



## **SPECIFICATION**

For

### **PROCUREMENT - ATOMIC FORCE MICROSCOPE**

#### **BUYER:**

UNIVERSITY OF SAN ANDRES  
PROGRAM UMSA-SIDA / TB - BRC

#### **COUNTRY:**

BOLIVIA

#### **PROCUREMENT METHOD:**

SIMPLIFIED PROCEDURE

#### **SOURCE OF FUNDS:**

EXTERNAL DONATION Contribution Agreement No. 54100087

La Paz - Bolivia - 2025



## Invitation

1. The support of the Swedish Agency for International Development Cooperation (Sida) to research at University of San Andrés (UMSA) began on 1 July 2000. In 2013 the UMSA/SIDA BRC TB no. 54100087 Agreement from May 1, 20221 (date of the agreement) to December 31, 2025.

The main objectives of the program are:

- Promote development processes in the department of La Paz and in the county by generating new, useful and transferable knowledge for the social and productive sectors
  - Contribute to the advancement of universal knowledge and develop postgraduate studies in science to join scientific research activities, technological development and innovation activities recognized by society
  - Implement the Research Program called: Science, Technology and Innovation 2021-2025
2. Bidding will be conducted in accordance with the Sida's Procurement Provisions, established as applicable in the agreement with Sida, and is open to all companies and individuals from any country.
  3. The University of San Andrés, through DIPGIS on behalf of Sida, invites companies and individuals legally established in any country, to submit proposals for the procurement of a ATOMIC FORCE MICROSCOPE
  4. Bidders may obtain additional information for the preparation of proposals, writing to the email: [ichirico@umsa.bo](mailto:ichirico@umsa.bo) , with a copy to [aperez12@umsa.bo](mailto:aperez12@umsa.bo) inquiries regarding the specifications and the UMSA-Sida Cooperation Agreement) and [llopez@umsa.bo](mailto:llopez@umsa.bo) obligatorily with a copy to [jggarcia6@umsa.bo](mailto:jggarcia6@umsa.bo) for inquiries about Technical Specifications)
  5. The complete set of the Specifications can be downloaded from the website: [www.dipgis.umsa.bo](http://www.dipgis.umsa.bo)
  6. Proposals must be sent to the DIPGIS address: Av. 6 de Agosto 2170 Ed. Hoy, 14th floor, La Paz, Bolivia, no later than 10:00 a.m. on July 25, 2025 (Bolivian time). The presentation of physical proposals must be made in a sealed envelope.
  7. By reception, it is understood the moment in which the Buyer receives the proposal. The date and time of the receipt stamp on the envelopes and the date and time of the emails certify compliance with the deadline for the receipt of proposals.
  8. The proposals will be opened in the presence of the representatives of the bidders who wish to attend (maximum one representative per bidder), on July 25, 2025 at 11:00 a.m. (Bolivia time) at DIPGIS offices, address indicated above. To accredit a representative at the opening of proposals, bidders, through their legal representative (group representative in the case of a joint offer) and through an institutional email, must send an Accreditation Communication to the Process, indicating the name, identification document and identification document number, no later than
  9. This tender does not imply any obligation on the part of the Buyer, which will only occur when the contract with the successful bidder is signed. Similarly, the submission of a proposal in no way entitles a bidder to the award. All proposals will be treated confidentially.



## **INSTRUCTIONS TO BIDDERS**

### **A. GENERAL.**

**Source of funds.** Through the contribution agreement No. 54100087 Sida grants as external donation to the University of San Andrés funds to carry out the program known as the Strategic Research at UMSA.

**Ethics in procurement.** It is a requirement that the UMSA, Sida and bidders, suppliers, contractors and consultants involved in Sida-financed contracts observe the highest standards of ethics during the procurement. Sida and UMSA the right, where a company or individual has been found by a judicial process or an official investigation or by an independent review, have engaged in corrupt and fraudulent practices cancel the acquisition reserve.

