

Technical and administrative specifications

Tender Reference No.: [24LIC.019](#)

1. Equipment Description

The diversity of many waste streams limits their recycling potential due to the low compatibility of materials within these streams. Currently, pre-treatment lines—a necessary stage for all subsequent recycling processes—need to improve their efficiency to produce purified materials with properties suitable for reintegration into the polymer chain. Some equipment, originally designed for other applications and based on the chemical structure of materials, could be highly effective for processing underutilized waste streams.

One such piece of equipment, commonly used in the mining sector, is **electrostatic separation equipment**. This technology separates materials with different properties based on their electrostatic charges, allowing for the separation of polymeric, metallic, and other materials with distinct charges. These systems operate with a continuous feed of pre-shredded material transported on a conveyor belt. By generating an electric field and differentiating material charges, the equipment repels and separates materials through a system of collector plates or rollers that attract these materials.

The required equipment is an electrostatic device capable of processing various heterogeneous waste streams. Acquiring this technology would enable ITENE to enhance its recycling capabilities and treat alternative waste sources, such as polymers from end-of-life vehicles and electronic and electrical equipment waste. This capability will facilitate the development of efficient separation systems at a pilot plant level.

2. Technical specifications

The equipment must comply with the following technical requirements:

- Ability to operate both electrostatically and triboelectrostatically.
- Capability to produce three fractions: conductive material, non-conductive material, and a mixed unpurified fraction (MIX).
- Capacity to process materials between 1 and 10 mm in size.
- Feed speed control.
- Voltage control of electrodes.
- Adjustable classifier plates.
- Ability to separate different metallic materials from non-metallic ones.
- Capability to segregate polymeric materials based on their electrostatic properties.
- Suitable for processing multimaterial waste such as ELV (End-of-Life Vehicles), WEEE (Waste Electrical and Electronic Equipment), and highly contaminated polymeric waste.
- Minimum processing capacity of 1 kg or less.
- Minimum throughput of 5 kg/h or higher.

3. Other Features

- Delivery at ITENE facilities (DAP) is required.
- Equipment availability in 2024 will be considered.
- Setup, installation and check of the correct functioning of the equipment will be valued.
- Technical support coverage, fast response time, and additional useful service packages will be valued.
- Training courses and/or technical workshops for specific applications and equipment use will be appreciated.
- Availability of consumables and spare parts guaranteed for a minimum of 10 years.
- Presentation of videos demonstrating separation capabilities for polymeric materials and textile materials will be valued.



4. Contracting authority

ITENE – Instituto Tecnológico del Embalaje, Transporte y Logística.

5. Awarding procedure

In this procedure, at least three quotations shall be requested, whenever possible.

Quotations must be submitted according to the Technical Specification of Equipment document, together with the required supporting documents.

ITENE Technical Evaluation Committee will evaluate the quotations following the criteria below, and the quotation with the highest evaluation will be selected.

6. Procurement object

The procurement object is the supply indicated on prior sections of this document.

- a) Identification of the parties.
- b) The definition and description of the procurement object according to the offered supply. The technical description of the offered supply will be according to the technical specifications issued by the Contracting Authority.
- c) The price.
- d) The duration of the contract or the estimated dates for its implementation: start and end date, as well as its extension or extensions, if foreseen.
- e) The conditions for receiving the supply, its delivery, installation or acceptance of benefits. The transport and delivery at the place of destination. (Facilities of ITENE in Parque Tecnológico, c/Albert Einstein, 1, 46980 Paterna, Valencia, Spain), as well as the necessary steps for its configuration and installation until its effective operationalization.
- f) Payment terms.

- g) The objective and temporary extension of the confidentiality clause, where relevant, imposed to the contractor.
- h) The supply warranty



7. The conclusion of the contract

The accreditation of the legal powers of the signatories to be able to enter into the contract, will be required in order to conclude the contract.

The contract will be concluded by sending the signed offer to the bidder, together with a purchase order number which will have to appear in the invoices that the bidder will issue, associated to the purchase of the supply.

8. Evaluation of quotations

The quotations will be evaluated according to free procedure by means of the following criteria:

The evaluation will be done by the Commission of Purchases Evaluation of ITENE.

The objective criteria that will be used as basis for the contract award are the following, with their corresponding weighting, or, in its absence, in decreasing order of importance.

Criteria	Percentage
Quotation	70
Technical Service and maintenance	10
Delivery date	10
Guarantee	5
Others	5

9. Solvency of the supplier

Technical solvency

The bidder will provide the following information, when applicable:

- **Location, connection and installation requirements**
 - A scale detailed plan
 - Weight
 - Supplies (air, water, power, etc.)
 - Connection
- **Manufacturing materials**



- Normalized type (certificates when applicable)
- Special treatments
- Special care

- **Manuals**
 - Installation, operating and service manual will be provided.

- **Technical service**
 - Geographical availability
 - Forms of contacts
 - Responsiveness
 - Costs

- **Maintenance services / Spare**
 - Operations carried out exclusively by the supplier / manufacturer
 - Cost and regularity
 - Spare stock advised, supplier, cost and delivery time (in case of exclusivity of the supplier or manufacturer)

- **Quotation conditions**
 - Payment method
 - Guarantee
 - Services / materials included: setting up
 - Transport, packaging
 - Insurance
 - Spare stock
 - Others

10. Delivery date and place

Quotations shall be sent by e-mail to: licitaciones@itene.com in the term of **7 working days** from the receipt of the invitation to tender, up to the 28th November 2024. The tender file number shall be indicated in the e-mail subject **24LIC.019**.