STANDARD BIDDING DOCUMENT

Procurement of Goods
Sealed Quotation

For

SUPPLY AND DELIVERY OF TELEMETRIC EQUIPMENTS

DEPARTMENT OF HYDROLOGY AND METEOROOGY, NAXAL, KATHMANDU NEPAL

March 2017
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Introduction and Instructions

Introduction

1. This Standard Bidding Documents has been prepared by Government of Nepal (GON), Public Procurement Monitoring Office (PPMO) for use in the public procurement of goods through Sealed Quotations. This Standard Bidding Document is based on the Public Works Directives (PWD) and it incorporates the provisions of Public Procurement Act and Regulations 2007. Further Instruction to Bidders section has been added to the PWD documents to provide information to the Bidders. This SBD is to be used for procurement of goods up to the value of Rs.1.00 million.

2. This Introduction and Instruction part of the SBD should not be incorporated into the bidding documents of Public Entities (PEs) that may be issued to the Supplier as a part of bid documents. This part is only for the use of Purchaser in order to prepare a proper bidding document.

3. If any provision of this document is inconsistent with Public Procurement Act (PPA), 2063 or Public Procurement Regulations (PPR), 2064, the provision of this document shall be void to the extent of such inconsistency and the provision of PPA and PPR shall prevail.
Section I. Invitation for Sealed Quotation

Government of Nepal
Ministry of Population & Environment
Department of Hydrology and Meteorology

Invitation for Bids

Re-Advertisement: 2073/11/23

Department of Hydrology and Meteorology (DHM) invites sealed bid from Government of Nepal registered and eligible bidders for the Procurement of following Goods.

<table>
<thead>
<tr>
<th>Contract ID No.</th>
<th>Description of Works</th>
<th>Price of Bid-Document Non-refundable (NRs) and Bid validity Period</th>
<th>Last Date and Time of Purchase</th>
<th>Last Date and Time of Submission</th>
<th>Date and Time of Bid opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/HD/DHM/073-74</td>
<td>Supply and delivery of telemetric equipments</td>
<td>1000/- and 45 days</td>
<td>07/12/8 during office hour</td>
<td>2073/12/9 12:00 noon</td>
<td>2073/12/9 01:00 pm</td>
</tr>
</tbody>
</table>

1. Bidding will be conducted through the National Competitive Bidding procedures as specified in the Public Procurement Act 2063 and Public Procurement regulation 2064. Eligible Bidders may obtain further information and inspect the bidding documents at the above office.

E-mail: shivaamet@gmail.com, Telephone no.:- +977 1 4433563 Website: www.dhm.gov.np

2. Eligible and interested Bidders are invited to submit their unit rate for the goods and works described as in bidding documents with a certified copy of Company Registration Certificate, PAN/VAT Certificate, and Tax Clearance (2072/73) and Self Declaration letter of not being blacklisted till to submit date.

3. Bidding documents may be purchased from the above office by eligible Bidders on the submission of a written application accompanied by a letter of Authority from the firm to the address above along with the copy of Company/Firm registration certificate. The payment mode may be direct deposit or bank transfer to the Gov. Revenue A/c Title No.14227 on RastriyaBanjya Bank, Thamel, Kathmandu, Nepal or Bankers cheque payable to Department of Hydrology and Meteorology, Kathmandu, Nepal. (Office Code No. 27-331-04, A/C No. ka-1-1-001)

4. Sealed bids must be submitted to the Procurement Unit of Department of Hydrology and Meteorology. Documents received after submission deadline shall not be accepted.

5. Bids shall be opened in the presence of Bidder's representatives who choose to attend on the opening date given in above Table at the office of Department of Hydrology and Meteorology, P.O.Box 406, Nagpokhari, Naxal, Kathmandu, Nepal.

6. If the last date of purchasing, submission and opening falls on a government holiday, then the next working day shall be considered the last day. In such a case the bid validity and bid security validity shall be recognized with effect from the original bid submission deadline.

7. Bids should comply in all respects with the Instruction to Bidder included in the Bid Document. Non-compliance with these instructions shall result in disqualification.

8. Bidders are advised to visit site and assess the actual site conditions before submitting their bid.

9. The Department of Hydrology and Meteorology reserves the right to accept or reject, wholly or partly any or all the bids without assigning reason, whatsoever.
Section II. Instructions to Bidders

Notes on the Instructions to Bidders

This section of the bidding documents should provide the information necessary for Interested Suppliers to prepare responsive bids, in accordance with the requirements of the Purchaser. It should also give information on bid submission, opening and evaluation, and award of Contract.