**Nationality.** Participation in bidding procedures, in contracts financed by Sida, is open on equal terms to all natural and legal persons regardless of their nationality. A bidder may be an individual or a company that is an individual or a combination of such entities, under a common agreement.

**Stake.** To allow the contractor to verify the right to participate, each bidder must indicate its country of establishment, as well as the country of origin of the goods and related services offered, in case of not being the manufacturer (and, in case of a joint offer, the country of establishment of each member of the group), and submit the supporting documents that are normally accepted under the law of said country(ies) and the delegation(s) of authorization to sign.

**Interest conflict.** No subsidiary of the UMSA shall be eligible to bid or participate in a tender in any condition whatsoever, unless it can prove that there is a significant degree of common ownership, influence or control.

**Grounds for exclusion from participation in procurement.** Candidates or tenders will be excluded from taking part in a procurement procedure if:

- It is bankrupt, subject to insolvency or winding-up procedures, where its assets are being administered by a liquidator or by a court, where it is in an arrangement with creditors, where its business activities are suspended, or where it is in any analogous situations arising from a similar procedure provided for under national laws or regulations;
- it has been established by a final judgment or a final administrative decision that the candidate/tenderer is guilty of grave professional misconduct by having violated applicable laws or regulations or ethical standards of the profession to which the candidate/tenderer belongs, or by having engaged in any wrongful conduct which has an impact on its professional credibility where such conduct denotes a wrongful intent or gross negligence, including, in particular, any of the following: fraudulently or negligently misrepresenting information required for the verification of the absence of grounds for exclusion or the fulfilment of selection criteria or in the performance of a contract; entering into agreement with other economic



operators with the aim of distorting competition; violating intellectual property rights; attempting to influence the decision-making process of the Contracting Party during the procurement procedure; or attempting to obtain confidential information that may confer upon it undue advantages in the procurement procedure;

- It has been established by a final judgment or a final administrative decision that the candidate/tenderer is in breach of its obligations relating to the payment of taxes or social security contributions in accordance with the applicable law;
- it has been established by a final judgment that they, or persons having powers of representation, decision making control over them, is guilty of any of the following fraud, corruption, involvement in a criminal organisation, money laundering, terrorist financing, child labour (or any other forms of trafficking in human beings) or any other illegal activity detrimental to Sweden's or Sida's interests;
- the tenderer has shown significant deficiencies in complying with main obligations in the performance of a contract financed by Sida or the Contracting Party, which has led to the early termination of a legal commitment or to the application of liquidated damages or other contractual penalties or which has been discovered following checks and audits or investigations; or
- they, their subsidiary, another company belonging to the same group of companies, a consortium partner or other affiliate is found on the list of EU restrictive measures. The lists of persons, groups, entities subject to the EU restrictive measures are published on the following website: [www.sanctionsmap.eu](http://www.sanctionsmap.eu).

**Exclusion from award of contracts.** Contracts may not be awarded to candidates or tenderers which, during the procurement procedure:

- are subject to conflict of interests
- are guilty of misrepresentation in supplying the information required by the Contracting Party as a condition of participation in the contract procedure or a failure to supply this information or
- where the contracting party determines that there are grounds for exclusion.

**Selection criteria.** The Contracting Party shall draw up clear and non - discriminatory selection criteria for the purpose of assessing that the candidate/tenderer has sufficient financial, economic, technical and professional capacity to implement the tasks of the contract.

- **Economic and financial capacity.** Has sufficient economic and financial resources necessary to execute the contract (required minimum annual sales volume = 2 times the value of the economic offer; Information on its ratios,



especially solvency ratio => 1; Insurance Policy, bank guarantee or deposit, in any of its modalities, due to the seriousness of the proposal

- Technical and Professional Capacity. Has the technical and professional capacity to implement the related services (qualifications, skills, experience and professional knowledge of the person responsible for the installation; list of the main services rendered and supplied in the last three years with data on: nature, amounts, dates, clients and references issued by clients if this is required or considered relevant; description of the technical facilities, equipment, accreditations and means available to the bidder to prove quality; an indication of the environmental management measures that the bidder may apply when executing the contract )
- Has experience in the provision of goods and related services related to the purchase process, applicable when the bidder has a diversity of goods and services provided and supplied.

