEPTANCE TEST:**

The installation and commissioning will be considered as complete only after it passes successfully through the acceptance test.

(i) The acceptance test will be conducted by the Purchaser, their consultant or any other person nominated by the Purchaser, at its option. The acceptance will involve trouble-free integrated operation of all items of supply for seven consecutive days. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part should occur. No missing modules/sections will be allowed. The Supplier shall maintain necessary log in respect of the results of the tests to establish to the entire satisfaction of the Purchaser. An average uptake efficiency of 100% for the duration of test period shall be considered as satisfactory. Sampled IT Items, as decided by IT, OPTCL, shall be subjected to acceptance test procedures for drawing conclusions in this regard.

(ii) In the event of the Storage equipment of the Contract failing to pass the acceptance test, a period not exceeding **ten days** will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserves the rights to get the equipment replaced by the Supplier at no extra cost to the Purchaser.

(iii) Successful conduct and conclusion of the acceptance tests for the installed goods and equipment and configured services shall also be the sole responsibility and at the cost of the Supplier.

**12. ACCEPTANCE CERTIFICATES:**

a) On successful completion of acceptability test, receipt of deliverables etc, and after the purchaser is satisfied with the working of the system, the acceptance certificate signed by the supplier and the representative of the purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the systems and services.

b) The training as per Clause 42 of General Conditions of Contract shall be conducted on the dates mutually agreed upon and within a month from the date of acceptance of supply.

**13. SUPPLIER'S OBLIGATIONS**

(i) The Supplier is obliged to work closely with the Purchaser's staff, act within its own authority and abide by directives issued by the Purchaser during implementation activities.

(ii) The Supplier will abide by the job safety measures prevalent in India and will free the Purchaser from all demands or responsibilities arising from accidents or loss of life during installation and commissioning activities. The Supplier will pay all indemnities arising from such incidents and will not hold the Purchaser responsible or obligated.

- (iii) The Supplier is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanours.
- (iv) The Supplier will treat as confidential all data and information during the execution of his responsibilities and will not reveal such information to any other party without the prior written approval of the Purchaser.

**14. SITE PREPARATIONS**

The Purchaser is solely responsible for providing the storage, installation and commissioning site for the installation of Storage equipment in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of Storage equipment.

**15. STORAGE EQUIPMENT INSTALLATION**

The Supplier is responsible for all unpacking, assemblies, installation, wiring, cabling between Storage equipments and connecting to power supplies. The Supplier will test all Storage equipments operations and accomplish all adjustments necessary for successful and continuous operation of all the Storage equipments being procured through this contract.

**16. CONTRACT'S DEFAULT LIABILITY:**

- i) The purchaser may upon written notice of default to the contractor terminate the contract in circumstances detailed hereunder.
  - a) If in the judgment of the purchaser, the contractor fails to make delivery of equipment within the time specified in the contract or within the period for which extension has been granted by the purchaser, to the contractor.
  - b) If in the judgment of the purchaser, the contractor fails to supply with any of the other provisions of this contract.
- ii) In the event purchaser terminates the contract in whole or in parts as provided in Clause-1 Section-I, the purchaser reserves the right to purchase upon such terms and in such a manner as he may deem appropriate, equipment similar to that of terminated and the contractor will be liable to the purchaser for any additional costs for such similar equipment and/or for penalty for delay as defined in Clause-25 Section –III until such reasonable time as may be required for the final supply of equipment. Execution of contract under such circumstances shall however be on express written willingness of both the parties.
- iii) In the event the purchaser does not terminate the contract as provided in Clause – 16 (i) above, Contractor shall continue the performance of the contract, in which case he shall be liable to the purchaser for penalty for delay as set out in Clause-25 Section –III until the equipment is accepted. Execution of the contract under such circumstances shall however be on express written willingness of both the parties.

**17. REJECTION OF MATERIALS:**

In the event on any of the materials/ equipment supplied by the contractor is found defective in materials or workmanship or otherwise not in conformity with the requirements of the contract specification, the purchaser shall reject the materials/equipment and request the contractor in writing to rectify the same. The contractor on receipt of such notification shall



either rectify or replace the defective equipment free of cost to the purchaser. If the contractor fails to do so within 30 days of written notice, the purchaser may

- (i) At its option replace or rectify such defective equipment and recover the extra costs so involved from the contractor and/or
- (ii) Terminate the contract for balance work/supplies, with enforcement of penalty as per contract.
- (v) Acquires the affected equipment/materials and services at reduced price considered equitable under the circumstances.  
The contractor shall not be allowed any extension in contract completion period due to time taken to replenish the rejected material/work.

**18. EXTENSION OF TIME:**

If the delivery of equipment/materials is delayed due to reasons beyond the control of the contractor, the contractor shall without delay give notice to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice may agree to extend the contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.

**19. WARRANTY**

- (i) The OEM warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract and all the Services configured shall render trouble free function. The OEM further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Purchaser's specifications) or from any act or omission of the OEM, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- (ii) This warranty shall remain valid for thirty-six (36) months after the Goods, inspected 100%, have been delivered, commissioned and accepted at the final destination indicated in the Contract or 40 months from the date of 100% inspection and delivery which ever is earlier.
- (iii) **The free comprehensive support during the warranty period will include the following:**
  - a) The vender shall rectify the fault within 24 hours from the time of registration of the call.
  - b) System readjustment and/or system changing-over support on occasions of reconfiguration and/or upgrade and extensions if any.
  - c) The vendor shall be responsible for any defects that may arise out under normal usage due to faulty materials attached to the system, designing lacuna or poor workmanship. The vendor shall have to take immediate remedial measure for such defects at his own cost when called upon to do so by the Purchaser.

- d) The vendor/OEM should also guarantee that the equipment and its accessories supplied are complete and fully compatible in every respect, and conform to technical specifications of design, material and workmanship mentioned in the quotation. The vendor should also guarantee that the equipment and its accessories supplied would perform satisfactorily as per requirements mentioned in the specification.
- e) Any software support like update/enhancement/upgrade etc. Released till the completion of warranty and during Annual Maintenance (if Contracted) shall be supplied, installed and commissioned free of cost by the bidder, irrespective of whether or not OEM charges for the same.
- f) Software support is defined especially as helpdesk, update/enhancement, upgrade, technical guidance on usage of features and functionality, problem solving and troubleshooting. Rectification of bugs, enabling features of the software already provided, providing additional user controlled reports, future product information, migration path details and consultancy.
- g) Any corruption in the Software or media shall be rectified during the full period of the contract including Warranty and AMC, at no extras cost to the OPTCL.
- h) In case of violation of any of the conditions of warranty (for three years). The Composite Bank Guarantee shall be invoked by OPTCL. In case the violation of the condition of warranty is not set right by the vendor, the Composite Bank Guarantee shall be extended beyond three years for which the vendor shall request the banker for the same. The formalities for extension of warranty should be completed well in advance of the expiry of warranty period by the vendor/bidder, otherwise OPTCL will be forced to invoke the said Composite Bank Guarantee.
- (iv) If any equipment gives continuous trouble, say six times in one month, during the warranty period, the Supplier shall replace the equipment with new equipment without any additional cost to the Purchaser.
- (v) In case, the downtime of a unit exceeds 24 hours and the fault is not rectified or faulty equipment not replaced within stipulated period as detailed in clause – 22 (iii (b)) above, a penalty of Rs.100/- per day per faulty unit will be charged and will be recovered from the performance guarantee or from any sum thereafter that may become due to the vendor out of this contract or any other contract with OPTCL, Bhubaneswar.24 hours or part thereof beyond the stipulated downtime shall be counted as a full day for calculation and imposition of penalty.
- (vi) The System Integrator shall provide quarterly preventive maintenance to all the equipment of the project.  
In case of the firm fails to conduct the quarterly preventive maintenance of any equipment / component of the project during the warranty period, a penalty of 30% of the AMC amount of equipment for the quarter for the 1<sup>st</sup> year of AMC period mentioned in the tender by the firm shall be levied. The penalty amount shall be deducted from the Composite Bank Guarantee of the firm.