These Instructions to Bidders shall not be part of the Contract and shall cease to have effect once the Contract is signed.
Section II. Instructions to Bidder

1. Scope of Works

The Purchaser stated in the Invitation for Quotation invites bids for the supply, delivery and installation of the goods and related services as detailed in attached specifications, drawings and the bill of quantities provided herein.

2. Eligible Bidder

This Invitation for Bids is open to all registered Suppliers with qualifications as described below:

   a) Up to date Firm/Company Registration Certificate
   b) VAT and PAN Registration Certificates
   c) Tax Clearance Certificate (072-73)
   d) Power of Attorney
   e) Other documents as needed

3. One Bid per Bidder

Each Bidder shall submit only one quotation. A Bidder who submits more than one quotation shall cause all the quotations with the Bidder’s participation to be disqualified.

4. Content of Quotation Form

The Quotation Form comprise the documents listed below:

1. Invitation for Sealed Quotations
2. Instructions to Bidders
3. General Conditions of Contract (GCC)
4. Form of Agreement
5. Sample Forms
6. Schedule of Requirements
7. Technical Specifications

5. Clarification

A prospective Supplier/Bidder may obtain clarification on the Quotation Form from the Purchaser stated in Invitation for Quotation.

6. Language of Quotation

All documents relating to the Quotation shall be in English or in Nepali.

7. Documents Comprising Quotation

The Quotation by the Bidder shall comprise the following:

   a. Quotation and Price Schedules
   b. Bid Security
   c. Schedule of Requirements
   d. Technical Specifications

8. Quotation Prices

The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total price of the goods to be supplied under the contract.

All duties, taxes and other levies payable by the Bidder under the contract shall be included in the rates, prices and total Bid Price submitted by the Bidder.

Price quoted by the Bidder shall remain fixed and valid until completion of the Contract Performance and will not be subject to
Section II. Instructions to Bidders

variation in any account.

9. Quotation Validity
The Quotation shall remain valid for the period of 45 days after opening of the quotation.

10. Quotation Security
The Bidder shall furnish a Security in Nepali Rupees in the amount not less than 38,000/- (NRs. Thirty Eight thousand only)
The Bid Security shall remain valid for a period of 75 days after opening of the quotation.
The Security shall be in the form of cash voucher deposited in the Bank Account of the Employer specified in the notice for “Invitation for Quotation” or a bank guarantee from a bank acceptable to the Employer.

11. Format and Signing of Quotations
The Quotation shall be typed or written in indelible ink and shall be signed by an authorized person. Any entries or amendments including alternations, additions or corrections made shall be initialled by the same authorized person.

12. Sealing and Marking of Quotations
The Bidder shall submit his Quotation in sealed envelopes. The envelope shall be addressed to the Purchaser specified in the Invitation for Quotation and shall bear the name and identification number of the quotation.

13. Deadline for Submission of Quotations
Quotations shall be delivered to the Purchaser at the address no later than the time and date specified in the Invitation for Quotation.

14. Late Quotation
Any Quotation received by the Purchaser after the deadline shall not be accepted and shall be returned unopened to the Bidder upon request.

15. Modification and Withdrawal
Quotations once submitted shall not be withdrawn or modified.

16. Bid Opening
The Purchaser shall open the Quotations in the presence of the Bidders' representatives who choose to attend at the time and in the place as specified in the Invitation for Quotation.
The Purchaser shall prepare and provide minutes of the opening including the information disclosed to those present.

17. Process to be Confidential
Information relating to the examination, evaluation and comparison of Quotations and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any efforts by the Bidder to influence the Purchaser in the Quotation evaluation, comparison or contract award decisions may result in rejection of Bidder's quotation.

18. Examination of Quotations
Prior to the detailed evaluation of Quotations, the Purchaser shall determine whether each Quotation (a) meets the eligibility criteria defined in Clause 2; (b) has been properly signed; (c) is accompanied by the required
Section II. Instructions to Bidders

19. Evaluation and Comparison of Quotations

19.1 In evaluating the Quotations, the Purchaser shall determine for each Quotation the evaluated Bid Price by adjusting any corrections for errors. Quotations shall be checked by the Purchaser for any arithmetic errors. Errors shall be corrected by the Purchaser as follows:

a. where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern; and

b. where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted shall govern.