**Award Criteria.** Contracts are awarded on the basis of most economically advantageous tender established in the tender documents in one of the following two ways:

- according to the best price - quality ratio, in which case the contracting party takes into account the price and other quality criteria linked to the subject matter of the contract, and apply a weighting formula;  
Quality criteria may include elements such as technical merit, aesthetic and functional characteristics, accessibility, design for all users, social, environmental and innovative characteristics, production, provision and trading process and any other specific process at any stage of their life cycle, organisation of the staff assigned to performing the contract, after-sales service, technical assistance or delivery conditions such as delivery date, delivery process and delivery period or period of completion.
- according to the best price or cost, provided the tender satisfies the minimum requirements laid down in the tender documents. For the purposes of this document, minimum requirements are requirements established as technical specifications.

**Eligible bidders.** A bidder may be an individual person or a company owned by one single person or a combination of such entities under a mutual agreement. A bidder shall originate in any country, including Bolivia.

**Eligibility of goods and related services.** All related services to be supplied in accordance with the technical specifications shall originate in any country. The bidder must provide evidence of the origin of goods and related services.

For purposes of this clause, the term "goods" includes computer components, and "related services" includes services such as insurance, installation, training and maintenance.

"Origin" means the place where the goods have grown, or have been mined, grown, produced, manufactured or processed or where through a process of



manufacturing, processing or assembly other recognized article is obtained commercially that differs substantially from its components with respect to basic features.

**Clarifications** A bidder requiring any clarification of this specification shall contact the buyer through the email [llopez@umsa.bo](mailto:llopez@umsa.bo) with copy: [ichirico@umsa.bo](mailto:ichirico@umsa.bo), [jggarcia6@umsa.bo](mailto:jggarcia6@umsa.bo) ; [aperez12@umsa.bo](mailto:aperez12@umsa.bo) . The Purchaser will respond in writing to any request for clarification through the same medium. The buyer published his answer without identifying its source to all bidders through the website: [dipgis.umsa.bo](http://dipgis.umsa.bo) and/or will send a response to all the economic operators that have received the bidding documents at the same time and without revealing the names of the possible bidders. The buyer reserves the right not to respond to requests for additional information received less than one business day prior to the indicated date for receipt of proposals or that request information outside of these specifications, which could give them an un fair advantage with the process, that will request confidential information or about which the Program must keep confidential.

UMSA may request a clarification or extension of an offer if this can take place without any risk of preferential treatment or restriction of competition. UMSA may also request clarification or extension of a certificate, a written test or other documentation that has been presented in the proposal.

**Amendments.** The buyer may amend the specifications by issuing an addendum at any time prior to the deadline for submission of proposals. Any addendum will be an integral part of the tender documents and will be published by the same means that the specification was published.

The buyer may extend the deadline for submission of proposals in order to give reasonable for you to take into account the addendum in preparing its proposal term bidders.

## **B. Preparation of Proposals**

**Cost of participating in the tender.** The bidder shall bear all costs associated with the preparation and submission of its bid and the buyer will not be liable for those costs, regardless of the conduct or outcome of the bidding process.

**Language of the proposal.** The proposal and all correspondence and documents relating to the proposal exchanged between the bidder and buyer documents will be written in Spanish or English. Supporting documents and printed literature that are part of the Bid may be in another language, provided they are accompanied by an accurate translation of the relevant passages in the language of supply and in this case for purposes of interpretation of the proposal, such translation shall govern.

**Property.** The documents delivered by the bidders will become the property of the Buyer, regardless of the result of the process, this also applies in case of resignation of contract award. These documents will be treated confidentially.