**NOTE:** The penalty will be adjusted from the Composite Bank Guarantee till it exceeds 50% of the guarantee amount at which point, the Chief General Manager (IT), OPTCL reserves the right to cancel the contract. In such

cases, the full amount of Composite Bank Guarantee shall be forfeited to the OPTCL.

**20. POST WARRANTY MAINTENANCE:**

- (i) The Vendor shall provide post warranty maintenance soon after the warranty period is over for a period of three years. The vendor must complete 3 yrs. AMC agreement well in advance of the 3 years warranty, failing which necessary action towards forfeiture of CBG will be initiated as deemed fit.
- (ii) A Bank Guarantee of 2% of the cost of the total project(excluding Annual Maintenance Charges) shall be furnished from any Nationalized/ Scheduled Bank to Chief. General Manager (I.T), OPTCL, Bhubaneswar before completion of the warranty period executed in a non-judicial stamp paper worth of Rs. 29/- (Rupees Twenty nine) only subject to change as per Orissa Stamp Duty Act. Valid for a period of 37 (Thirty Seven) months from the date of commencement of AMC period. No interest will be payable on the Bank Guarantee.
- (iii) The annual maintenance charges shall be paid in quarterly installments at the end of each quarter.
- (iv) The firm has to conduct quarterly preventive maintenance of each equipment/ component of the project. In case the firm fails to conduct the quarterly preventive maintenance of any equipment /component of the project, a penalty of 10% of the AMC charges of the equipment for the quarter shall be deducted from the AMC charges.
- (v) The compressive warranty support & penalties on downtime thereof shall be applicable as specified under the Clause: **19.0 WARRANTY** mentioned above.
- (vi) The Purchaser reserves the right to terminate the maintenance and repairs contract, after the warranty period, at any time without assigning any reasons and the Supplier cannot claim any compensation in this respect.
- (vii) The vendor should also maintain the level of spares during post-warranty maintenance for the storage equipments supplied at the ratio of 1:20. The same shall be verified by an officer nominated by the C.G.M (IT) in every Quarter during the period of contract.

**21. PRICE:**

- (i) Bidders are requested to quote their FIRM price only for each individual item covered under schedule of requirement. No price variation shall be entertained at any time during the contract period.
- (ii) **All prices quoted must be firm and valid for 180 days from the date of opening of the commercial bid.**
- (iii) All prices quoted shall not be affected by any escalation in prices of labor or materials, machinery, equipment, etc. or in rupee exchange rate during the price validity period whatsoever. However duties, levies, or taxes in respect of finished products will be at the rate prevalent at the time of delivery. In cases where the prices offered are included in basic product, the same should be mentioned against all those specific items.
- (iv) The prices shall be FOR Destination only at the consignees store(s) inclusive of packing, forwarding, freight and insurance. In addition, the break up of destination price shall given as per Schedule of prices in Section - VI.
- (iv) Where ever the issue of foreign exchange is involved due to import of materials from a country other than India, the same shall be paid by the vendor. Import License, marine freight, insurance, customs duty, surcharge, port handling and

clearing charges etc. all shall be vendors account and purchasers shall not be responsible in any way in this regard. All such costs shall be presumed to have been included in unit prices under column No.5 of Price Schedule in Section – VI.

**22. IMPORT LICENCE:**

In case imported materials are offered no assistance will be given for Import License or release of Foreign Exchange. The firm should arrange to import materials from their own quota.

**23. VALIDITY:**

Prices and conditions of sale of the offer should be valid for a period of **180** days from the date of opening of the tender. However, the tenderer shall confirm in writing in the tender in this regard, otherwise, must mention his validity period in writing in the tender failing which the tender shall be rejected.

**24. TERMS OF PAYMENT:**

- (i) 90% payment shall be released on receipt of items in good condition on delivery, verification and stores entry of the all ordered IT Items which are fully factory inspected and inspection report is duly accepted by IT, OPTCL.
- (ii) Pre-receipted bills in triplicate along with necessary delivery challans and related documents should be submitted to the authority for arranging the payment.
- (iii) No advance payment in any form will be made.
- (v) Handling of foreign exchange component and customs clearance, if any, must be taken care of by the bidder.
- (vi) The supplier shall furnish Bank Guarantee of appropriate amount to **OPTCL** covering 10% (Composite Bank Guarantee) of contract price valid for 42 months from date of delivery. For this purpose the contract price shall mean firm price.
- (vii) OEM warranty certificate for 3 years from the date of installation.
- (viii) Balance 10% shall be payable after submission of installation certificate, bills in triplicate.

**25. COMPOSITE BANK GUARANTEE :**

A composite Bank Guarantee at the rate of 10% (Ten percent) of the value of the total project shall be furnished from any Nationalised/Scheduled Bank to the Chief General Manager (I.T), OPTCL within 30 (thirty) days of issue of the purchase order, executed in a non-judicial stamp paper worth of Rs.29/- (Rupees twenty nine) only subject to change as per ODISHA Stamp Duty Act valid for a period of 42 (forty two) months from the schedule date of delivery of last lot strictly as per proforma enclosed, towards security, 100% payment and performance guarantee purposes failing which the purchase order will be treated as cancelled. In the event of any breach or default in all or any of the conditions set forth and provided in the purchase order, the purchaser may forfeit the whole amount of the composite bank guarantee. The forfeiture of the composite Bank guarantee shall not in any way affect, limit or extinguish any remedy or relief to which the above authority may at any time be lawfully entitled.

No interest will be payable on Composite Bank Guarantee amount.

**26. SERVICE LEVELS AND PENALTIES TOWARDS NON PERFORMANCE**

Delay in execution of any supply order against this tender shall attract penalty.

**i) Penalty**

For delay in execution of the contract beyond the stipulated period, penalty @ 0.5% (half percent) for every week of delay or part thereof shall be realized subject to a maximum of 5% of the contract price. The penalty may also be calculated only on the cost of item that are required to be supplied. However, in any case it shall be open to Chief General Manager (IT), OPTCL for final decision in this regard which shall be binding on the contractor.

**ii) Force Majeure Clause**

The supplier shall not be liable for any penalty for delay or for failure to perform the contract for reasons of force majeure such as acts of God, acts of the public enemy, acts of Govt., Fires, floods, epidemics, Quarantine restrictions, strikes, Freight Embargoes and provided that the supplier shall within Ten (10) days from the beginning of such delay notify the purchaser in writing of the cause of delay along with documentary evidence. The purchaser shall verify the facts and grant such extension, if facts justify.

**27. INSURANCE:**

Insurance of Stores covered by this specification shall be done by the suppliers with their own insurance unless otherwise stated. The responsibility of delivery of the stores at destination in good condition rests with the supplier. Any claim with the Insurance Company or transport agency arising due to loss or damage in transit has to be settled by the supplier. The supplier shall undertake free replacement of materials damaged or lost which will be reported by the consignee within 30 days of receipt of the materials at destination without awaiting for the settlement of their claims with the carriers and underwriters. In case the replacement of damaged item/part is not done within 30 days, the material shall be treated as not delivered and shall attract penalty till replacement as per clause under heading "Rejection of Materials".

**28 PAYMENT DUE FROM THE CONTRACTOR:**

All costs and damages for which the contractor is liable to the purchaser, will be deducted by the purchaser from any money due to the contractor under the contract or through the composite Bank Guarantee submitted by him.

**29 JURISDICTION OF THE HIGH COURT OF ODISHA:**

Suits, if any, arising out of this contract shall be filed by either party in a court of law to which the jurisdiction of High Court of ODISHA extends.

**30 SALES TAX, INCOME TAX CLEARANCE, BALANCE SHEET AND PROFIT AND LOSS ACCOUNT:**

Sales Tax certificate and PAN should be enclosed with the tender along with Balance Sheet and P&L statement for the three preceding financial years.

**31 CERTIFICATE FOR EXEMPTION FROM EXCISE DUTY:**

Offers with exemption from Excise Duty shall be accompanied with authenticated proof of such exemption. Authenticated proof for this clause shall mean Photostat copy of exemption certificate.