19.2 If the Bidder does not accept the corrected amount, the Quotation shall be rejected and the Security pursuant to Clause 10 may be forfeited.

20. Award of Contract

The Purchaser shall decide the award of the contract, within 15 days of the opening of the quotation, to the Bidder whose Quotation is within the approved estimate and who has offered the lowest evaluated Bid Price, provided that such Bidder has been determined to be eligible in accordance with the provisions of Clauses 2.

21. Purchaser’s Right to Accept or Reject

The Purchaser reserves the right to accept or reject any Quotation or to cancel the bidding process and reject all Quotations, at any time prior to the award of the contract, without assigning any reasons whatsoever and without thereby incurring any liability to the affected Bidder or Bidders.

22. Notification of Award and Signing of Agreement

22.1 The Bidder whose Quotation is accepted and all other participating bidders shall be notified of the award by the Purchaser. Within 7 days of receipt of the notification, the successful Bidder shall deliver the Performance Security pursuant to Clause 23 and sign the Agreement.

22.3 Inability of the Bidder to make an Agreement within the above stated period shall result in cancellation of the Contract Award and forfeiture of the Bidder’s Security, upon which the Contract shall then be awarded to the next successive successful Bidder.

23. Performance Security

23.1 Within fifteen (7) days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the Performance Security in accordance with the GCC, using for that purpose the Performance Security Form included in Section VIII, Contract Forms, or another form acceptable to the Purchaser.

i) If the bid price of the bidder selected for acceptance is up to 15 (fifteen) percent less than the approved cost estimate, the performance security amount shall be 5 (five) percent of the bid price.

ii) For the bid price less than 15 percent of the cost estimate, the performance security amount shall be
determined as follows:

Performance Security Amount = [ (0.85 \times \text{Cost Estimate} - \text{Bid Price}) \times 0.5] + 5\% \text{ of Bid Price.}

The Bid Price and Cost Estimate shall be inclusive of Value Added Tax.
Section III. Conditions of Contract

1. Definitions

1.1 In this contract, the following terms shall be interpreted as indicated:

a. "The Contract" means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form Signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;

b. "The Contract Price" means the price payable to the Supplier under the contract for the full and proper performance of its contractual obligation;

c. "The Goods" means Equipment and related Accessories and spare-parts or any other materials which the Supplier is required to supply to the Purchaser under the contract;

d. "Services" means services ancillary to the supply of the goods such as transportation and insurance including the installation, commissioning and the operational and maintenance training of the supplied equipment.

e. "The Purchaser" means the procuring entity purchasing the goods;

f. "The Supplier" means the organization supplying the goods and services under this contract.

2. Technical Specification

2.1 The goods supplied under this contract shall confirm to the standards mentioned in the Technical Specification.

3. Patent Right

3.1 The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of goods or any part thereof in the Purchaser's country.

4. Performance Security

4.1 Within seven days (7) of receipt of award of contract from the Purchaser the successful Bidder shall furnish the performance security in accordance with the Sub - Clause 4.3 of the Conditions of Contract in the Performance Security Form provided in the Bidding Documents.

4.2 Failure of the successful Supplier to comply with the requirement of Sub - clause 4.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to the next lowest Supplier or call for new sealed quotations.

4.3 If bid price of the bidder selected for acceptance is up to 15 (fifteen) percent less than the approved cost estimate, the performance security amount shall be 5 (five) percent of the bid price.

ii) For the bid price less than 15 percent of the cost estimate, the performance security amount shall be determined as follows:

Performance Security Amount = \([(0.85 \times \text{Cost Estimate} - \text{Bid Price}) \times 0.5] + 5\% \text{ of Bid Price}\).

The Bid Price and Cost Estimate shall be inclusive of Value
4.4 The validity of Performance Security shall be one (1) year after the final installation and commissioning of the Goods and the issue of final acceptance certificate to the Suppliers. The Supplier shall promptly extend the validity suitably to cover agreed extension of the warranty period of the supplied goods.

4.5 The performance security shall be released within 28 days of completion of warranty period and upon submission of claim by the Supplier.