**Documents comprising the proposal.** The proposal consists of the following documents:

- a. Legal documents.
- b. Technical proposal.
- c. Economic proposal

**Legal documents.** Bidders include in its proposal documents evidencing:

- That they are registered by a record of domestic companies, depending on the origin of the company (Eg. Business Registration Number -in the case of Bolivia)
- That they are recorded for the declaration and payment of taxes (Eg. tax identification number. - in the case of Bolivia)
- That they have declared preliminary taxes for the contribution of staff and employees (Eg. Payment Social Security)
- Declaration on honour on exclusion criteria and selection criteria and selection criteria and absence of conflict of interest, preferably documented with:
  - Solemn declaration or evidence that you are free of debts for taxes and social security contributions
  - Basic Financial Statements (Balance Sheet and Income Statement)
  - Power of Legal Representative (Bolivia case) or publication copy of said appointment depending on the legislation applicable to the legal entity in question (evidence of the power to sign contracts)

The cooperation partner may evaluate the documents in a post-qualification before the signing of the contract, unless it is considered unnecessary.

**Technical proposal.** Bidders prepare their proposal in accordance with the Technical Specifications.

**Economic proposal.** A bidder is a Bolivian company that will include in its proposal the Polymer laboratory of the Institute for Research and Development of Chemical Processes of UMSA as the destination of the equipment and will be responsible for it until the transfer of the proprietary right. Likewise, if the bidder is the manufacturer of the equipment, it will establish the international trade term (INCOTERMS) of its proposal, posted at the National Customs of Bolivia (Customs El Alto, La Paz, Bolivia) in the case of non-Bolivian companies. The possibility of obtaining the best prices and discounts will be considered in connection with the purchase.

**Alternative bids.** Bidders may include an alternative proposal, which must be clearly marked and presented in a separate document.

**Proposal prices and discounts.** Prices and discounts (including any reduction in price) quoted by the bidder must be clearly differentiated. The bidder shall quote any discounts and indicate the method of application.

**Currency of the proposal and payment.** The currency of the proposal are as follows:





- a. Goods (equipment and components) from abroad of Bolivia shall be quoted in: American dollars
- b. Goods (equipment and components) from within Bolivia should be quoted in the currency of Bolivia: Bolivianos.

**Documents establishing the conformity of the goods and related services.** In order to establish the conformity of the goods and related services, bidders shall furnish as part of the documentary evidence proving that offer goods meet the technical specifications.

The bidder must also provide a detailed list including available sources and current prices of spare parts, special tools, etc., that are necessary for the proper and continuous functioning of the goods during the lifetime of the equipment.

**Documents establishing the Bidder's qualifications.** In addition to the legal documents and in specific cases:

The bidder does not manufacture or produce goods that aims to provide an authorization shall submit the Manufacturer or products for supply of goods in the buyer's country.

In case of a Bidder not doing business in the buyer's country, and if he be awarded the acquisition will be represented by an agent in the buyer's country equipped and able to meet the obligations of the Supplier, maintenance, repairs and other established in the technical specifications

**Period of validity of the proposals.** The proposal must be valid for at least 30 days.

**Guarantees / Risk policies.** The bidder who so decides in order to prove economic capacity for not meeting the required economic and financial capacity indicators or to submit a serious offer, may present a guarantee or policy of seriousness of proposal (no less than 2% of the total value of the offer with 60 days additional to the validity period of the offer, period to be (may be increased if awarded and if so requested by the buyer). The guarantees of the seriousness of the offer of the bidders whose offers were not selected will be returned as soon as the award decision has been made, within the period of validity of the proposals.

The buyer, after evaluation, may determine the need for a contract performance bond, in which case the bidder who after evaluation is awarded the contract for the provision of goods, prior to signing the contract, shall present a contract performance bond equivalent to 7% of the total awarded value. The contract performance bond must be valid for a period of sixty (60) days after the deadline for delivery of goods and offer of services, or any extension period, if this has been requested.

Once the goods and related services have been delivered to the satisfaction of the buyer, the contract performance guarantee will be replaced by an insurance policy<sup>1</sup> of the equipment, for a period of no less than 1 year or, where appropriate, a bank guarantee of proper functioning of the machinery and equipment for a period of 2 years, which includes maintenance, replacement of parts and spares at no cost to the buyer for at least 2 years from the start-up of the equipment, this

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<sup>1</sup> All risk, multi-risk or equivalent Bank Account





does not exclude the usual guarantee that the seller offers to the buyer, which must be two years.

