

2. To qualify for the award of the contract, the bidder should fulfill the following qualification requirements:
Designed, supplied and installed , operated & maintained minimum of one fixed grip passenger ropeway or one passenger ropeway of any type with a capacity of not less than 200 PPH and above.
3. BID Documents can be purchased from the office of the Assistant Commissioner/Executive Officer, Assistant Commissioner/ Executive officer, Arulmigu Narasimha Swamy Thirukkoil,Sholinghur , Vellore Dist. 631 102,Tamil nadu. on any working day between 10.00hrs and 17.00 hrs as per office clock on payment of a non-refundable fee of Rs. 15,000/= (Rupees Fifteen thousand only) in the shape of CROSSED BANKDEMAND DRAFT in favour of The Assistant Commissioner/ Executive officer, Arulmigu Narasimha Swamy Thirukoil,Sholinghur , Vellore Dist. 631 102, Tamil nadu or cash to be remitted in the Temple Treasury.
4. VAT at 4% to be remitted to the Tamilnadu Govt. treasury in the Head of account 0040-00102-AE-0104.
5. Tender schedules can also be had at free of cost through web site at the following address “ [http // www.tenders.gov.in](http://www.tenders.gov.in)
(ii) [http//www.tntenders.gov.in](http://www.tntenders.gov.in)
6. BID documents shall not be sent by post / courier.

Assistant Commissioner/Executive officer,
Arulmigu Narasimha Swamy Thirukkoil,
Sholinghur , Vellore Dist. 631 102,Tamil nadu.

Arulmighu Lakshmi Narasimha Swamy Thirukkoil, Sholinhgur
Construction of a fixed grip mono-cable, double reversible, jig-back
passenger ropeway and a material ropeway to Arulmighu Lakshmi Narasimha
Swamy Thirukoil at Sholinghur

Bid Documents:

Pre-qualification requirements

The bidders should furnish the following details, in addition to the qualification criteria mentioned in the notice inviting tender:

- 1) Company's profile and Corporate Structure;
- 2) Photo copies of the Income Tax and Sales Tax Returns/Statements for the last three years;
- 3) Current Solvency Certificate duly attested / Bank Guarantee issued by a Nationalized Bank for 30% of the value of the amount quoted for the work
- 4) Bankers' Certificate for credit facilities;
- 5) Resources available for designing, manufacturing and installing the proposed ropeway system with necessary documentary evidence in complete shape;
- 6) Details of plants, equipments and machineries available (owned/hired) for the construction of the proposed ropeway. Documentary evidence shall be furnished.
- 7) Details of the Organization for Quality Control and Quality Assurance;
- 8) List of passenger ropeway projects that were successfully completed by the bidders with details such as their location, type, year of construction, cost and their present status with necessary supporting documents issued by the concerned authorities;
- 9) Maximum value of the works executed in any one year during the last ten years (up-dated to the Current Price Level at the rate of 10% per annum);
- 10) Details of ropeway projects currently on hand with details such as work orders, value of each project, date of commencement and completion period etc.,
- 11) Power of Attorney in favour of the Authorized Signatory to the tender;

12) An affidavit stating that the bidder/s had not been in litigation or black listed by any client/government/semi-government department or an autonomous body;

13) An affidavit guaranteeing the correctness and accuracy of the information furnished in the pre-qualification documents;

14) Even if the bidders furnish the above details to the satisfaction of the client, they will be disqualified, if they are found to have made misleading or false information, have poor performance record, consistent history of litigation, poor financial position and bankruptcy.

Section-A

Instruction to Bidders:

1. Description of Work: Designing, manufacturing, supplying, erecting, testing and operating a fixed grip mono-cable, double reversible, jig back passenger ropeway of 300 PPH capacity and a material ropeway of 1.5 T/Hour capacity to the Arumighu Lakshmi Narasimha Swamy Temple at Sholinghur- Walajapet Taluk, Vellore District, Tamilnadu, PIN: 631102 on **TURNKEY BASIS**.

a) The works shall be carried out in accordance with the conditions stipulated in the following tender documents along with corrections / addendums issued, if any.

Section-A: Instruction to bidders
Section-B: General information
Section-C: Annexure: I, II, III and IV

b) The aforesaid documents shall be taken as complementary to one another and mutually explanatory. In case of ambiguities or discrepancies, if any, the agreement shall take precedence and binding

c) The stipulated period for completion of the work is 12 (twelve) months. The date of commencement of the work shall be reckoned from the 10th day from the date of issue of the Letter of Award / Letter of Intent (LOI)

2. Eligible Bidders:

a) The bidder/s may be a single entity or a group of entities/consortium. The members of the group/consortium should, preferably, have worked together earlier:

b) In the case of a group/consortium, the number of entities in the group/consortium shall, preferably, be restricted to two

c) The bid documents shall contain all relevant information about each member of the group/consortium

d) Anyone of the group/consortium can purchase the bid document.

e) An individual bidder, can not at the same time, be a member of any other group/consortium

f) In the case of a group/consortium, one lead member shall be nominated with necessary Power of Attorney, who shall meet the specified eligibility criteria viz., designed, supplied, installed, operated and maintained a minimum of one fixed grip passenger ropeway or one passenger ropeway of any type with a capacity of 200 PPH and above.

- g) The members of the group/consortium shall enter into a Memorandum of Understanding (MOU) which shall, inter-alia, convey its intention to form a Joint Venture (JV), enter into an agreement with the Assistant Commissioner / Executive Officer - ALNST/Sholinghur and carry out all the responsibilities in accordance with the terms and conditions specified in the contract
- h) The MOU, a copy of which shall be enclosed with the bid, should clearly outline the roles and responsibilities of each member in the group/ consortium at each and every stage
- i) The members of the group/consortium shall commit minimum equity stake in the JV, as may be required
- j) Furnish an undertaking that all the members of the group / consortium shall be liable jointly and severally for the successful completion of the project in accordance with the terms and conditions of the contract
- k) Any entity, which has been debarred by any client, state government or the Govt. of India or any autonomous body, will not be eligible to submit the bid either individually or as a member of a group/consortium
- l) No change in the composition of a group/consortium will be permitted during any stage of bidding
- m) Each bidder should submit only one bid. Any bidder who submits or participates in more than one bid, will be disqualified and will also cause the disqualification of the group/consortium of which he/she is a member

2.1 The bidders should submit the following documents (in addition to other documents required as per other clauses):

- a) i) Letter of submission of tender as per Clause-24
- ii) Earnest Money Deposit as per Clause-16.1
- b) Attested copies of affidavit for sole proprietorship / partnership deed / Memorandum of Understanding and Articles of Association along with the details pertaining to place of registration, principal place of business of the firm etc.
- c) Written Power of Attorney in favor of the Authorized Signatory to the tender
- d) The set of tender documents issued to the bidders are required to be submitted in original, duly signed in each page as token of having read and accepted the terms and conditions.