5. Inspection and Tests

5.1 The Purchaser or its Representative shall have the right to inspect and/or test the goods to confirm their conformity to the Technical Specification and the quality of performance after the supply and delivery of good to the Purchaser's premises.

6. Packing

6.1 The Supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract.

6.2 The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage.

6.3 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided in accordance with international standard and practice.

7. Delivery of Goods

7.1 Delivery of the goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in its Schedule of Requirements.

7.2 The terms "EXW", "FOB", "CIF", "CIP" etc., shall be governed by the rules prescribed in the current edition of INCOTERMS published by the International Chamber of Commerce (ICC), Paris.

8. Insurance

8.1 The goods supplied under the contract shall be fully insured in the currency of the Sealed Quotation price against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified.

8.2 Where delivery of the goods is required by the Purchaser on a CIF or CIP basis to a specified destination, the Supplier shall arrange and pay for insurance, naming the Purchaser as the beneficiary and the Supplier shall be required to meet all transport and storage expenses until delivery.

9. Warranty

9.1 The Supplier warrants that all the goods supplied under the contract shall fully comply with the specification laid down in the contract.

9.2 The warranty shall remain valid for one year after the goods have been delivered to the final destination indicated in the contract, and accepted by the Purchaser after installation and commissioning of equipment by the Supplier.

9.3 The Purchaser shall promptly notify the Supplier in writing of
Section III. Condition Of Contract

any claims arising under this warranty.

9.4 Upon receipt of such notice, the Supplier shall, with all reasonable speed, replace the defective goods without cost to the Purchaser. The Supplier will be entitled to remove, at its own risk and cost, the defective goods.

10. Payment

10.1 Payment shall be made in the currency in which the contract price has been stated in the Supplier's Sealed Quotation.

10.2 Payment of the goods supplied from within Nepal shall be made in Nepali Rupees after the delivery and installation and commissioning of goods to the satisfaction of the Purchaser.

10.3 Payment of the goods to be imported from abroad shall be made in the following manner:

   a. Ten (10) percent of the Contract Price shall be paid within fifteen (15) days of signing of the Contract, and upon submission of claim and bank guarantee for equivalent amount valid until the goods are delivered and in the form provided in the SQ documents or another form acceptable to the Purchaser.

   b. On shipment/Site delivery: Eighty (80) percent of the contract price of the Goods shipped or delivered shall be paid through irrevocable confirmed letter of credit opened in favor of the Supplier in a bank in its country, upon submission of clean Bill of Lading and other documents or on Site delivery.

   c. On acceptance: Ten (10) percent of the contract price of goods received shall be paid within thirty (30) days of receipt of the goods upon submission of claim supported by the acceptance certificate issued by the Purchaser.

11. Prices

11.1 Prices charged by the Supplier for goods delivered under the contract shall not vary from the prices quoted by the Supplier in its sealed quotation.

12. Changed Order

12.1 Where the Purchaser desires to make changes in Schedule of Requirement, it shall not exceed more than 15 percent.

13. Liquidated Damages

13.1 If the Supplier fails to deliver any or all of the goods within the time period specified in the contract, the Purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.05 percent of the contract price of delayed goods for each day of delay until actual delivery, up to a maximum deduction of 10 percent of the delayed goods' contract price. Once the maximum is reached, the Purchaser may consider termination of the contract.

14. Resolution of Disputes

14.1 If any dispute or difference of any kind whatsoever shall arise between the Purchaser and the Supplier in connection with or arising out of the Contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

14.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either
the Purchaser or Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

14.2.1 Any dispute or difference in respect of such a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

14.2.2 Arbitration proceedings shall be conducted in accordance with the rules of Nepal Council of Arbitration (NEPCA).

14.3 Notwithstanding any reference to arbitration herein,

a. the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
b. the Purchaser shall pay the Supplier any monies due the Supplier.

15. Governing Language

15.1 The Governing Language shall be: Nepali or English

16. Applicable Law

16.1 The applicable law shall be Laws of Nepal.

17. Notices

17.1 Purchaser’s address for notice purposes: Department of Hydrology and Meteorology, Nagpokhari, Naxal

17.2 Supplier’s address for notice purposes: ………………

18. Taxes and Duties

18.1 The Supplier shall be entirely responsible for all taxes, duties, licence fees and other such levies imposed by the GON.