**32 DEVIATION FROM SPECIFICATION:**

It is in the interest of the tenderers to study the specification, drawings etc. specified in the tender schedule thoroughly before tendering so that, if any deviations are made by the tenderers the same are prominently brought out in the body of their tender. A list of

deviations shall be enclosed to the Tender. Unless deviations in scope, technical and commercial are specifically mentioned in the list of deviations, it shall be presumed that the tenderer has accepted the conditions in the Tender Specification in toto, notwithstanding any exemptions mentioned also else where in the tender.

**33. RIGHT TO REJECT/ACCEPT ANY TENDER:**

The purchaser reserves the right either to reject or to accept any or all tenders. The purchaser has exclusive right to alter the quantities of materials at the time of placing final purchase order. After placing of the order the purchaser may defer the delivery of the materials. It may be clearly understood by the tenderer that the purchaser need not assign any reason for the above action.

**34. CONTRACTOR'S RESPONSIBILITY:**

Notwithstanding any thing mentioned in the specification or subsequent approval or acceptance of the purchaser, the ultimate responsibility for design of materials and satisfactory performance shall rest with the tenderers.

**35. EVALUATION OF BIDS:**

In comparing bids and in making awards the purchaser may consider such factors as compliance with specifications, relative quantity, land adaptability of supplies or services, experience, financial soundness, records of integrity in dealings, performance of materials/equipments earlier supplied, utility to furnish repairs and maintenance services, the time of delivery, capability to perform including available facilities such as adequate shops, plants, equipment and technical organization. All costs incidental to execution of the Contract including take-back items shall be taken into consideration in addition to the above for evaluation of offers.

**36. MINIMUM QUALIFICATION CRITERIA OF BIDDERS:**

All the prospective bidders are requested to note that their bids can only be considered for evaluation only if they fulfill all the required criteria mentioned in the General Information to Bidders in the tender. Bidders, who do not fulfill these criteria, need not submit their bids.

**37. LANGUAGE AND MEASURES:**

All documents pertaining to the contract including specifications, schedule, notices, correspondences, operating and maintenance instructions, drawings or any other writing shall be written in English language. The metric system of measurement shall be used exclusively in this contract.

**38. CORRESPONDENCES:**

- (i) Any notice to the contractor under the terms of the contract shall be served by Registered mail or by hand at the contractor's principal place of business.
- (ii) Any notice to the purchaser shall be served at the OPTCL's principal office in the same manner.

**39. LEGAL ADDRESS OF THE PARTIES:**

The address of the parties to the contract shall be specified.

**PURCHASER:**

Chief General Manager (IT), ODISHA Power Transmission Corporation Ltd.  
3<sup>rd</sup> Floor, OPTCL Tower, Janapath,  
Bhubaneswar – 751 022, ODISHA, India

**CONTRACTOR:**

(TO BE FILLED BY THE TENDERER)

**40. OUT RIGHT REJECTION OF TENDERS:**

Tenders shall be rejected if they are not complying with the requirements as mentioned at **List of Documents Required as at Page 10:**

1. Tenderer should have been purchased the specification from the office of the purchaser or if downloaded from OPTCL's web site, must have submitted the tender paper cost as per the instruction under clause-5 in the Section-I for "Notice Inviting Tenders".
2. Tenders shall be submitted in person or by Regd. Post with A.D or by Speed Post.
3. Tenders shall not be submitted telegraphically or by Fax.
4. Tenders shall be accompanied by the prescribed earnest money deposit.
5. Tenders shall be kept valid for a period of 180 days from the date of opening of tender.
6. Tenders shall be submitted in two parts only.
7. Tenders shall be accompanied by a list of major supplies effected in the last three (3) years prior to the date of opening of tender.
8. The tender shall be accompanied by PAN, TIN, Photostat copy of latest Sales Tax clearance certificates.
9. Tenderers shall fulfill the minimum criteria as laid down under clause 10.5 under Section-I.

**41. COPY RIGHT PROTECTION OF TENDER DOCUMENT:**

The contractor shall treat the details of the Specification and other Tender documents as private and confidential and they shall not be reproduced without written authorization from the purchaser.

**SECTION - IV****Schedule of Requirements (SOR)**

The purchaser's quantity requirement of the materials covered under the schedule is as indicated below.

**1. Storage Equipments**

Sl No	Item	Qty in nos
1	SAN Storage 8TB	1
2	Two drive tape library	1
3	Back-up Software	1
4	SAS Disk Drive (400 GB)	43
5	Industrial Sockets (16A)	6
6	Industrial Sockets (32A)	6
7	Tape Medias	12
8	48 port L-2 switch	3
9	Cat-6 UTP Cable	2
10	36U Network Rack	1
11	RHEL Server O/s with std support for 3 yrs	8
12	Server Anti Virus for 3 years	8

**2. Service Components**

Serial No	Description	Unit of Measurement	Quantity
1	AMC Charges for 3 years after the warranty period for Storage Equipments	Lump sum	Lump sum

**Note:**

- i) **The end of life of all the IT items quoted by the bidder should be a minimum Six(6) years from the bid submission.**

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## SECTION - V

### TECHNICAL SPECIFICATIONS

#### 1. Introduction:

In order to provide proper backup for the currently running servers in GRIDCO data center, Odisha Power Transmission Corporation Limited is planning to procure of various backup devices and Software.

#### 2. SCOPE

*The scope of work includes the supply, installation and configuration of the Storage Equipments mentioned at Section IV, that will include the following:*

- Supply and installation of the Storage equipments
- Comprehensive on-site warranty for the products supplied for a period of 3 years.
- Commitment for rendering AMC for 3 years beyond warranty.

1. SAN Storage (Fiber Channel Based)		
Sl No	System Description	Minimum Requirements
1.	RAID level	RAID Array supporting 0, 1, 3 5, 6 & 0+1 / 10 levels
2.	Technology	The RAID implementation should be hardware based and should be based on end-to-end 6Gbps technology.
3.	Capacity	Offered Array shall be configured with USABLE capacity of 20 TB expandable up to 50TB using 450/600/900 GB, 15K RPM SAS hot pluggable HDD
4.	Architecture	The array should have 2 numbers of array controllers. The storage array should have a minimum of 8GB cache for Read / Write operations. Offered Storage shall have minimum of 4 host ports and 4 nos of FC ports running at 16Gbps speed.
5.	Availability	In case of power failure, storage subsystem shall have the Capability to keep the uncommitted information inside cache for at-least one week.
6.	Disk drives	The storage array should support SAS, SATA & SSD HDD
7.	No SPOF	Disk array should have no single point of failures (NSPoF), component and function level redundancy to provide high availability features for all the components at RAID controller level, redundant power supply, and redundant cooling fans.
8.	Management	Easy to use GUI based and web enabled administration interface for configuration, storage management

<b>1. SAN Storage (Fiber Channel Based)</b>		
SI No	System Description	Minimum Requirements
9.	Snapshots/ full copies	<p>The array should include controller based functionality for pointer based snap copies as well as full physical copies. The pointer based snap copies should require minimal space for creation of snapshot. The full physical copy may require a target LUN of same size as parent but should be immediately available for access at the point when it was initiated.</p> <p>Shall be configured with array based Snapshot and clone functionality and shall be configured for minimum of 60 snapshot licenses. It should support at-least 500 Snapshots</p> <p>The SAN should support multiple clusters of various Linux / Windows operating systems.</p> <p>LUN masking &amp; Partitioning should be implemented at the controller level..</p> <p>System should support 512 LUNs</p>
10.	Firmware	Should be firmware upgradeable for functionality improvement and enhancements. Multi-path and load balancing software shall be provided, if vendor does not support MPIO functionality of Operating system.
11.	Warranty	<p>3 years comprehensive warranty on total hardware supplied</p> <p>3 years warranty on all Storage software provided as per the RFQ with license for maintenance, updates, patches, drivers &amp; online upgrades</p>

## **2. Two Drive Tape library for Backup :**

Shall support Native data capacity of 60TB (uncompressed) expandable to 150TB (2.5:1 compressed). Shall be offered with Minimum of One LTO6 FC tape drive and minimum of 24 cartridge slots. Shall support encryption
Offered LTO6 drive in the Library shall conform to the Continuous and Data rate matching technique for higher reliability.
Offered LTO6 drive shall support 160MB/sec in Native mode and 400MB/sec in 2.5:1 Compressed mode.
Tape Library shall be scalable to 6 Number of LTO-6 and 120 slots either within the same frame or by cascading another frame.
Offered Library shall be provided with a hardware device like USB key, separate appliance etc. to keep all the encrypted keys in a redundant fashion.
Offered Tape Library shall provide 8Gbps native FC connectivity to SAN switches.
Tape Library shall provide web based remote management.
Tape library shall support Barcode reader and mail slot.
Tape Library shall have GUI Panel. Shall be rack mountable. Tape Library shall be supplied with software which can predict and prevent failures through early warning and shall also suggest the required service action. Offered Software shall also have the capability to determine when to retire the tape cartridges and what compression ratio is being achieved. The tape library should be from the same OEM of Storage.