3. Issue of bid documents to the bidder/s does not automatically mean that the bidder/s is/are qualified for the award of the contract.
4. The bid documents, duly completed in all aspects along with the requisite amount of Earnest Money Deposit shall be received up to the time and date specified in the tender notice. They will be opened on the same date at the time specified in the presence of such of those bidders or their authorized representatives who choose to be present at the office of the Assistant Commissioner/Executive officer, ALNST/Sholinghur
5. The bid documents are not transferable. The bidders are required to put their bids in sealed covers as specified in the "Instructions to the bidders" and drop them in the tender box kept at the Office of the Assistant Commissioner/ Executive officer, ALNST/Sholinghur either personally or through their authorized representatives. The name of the work, bid reference number and the name and address of the bidder shall be super-scribed on the sealed envelopes as per Clause 24.
6. A pre-bid meeting shall be held at the office of the Assistant Commissioner/ Executive Officer, ALNST/Sholinghur on 31.12.2009 at 11.00 hrs. for clarification of doubt/s, if any, regarding the scope of the works, conditions of contract or any other matter relating to the project. For this reason, queries, if any, must be sent to the Assistant Commissioner/Executive Officer, ALNST/Sholinghur at least three days prior to the scheduled date for the pre-bid meeting
- 6.1 The bidders may seek clarifications, if any, by way of queries and or propose deviations to the project requirements and the terms and conditions of the agreement, prior to the pre-bid meeting. Assistant Commissioner/ Executive officer, ALNST-Sholinghur, may, at any time prior to the due date for the receipt of the bid documents, for any reason, whether at its own initiative or in response to clarifications sought for by the bidders which are considered acceptable to it, shall modify and amend the bid document at its sole discretion
- 6.2 Attendance at the pre-bid meeting is not mandatory. Assistant Commissioner/ Executive officer,ALNST/Sholinghur may not respond to the queries from any bidder which are not received before the pre-bid meeting. No interpretation, revision or other communication from Assistant Commissioner/ Executive officer,ALNST/Sholinghur is valid unless the same is given in writing. Assistant Commissioner/ Executive officer, ALNST/Sholinghur may choose to send the clarifications to bidders' queries including the details of the query but without identifying the source of the query.

7. No condition/deviation which is either additional or modification of the tender conditions shall be included while submitting the tender. If the tender contains any such conditions, deviations or modifications, such tender is liable to be rejected.

8. Copies of the documents submitted by the bidders, if any, should be duly attested by the bidders.

9 In case of any failure by the bidder to submit the required documents along with the tender, such tender is liable to be rejected.

9.1 If the bid consists of more than one volume, the bidder/s must number the volumes and shall initial and affix their seal in each and every page. All the corrections / alterations, omissions, additions or any other amendments in the bid documents shall be duly initialed by the Authorized Signatory.

10. Even though the bidders meet the qualifying criteria as stated above, they are liable to be disqualified, if they conceal any information required to be furnished as per the tender conditions or make misleading or false representations in the forms, statements and attachments, submitted in proof of the qualification requirements.

11. Assistant Commissioner/ Executive officer, ALNST/Sholinghur is not bound to accept the lowest or any other tender and reserves its rights to reject the lowest or any other tender. Assistant Commissioner/ Executive officer, ALNST/Sholinghur further reserves its rights to annul the bidding process at any time prior to the award of the contract without assigning any reason and without any liability whatsoever to the bidder/s

12. The bidders are advised to visit the site of the works and examine the site conditions and its surroundings and obtain all relevant information that may be necessary for preparing the bid documents correctly and accurately before bidding for the works and entering into the contract agreement, on his own responsibility. The costs of any such visits shall be borne entirely by the bidders. The bidders are requested to satisfy themselves, prior to the submission of the bids / commencement of the works and during the progress of the works, regarding the availability of water, requirement of electricity, nature and location of the works, preparation of the ground, character, quality and quantity of the construction materials required, type of plants, equipment and facilities needed, law and order situations, all hindrances and / or the general / all local and labor conditions prevailing therein and all other matters which may, in any way, affect the progress of the works under the contract. The contractor will be fully responsible for considering the financial impact of any or all of the above factors while quoting his rates / prices. No compensation will be given on account of any ignorance of the above factors during the execution of the works.

13. The bidders and or any of their authorized representatives will be granted necessary permission by Assistant Commissioner/ Executive officer, ALNST/Sholinghur to enter upon their premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their authorized representatives will release and indemnify Assistant Commissioner/ Executive officer, ALNST/Sholinghur from and against all liabilities in respect thereof and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to any property and any other loss/losses, damages, costs and expenses howsoever caused which, but for the exercise of such permission would not have arisen.

14. Bidders' Responsibility

14.1 It would be deemed that prior to the submission of the bid, the bidders has made a complete and careful examination of the requirements and other information set forth in the bid documents.

14.2 Failure to comply with the requirements of the bid documents will be at the bidder's own risk and cost

14.3 The bidders shall receive all relevant information from the Assistant Commissioner/ Executive officer, ALNST-Sholinghur, make a complete and careful examination of various aspects of the project including but not limited to the project site, existing structures, condition of the access roads, utilities in the vicinity, conditions affecting transportation, access, disposal, handling, storage of materials, clearances for the project and all other matters that might affect the bidder's performance as set out under the various terms and conditions in the bid documents.

14.4 Assistant Commissioner/ Executive officer, ALNST/Sholimghur is not liable for any error or negligence of the bidder in respect of the aforesaid.

14.5 Before submitting the tender, the bidder is deemed to have satisfied himself by actual inspection of the site and locality of the works that all conditions liable to be encountered during the execution of the works are taken into account and that the rates being quoted are adequate and all inclusive for the completing the works to the full satisfaction of the client/purchaser. The bidder/s shall be responsible for arranging and maintaining at his/their own cost all materials, tools and plants, water, electricity, access to site, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents.

14.6 The levels, distances and other details furnished in the bid documents are based on the investigations made and details collected by the client. If any changes in the details furnished are found to be necessary during execution, the bidders are bound to accept them and they are not eligible for any additional claim or payment due to such changes.