19. Operation, Maintenance and Spare-parts Manuals

19.1 The successful Supplier shall supply 2 copies of manufacturer’s operation, maintenance and spare-part manuals of the goods (Equipment).

20. Conduct of Suppliers

20.1 The Supplier shall be responsible to fulfil his obligations as per the requirement of the Contract Agreement, Bidding documents, GoN’s Procurement Act and Regulations.

20.2 The Supplier shall not carry out or cause to carryout the following acts with an intention to influence the implementation of the procurement process or the procurement agreement:

a. give or propose improper inducement directly or indirectly,
b. distortion or misrepresentation of facts
c. engaging or being involved in corrupt or fraudulent practice
d. interference in participation of other prospective bidders.
e. coercion or threatening directly or indirectly to impair or harm, any party or the property of the party involved in the procurement proceedings,
f. collusive practice among bidders before or after submission of bids for distribution of works among bidders.
or fixing artificial/uncompetitive bid price with an intention to deprive the Purchaser the benefit of open competitive bid price.
g. contacting the Purchaser with an intention to influence the Purchaser with regards to the bid or interference of any kind in examination and evaluation of the bids during the period after opening of bids up to the notification of award of contract.

21. Blacklisting Supplier

21.1 Without prejudice to any right of the Purchaser under this Contract, the GoN, Public Procurement and Monitoring Office (PPMO) may blacklist a Supplier for his conduct up to three years on the following grounds and seriousness of the act committed by the supplier:
   a. if it is proved that the supplier committed acts pursuant to the Sub-clause 20.2,
   b. if the supplier fails to sign an agreement pursuant to ITB Clause 22,
   c. if it is proved later that the supplier had committed substantial defect in implementation of the contract or had not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract,
   d. if convicted by a court of law in a criminal offence which disqualifies the supplier from participating in the contract.

21.2 A Supplier declared blacklisted and ineligible by the GON shall be ineligible to bid for a contract during the period of time determined by PPMO.
Section IV. Schedule of Requirements

Delivery shall take place in compliance with the dates, duration, and locations indicated below: *The final delivery place for all the goods is Department of Hydrology and Meteorology, P.O Box 406, Naxal, Kathmandu, Nepal.*

<table>
<thead>
<tr>
<th>Line Item No</th>
<th>Description of Goods</th>
<th>Quantity</th>
<th>Physical unit</th>
<th>Final Destination as specified in BDS</th>
<th>Delivery Date</th>
<th>Acceptable Delivery Date</th>
<th>Bidder’s offered Delivery date [to be provided by the bidder]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Radar Level Sensor</td>
<td>3</td>
<td>Nos.</td>
<td>Naxal, Kathmandu, and installation at respective sites</td>
<td>45 days</td>
<td>60 days</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Tiny Data Logger System</td>
<td>4</td>
<td>Nos.</td>
<td>Naxal, Kathmandu, and installation at respective sites</td>
<td>45 days</td>
<td>60 days</td>
<td></td>
</tr>
</tbody>
</table>
Section V. Technical Specifications

Technical Specification:-
Introduction:-
Hydrology division of Department of Hydrology and Meteorology (DHM), Flood Forecasting Section is maintaining number of Hydrometric stations to provide hydrological information for basically flood forecasting, and also for water resources planning and other hydrometeorological analysis etc. Most of these stations are still manual and parameters – Water level and Discharge - are either manually or automatically observed from the stations. And still there are gaps of adequate stations in some particular locations. The observed data are reported to the central office on regular time period.

In the recent years the manual stations are being upgraded to telemetric stations keeping manual also in place with a major objective of flood forecasting as the real time data is required for this purpose. And department is also establishing new stations as per the requirement.

In this fiscal year, DHM intends to purchase hydrological telemetric instruments which are required for establishing new stations in Mahakali and Karnali for flood forecasting and early warning system from its regular government budget.

Scope of Work:-
- Supply and delivery of Telemetric Equipments as given in “list of goods and related services” above in Section IV.