### **3. Backup Software**

The Backup Software should be available on various OS platforms such as Windows, Linux platforms and be capable of supporting SAN based backup / restore from various platforms including AIX, TRU64 UNIX, HP-UX, Linux, Open VMS, NetWare and Windows.

Backup software shall be offered with Cluster license of server.

The backup solution shall support industry leading cluster solution such as MSCS, MC Service Guard, Veritas Cluster etc.

Proposed backup solution shall have same GUI across heterogeneous platform to ensure easy administration.

The proposed Backup Solution should support tape Mirroring running concurrently with primary backup. e.g. With the primary volume Backup 2 additional tape copies can be created simultaneously without the need to duplicate 2 copies after the main backup.

The backup solution should allow creation of additional backup copies, run concurrently with primary backup, within the same Library or over the network to another tape library/stand-alone drive of different format medium (e.g. Ultrium to SDLT etc..) to allow easy valuating operation.

The Backup Solution supports the capability to write up to 32 data streams to a single tape device or multiple tape devices in parallel from multiple clients to leverage the throughput of the Drives using Multiplexing technology.

The backup solution support de-multiplexing of data cartridge to another set of cartridge for selective set of data for faster restores operation to client/servers.

The backup solution should allow creating tape clone facility after the backup process.

The Backup Solution should have in-built frequency and calendar based scheduling system and should support Clustering the Backup Server and Media Server on Windows and Linux.

Backup solution shall be configured in such a fashion that no extra license for Client and media servers is required while moving from LAN to SAN based backup.

The Backup Solution Software should have inbuilt Java / Web based GUI for centralized management of backup domain.

The solution should support Disk staging.

The proposed Backup Solution should have in-built media management and should support cross platform Device & Media sharing in SAN environment. It should provide a centralized scratched pool thus ensuring backups never fail for media.

Backup Software shall support Synthetic backup so that Full backup can be constructed directly from the disk based incremental backups.

Backup software shall also support disk based Incremental Forever or Virtual full backup whereas every incremental backup shall be equivalent to Full back up without actually copying the actual data blocks of previous full backup.

Backup Software should able to rebuild the Backup Database/Catalog from tapes in the event of catalog loss/corruption.

The Backup Software shall offer OPEN File Support for windows and Linux.

The Backup Solution should have certified “Hot-Online” backup solution for different type of Databases such as Oracle, MS SQL, Sybase, and all other RDBMS presently available.

The backup solution shall provide granularity of single file restore.

Backup Solution shall be able to copy data across firewall.

Backup Solution shall support automatic skipping of backup during holidays

**4. SAS Disk Drive (400 GB) Compatible with 1. Above**

**5. Industrial Sockets (16A)** 16 A in pairs

**6. Industrial Sockets (32A)** 32 A in pairs

**7. Tape Media**

The Tape media should be compatible with LTO Generation 4 drive with SAS interface.

The tape media should be capable of storing 800 GB without compression and 1.6 TB with compression.

The tape media should be capable of minimum 250 full file passes.

The tape media should have minimum archive life cycle of 20 years.

The tape media should be nonhazardous to human health in anticipated use.

**8. 48 Port L-2 Switch**

**LAYER-2 GIGABIT MANAGED SWITCH**

SL	Description
A	Architecture
1	Shall have 48 autosensing 10/100/1000Base-T ports and extra 4 Gigabit SFP ports
2	Shall support both IPv4 and IPv6 from day1 with full wire speed IPv6 operation
3	Shall support redundant flash images
4	Shall have minimum switching capacity of 104 Gbps and minimum forwarding capacity of 77 Mpps
5	Shall support a minimum of 16000 MAC address entries
6	Shall be rack mountable with required accessories and shall have a console port
B	Layer-2 Features
1	Shall support IEEE 802.1Q, IEEE 802.3ad LACP
2	Shall support IEEE 802.1s Multiple Spanning Tree Protocol
3	Shall support a minimum of 255 active VLANs
4	Shall support dynamic assignment of VLANs
5	Shall support IPv6 based ACL and QoS
C	Quality of Service & Convergence

1	Shall support QoS features based on Layer-4 information
2	Shall support port mirroring
3	Shall support RMON
4	Shall support minimum 4 queues
5	Shall support LLDP, LLDP-MED, & Voice VLAN
6	Shall support IGMP snooping, & MLD snooping
D	Security
1	Shall support port security methods like 802.1x & RADIUS
2	Shall support SSL
3	Shall have built-in protection features such as:
	Protection from DoS attacks or equivalent
	STP Root guard & STP BPDU guard
	ACL (Based on IPv4, IPv6 and VLAN)
E	Management
1	Shall support IEEE 802.3AB LLDP
2	Shall support secure management access methods (CLI, GUI or MIB) through SSH, SSL, and/or SNMP
F	Warranty & Support
1	Shall have manufacturer's warranty support with NBD hardware replacement (inclusive of power supply and fans) and 24x7 software updates during the warranty period of 3-years
G	Preferred Make
1	OEM Make: Shall be listed in the Gartner' leader quadrant for Enterprise LAN during 2013 & 2012

## 09. Cat-6 UTP Cable

Sl no	Details	Specification
1	<b>Type</b>	Unshielded Twisted Pair, Category 6, TIA / EIA 568-C.2 & ISO/IEC 11801
2	<b>Conductors</b>	<b>23 AWG solid bare copper</b>
3	<b>Insulation</b>	Polyethylene
4	<b>Jacket</b>	<b>Flame Retardant PVC</b>
5	<b>Pair Separator</b>	Cross-member (+) fluted Spline
6	<b>Approvals (</b>	<b>a) UL Listed / UL Verified. UL hologram mark to be present on packaging.</b>
		<b>(b) ETL verified to TIA / EIA Cat 6. ETL compliance certificate to be produced for CAT6 Cable.</b>
7	<b>Operating temperature</b>	-20 Deg. C to +60 Deg. C
8	<b>Storage Temperature</b>	-20 Deg. C to +80 Deg. C
9	<b>Frequency tested up to</b>	<b>Minimum 600 MHz; ETL report to be provided for 600 MHz performance</b>

10	<b>Packing</b>	Box of 305 meters
11	<b>Cable Outer Diameter</b>	.23 inches
12	<b>Delay Skew</b>	45ns MAX.
13	<b>Bend Radius</b>	4 * Cable Diameter
14	<b>Impedance</b>	<b>100 Ohms + / - 15 ohms, 1 to 600 MHz.</b>
15	<b>UL/NEC</b>	<b>Ratings CMR Rated</b>
16	<b>Mutual Capacitance</b>	5.6 NF MAX /100 Mtr
17	<b>Conductor Resistance</b>	66.58 Ohms Max / KM
18	<b>Propagation Delay</b>	536 ns/100 Mtrs. MAX @ 250 Mhz
19	<b>Performance characteristics @ 250 MHz</b>	<b>Attenuation: 32.8dB/100m NEXT : 44dB PS NEXT : 41dB ELFEXT : 23dB PSELFEXT : 19dB Return Loss: 25.3dB ACR : 11.3dB</b>
20	<b>ROHS Compliant</b>	ROHS/ELV Compliant

### 10. 36 U Network Rack with power panel

SI No	Item Specs	Requirement
1	Features	36U Double Section Wall Mount Rack (600mm W x 500mm D),Rigid welded frame Adjustable 19" rails at the front,Hardware Packet, International Standard, Robust Frame Structure With Top & Bottom cable entry provision, Fully powder coated.
2	Load Rating	20 Kgs minimum
		Rear wall-mounted section Rear wall-mounted section hinged to the front section
		Glass Doors Tinted Front Glass Door With Lock & Key
3	Size	i. Height 36U ii. Width 600mm iii. Depth 500mm
4	Fan Tray	1U Fan Tray with 2 Fan Positions
5	Cooling Fans	2 cooling Fans
6	Cable Management	1U Cable Manager, Earth Continuity Kit <b>10</b> , AC Mains Channel 6Port ACDB with 5/15AMP socket Indian style.