The guarantees must be a first-demand guarantee presented in any of the following forms at the bidder's option:

- a. An unconditional guarantee issued by a bank or financial institution (such as an insurance company or guarantor);
- b. An irrevocable letter of credit;
- c. A cashier's check or certified check;
- d. A bank guarantee on first demand;
- e. A deposit slip or bank transfer to the bank account of the buyer<sup>2</sup>;
- f. Other guarantee, issued by a prestigious institution in the country of origin.

If the unconditional guarantee is issued by a financial institution located outside the buyer's country, the financial institution must have a correspondent financial institution in the buyer's country that allows the guarantee to be redeemed. If it is a bank guarantee, the guarantee must include the bidder's full name.

### **C. PRESENTATION AND OPENING OF PROPOSALS.**

#### **Presentation, sealing and marking of proposals.**

Bidders may submit their letter or by addressing them personally offers. The following are the procedures for filing, sealing and marking of proposals.

Proposals should:

- Include name and address of the bidder.
- Be directed to the buyer.
- Bear the specific identification of this bidding process.
- Carry a warning not to open before the time and date of the opening.

**Deadline for submission of proposals.** The buyer may receive offers in the direction points and no later than July 25, 2025 at 10:00 am (Bolivian time)

The buyer may, at its discretion, extend the deadline for submission of bids by an amendment to the specification, in which case all the duties and obligations of the buyer and bidders subject to the deadline above will be subject to the new date limit extended.

**Late proposals.** The Purchaser shall not consider any bid that arrives after the deadline for submission of proposals.

**Removal, replacement and modification of proposals.** A Bidder may withdraw, substitute or modify its bid after submitting it and must submit to it a written communication duly signed by an authorized representative via e-mail or physical offices of DIPGIS, with reference withdrawal, substitution or modification.

No proposal may be withdrawn, replaced or altered during the interval between the deadline for the filing of the proposals and the expiry of validity of the proposal specified by the bidder.

**Opening of proposals.** The Purchaser will open publicly and read aloud (minimally: name of the bidder and total price of the offer) all offers received until the

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<sup>2</sup> Banco Unión SA 10000004712134 UMSA ASDI SAREC GESTION 2007-2008



deadline for the submission of tenders, the date, time and place indicated in the presence of representatives designated bidders and anyone who choose to attend. Opening Act to all bidders that have submitted their proposal and required it will be distributed.

Sida is entitled to appoint an observer to attend the meeting.

#### **D. EVALUATION AND COMPARISON OF TENDERS**

**Confidentiality.** No bidders or any other person who is not officially involved in the bidding process, no information related to the evaluation of bids, nor on the award recommendation until it has forwarded the information on the award will be given to all bidders.

Any attempt by a bidder to influence the purchaser regarding the evaluation of bids or award decision may result in rejection of its bid. However, if the bidder wishes to contact the purchaser on any matter related to the process, it must be in writing.

##### **Clarification of Bids.**

The buyer, at its discretion, and in order to facilitate the examination, evaluation and comparison of bids, and qualification of the bidders may request any Bidder for a clarification of its bid, allowing reasonable time to respond. They will not consider bids submitted by a bidder that such clarification is not in response to a request by the buyer.

##### **Deviations, reservations and omissions.**

During the evaluation of bids, the following definitions apply:

- a. Deviation. It is a departure from the requirements specified in the tender specifications.
- b. Reservation. It is set limiting conditions or withholding from complete acceptance requirements specified in the tender documents.
- c. Omission. It is the failure to submit part or all of the required information or documentation.

**Qualification of bidders.** The Buyer will determine to its satisfaction whether the Bidders meet the stated qualification criteria. The bidder (or a member of the group in case of a joint offer) will not have the obligation to present a specific document if the buyer can access the document in question in an official database free of charge, this must be specified in the proposal, preferably in the contracting party's language, if it is in another language, a translation may be requested in accordance with the "Language of the Proposal" section.