Technical Specification details:
Common requisite for all the instruments:-
- Provide detail specification (Data sheet and if possible photos) from manufacturing company.
- All the instruments should be World Meteorological organization (WMO) compliant.
- The goods should be of the standard to meet high quality hydrological application.
- The goods specification should be supplied with country of origin, company, model number etc

1. Technical specification of Radar Level Sensor

<table>
<thead>
<tr>
<th>Name of Instrument</th>
<th>Specification required</th>
<th>Specification offered</th>
</tr>
</thead>
</table>
| Radar Level Sensor | -Radar Level Sensor RS485 or equivalent  
-Var-Code 4 *  
-Uses impulse radar technology *  
-SDI and RS485 Interface *  
-Extremely low power consumption *  
-Measuring range 0.8 to 35m *  
-Measurement accuracy: +/−3mm *  
-Transmit frequency: 24GHz (Pulsed radar) *  
-Flat Antenna Design | |

2. Technical specification of Tiny Data Logger System

<table>
<thead>
<tr>
<th>Name of Instrument</th>
<th>Specification required</th>
<th>Specification offered</th>
</tr>
</thead>
</table>
| Tiny Data Logger System | Tiny Data Logger *  
Build in communication modem *  
Built in solar charge controller *  
Built in rechargeable battery * | |
Nema casing, Ratings: IP65, IP66, NEMA 1,2,4,4X,12,13, UL-508 *
Including 5W solar panel *
Build in Theft sensor

Detail Technical especificación of Tiny Data logger System:

2.1 Technical Specification of Data Logger:-

Field with * are Mandatory

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Details of Specification Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Logger</td>
<td>Model</td>
</tr>
<tr>
<td><strong>Analog Ports</strong>: *</td>
<td>4 Differential or 8 single ended (SE) individually configured channel (0-20ma, 4-20ma, 0-1v, 0-5v, 0-10v, 2-10v etc)</td>
</tr>
<tr>
<td><strong>Pulse counters</strong>: *</td>
<td>2 Counter/frequency inputs Switch closure (minimum switch closer time 5ms)</td>
</tr>
<tr>
<td><strong>Digital Ports</strong>: *</td>
<td>4 Input Output ports (RS–485, 232 &amp; SDI 12etc) Up to 10 SDI 12 ports should be supported by each I/O port</td>
</tr>
<tr>
<td>Storage</td>
<td>Device: SRAM, Flash</td>
</tr>
<tr>
<td><strong>Flash Program Memory for operating system</strong>: *</td>
<td>2MB or more</td>
</tr>
<tr>
<td><strong>Battery-backed SRAM for CPU usage data storage and programme storage</strong>: *</td>
<td>4MB or more</td>
</tr>
<tr>
<td><strong>External Flash memory</strong>: *</td>
<td>2GB or more</td>
</tr>
<tr>
<td><strong>Operating voltage</strong>: *</td>
<td>12Volt</td>
</tr>
<tr>
<td><strong>Extra data and information</strong>: *</td>
<td>Login and post error in the system, battery voltage and charging etc, programmable remotely</td>
</tr>
<tr>
<td>Item Name</td>
<td>Details of Specification Required</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Algorithm used *</td>
<td>from web, reset the sensors</td>
</tr>
<tr>
<td>Calibration offset facility</td>
<td>Should have simple equations to configure the calibration offset</td>
</tr>
<tr>
<td>Communication Ports *</td>
<td>RS-232 1 No RS-485 1 No for long distance transmission. USB 1 port (Simultaneous communication on all ports)</td>
</tr>
<tr>
<td>Processor *</td>
<td>32bit</td>
</tr>
<tr>
<td>A/D converter *</td>
<td>more than 10bit</td>
</tr>
<tr>
<td>LCD Display</td>
<td>16 character and 2 lines display</td>
</tr>
<tr>
<td>Timer*</td>
<td>Real time synchronization with international time servers.</td>
</tr>
<tr>
<td>Power Supply *</td>
<td>1 Solar Panel 12Volt, 40Watt</td>
</tr>
<tr>
<td></td>
<td>2 AC input AC 220v, 50HZ</td>
</tr>
<tr>
<td></td>
<td>3 Battery Backup 12V, 75AH</td>
</tr>
<tr>
<td>Manufacturers authorization certificate *</td>
<td>is required</td>
</tr>
<tr>
<td>Warranty *</td>
<td>3-years against defects in materials and workmanship.</td>
</tr>
</tbody>
</table>