**11. RHEL Server O/s with std support for 3 yrs** Ver.5.5 x86\_64  
Standard (4 sockets) (Up to 1 guest) with standard support type for 3 years

**12. Server AV for 3 yrs**

CHIEF GENERAL MANAGER (IT)

**Procurement of Storage Equipment**

**BID FORM**

To:

Chief General Manager (IT),  
ODISHA Power Transmission Corporation Limited  
3<sup>rd</sup> Floor, OPTCL Tower, Janpath,  
Saheed Nagar, Bhubaneswar- 751 022

Ladies and/or Gentlemen,

Having examined the bidding documents, including Addenda Nos. .... (insert numbers), the receipt of which is hereby acknowledged, we, the undersigned, offer to supply and deliver the equipment, accessories & associated services under the Contract “**Procurement of Server Equipment**” in conformity with the said Bidding Documents for the sum of \_\_\_\_\_ (Total Bid Amount in Words and Figures) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our bid is accepted, to deliver the Goods in accordance with in the stipulated delivery period as mentioned in the Bidding Documents.

If our bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to 10% (ten percent) of the Contract Price for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this bid for a period of 180 days from the date fixed for bid opening under Clause - 4 “General Instruction to Bidders”, and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

Until a formal contract is prepared and executed between us, this bid, together with your written acceptance thereof and your Notification of Award, shall constitute a binding Contract between us.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely “Prevention of Corruption Act 1988”.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this.....day of .....200.....

Signature ..... in the capacity of

..... duly authorised to sign for and on behalf of

(IN BLOCK LETTERS) .....

**MANUFACTURER'S AUTHORISATION FORM**

[See Clause 9 (d) of the General Information to Bidders.]

No. \_\_\_\_\_  
Dated \_\_\_\_\_

To:  
The Chief General Manager (IT),  
ODISHA Power Transmission Corporation Ltd.,  
3<sup>rd</sup> Floor, OPTCL Towers,  
Janpath, Saheed Nagar,  
Bhubaneswar - 751 022.  
ODISHA

IFB No. \_\_\_\_\_

Dear Sir,

We [ *name of the Manufacturer* ] who are established and reputable manufacturers of [ *name and/or description of the goods* ] having factories at [ *address of factory* ] do hereby authorise [ *name and address of Agent* ] to submit a bid, and subsequently negotiate and sign the Contract with you for the goods manufactured by us against the above IFB.

We hereby extend our full guarantee and warranty as per Clause 19 of the General Conditions of Contract for the goods and services offered for supply by the above firm against this Invitation for Bids (IFB).

\_\_\_\_\_  
*[Signature for and on behalf of Manufacturer]*

*[Name]*

*[Name of the Manufacturer]*

**Note:** This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.



## Procurement Storage Equipment

### Price Schedule For Goods

Bidder's Name & Address :

### I. PRICE BID FOR STORAGE EQUIPMENT:

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
Sl. No	Description	Country of Origin	Qty. (nos.)	Unit Price ex-works/ex-warehouse/ex-showroom/off the self	Unit cost of Inland transportation, insurance and other local costs incidental to delivery to final destination(s) (F and I)	Packing and forwarding charges	Excise duty, if any,	Sales taxes	Entry Tax	Applicable other duties and levies	Unit Price [Col. 5+6+7+8+9+10+11]	Total Price (Col. 4 x 12)
<b>1. IT Components</b>												
1	SAN Storage 8TB											
2	Two drive tape library											
3	Back-up Software											
4	SAS Disk Drive (400 GB)											
5	Industrial Sockets (16A)											
6	Industrial Sockets (32A)											
7	Tape Medias											
8	48 port L-2 switch											
9	Cat-6 UTP Cable											
10	36U Network Rack											
11	RHEL Server O/s with std support for 3 yrs											
12	Server Anti Virus for 3											

years											
<b>Total</b>											

**II. PRICE BID FOR POST WARRANTY 3(THREE) YEARS ON SITE COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT :**

Sl. No.	Description	Quantity	AMC Price for 1st Year (In Rs.)		AMC Price for 2nd Year (In Rs.)		AMC Price for 3rd Year (In Rs.)	
			Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
<b>Storage Equipments</b>								
			<b>Total for 1<sup>st</sup> year(1)</b>		<b>Total for 2<sup>nd</sup> year(2)</b>		<b>Total for 3<sup>rd</sup> year(3)</b>	
			<b>Sub Total II {for 3 years(1+2+3)}</b>					
			<b>Grand Total {Sub Total I+ Sub Total II }</b>					

Date: \_\_\_\_\_ (Signature) .....

Place: \_\_\_\_\_ (Printed Name) .....

\_\_\_\_\_ (Designation) .....

\_\_\_\_\_ (Common Seal) .....

- Note:**
- (1) In case of discrepancy between unit price and total, the unit price shall prevail.
  - (2) Continuation sheets of like size and format may be used as per the Bidder's requirement and shall be annexed to this schedule.
  - (3) @ The price shall include all custom duties, sales and other taxes already paid or payable on the components and raw materials used in the manufacture or assembly of the item, or the custom duties and other taxes paid on previously imported item offered ex-warehouse, ex-showroom, or off-the-shelf. These factors should not be entered separately.
  - (4) The Service Tax on AMC portion shall not be included in the price quotation. The same shall be paid extra, present rate being 12.36% on 70%.

## Procurement Storage Equipment

### (Qualifying Requirement Data)

**Bidder’s Name & Address:**

In accordance with **the Clause 10.0 of Section-I “General Information to Bidders” and Clause 14.0 of Section-II “Instructions to Bidders”**, we are furnishing the following details/documents in support of Qualifying requirement for the Contract.

**1.0** Attached copies of original documents defining:

- (a) The constitution or legal status;
- (b) The place of registration and principal place of business;
- (c) Written power of attorney of the signatory of the bid to commit the Bidder.

**2.0** Attached copies of original agreements:

- (a) Signed so as to legally bind all partners, jointly and severally; and
- (b) Submitted with a joint venture agreement providing the joint and several liabilities that of all partners in the event the Contract is awarded to us.

**3.0** Attached copies of original letter of authority to seek reference from our banks.

**4.0 General Information**

All individual firms bidding for the package are requested to complete the information in this form. Nationality information to be provided for all owners or Bidders who are partnerships or individually owned firms.

Where the Bidder proposes to use named subcontractors for critical components of the works, or for work contents in excess of 10 percent of the bid price, the following information should also be supplied for the specialist subcontractor(s).

1.	Name of firm	
2.	Head office address .....	
3.	Telephone.	Contact
4.	Fax	Telex
5.	Place of incorporation/registration	Year of incorporation/registration

Nationality of owners		
	Name	Nationality
1.		
2.		
3.		