15. Bidding Procedure:

- a) It is proposed to follow a **Single Stage Bidding Process** for identifying the successful bidder. The evaluation of the bids will be made on the basis of certain pre-defined criteria as given hereunder:
- b) The bids which do not follow the instructions will be rejected and returned to such bidders - unopened
- c) The bids which fail to meet the prescribed eligibility criteria for pre-qualification, will be rejected. The envelopes containing the Technical Bid and the Price Bid will be returned to such bidders - unopened.
- d) The technical bids of only such of those bidders who satisfy the pre-qualification criteria will be opened and evaluated.
- e) The financial bids will be opened finally and duly evaluated and the successful bidder would be identified
- f) Notwithstanding anything contained in the bid documents, Assistant Commissioner/ Executive officer, ALNST /Sholinghur reserves its rights to accept or reject any bid or reject all bids and or to annul the bidding process at anytime without any liability or obligation for such acceptance, rejection or annulment without assigning any reason.
- g) The Assistant Commissioner/ Executive officer, ALNST/Sholinghur also reserves its rights to invite revised technical bids and or revised financial bids from bidders without any amendment/s to the bid document at any stage, without any liability or any obligation for any such invitation without assigning any reason
- h) The Assistant Commissioner/ Executive officer,ALNST/Sholinghur reserves its right to reject any bid, if at any time a material misrepresentation is made or uncovered (or) if the bidder/s do not respond properly to furnish any supplementary information that may be required for the evaluation of the bid/s
- i) If such rejection or disqualification is made after opening the financial bid, the Assistant Commissioner/ Executive officer, ALNST/Sholinghur reserves its rights to declare the next bidder as the successful bidder and where warranted invite such bidder to equal or better the bid rejected as aforesaid, (or) take any appropriate action as may be deemed fit at its own discretion including annulment of entire bidding process.

- j) Assistant Commissioner/ Executive officer,ALNST/Sholinghur will make every effort to send the addendum to the bid documents/replies to the queries raised during the pre-bid meeting in writing to all the bidders who have purchased the bid document or who have intimated Assistant Commissioner/ Executive officer,ALNST/Sholinghur subsequent to downloading of the bid documents from the website and will be binding upon them. Assistant Commissioner/ Executive officer, ALNST/Sholinghur will not be responsible for any delay, loss or non-receipt of the addenda/replies to queries sent by post or courier
- k) In order to give a reasonable time to the bidders to take the addendum/details furnished in the replies to the queries into account, or for any other reason, Assistant Commissioner/ Executive officer, ALNST/Sholinghur may, at its own discretion, extend the due date for the receipt of the bids.

16 . Earnest Money

16.1 The bidders are required to deposit the Earnest Money Deposit (EMD) along with their tender for an amount equivalent to 1% of the bid value. The E.M.D must be made only in the form of a crossed Demand Draft or Pay Order drawn in favor of “The Assistant Commissioner/Executive officer, ALNST/Sholinghur.

16.2 The E.M.D will not be accepted in any form other than those mentioned above

16.3 The price bid of the bidder who has not submitted the E.M.D, along with the first envelope, shall not be opened and the tender will be rejected by Assistant Commissioner/ Executive officer, ALNST/Sholinghur and returned un-opened by Registered Post.

16.4 The E.M.D of the unsuccessful bidders will be refunded/returned within 30 days after the award of the contract to the successful bidder. The E.M. D of the successful bidder will be retained by Assistant Commissioner/ Executive officer, ALNST/Sholinghur as part of the Security Deposit.

16.5 The Bid Security of the bidder/s who fail to qualify in the pre-qualification stage would be returned along with the bid documents.

16.6 No interest shall be paid on the E.M.D

17. The bids shall remain valid and open for acceptance for a period of **180** days from the date of opening of the bids. Should the bidder/s fail to keep the bid open for acceptance as stated above or if the bidder/s withdraws the bid before the expiry of the said period or make any modifications in the terms and conditions of the bid which are not acceptable, Assistant Commissioner/ Executive officer, ALNST/Sholinghur shall be at liberty to forfeit the E.M.D of such bidder/s, without prejudice to any other right or remedy.

17.1 Under exceptional circumstances, prior to expiry of the original validity period, Assistant Commissioner/ Executive officer, ALNST/Sholinghur may request the bidder/s for a specified extension in the period of validity. The request and the responses thereto shall be made in writing or by cable or fax. The bidder/s may refuse the request without forfeiting the E.M.D. However, the bidder/s agreeing to the request will neither be required nor permitted to modify the tender.

18. Rates and Prices:

18.1 The rates/prices quoted by the bidders shall be “all inclusive” such as taxes, duties, insurance contribution to labour welfare fund and all other mandatory charges and shall remain firm throughout the period of contract or any extended period thereof and shall not be subject to any escalation on any account for Part-I to Part-IV of Appendix-I

18.2 Any revision of the taxes, duties and other mandatory charges during the operation and maintenance period for Part-V of Appendix-I shall be dealt with as applicable in law.

19. Design, supply, erection, testing, commissioning and operation etc, of the whole system will be a single package on turnkey basis.

20. The contract shall cover the entire scope of works which includes supply and erection of all equipment for completing the respective part in full and testing and commissioning the same for performance and guarantee and rendering it operational to the satisfaction of the client/purchaser and operating the same.

21. The proposal shall include all workshop equipments, special tools, tackles, and attachments required for the operation and maintenance of the equipment in each equipment package. The bidders shall indicate all the above items in the proposal sheets in the form of a schedule, giving therein the description and the quantity and price of each item. The lump sum price to be quoted by the bidder shall include prices of all those tools and tackles.

22. Technical Bid:

The bidders are required to furnish the following as part of their technical bid:

a) Project Appreciation:

The bidders shall furnish a detailed description of the system along with the specifications of the main items and the control systems.

b) Concept Plan:

The concept plan shall contain details such as the proposed alignment, proposed layout and the development details including all the sub-components at both the terminals, method of implementation, phasing and time schedule and the strategy for Operation and Maintenance.

23. The successful bidder shall provide “Proof Checking” for the design details and specifications for the civil / structural works from the Structural Engineering Research Centre (SERC) - Chennai and for the Electro-Mechanical works from the IIT (Madras)-Chennai.

24. Submission of Tenders

24.1 Tenders, complete in all respects, shall be received in the office of the Assistant Commissioner/Executive officer, ALNST/Sholinghur up to 15.00 Hrs as per the office clock on 12.01.2010. The bidders shall seal the bid documents in two envelopes as given hereunder

a) **First Envelope** - should contain the pre-qualification details and the Earnest Money Deposit (in a separate sealed cover) and marked as “Pre-Qualification Bid” along with the following details super scribed on the envelope:

- i) Tender for------(Name of work)
- ii) Reference No -----(Tender Notice No)
- iii) Details of the bidder-----Name and address of the bidder)

b) **Second Envelope** should contain the technical details and the “Price Bid” (in a separate sealed cover) and marked as “Technical and Price Bid” along with the following details super scribed on the envelope:

- i) Tender for------(Name of work)
- ii) Reference No -----(Tender Notice No)
- iii) Details of the bidder-----Name and address of the bidder)

c) **Both the first and the second envelopes should be put in a separate, bigger and sealed envelope** which shall be super scribed with the following details

- i) Tender for------(Name of work)
- ii) Reference No -----(Tender Notice No)
- iii) Details of the bidder-----Name and address of the bidder and addressed to:

**The Assistant Commissioner / Executive officer
ALNST - Sholinghur
Walajapet Taluk,
Vellore District,
Tamilnadu. PIN: 631102**

24.2 No tender shall be accepted unless it is properly sealed.

24.3 Language

The bid and all related correspondence and documents shall be in English.