2.2 Technical specification of Communication Module

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Details of Specification Required</th>
<th>Offered specification details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual (CDMA and GPRS) Communication Modem</td>
<td>CDMA *</td>
<td>2000 1X</td>
</tr>
<tr>
<td></td>
<td>CDMA modem Access mode: *</td>
<td>CDMA</td>
</tr>
<tr>
<td></td>
<td>Frequency: *</td>
<td>800 Mhz</td>
</tr>
<tr>
<td></td>
<td>Frequency interval between Tx and Rx:</td>
<td>45Mhz for 800M Cellular</td>
</tr>
<tr>
<td>Rx sensitivity:</td>
<td>-104 dBm (FER &lt;=0.5%)</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td>Rx signal Transmission range:</td>
<td>-25 dBm - 104dBm(FER&lt;=0.5%)</td>
<td></td>
</tr>
<tr>
<td>Rx signal Receiving range:</td>
<td>-25dBm - 104dBm (FER&lt;=0.5%)</td>
<td></td>
</tr>
<tr>
<td>SMS: *</td>
<td>Supports Text</td>
<td></td>
</tr>
<tr>
<td>Data: *</td>
<td>Supports internal TCP/IP stack</td>
<td></td>
</tr>
<tr>
<td>Data Speed: *</td>
<td>Up/down link data rate 153.6kbps</td>
<td></td>
</tr>
<tr>
<td>UIM Interface: *</td>
<td>UIM card Interface</td>
<td></td>
</tr>
<tr>
<td>Antenna interface: *</td>
<td>50 Ohms input impedance</td>
<td></td>
</tr>
<tr>
<td>GSM modem Rx/Tx frequency interval: *</td>
<td>45Mhz for GSM 850  45Mhz for EGSM 900  95Mhz for DCS 1800  80Mhz for PCS 1900</td>
<td></td>
</tr>
<tr>
<td>SMS: *</td>
<td>Supports text</td>
<td></td>
</tr>
<tr>
<td>Data: *</td>
<td>Supports Internal TCP/IP stack</td>
<td></td>
</tr>
<tr>
<td>Data Speed: *</td>
<td>Depends on encoding Maximum upload at 85.6Kbps and download at 42.8Kbps</td>
<td></td>
</tr>
<tr>
<td>SIM Interface: *</td>
<td>SIM Card Interface</td>
<td></td>
</tr>
<tr>
<td>Antenna Interface: *</td>
<td>50 Ohms input impedance</td>
<td></td>
</tr>
<tr>
<td>Data Posting Method *</td>
<td>HTTP</td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Technical Specification of VRLA Battery

<table>
<thead>
<tr>
<th>Name of Instrument</th>
<th>Specification required</th>
<th>Specification offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRLA Battery</td>
<td>VRLA Battery 12V 42AH</td>
<td></td>
</tr>
</tbody>
</table>

### Technical Specification of Solar Panel

<table>
<thead>
<tr>
<th>Name of Instrument</th>
<th>Specification required</th>
<th>Specification offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar Panel</td>
<td>Solar Panel 40W * PV panel * 40 Watt 12V * Including stand</td>
<td></td>
</tr>
</tbody>
</table>
Section VI. Sample Forms

1. Quotation and Price Schedules

Date:

To: [name and address of the Purchaser]

Gentlemen and/or Ladies:

Having examined the Sealed Quotation (SQ) documents, we the undersigned, offer to supply and deliver [description of goods and services] in conformity with the said SQ documents for the sum of [total SQ 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 SQ.

We undertake, if our SQ is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our SQ is accepted, we will obtain the guarantee of a bank in a sum equivalent to Five (5) 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 SQ for a Period of 45 days from the date fixed for SQ opening it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this SQ, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

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

Dated this ______________________ day of ________________ 20______.

[signature] [in the capacity of]

Duly authorized to sign SQ for and on behalf of ______________________
# Price Schedule for Goods Offered from Abroad

Name of Supplier ____________________________ Page __________ of ______

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Country of origin</th>
<th>Quantity</th>
<th>Unit price FOB or FCA port or place of loading (specify port or place)</th>
<th>Unit price CIF port of entry (specify port) or CIP named place (specify border point or place of destination)</th>
<th>Total CIF or CIP price per item (col. 4 x 6)</th>
<th>Unit price of inland delivery to final destination and unit price of other incidental services</th>
<th>VAT and other taxes payable if Contract is awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total CIF (place of destination) Price ........................... (in words)

Signature of Bidder ____________________________

Note: In case of discrepancy between unit price and total, the unit price shall prevail.