### 5.0 Capability Statement

1.	Name of Bidder				
2.	Classifications (1) Manufacturer (2) Authorized Agent (3) Dealer (4) Others (please specify)				
3.	Factory/Works: (a) Location (b) Description, Type and size of building (c) Is property on lease or free hold? If on lease, indicate date of expiry of lease in such case (d) Details of plant and facilities for manufacture/assembly of the goods				
4.	Type of equipment manufactured and supplied during last three years.				
	Name of equipment	Capacity/Size	Nos. manufactured	Nos. of orders on hand	
5.	Types of equipment supplied during last three years other than those covered under 4 above.				
	Name of equipment	Capacity, size & model	Name of Manufacturers & country of origin	Total nos. supplied in India	Nos. on orders on hand

**SCHEDULE - D**

**Capability Statement (contd.)**

6.	Turnover for similar equipment sold in last three years (in Indian Rupees)			
7.	Details of Testing facilities available a) List testing equipment available b) Give details of tests, which can be carried out on items offered. c) Details of testing organization available			
8.	Personnel/Organization: (Give Organization chart for following indicating clearly the Nos. of employees at various levels)			
	1. Quality Assurance 2. Production 3. Marketing 4. Service 5. Spare parts 6. Administrative			
9.	Nearest service centres to each of the destination installations: Location: Phone No.: Year of Establishment:			
10.	Details of Organization at Service Centre a) No. of skilled employees: b) No. of Unskilled employees: c) No. of Engineering employees d) No. of Administrative employees e) List of special repair/workshop facilities available f) Storage space for spare parts (sq. m.) g) Value of minimum stock of spares available at all the service centres in respective currency h) Value of the modes/types by number of equipment serviced by the centre in last two years			
11.	Names of three buyers to whom similar equipment was supplied in the past and to whom reference may be made by the Purchaser regarding the Bidder's technical and delivery ability.			
	(1)			
	(2)			
	(3)			

**6.0 Financial Capabilities**

Name of Bidder:

Bidders shall provide financial information to demonstrate that they meet the requirements stated in the Instructions to Bidders. Each Bidder must fill in this form. If necessary, use separate sheets to provide complete banker information. A copy of the audited balance sheets should be attached.

Name of Banker	
Address of Banker	
Telephone No. Fax No. Contact Name & Title	

Summarise actual assets and liabilities in Indian Rupees for the previous three years. Based upon known commitments, summarise projected assets and liabilities in Indian Rupees for the next three years.

Financial information in Indian Rupees	Actual : Previous three years			Projected : next three years		
	1	2	3	4	5	6
1. Total assets						
2. Current assets						
3. Total liabilities						
4. Current liabilities						
5. Profits before taxes						
6. Profits after taxes						

Specify proposed sources of financing to meet the cash flow demands of the Project, net of current commitments

Source of financing	Amount (Indian Rupees)
1.	
2.	
3.	

Attach audited financial statements for the last three years.

**7.0 Litigation History**

Name of Bidder
----------------

Bidders should provide information on any history of litigation or arbitration resulting from Contracts executed in the last five years or currently under execution.

Year	Award FOR or AGAINST Applicant	Name of client, cause of litigation and matter in dispute	Disputed amount (Current Value in Indian Rupees or US \$ equivalent)

**SCHEDULE -D**

**8.0 Performance Statement (for a period of last three years for all the type of items offered)**

Sl. No.	Order placed by (full address of Purchaser)	Order No. and date	Description and quantity of ordered equipment	Value of order	Date of completion of delivery As per contract	Date of completion of delivery as per Actual	Remarks indicating reasons for late delivery, if any.	Balance qty., if any, to be supplied	Expected date of Commencement completion of balance supplies	Has the equipment been satisfactorily functioning? Attach certificate from the Purchaser/ Consignee

Date :

(Signature) .....

Place :

(Printed Name) .....

(Designation) .....

(Common Seal) .....



**SCHEDULE -D**

**9.0 Details of Service Support**

		<b>SERVICE CENTRE AT BHUBANESWAR</b>							
		Location							
Pack. No.	Destination	Phone no.	Fax No.	Status of Office Working Days and Hours	Number of Software Engineers	Number of Hardware Engineers	Number of Hardware Staff	Value of Min. Stock Available at all times	List of Data Centers serviced in last two (2) years

Date :

(Signature) .....

Place :

(Printed Name) .....

(Designation) .....

(Common Seal) .....

## Procurement of Storage Equipment

### (DEVIATIONS AND ALTERNATIVES)

The Bidder shall itemise any alternatives and deviations from the bid document included in his Bid. Each item shall be listed below with the following information:

Any proposal in this section will be applicable only for the bidders whose Bid will be substantially responsive in accordance with **Clause 5 of Section-II “Instructions to Bidders”**.

A Bid determined as not substantially responsive will be rejected and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

1. Reference Clause in the bid document.
2. Detailed description of the alternative or deviation.
3. Reason for the change.
4. The change in bid price if the alternative or deviation is withdrawn and the bidder conforms to the specifications.

Date: (Signature) .....

Place: (Printed Name) .....

(Designation) .....

(Common Seal) .....

**Procurement of Storage Equipment**

**(FORM OF CERTIFICATE OF ORIGIN AND ELIGIBILITY)**

**Bidder's Name & Address**

I (We) hereby certify that the equipment and materials to be supplied are produced in ....., an Eligible Source Country.

I (We) hereby certify that my (our) company is incorporated and registered in ....., an Eligible Source Country.

Date: (Signature) .....

Place: (Printed Name) .....

(Designation) .....

(Common Seal) .....

Technical Compliance

Features	Technical Specification	Bidders Response (Yes/NO)	Remarks
SAN Storage (Fiber Channel Based)			
	RAID Array supporting 0, 1, 3 5, 6 & 0+1 / 10 levels		
	The RAID implementation should be hardware based and should be based on end-to-end 4Gbps technology.		
	Offered Array shall be configured with USABLE capacity of 8 TB expandable up to 50TB using 300/400/600/900 GB, 15K RPM, FC HDD.		
	<p>The array should have support for 2 numbers of array controllers for better performance and redundancy. The storage array should have a minimum of 8GB mirrored cache out of which at-least 2GB usable cache shall be available for Read / Write operations. Offered Storage shall have minimum of 4 host ports and 4 device ports for Servers and disk connectivity</p> <p>Should provide storage for all database (RISC based) servers (including maintenance database), mail server (Intel based) and document management server (file server based on Intel platform).</p>		
	In case of power failure, storage subsystem shall have the Capability to keep the uncommitted information inside cache for at-least 72 hours or in a de-staged fashion		
	The disk array should support Dual, Redundant, Active-Active paths via switches and HBAs so that disks are accessible always to the RAID controller in case of any component or path failure (No Single Point of Failure Architecture). Should have internal environment monitoring.		
	The storage array should support 4Gbps dual-ported 146 / 300/ 400/ 600/ 900 GB hot-pluggable Enterprise FC and S-ATA / F-ATA (1TB) drives in the same disk shelves.		
	The storage system should be self-tuning. Newly added drives should automatically get striped into existing pools for elimination of hot spots.		
	The storage system should support dynamic volume expansion.		
	It should support a mix and match of RAID levels behind a pair of controllers.		
	Disk array should have no single point of failures (NSPoF), component and function level redundancy to provide high availability features for all the components at RAID controller level, redundant power supply, and redundant cooling fans.		
	Easy to use GUI based and web enabled administration interface for configuration, storage management		

	Support for industry-leading Operating System platforms including: RHEL 5.0 or above, Microsoft Windows 2008, Windows 2003, Windows 2000 (Advanced Server), preferred OS chosen for database SUN Solaris, HP-UX, and IBM-AIX, etc.), and NetWare.		
	The array should include controller based functionality for pointer based snap copies as well as full physical copies. The pointer based snap copies should require minimal space for creation of snapshot. The full physical copy may require a target LUN of same size as parent but should be immediately available for access at the point when it was initiated.		
	The SAN should support multiple clusters of various UNIX / Linux / Windows operating systems.		
	LUN masking & Partitioning should be implemented at the controller level. System should support 1024 LUNs		
	Should be firmware upgradeable for functionality improvement and enhancements.		
	Should have internal temperature monitoring & alarm system		
	Disk Storage performance monitoring software to be included		
	<ol style="list-style-type: none"> <li>1. 3 years comprehensive warranty on total hardware supplied</li> <li>2. 3 years warranty on all Storage software provided as per the RFQ with license for maintenance, updates, patches, drivers &amp; online upgrades</li> </ol>		
Two Drive Tape library for Backup			
	The tape Library shall be Modular design to allow configuration, add capacity and increase performance.		
	Tape Library shall be offered with at least 50 slots with expandability to at least 100 slots by adding additional frame.		
	Tape Library shall provide remote monitoring capability, hot swap tape drives and power supplies.		
	The Tape Library unit shall be configured with LTO Gen4 or higher Tape Drives.		
	Tape Drive Architecture in the Library shall conform to Ultra3 SCSI or higher standards.		
	LTO4 or higher drive in the Library shall conform to the Continuous and Data rate matching technique for higher reliability.		
	The LTO4 or higher drive in the library shall offer WORM support.		
	LTO4 or higher drive shall have minimum native speed of 80MB/sec and a compressed speed of 160 MB/sec for 2:1 compression.		