25.0. SCOPE OF WORKS

25.1 BIDDER'S SCOPE OF WORKS:

The works shall be carried out on TURNKEY BASIS

- a) Design, engineering, manufacturing, inspection, testing at works, packing, forwarding, loading, transporting, unloading, storing at site, handling at site, intra-site transportation, erection, painting, trial testing, commissioning, performance testing etc, of a fixed grip mono-cable, double reversible, jig-back passenger ropeway facility of 300 PPH capacity and a material ropeway of similar type with a capacity of 1.5 t/hour to the Arulmighu Lakshmi Narasimha Swamy Temple at Sholinghur. The scope of works shall also include site clearance, detailed survey of the project area including geo-technical investigations, staking the final alignment and marking the terminal station points on ground, design and construction of all the electro-mechanical, civil and structural works required for the technological structures including the architectural designs.
- b) Operation and maintenance of the ropeways for a period of five years from the date of final handing over as per the timings required by Assistant Commissioner/ Executive officer, ALNST/Sholinghur. On a normal day, about 8 hours of operation of the passenger ropeway is envisaged. On some festival days, longer periods of operation may be required including round the clock operations including supply of all spares (both operating and emergency) for all the electrical and mechanical equipments and fixtures/ fittings at the both the terminal stations. For material ropeway, generally 8 hours of operation is envisaged.
- c) Supplying and stocking of all workshop equipments, special tools and tackles required for the Operation and Maintenance of the systems as mentioned in clause 21 above and provide a Gen-set back up system of container type with sound / noise insulation.
- d) Watch and Ward at the project site up to the commissioning of the project.
- e) All statutory approvals from the competent authorities and test certificates for the critical components listed by the client/purchaser for the ropeway system, shall be obtained by the contractor from the NIRM (Mysore). However, any assistance required in this regard, shall be provided by the Assistant Commissioner/ Executive officer, ALNST/Sholinghur.

25.2 The bidders shall fill their rates against all the items described in the price bid both in figures and words. Items against which no price is entered or entered as "NIL" will not be paid for when executed and shall be deemed to be covered by the prices quoted in the other items.

26 PURCHASOR'S SCOPE OF WORK:

- a) Provide land required for the entire stretch of the alignment and the terminal stations free of cost and free from all encumbrances.
- b) Provide water supply through the existing water supply pipelines of the ALNST for construction purposes at one point of the work site near the UTS only, **as a special case**. Camp office will be on chargeable basis. L.T (electricity) supply for construction purposes at one point each at the UTS and the LTS / work site and at the camp office shall be at the rates charged by the TNEB.
- c) Non-technical services like ticketing, security, traffic control, house keeping and building maintenance except at the LTS and the UTS during the operation and maintenance period of five years.
- d) Electricity, water and diesel for running the Gen-set for the ropeway operation and maintenance, free of cost during the operation and maintenance period of five years

27 The bidders to note the following:

- a. Payment shall be made progressively only as per clause 28.
- b. Detailed billing schedule (as mutually agreed between the client and the contractor) will be required for making payment at each stage.

28. **PROGRESS PAYMENT:**

- i) No advance payment will be made
- ii) The payment shall be regulated as given hereunder:

For Part-I of Proforma-I

80% on receipt and approval of drawings / documents by the client
10% on successful testing and commissioning of project
10% on issue of final acceptance certificate

For Part-II of Proforma-I

80% on receipt of the equipments at site in good condition .
10% on successful testing and commissioning
10% on issue of final acceptance certificate

For Part-III of Proforma-I

80% based on the monthly progress erection bill certified by the engineer-in-charge

10% on successful testing and commissioning

10% on issue of final acceptance certificate

For Part-IV of Proforma-I

80% based on the monthly progress construction bill certified by the engineer-in-charge

10% on successful testing and commissioning

10% on issue of final acceptance certificate

For Part-V of Proforma-I

Monthly on pro-rata basis

For the payment purposes as above, the bidders shall give the break-up of their lump-sum price as detailed in the Proforma-I. However, the lump-sum price alone will be taken into account for the purpose of tender evaluation. The lump sum price shall include all prevailing taxes, duties and octroi etc.,

PROFORMA-I

Item No	Description of work	Amount in figures (Rs.)	Amount in words (Rs.)
Part-1	Design, detailed engineering, preparation of the lay-out and General Arrangement Drawings, detailed drawings for manufacturing, fabrication, erection, installation of the ropeway system, preparation of "As Built" drawings and the Operation and Maintenance Manuals etc.		
Part-II	Manufacture and supply of all Electro Mechanical equipments and technological structures, control and safety related equipment and workshop equipments special tools and tackles.		
Part-III	Erection, testing, commissioning of all plant and machineries and other utilities for the completion of the project.		
Part-IV	Civil works: Design and construction of all civil works such as construction of the lower and upper terminal stations with suitable interconnections with existing structures and passages, workshop, stores, control panel room Gen-set room, operator cabin room and necessary toilet facilities for the O&M personnel etc with all electrical fixtures, furniture, sanitary fittings, drainage, and approaches etc. including erection, testing and commissioning of the material ropeway in advance, to enable conveyence of materials for the constructions of the UTS and other facilities thereto speedy completion of the passenger ropeway.		
Part-V	Operation and maintenance of the passenger/ material ropeway systems including supply of all emergency and operating spares, ropes, equipments etc., as required and as directed by the Ropeway Safety Committee of ALNST including house keeping/ building and structures maintenance at both terminal stations for five years including training the staff.		
Total	Lump-sum price for the turnkey job in its totality including the O&M for five years (Sum of Part-I to Part-V)		

SECTION – B

GENERAL INFORMATION

1.0 DEFINITION OF TERMS: The following expression shall, unless repugnant to the context hereof, have the meaning herein assigned to them.

‘PURCHASER’/‘CLIENT’– shall mean the Assistant Commissioner/ Executive officer, ALNST/Sholinghur.

‘AC/EO’- shall mean the Assistant Commissioner/Executive Officer of ALNST – Sholinghur, who shall be the executing authority of this contract.

‘ALNST’- shall mean Arulmigu Lakshmi Narasimha Swamy Temple at Sholinghur

‘PLANT’- shall mean and include all plants, equipments and materials to be supplied and work to be done by the contractor under this turnkey contract.

‘SITE’- shall mean the site of the proposed ropeway facility at Sholinghur

‘TESTS ON COMPLETION’- shall mean such tests as are prescribed by the relevant codes before the plant is taken over by the purchaser/client.

‘COMMERCIAL USE’ – shall mean that use of the work which the contract contemplates or of which it is to be commercially capable of.

‘COMMISSIONING’ – shall mean carrying out no load trials of each part of the plant separately or in conjunction with other parts of the plant and also the plant as a whole.

‘NO LOAD TRIALS’ – shall mean trial of the plant without any pay load.

‘PERFORMANCE TEST’- shall mean test or tests carried out after no load trials as per the agreed procedures.