**Procedure for the evaluation of offers.** The evaluation of the bidders and the offers will be based solely on the information provided included in the offers. It includes in particular:

- a. Checking whether the bidder has the right to participate in the procurement procedure



- b. Verification of administrative compliance (the offer has been drafted and submitted as requested)
- c. Verification of the non-exclusion of the bidders on the basis of the exclusion criteria
- d. Selection of bidders on the basis of selection criteria:
  - Legal and regulatory capacity
  - Economic and financial capacity
  - Technical and professional capacity
- e. Verification of compliance with the minimum requirements established in these specifications (technical specifications)
- f. Evaluation of the offers according to the award criteria
  - Technical evaluation of the offer
  - Financial evaluation of the offer

The buyer will evaluate the elements mentioned above in the order that he deems most appropriate. If in the evaluation of one or more elements it shows that there are reasons to reject the offer, it will be rejected and it will not be submitted to full evaluation. The rejected bidders will be informed of the reasons for the rejection, without commenting on the unassessed content of their offers. The contract may only be awarded to bidders for whom the verification of all the elements has not found reasons for the rejection of the offer.

The buyer may reject abnormally low offers, in particular if a bidder is found to be in non-compliance with applicable environmental, social and labor obligations

**Determination of the proposals that conform to specifications.**

To determine if an offer conforms to the specification the buyer will be based on the actual content of the offer.

An offer that substantially conforms to the specification is one that satisfies the requirements of the specification without deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

- a. If it is accepted.
  - would affect substantial way the scope, quality or performance of specified goods and related services.
  - would limit in a substantial way, the buyer's rights or obligations of the bidder.
- b. If rectified. It would unfairly affect the competitive position of other bidders presenting substantially conform to that specification tender.

If a bid is not substantially responsive to the requirements it will be rejected by the buyer.

**Non-significant non-conformities.** Provided that a bid is substantially adjusted to the specifications, the buyer may waive any non-conformity in the bid that do not constitute a reservation or omission.

Provided that a bid is substantially adjusted to the specifications, the purchaser may require the bidder to submit, within a reasonable time, information or necessary to correct non-conformities or omissions not significant in the offer documentation related requirements concerning the documentation. The request



for information or documentation on such non-conformities shall not be related in any way with the bid price. If the bidder fails to comply with the request his offer may be rejected.

Provided that a bid is substantially adjusted to the specifications, the buyer rectify quantifiable no significant disagreements related to the bid price. For this, the bid price only for comparison purposes shall be adjusted to reflect the price of an item or component missing or present disagreements.

**Correction of arithmetic errors.** Provided that a bid is substantially adjusted to the specifications, the purchaser shall correct arithmetical errors as follows:

- a. If there is discrepancy between the unit price and total price obtained by multiplying the unit price by the amounts, the unit rate and the total price will be fixed unless the buyer considers that there is an obvious misplacement of the decimal point the unit price shall be corrected;
- b. If there is an error in a total corresponding to addition or subtraction of subtotals, subtotals prevail and the total is corrected;
- c. If there is a discrepancy between words and figures, words will prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures under paragraphs (a) and (b) above shall prevail.

It shall be requested that bidders accept the correction of arithmetical errors. If the bidder does not accept the correction in accordance with the preceding paragraphs, his bid will be rejected.

**Conversion to a single currency.** For evaluation and comparison, prices of the offers will become expressed in different currencies to the single currency (Bolivianos)

**Evaluation of bids.** In evaluating the bids, the purchaser shall consider the following:

- a. The quoted bid price.
- b. Price adjustment for correction of arithmetic errors.
- c. Price adjustment due to offered discounts.
- d. Price setting quantifiable no significant disagreements.
- e. Conversion to a single currency the amount resulting from the application of (a) to (d) above, if appropriate.
- f. Additional evaluation factors, relating to compliance with technical specifications.