	Tape drive shall have native FC LTO4 or higher drives.		
	Tape Library shall support partitioning. Partitioning shall be carried out without using any external device outside of Library.		
	The Tape Library shall be capable to allow add or remove tape drives without schedule downtime.		
	Tape Library should have GUI touch screen panel.		
	Tape Library shall be supplied with at-least 4 load or Mail ports. Library shall support at-least 16 load or mail ports for future expansion.		
	Tape Library shall have web based secure management.		
	Tape Library shall have a mechanism to hold Persistent history of error logs for analysis of events for easy troubleshooting.		
Backup Software			
	The Backup Software should be available on various OS platforms such as Windows, Linux and UNIX platforms and be capable of supporting SAN based backup / restore from various platforms including AIX, TRU64 UNIX, HP-UX, Linux, Open VMS, NetWare and Windows		
	Backup software shall be offered with Cluster license of server		
	The backup solution shall support industry leading cluster solution such as MSCS, MC Service Guard, Veritas Cluster etc		
	Proposed backup solution shall have same GUI across heterogeneous platform to ensure easy administration		
	The proposed Backup Solution should support tape Mirroring running concurrently with primary backup. e.g. With the primary volume Backup 2 additional tape copies can be created simultaneously without the need to duplicate 2 copies after the main backup		
	The backup solution should allow creation of additional backup copies, run concurrently with primary backup, within the same Library or over the network to another tape library/stand-alone drive of different format medium (e.g. Ultrium to SDLT etc..) to allow easy valuating operation		
	The Backup Solution supports the capability to write up to 32 data streams to a single tape device or multiple tape devices in parallel from multiple clients to leverage the throughput of the Drives using Multiplexing technology		

	The backup solution support de-multiplexing of data cartridge to another set of cartridge for selective set of data for faster restores operation to client/servers		
	The backup solution should allow creating tape clone facility after the backup process		
	The Backup Solution should have in-built frequency and calendar based scheduling system and should support Clustering the Backup Server and Media Server on Windows and Linux		
	Backup solution shall be configured in such a fashion that no extra license for Client and media servers is required while moving from LAN to SAN based backup		
	The Backup Solution Software should have inbuilt Java / Web based GUI for centralized management of backup domain		
	The solution should support Disk staging		
	The proposed Backup Solution should have in-built media management and should support cross platform Device & Media sharing in SAN environment. It should provide a centralized scratched pool thus ensuring backups never fail for media		
	Backup Software shall support Synthetic backup so that Full backup can be constructed directly from the disk based incremental backups		
	Backup software shall also support disk based Incremental Forever or Virtual full backup whereas every incremental backup shall be equivalent to Full back up without actually copying the actual data blocks of previous full backup		
	Backup Software should able to rebuild the Backup Database/Catalog from tapes in the event of catalog loss/corruption		
	The Backup Software shall offer OPEN File Support for windows and Linux		
	The Backup Solution should have certified “Hot-Online” backup solution for different type of Databases such as Oracle, MS SQL, Sybase, and all other RDBMS presently available		
	The backup solution shall provide granularity of single file restore		
	Backup Solution shall be able to copy data across firewall		
	Backup Solution shall support automatic skipping of backup during holidays		
SAS Drive			
	capacity of 400 GB each		
	minimum of 2 Gbps transfer rate, maximum sequential data rate of 180 MB/s		

	RoHS compliant, should have passed thermal extended burn – in test		
	capable of 128/256 bit encryption having crypto erase capability		
	shock sensors built in with it		
	work in dual port full duplex mode		
	support Raid 0, 1 , 1+0 , 3, 5, 5+0 and Raid 6 with Dual Parity Protection		

CAT-6 Cable	Specification		
<b>Type</b>	Unshielded Twisted Pair, Category 6, TIA / EIA 568-C.2 & ISO/IEC 11801		
<b>Conductors</b>	<b>23 AWG solid bare copper</b>		
<b>Insulation</b>	Polyethylene		
<b>Jacket</b>	<b>Flame Retardant PVC</b>		
<b>Pair Separator</b>	Cross-member (+) fluted Spline		
<b>Approvals (</b>	<b>a) UL Listed / UL Verified. UL hologram mark to be present on packaging.</b>		
	<b>(b) ETL verified to TIA / EIA Cat 6. ETL compliance certificate to be produced for CAT6 Cable.</b>		
<b>Operating temperature</b>	-20 Deg. C to +60 Deg. C		
<b>Storage Temperature</b>	-20 Deg. C to +80 Deg. C		
<b>Frequency tested up to</b>	<b>Minimum 600 MHz; ETL report to be provided for 600 MHz performance</b>		
<b>Packing</b>	Box of 305 meters		
<b>Cable Outer Diameter</b>	.23 inches		
<b>Delay Skew</b>	45ns MAX.		
<b>Bend Radius</b>	4 * Cable Diameter		
<b>Impedance</b>	<b>100 Ohms + / - 15 ohms, 1 to 600 MHz.</b>		
<b>UL/NEC</b>	<b>Ratings CMR Rated</b>		
<b>Mutual Capacitance</b>	5.6 NF MAX /100 Mtr		
<b>Conductor Resistance</b>	66.58 Ohms Max / KM		
<b>Propagation Delay</b>	536 ns/100 Mtrs. MAX @ 250 Mhz		
<b>Performance characteristics @ 250 MHz</b>	<b>Attenuation: 32.8dB/100m NEXT : 44dB PS NEXT : 41dB ELFEXT : 23dB PSELFEXT : 19dB Return Loss: 25.3dB ACR : 11.3dB</b>		
<b>ROHS Compliant</b>	ROHS/ELV Compliant		

Racks	Requirement		
Features	36U Double Section Wall Mount Rack (600mm W x 500mm D),Rigid welded frame Adjustable 19” rails at the front,Hardware Packet, International Standard, Robust Frame Structure With Top & Bottom cable entry provision, Fully powder		



	coated.		
Load Rating	20 Kgs minimum		
	Rear wall-mounted section Rear wall-mounted section hinged to the front section		
	Glass Doors Tinted Front Glass Door With Lock & Key		
Size	i. Height 36U ii. Width 600mm iii. Depth 500mm		
Fan Tray	1U Fan Tray with 2 Fan Positions		
Cooling Fans	2 cooling Fans		
Cable Management	1U Cable Manager, Earth Continuity Kit <b>10</b> , AC Mains Channel 6Port ACDB with 5/15AMP socket Indian style.		