‘PROJECT IN-CHARGE’- shall mean the functionary of ALNST/Sholinghur notified as such by the Assistant Commissioner/Executive Officer to the contractor for the purpose of this contract. The Project in-charge shall have the power to delegate any or all of his powers in respect of this agreement to any other functionary working under him.

- 2.0 **CONTRACT DRAWINGS:** The contractor shall initially submit three sets of drawings such as the General Arrangement Drawing (G.A.D) and such other detailed drawings as may be necessary to the Assistant Commissioner/ Executive Officer, ALNST/Sholinghur for necessary approval on or before the scheduled dates. Within 15 days from the date of receipt of such drawings, the Assistant Commissioner/Executive Officer shall accord necessary approval or otherwise and return one copy to the contractor for making necessary corrections. The contractor shall resubmit five sets of corrected drawings (if corrections are required) and the drawings, after necessary verifications and approval by the Assistant Commissioner/Executive Officer, shall be deemed as ‘Contract/Good For Construction Drawings’ and shall not be deviated from, without the written approval of the Assistant Commissioner/ Executive Officer.
- 3.0 **ERRORS AND OMISSIONS:** The contractor shall be responsible for and shall pay for any alteration/modification of the works due to any discrepancies, errors or omission in the drawings or other particulars supplied by him, whether such drawings or particulars have been approved by the Assistant Commissioner/Executive Officer or not.
- 4.0 **SUB-LETTING OF CONTRACT:** The contractor shall not, without the consent in writing from the Assistant Commissioner/Executive Officer, assign or sublet any part of the contract other than for the supply of raw materials or for any part of the works for which the “Makers” are named specifically in the bid documents provided that any such consent shall not relieve the contractor from the obligations/duties and other responsibilities vested under the contract.
- 5.0 **PATENT RIGHTS:** In the event of any claim being made or action initiated against the purchaser/client for any infringement or alleged infringement of patent rights in respect of any machine., plant, work, materials, or design used or supplied by the contractor or in respect of any method of using or working by the purchaser, the contractor will indemnify the client/purchaser against all such costs and expenses arising from or incurred arising out of any such claims.
- 6.0 **QUALITY OF MATERIALS:** The plant shall be manufactured and constructed with the best workmanship using materials of the highest qualities with BIS and other relevant specifications along with necessary test certificates from the manufacturers / recognized laboratories / client’s approval before their respective incorporation into the works.

- 7.0 PACKING: All plants shall be packed in suitable strong cases or crates unless otherwise specified.
- 8.0 FENCING AND LIGHTING: The contractor shall be responsible for proper fencing, guarding, lighting and watching of all works comprised in the contract during the execution period.
- 9.0 POWER TO VARY / OMIT WORK: No alterations, amendments, omissions, additions suspensions or variations of the works (hereinafter referred to as 'Variations') under the contract, shall be made by the contractor without the written approval of the Assistant Commissioner/Executive Officer, ALNST/Sholinghur. The AC/EO shall have full powers, subject to the provision hereinafter contained, from time to time during execution of the contract, by notice in writing, to instruct the contractor to make such variation/s without prejudice to the contract and the contractor shall carry out such variation/s and be bound by the conditions as far as applicable as though the said variation/s occurred in the specifications.
- 9.1 The difference in cost, if any, occasioned by any such variations shall be added to or deducted from the contract price, as the case may require. The amount of such difference shall be arrived at from the applicable schedule prices. Where the rates are not contained in the said schedule or are not applicable, the same shall be settled by the Assistant Commissioner/Executive officer and the contractor mutually.
- 9.2 No such variation shall, except with the consent in writing of the contractor, be such as will involve an increase or decrease of the total price payable under the contract by more than 10% thereof.
- 9.3 In any case in which the contractor has received instructions from the Assistant Commissioner / Executive Officer, ALNST/Sholinghur as to carrying out the work which either then or later will, in the opinion of the contractor, involve a claim for additional payments, the contractor shall, as soon as reasonably possible after the receipt of the instructions aforesaid, advise the Assistant Commissioner / Executive Officer to that effect within 15 days.

10.0 NEGLIGENCE: If the contractor shall neglect to execute the work with due diligence and expedition or shall refuse or neglect to comply with any reasonable orders given to him in writing by the Assistant Commissioner/ Executive Officer in connection with the work or shall contravene the provisions of the contract, the purchaser/client may give 7 days' notice in writing to make good the failure, neglect or contravention complained of. Should the contractor fail to comply with the notice and make good the failure, neglect or contravention within a reasonable time frame and if the purchaser/ client thinks it fit, it shall be lawful for him to take the work wholly or in part out of the contractor's scope without being liable in any manner whatsoever to the contractor and get it executed through others at the risk and cost of the contractor.

11.FRAUD & CORRUPTION:

The bidders are expected to observe the highest standards of ethics during the procurement and execution of the contract and do not indulge in

i) "corrupt practices" which include offering, giving, receiving or soliciting directly or indirectly of anything of value to influence the action of any officials / in the procurement process or in the contract execution

ii) "fraudulent practice" which include misrepresentation or omission of facts in order to influence the procurement process or the execution of contract

iii) "collusive practice" which include a scheme or arrangement between two more bidders with or without the knowledge of the client designed to establish bid prices at artificial and non-competitive levels.

iv) "coercive practice" which include harming or threatening to harm, directly or indirectly persons or their property to influence their participation in the procurement process or affect the execution of a contract.

12.0 INSPECTION AND TESTING: The purchaser shall have the power at all reasonable times to inspect and examine the materials and workmanship of the plant during manufacture or erection and be at liberty to reject all or any materials, plant or workmanship which in his opinion are not in accordance with the contract specifications or defective for any reason whatsoever.

12.1 Unless otherwise provided, all tests shall be made at contractor's works and necessary test reports furnished before shipment.

- 12.2 Satisfactory completion of the tests or issue of test certificates, shall not bind the purchaser to accept the plants/equipments so passed for shipment, should it on further tests after erection, be found not to comply with the specification or satisfy the requirements.
- 13.0 CONTRACTORS REPRESENTATIVE AND WORK MEN: The contractor shall employ at least one qualified and competent representative to supervise the erection and commissioning of the works. The said representative shall be present at the site during the working hours and any written orders or instructions which the Assistant Commissioner/Executive Officer or his authorized officer may give to the said representative, shall be deemed to have been given to the contractor.
- 13.1 The Assistant Commissioner/Executive Officer shall be at liberty to object to any of the contractor's personnel at the site who shall misconduct himself or be incompetent or negligent and the contractor shall remove forthwith such personnel from the site and post an acceptable substitute
- 14.0 LIABILITY FOR ACCIDENTS AND DAMAGE: The contractor shall be entirely responsible for any loss or damage to the plant, any person until the plant is taken over after the Operation and Maintenance period.
- 14.1 The Contractor shall indemnify the purchaser against all actions, suits, claims demands of expenses arising in connection with any accident or injuries suffered by his employees at site in the course of execution of the work as well as during the Operation and Maintenance period.
- 15.0 INSURANCE
- 15.1 The contractor shall insure the plant and machineries for their full value and keep the policy alive till the 'take over' of the plant by the purchaser/client after the Operation and Maintenance period..
- 15.2 The contractor shall take suitable insurance policy to meet all labour liabilities and claims during the construction period as well as the Operation and Maintenance period.