The evaluation of a bid may require the consideration of other factors, in addition to the bid price quoted. These factors may be related to the characteristics, performance, terms and conditions of purchase of goods and related services. The effect of the factors selected, if any, shall be expressed in quantitative terms to facilitate comparison of bids.

**Evaluation system.**

The rating of proposals will be using the system complies or fails and the scoring system.



The selection method applied will be based on quality and cost, which allows you to choose the proposal by the best combined score in terms of quality (technical proposal) and cost (economic proposal)

UMSA shall accept any offer that is: the most economically advantageous taking into account the evaluation criteria given, such as: price, operating costs, quality, aesthetic features and functionality, service and maintenance, spare parts availability, environmental impact.

**Compare deals.** The purchaser shall compare prices of all bids assessed to be substantially the specification to determine the lowest evaluated bid.

**Buyer's right to accept or reject proposals.** The buyer reserves the right to accept or reject any bid and to terminate the bidding process and reject all bids at any time prior to award, without thereby incurring any liability to bidders. In case of cancelling the process, all bids submitted and particularly some sort of guarantee that has been requested shall be returned promptly to the bidders.

**Purchaser's Right to Vary Quantities at the time of the award.** At the time of awarding the contract, the buyer reserves the right to increase or decrease the amount of goods and services originally specified related.

**Notification of award.** Before the expiry of the validity of bids, the buyer notified in writing to the bidder selected for award, that its bid has been accepted. In this notice, the amount the buyer paid the supplier for the supply of goods and related services specified.

At the same time, the buyer also reports the results of the bidding to all other bidders.

The notification of award shall constitute a binding contract until you prepare and sign a formal contract.

Following the notification of award, bidders were not selected for the award may request in writing to the buyer that they explain the reasons why their bids were not selected. The buyer shall promptly respond in writing to any bidder that no been selected and after notification requests such explanation.

**Talks.** During the conclusion of a contract with the successful tenderer, the UMSA may invite the winner for a meeting to discuss and agree on the outstanding issues relating to the contract to the extent that does not make any substantial change to basis on which the award decision was made.

## **TECNICAL SPECIFICATIONS**

The goods and related services will fulfil the technical specifications that are described next.

### **Reach.**

Equipment for surface morphological analysis at the atomic level (particle size distribution, average particle size, and other morphological properties) of: anodes, cathodes, electrolytes, raw materials for the study of lithium-ion batteries and other types



of batteries, biochar, activated carbon, biomass, and other types of renewable raw materials.

The following technical specifications define the minimum standards for companies offering laboratory equipment.

#### **ATOMIC FORCE MICROSCOPE**

- Sample size, referential: 12 x 12 mm, height 3.5 mm.
- XY positioning range, referential: 12 mm travel in X and Y.
- Autofocus, referential: 4mm linear motor, continuous or stepping focus.
- Top view camera, referential: 3 × 3 mm field of view, digital zoom 4×, 2 μm optical resolution, 2048 × 1536 pixels, on-axis LED illumination.
- XYZ scanning range, referential: 70 x 70 x 14 μm.
- Z-controller resolution, reference: 0.2 nm.
- XY controller resolution, reference: 1.0 nm.
- Noise level Z, reference: 0.4 nm (RMS, static mode in air).
- Noise level Z, reference: 0.3 nm (RMS, dynamic mode in air).
- Picture modes: Static strength.
- Spectroscopy modes: Force-Distance.
- Lithography modes: Static force.
- Control software.
- Instruction manual.
- Tool set.
- Instrument case.
- Power supply.
- Power cable.
- USB cable.

The equipment must be compact for benchtop use and easily transportable for field analysis. Consumables for at least 100 analyses must be included. Installation and training for the research team for all three subprograms must be included. The warranty is at least two years.

#### **RELATED SERVICES.**

The following factors will be considered: performance, operating costs, quality, aesthetic characteristics, functionalities, service and maintenance in Bolivia, warranties, spare parts availability, staff training, delivery time for equipment and spare parts, installation conditions for the equipment in operation and environmental impact. The bidders must declare compliance with one or more of the mentioned factors. Documentation may be requested to prove this statement.