**General Compliance Schedule**

Sl.No.	Item	Vendor’s confirmation	Deviation ( if any)
01	General Terms & Conditions	Agreed/Not agreed	
02	EMD/ NSIC/ DGS&D Certificate	Deposited/Not deposited	
03	Latest Income Tax PAN and Sales Tax registration & clearance certificates.	Deposited/Not deposited	
04	Security Deposit	Agreed/Not agreed	
05	Payment Terms	Agreed/Not agreed	
06	Penalty Clause	Agreed/Not agreed	
07	Price Validity	Agreed/Not agreed	
08	Delivery & Installation Schedule	Agreed/Not agreed	
09	Warranty (3 years) & Post Installation clause	Agreed/Not agreed	
10	Minimum of 3 years onsite management of I.T Equipments	Agreed/Not agreed	
11	Infrastructure of Bhubaneswar (for Installation and attendance of support calls)	Exist/Does not Exist	
12	Training and Documentation	Agreed/Not agreed	
13	AMC support for min. 3 years after the expiry of Warranty Period of 3 years.	Agreed/Not agreed	
14	Credentials with documentary support as per Eligibility Clause. (ISO 9000, Turnover, Profitability, Order copies as required)	Submitted/ Not submitted.	
15	At least 3 Procurement orders in India with supporting documents	Submitted/ Not submitted.	
16	Authorized manufacturership / System Integratorship certificate	Submitted/ Not submitted	
17	Original specification sheets for all items	Submitted/Not submitted	
18	Driver software, wherever applicable, to be supplied	Agreed/Not agreed.	
19	Equipment working environment: All the equipment shall work in non-ac-room environment.	Agreed/Not agreed.	
20	A vendor must quote all the items	Agreed/Not agreed.	
21	Technical viability of the project for all the equipments offered by the vendor.	Submitted/ Not submitted.	

\_\_\_\_\_  
Signature with Date

\_\_\_\_\_  
Name in Block Letters

\_\_\_\_\_  
Seal of the Company

- Confirmation in one of the provisions between the vendor’s alternatives provided shall be ticked.

Note: In case the vendor’s confirmation is negative, specific comments are to be filled in the Deviation column. If the space is insufficient, a separate sheet may be enclosed.

PROFORMA FOR COMPOSITE BANK GUARANTEE FOR  
SECURITY DEPOSIT, PAYMENT AND PERFORMANCE

This Guarantee Bond is executed this .....day of ..... 200\_ by us the .....(Bank) at  
..... P.O. .... P.S..... Dist..... State .....

WHEREAS THE ODISHA POWER TRANSMISSION CORPORATION LTD., a corporate body constituted under the Company Act, 1956 (herein after called “the OPTCL”) has placed orders No.....Dt.....(hereinafter called “The Contract) on M/s..... (hereinafter called “The Contractor”) for supply, install, testing and commissioning of the ..... AND

WHEREAS the Contractor has agreed to supply, install, testing and commissioning of ..... at the OPTCL in terms of the said contract, AND

WHEREAS the OPTCL has agreed (1) to exempt the contractor from making payment of security, (2) to release 100% payment of the cost of materials as per the said agreement and (3) to exempt from performance guarantee on furnishing by the Contractor to the OPTCL a Composite Bank Guarantee of 10% (ten percent) of the contract value in force of the said contract.

NOW THEREFORE in consideration of the OPTCL having agreed (1) to exempt the contractor from making payment of security (2) releasing 100% payment to the contractor and (3) to exempt from furnishing performance guarantee in terms of the said contract as aforesaid, we, the .....(Bank) (hereinafter referred to as ‘the Bank’) do hereby undertake to pay to the OPTCL an amount not exceeding Rs.....(Rupees .....) against any loss or damage caused to or suffered by or would be caused to or suffered by the OPTCL by reason of any breach by the said contractor of any of the terms and conditions contained in the said contract.

(2) We (the Bank.....) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the OPTCL stating that the amount claimed is due by way of loss or damage caused to or suffered by the OPTCL by reason of any breach by the said Contractor of any of the terms or conditions contained in the said contract or by reason of the Contractor’s failure to perform the said contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....(Rupees.....).

(3) We (the Bank.....) also undertake to pay to the OPTCL any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding instituted / pending before any court or tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor (s) shall have no claim against us for making such payment.

(Contd....P/2.)

- 2 -

(4) We (the Bank.....) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contract and that it shall continue to be so enforceable till all the dues of the OPTCL under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till Managing Director, ODISHA Power Transmission Corporation Limited or his nominee certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Contractor and accordingly discharges this guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before the \_\_\_\_\_ we shall be discharged from all liability under this guarantee thereafter.

(5) We (the Bank.....) further agree that the OPTCL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) and we shall not be relieved from our liability by reason of any such variations or extension being granted to the said Contractor or for any forbearance, act or omission on the part of the OPTCL or any indulgence by the OPTCL to the said contractor (s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provisions have effect of so relieving us.

(6) This guarantee will not be discharged due to the change in the name, style and constitution of the Bank and the contractor.

(7) We (the Bank.....) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the OPTCL in writing.

(8) We (the Bank.....) further agree that this guarantee shall also be invokable at our place of business at Bhubaneswar in the state of ODISHA.

Dated at ..... the ..... day of ..... Two thousand .....

For .....  
(indicate the name of the Bank)

Witness:

- 1.
- 2.

NOTE FOR TENDERERS : The B.G. is to be furnished in Non-judicial Stamp paper of Rs.50/- as applicable as per ODISHA Stamp Duty Act. from any Nationalized Bank.

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY

Ref: \_\_\_\_\_ Date: \_\_\_\_\_ Bank Guarantee No. \_\_\_\_\_

3. In accordance with invitation to Bid No..... dated ..... of ODISHA Power Transmission Corporation Ltd. (hereinafter referred to as the OPTCL) for the purchase of ..... Messer.....

Mr..... Address.....

..... Director(s) (herein after referred to as 'Tenderer')

wish/wished to participate in the said tender on furnishing an unequivocal and unconditional Bank Guarantee by the Tendered for the sum of Rs..... valid for a period of .....days (.....days) towards his Earnest Money we the ..... (hereinafter referred to as 'the Bank') at the

(indicate the name of the Bank)

request of 'The Tenderer' Ms. / Sri.....(hereinafter referred to as Contractor(s) do hereby unequivocally and unconditionally guarantee and undertake to pay during the above period, and/on further written request by the .....(indicate designation of Tenderer) to OPTCL, an amount not exceeding Rs....., without any demur or reservation. The guarantee would remain valid up to 4.00 P.M. of ..... (date) and if any further extension to this is required, the same will be extended on receiving instructions from the the Tenderer..... on whose behalf this guarantee has been issued.

4. We, the ..... (indicate the name of the Bank) do hereby, further undertake to pay the amount due and payable under this guarantee without any demur, merely on demand from the OPTCL stating that the amount claimed is due as per the terms of the said Bid. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....
5. We undertake to pay to the OPTCL any money so demand notwithstanding any dispute or disputes so raised by the Contractor (s) in any suit or proceeding instituted/pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by as under this bond shall be a valid discharge of our liability for payment there under and the contractor (s) shall have no claim against us under this bond for making such payment.
6. We the ..... (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the aforesaid period of ..... Days (..... days) and its shall continue to be so enforceable till all the dues of the OPTCL under or by virtue of the said Bid have been fully paid and its claims satisfied or discharged or till Chairman, OPTCL certifies that the terms and conditions of the said Bid have been fully and properly carried out by the said Tenderer and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the ..... we shall be discharged from all liability under this guarantee thereafter.
7. We the ..... (indicate the name of Bank) further agree with the OPTCL that the OPTCL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms & conditions of the said Bid or to extend

time of performance by the said contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the OPTCL against the said Tenderer and to forbear or enforce any of the terms and conditions relating to the said bid and we shall not be relieved from our liability by reason of any such variation postponement or extension being granted to the said Contractor (s) or for any forbearance act or omission on the part of the OPTCL or any indulgence by the OPTCL to the said Contractor (s) or by any such matter or thing what so ever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

8. This guarantee will not be discharged due to the change in the name, style and constitution of the Bank or the Tenderer.
9. We ..... (indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the OPTCL in writing.
8. We (the Bank.....) further agree that this guarantee shall also be ..... invokable at our place of business at Bhubaneswar in the state of ODISHA.

Dated the ..... Date of .....

Witness:-

- 1.
- 2.

For .....  
(indicate the name of Bank)

NOTE FOR TENDERERS : The B.G. is to be furnished in Non-judicial Stamp paper of Rs.50/- as applicable as per ODISHA Stamp Duty Act. from any Nationalized Bank.