- 16.0 REPLACEMENT OF DEFECTIVE WORKS OR MATERIALS: If during the execution of work the Assistant Commissioner/Executive Officer finds that the contractor has executed any unsound or imperfect work or has supplied or required any plant or material inferior in quality and insufficient quantity than those specified or required, the contractor on receiving details of such defects or deficiencies, shall at his own expense and within a reasonable time, proceed to rectify the defects or deficiencies to the satisfaction of the purchaser / client. If the contractor fails to do so within a reasonable time, the purchaser / client shall have the liberty to get it / them done by others at the cost and risk of the contractor and without prejudice to any of the rights under the contract.
- 17.0 DEDUCTIONS: All statutory deductions and other levies, if required to be deducted at source as per existing government regulations, shall be deducted from the amount payable to the contractor and a certificate issued to that effect by the purchaser.
- 18.0 INTEREST: The purchaser shall not be liable to pay any interest to contractor on his deposits with purchaser or any deferred payments.
- 19.0 ARBITRATION: Any arbitration proceedings in connection with this contract shall be governed by the provisions of current Indian Arbitration and Reconciliation Act.
- 20.0 LEGAL JURISDICTION: Only the courts at Sholinghur, Ranipet, Vellore and Chennai shall have jurisdictions for any suit or proceedings regarding the matter arising in any respect under this contract, even though any part of the cause of action may arise outside Tamilnadu
- 21.0 BILLING AND PAYMENTS: Billing shall be done in mutually agreed formats and as per the detailed billing schedules in the contract. The bills shall be supported with inspection certificates, invoices, delivery notes / documents etc., The bills so submitted shall be certified after necessary verification by the project in-charge for payments as per contract terms and shall be due for payments and payable by the purchaser within one month from the date of receipt of the bill from the contractor.
- 22.0 EXTENSION OF TIME FOR COMPLETION: The time given for manufacture, dispatch, delivery, erection and completion, as the case may be, starts from the receipt of Letter of Intent (L.O.I) by contractor or handing over of the site whichever is later.

- 22.1 Should the progress of the works be delayed by strikes, lockouts, fire accidents, delay in approval of drawings or any cause whatsoever beyond the reasonable control of the contractor, a reasonable Extension of Time (EOT) for completion of the remaining works shall be granted by the purchaser/client. However the rates shall remain firm during the extended period of contract.
23. LIQUIDATED DAMAGES: If the contractor fails in the due performance of the contract within the contract period or any extension thereof, the contractor is liable to pay a penalty of 0.5% of the contract price per week or part thereof which shall not, in any case, exceed 5% of the contract value.
24. TESTS ON COMPLETION: The contractor shall furnish the list and details of all the mandatory tests to be performed. Such mandatory tests and any other tests as may be required during the tenure of the contract shall be carried out by the contractor in the presence of the purchaser's representative/s and if the result/s is/are not satisfactory, such test/s shall be repeated after carrying out necessary improvements/rectifications.
25. REJECTION OF DEFECTIVE PLANT: If the completed plant or any portion thereof fail to fulfill the requirements of the contract, the contractor shall make it / them to comply with the requirements. Should he fail to do so within a reasonable time, the purchaser may reject and replace, at the cost of the contractor, the whole or any portion of the plant which is defective or fail to fulfill the requirements at the risk of the contractor.
26. COMPLETION CERTIFICATE: When all performance tests called for in the specification have been successfully carried out, the completion certificate shall be issued. The purchaser shall not delay the issue of completion certificate on account of minor deficiencies in the plant which do not materially affect the safe operation of the system, provided the contractor undertakes to make good the same in due course.
27. CONSTRUCTION OF CONTRACT: This contract shall in all respects be construed and operates as contract as defined in the Indian Contract Act .

- 28 MARGINAL NOTES: In respect of equipment to be supplied or work to be executed under this contract, all minor accessories, works that are necessary for the satisfactory and efficient operation of the plant, should be supplied free of cost whether they are specifically mentioned or not in the tender schedule or in the contract agreement.
- 29 COMPLETION PERIOD: The entire work shall be completed within a period of 12 months from the date of this agreement or handing over the site whichever is later.
30. PRICES:
- a) Lump sum price for the Total Turnkey job is Rs.-----/- (Rupees -----) including the Operation and Maintenance for five years.
 - b) Sales Tax (without form 'C'), Excise Duty, Customs Duty (if any), insurance contribution to the labour welfare fund and all other mandatory charges as per the prevailing rules shall be included in the Lump Sum prices
 - c) The Lump sum prices shall be firm for the entire period of contract or any extended period thereof for Part-I to Part-IV of Appendix-I
 - d) No escalation is payable on any account for Parts-I to IV of Appendix-I.
 - e) Any revision of the taxes, duties and other mandatory charges during the operation and maintenance period for five years under Part-V of Appendix-I shall be dealt with as applicable.

31 ADDITIONAL SECURITY DEPOSIT WITHHELD AMOUNT:

In addition to the EMD furnished along with tender, another 1% of project value is to be remitted in a single payment by way of a Demand Draft / Pay Order drawn in favour of the Assistant Commissioner/Executive Officer, ALNST-Sholinghur before the actual commencement of work or shall be deducted in the first three consecutive bills as Additional Security Deposit. In addition, 5% of the value of each running account bill will be deducted and kept as "With held" amount and shall be released along with the final bill and other 2% amount will be released after the expiry of one year by executing an indemnity bond by the contractor to the satisfaction of the Assistant Commissioner/Executive Officer for a further period of 4 years to ensure due fulfillment of the contract/stability.

- 32.TAX DEDUCTIONS : Income Tax, Sales Tax and other applicable taxes will be deducted as per the existing rules

33. SPECIAL CONDITONS: All Electro mechanical equipment and components shall be procured from ISO certified manufacturing companies/ manufactures approved by the client
34. PERT / BAR chart for the over all execution of the project shall be submitted before starting work based on important milestones and get them duly approved before execution.
35. All works shall be executed in strict conformity with the Indian / International standards applicable for this type of installation and with highest quality of workmen ship
 - a. All electrical drawings (HT / LT) should be got approved and safety certificate to be obtained from the Electrical Inspectorate of the Govt of Tamilnadu
 - b. Design wind velocity and wind direction for the ropeway system at Sholinghur hill temple shall be compatible with the maximum prevailing wind velocity and direction at the proposed site.
 - c. Regular and preventive maintenance check list for the whole plant shall be provided.