Unit price indicated in col.8 is not the total cost per unit of goods but only inland delivery cost per unit starting from the CIF named port or CIP named place to final destination.
## Price Schedule for Domestic Goods Offered from within Nepal

Name of Supplier _____________________________.

### Table

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Country of Origin</th>
<th>Quantity</th>
<th>Unit price EXW per item</th>
<th>Cost of local labour, raw material and component</th>
<th>Total price EXW per item (cols. 4 x 5)</th>
<th>Unit prices per item final destination and unit price of other incidental services</th>
<th>VAT and other taxes payable if Contract is awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Radar Level Sensor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Tiny Data Logger System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sub Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>VAT 13%</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Price to final destination ……………………………………………………………………….(in words)

Signature of Bidder ________________________________

Note: In case of discrepancy between unit price and total, the unit price shall prevail

----------------------------------------------------
2. **Bid Security**

Date:

To: [name and address of the Purchaser]

Whereas, [name of Bidder] (hereinafter called “the Bidder”) has submitted his Sealed Quotation (SQ) dated [date of submission of SQ] for the supply of [name and/or description of the goods] (hereinafter called “the Sealed Quotation”).

KNOW ALL PEOPLE by these presents that WE [name of Bank] of Nepal having our registered office at [address of bank] (hereinafter called “the Bank”) are bound unto [name of the procuring entity] (hereinafter called “the Purchaser”) in the sum of [specify amount in figure and words] for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ______ day of ___________________ 20______.

THE CONDITIONS of this obligation are:

(1) If, the Bidder withdraws its SQ during the period of bid validity specified by the Bidder on the SQ Form; or

(2) If the Bidder having been notified of the acceptance of its SQ by the Purchaser during the period of bid validity:

   (a) fails or refuses to execute the Contract Form, if required; or

   (b) fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders;

we undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser’s having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to ninety (75) days from the date of opening of the Sealed Quotation, and any demand in respect thereof should reach the Bank not later than the above date.

______________________________
[signature of the bank]

______________________________
[common seal of the bank]
3. Form of Agreement

THIS AGREEMENT made the _____ day of __________ 20_____ between [name of Purchaser] (hereinafter called “the Purchaser”) of the one part and [name of Supplier] of [city and country of Supplier] (hereinafter called “the Supplier”) of the other part:

WHEREAS the Purchaser invited Sealed Quotation for certain goods and ancillary services, viz., [brief description of goods and services] and has accepted a SQ by the Supplier for the supply of those goods and services in the sum of [contract price in words and figures] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
   a. Quotation Form and the Price Schedule submitted by the Supplier;
   b. The Schedule of Requirements;
   c. The Technical Specifications;
   d. The Conditions of Contract; and
   e. The Purchaser’s Notification of Award.

3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

On behalf of the Purchaser
Name: ____________________________
Designation: ______________________
Sign: ____________________________
Seal: ____________________________

On behalf of the Supplier
Name: ____________________________
Designation: ______________________
Sign: ____________________________
Seal: ____________________________
4. Performance Security

Date:

To: [name and address of the Purchaser]

WHEREAS [name of Supplier] (hereinafter called “the Supplier”) has undertaken, in pursuance of Contract No. [reference number of the contract] dated ____________ 20_____ to supply and delivery of telemetric equipments (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of [amount of the guarantee in words and figures], and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of [amount of guarantee] as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _________ day of ______________20_____.

Signature and seal of the Guarantors

[signature]

[bank or financial institution]

[address]

[date]
5. Bank Guarantee for Advance Payment

To: [name of the Purchaser]

[name of Contract]

Gentlemen and/or Ladies:

In accordance with the payment provision included in the Contract, which amends Clause 10 of the General Conditions of Contract to provide for advance payment, [name and address of Supplier] (hereinafter called “the Supplier”) shall deposit with the Purchaser a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of [amount of guarantee in figures and words].

We, the [bank or financial institution], as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Purchaser on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding [amount of guarantee in figures and words].

We further agree that no change or addition to or other modification of the terms of the Contract to be performed there under or of any of the Contract documents which may be made between the Purchaser and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

The validity period of the guarantee shall be 30 days beyond the period scheduled for repayment of the advance payment and the guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until the Purchaser receives full repayment of the same amount from the Supplier.

Yours truly,

Signature and seal of the Guarantors

[name of bank or financial institution]

______________________________
[address]

______________________________
[date]