36. TECHNICAL SPECIFICATIONS: (PASSENGER ROPEWAY)

36.1 General Specifications:

- a) Drive system shall provide for a smooth acceleration and decelaration of the rope while starting and stopping.
 - b) In addition to the main drive the following additional drives also shall be provided.
 - i) Suitable capacity electrical and diesel engine drives to run the system with slow speed of 0.6m/sec for rescue / inspection purposes, bypassing the main motor and gear box.
 - ii) Manual system for moving the rope in case of failure of all other systems
37. **Cabin**: Elegantly designed semi enclosed type cabin with lock and safety latch which can not be opened from inside by the passengers, made of seamless tubular material with FRP or metal moulded panel and cushion seat with good finish and color and as approved by the client.
38. **Haul Rope**:
- i) Shall be procured only from ISO certified manufacturers
 - ii) The rope shall have a minimum guaranteed life of at least 10,000 hrs of operation with full designed load.

39. STRUCTURAL WORKS

- a) All structural steel materials used in system shall conform to the IS 2062 and procured from reputed ISO certified firms only. All fabrication shall be done in accordance with IS 800, IS 9595, IS 7215 or other equivalent / better international standards.

- b) Holes on structural steel members shall always be drilled.
- c) All bolts used in the structures and trestles shall be from ISO certified companies. All the spindles, shafts, pins shall be made from tested materials and necessary certificate/s to that effect shall be furnished before they are incorporated in the works.
- d) No blasting should be done for any type of work.
- e) All welding shall conform to IS 816-IS 9595 as applicable

40. **PAINTING :**

All Steel surface shall be cleaned and painted with one coat of approved make of zinc chromate primer and two coats finish paint. These works shall be carried out as per current applicable IS codes (IS 1477)

41. **LINE EQUIPMENTS**

- 41.1 Towers: Towers if any, shall be provided with ladder / platform with protective hand railing to access to the top and line sheaves.
- 41.2 Mount beams: Each articulated portion of the beam is to be fitted with phosphor bronze bushes.
- 41.3 Sheaves: All sheaves should be fitted with renewable liners with sufficient shore hardness. All sheave bearings shall be sealed on each side, pre-packed with grease during assembly and with provision for greasing.
- 41.4 Drive / Return Sheaves: Shall be manufactured from tested steel conforming to BIS 2062, preferably in single piece and machined in one setting. The sheaves shall be duly stress relieved after fabrication.
- 41.5 Carriages: Carriages shall be well proven positive gripping type with maximum safety and complete absence of slip on the rope. Each grip shall be capable of supporting the cabin without slip. Carriages shall be tested before dispatch to meet the requirements as per BIS recommendations. Provision to be made for the adjustment of jaw opening to suit wear of the rope and jaw faces.
- 41.6 Gear Boxes: Gear boxes shall be procured from reputed national / internationally manufacturers.
- 41.7 Security Panel: The security panel operated from a DC battery supply including all necessary control relays, pilot lamps, push buttons.

41.8 Battery & Battery Charger: A battery and battery charger are to be provided to ensure that the security circuit could be maintained when the auxiliary engine is in use during say, a power failure. The battery charger shall be suitable for float or boost charging. components from L&T / Siemens / Telemecanic or equivalent shall be preferred.

42. **RESCUE SYSTEM**

One set aluminum ladders for low height areas. Two sets of vertical rescue system arrangements.

43. **Material Ropeway:**

The technical specifications as aforesaid vide clauses 36, 38, 39, 40 and 41 are generally applicable to the material ropeway also. Changes, if any, shall be made to suit the design requirements. Clause 37 pertaining to the design of cabins shall also be modified suitably for the buckets and carriers of 250 kg capacity for carrying the materials and for emergency uses.

44. **Standards to be adopted for the Civil Works:**

The materials and workmanship of all civil works shall confirm to the latest Bureau of Indian standards, National Building Code, TN Building Practice, and the CPWD / TN-PWD codes / specifications as applicable. Important among them are:

- a) IS 269 - Ordinary and low heat Portland cement
- b) IS 456 - Code of Practice for Design and Construction of Plain and Reinforced Concrete
- c) IS 875 - Code of Practice for Structural buildings- Loading Standards
- d) IS 1786- Cold worked steel high strength deformed bars for concrete reinforcement
- e) IS 1888 - Method of Load Tests on Soils.
- f) IS 1893 Criteria for earthquake resistant design of structures
- g) IS 1904 - Code of Practice For Structural Safety of Buildings- Shallow Foundation.
- h) Blasting of rock is not permitted for any type of work.

The above list is not exhaustive. Reference shall be made to other relevant codes whenever necessary and wherever applicable.

- i) For items of building and structure works envisaged in this contract, relevant specifications and codes of the Tamil Nadu Building Practice and National Building Code, as amended from time to time shall apply. It shall not be necessary to append and specify such standards and codes with the bid documents and they shall be deemed to be an inseparable part of the bid document and agreement to be entered into. When the codes or specifications are silent on certain aspects, the construction shall conform to sound engineering practice. In case of any dispute arising out of the interpretation of the above, the decision of the client shall be final and binding on the bidder. These shall be bound to this document and become part and parcel of the agreement.

SECTION-C

ANNEXURE – I

DESIGN PARAMETERS FOR THE PASSENGER ROPEWAY

System	:	Mono-cable, double reversible, jig-back
Inclined Length of Travel	:	500 m approximately
Level Difference	:	200 m approximately
Speed	:	As per design
Ropeway Capacity	:	300 PPH
Cabin Capacity	:	As per design
No. of Cabins	:	As per Design
No of Spare cabins	:	2
Main Motor	:	As per design
Inspection Drive motor	:	As per design for 0.6 m/sec speed
D.G Set	:	250 kVA
Transformer	:	250 kVA
Factor of Safety	:	As per national / inter national codes
Location of tension gear	:	Upper Terminal Station
Location of drive gear	:	Lower Terminal Station
Main drive motor	:	Adequate capacity AC Induction Motor with VVVF drive of reputed make like ABB / Siemens / L&T or equivalent.
Emergency / Rescue Engine drive	:	Adequate capacity diesel engine with integrated clutch arrangement for speed of 0.6m/sec
Line Rescue System	:	Vertical Rescue System
Standards	:	Relevant National/ International codes

DESIGN PARAMETERS FOR THE MATERIAL ROPEWAY

System	:	Mono-cable Double Reversible Jig-back
Alignment	:	On the eastern side of the proposed passenger ropeway leaving adequate space for the II passenger ropeway in future
Inclined Length of Travel	:	500 m approximately
Level Difference	:	200 m approximately
Speed	:	1.5m / sec approximately
Ropeway Capacity	:	1.5 Tons / Hour
Bucket /Carrier	:	250 Kg capacity
No. of carriers	:	2
No of spare Carriers	:	1
Drive motors	:	AC induction motor with VVVF drive panel
Gear Box	:	Totally enclosed with suitable ratio for direct coupling to sheaves

ANNEXURE – II

A.CIVIL WORKS FOR PASSENGER ROPEWAY

1. Lower Terminal Station (vernacular type)

- a Operational area of a minimum of 400 Sq.m or thereabouts of RCC framed structure for the lower terminal station which includes the workshop, store, LT room, Generator Room, Operator cabin and adequate space for ticketing, waiting with toilet facilities entry, boarding and de-boarding
- b The operational area shall be so planned that the infrastructure created shall be easily merged or annexed with the second ropeway in future.
- c Walls shall be of brick masonry finished with boss profile tiles (8 mm thick) up to a height of 1.5 m. Rest of the walls to be painted with two coats approved quality emulsion paint with primer coat.
- d Flooring – flamed granite of 40mm thick approved by the client.
- e Aluminum glazed windows and doors to be used.
- f The loading on the floors shall be assumed approximately taking into account maximum crowd loading during the peak season.

2. Workshop cum store building

- a The space meant for the workshop cum store shall not be less than 50 sq.m
- b Flooring – industrial type concrete flooring
- c Wall – brick masonry finished with two coats approved quality emulsion paint with primer coat.
- d Steel doors, windows and ‘N’ type ventilators with glazed shutters with painting.

3. LT Panel room cum Gen set room.

- a Separate LT Panel room cum Gen set of required area with cable trench provisions.
- b Suitable capacity Split type Air conditioner for the LT Panel room
- c Aluminum anodized glazed windows and doors.
- d Flooring - Vinyl flooring except for Gen-set room.

4. Upper Terminal Station

- a) Operational area of 350 sq.m or thereabouts of steel supporting structure with adequate space for de-boarding, separate exit and entry gates / areas waiting hall with toilet facilities, ticket counters, boarding area and other operational requirements.
- b) Steel – concrete composite floor and Galvanized pre-engineered sheets for the roofing and side cladding with protective handrails.
- c) Counter weights at the UTS shall be designed using steel ingots.
- d) The loading on the concrete composite floors shall be assumed approximately taking into account maximum crowd during peak season
- e) The design of the terminal shall not obstruct the view of the temple and shall be designed to make use of the gradual slope of the ground effectively without affecting the existing pond / water bodies in any way.

B. CIVIL WORKS – MATERIAL ROPEWAY

The Upper and Lower Terminals shall have a minimum covered area of 50 sq.m with suitable loading and unloading platforms.

The design should be such that the garbage is not generally seen by outsiders and does not spill out

ANNEXURE – III

ELECTRICAL WORKS (FOR PASSENGER ROPEWAY)

1. Supply and erection of two pole structure suitable for receiving 22 kv incoming supply with connected civil works.
2. Supply and erection of 250 kVA / 22 KV / 433 V, copper wound transformer (outdoor type) with HT bushings and LT cable box including tap changing facilities and all other accessories.
3. Supply and erection of required MV panel board with necessary incoming breakers and outgoing switches and earth fault relay with necessary UG aluminum armoured cables for providing supply to AMF panel at drive station.
4. Internal and external electrification of ropeway system and connected buildings
5. Supply and erection of suitable capacity Generator-set (Kirloskar / Caterpillar / Cummins / equivalent) with AMF panel with suitable capacity incoming and outgoing breakers of reputed make like L&T /Siemens or equivalent with acoustic proof enclosure including necessary cabling arrangements and with all accessories.
6. CCTV with 16 nos. IR cameras (Sony/ equivalent) and two LCD monitors with enclosures (one at each station), one number of 16 channels DVR of reputed make with recording capacity of about 500 hrs. with all necessary accessories like co-axial cables etc., to monitor and record at the Lower Terminal Station (cameras, monitors and DVR are to be approved by the client before their installation)
7. Wireless system with four mobile sets (handheld sets) including necessary frequency allotment from the Department of Communication, Govt. of India.
8. Public Address System consisting of four numbers column speakers and 4 nos. Horns with 2 nos. 250W amplifiers and 2 nos microphones of reputed make like Philips / Ahuja suitable for making announcement to the passengers waiting / traveling in the ropeway system.
9. Supply and erection of required LT panel board with necessary incoming/ outgoing switches for providing supply to station lighting/ropeway system with necessary UG armored cable.
10. Programmable Logic Control System integrated with VVVF Drive for the smooth step less acceleration/deceleration of ropeway system with bypass arrangement for manual operation
11. Suitable electronically operated revolving gates (five numbers) integrated with necessary electronic ticketing machine as required by the client
12. Necessary UG cable / OH lines with supporting poles and insulators are to be run between the stations for control system / PA system.

ELETRICAL WORKS (FOR MATERIAL ROPEWAY)

- 1 The LTS and the UTS shall have appropriate lighting arrangements**
- 2 Intercom facility with two fixed sets shall be provided**
- 3 Wireless system with three mobile sets shall be provided**

ANNEXURE –IV

Operation and Maintenance

1. Operation and maintenance of the systems is for a period of five years as per timings required by Assistant Commissioner/ Executive officer, ALNST. On a normal day, about 8 hours operation is expected and on some festival days, longer period of operation may be required including round the clock operation for the passenger ropeway. For the material ropeway, generally 8 hours of operation is envisaged. Supply of all spares (both for operating and emergency) for the safe, efficient & smooth operation of the systems during the entire O&M period.

2. The following minimum qualified , experienced and fit personnel are to be appointed for the O&M of the passenger ropeway.

- i) Site in-charge ----- 1No. (Degree/ Diploma Mechanical / Electrical Engineer with minimum 10 years relevant experience)
- ii) Shift Engineer ----- 1Nos. (Degree/ Diploma Mechanical / Electrical Engineer with minimum 5 years relevant experience)
- iii) Fitter ----- 1Nos. (ITI Qualified with 5 years relevant experience)
- iv) Electrician ----- 1Nos. (ITI Qualified with 5 years relevant experience)
- v) Cabin Attender ----- 6 Nos. (With 2 years field experience)

In addition to the above, at least two additional persons shall be employed exclusively for the material ropeway,

3. The operation of the ropeway system should not be suspended for any type of breakdown except regular routine maintenance for more than 48 hours. All essential spares should be listed and kept ready for immediate replacement. Otherwise an amount equivalent to daily average collection of that month for every 24 hours will be deducted as liquidated damages from the monthly O&M charges.

4. Insurance

The contractor shall also take suitable all risk insurance policies as detailed below and indemnify the temple authority from any claim on account of any loss / disability / death etc.,

i) Public liability	-	For any one accident	Rs. 1.00 crore
	-	For any one year	Rs. 2.00 crores
ii) Personal accident	-	For one person	Rs. 3.00 Lakhs
iii) Medical reimbursement	-	For one person	Rs. 75,000/-

5. The contractors shall be entirely responsible for any loss or damage to the public, passengers, operators, plants and machineries due to any deficiency / negligence on the part of the contractor during the O&M until the plant is taken over (i.e) after the O&M period of five years.

