

### **A. About The Institute for Sustainable Communities**

The Institute for Sustainable Communities (ISC) is an international non-governmental agency working to unleash the power of people to transform their communities in the face of climate change. ISC's mission is to support communities, cities, and industries around the world address environmental, economic, and social challenges to build a better future shaped and shared by all.

### **B. Background**

Aiming to strengthen the lower Mekong region as a competitive sustainable manufacturing hub, the Mekong Sustainability Manufacturing Alliance (The Alliance) program is driving private-sector adoption of improved environmental and social safeguards by factories in multiple sectors. The program focuses primarily on Cambodia, Thailand, and Vietnam, with both country-specific and region-wide activities.

### **C. Scope of Work**

ISC is seeking a Consultant/Company to provide boiler feasibility study services in preparation for the coal phase-out projects for the following factories:

- 1 factory in Hanoi, with 1 boiler (capacity: 500kg/hour)
- 1 factory in Bac Ninh, with 1 boiler (capacity: 3tons/hour)

As part of the assessment, the Consultant/Company will specifically:

#### Conduct the boiler feasibility study

- Site study and background
- Provide and suggest technical options for converting fossil fuels to renewable or low-carbon fuels, e.g., biomass and electricity boilers in the industrial boilers
- Survey and evaluate the existing boiler and heat or steam system in the factory:
  - Type and specific technical/commercial denomination, available steam production capacity and pressure range, manual/automatic boiler operation, rate efficiency, accessories, boiler pictures and leaflets (e.g. boiler plate, technical sheet); automated and manual operation and control (e.g., air intake variation), heat recovery, etc.
  - Current utilities incorporated with the boiler system such as condensate return piping, dust collector, an exhaust gas treatment unit, and water treatment.
  - The energy efficiency of the system as part of the overall factory process.
- Economic and technical evaluation on suggested options for the factory to implement a new biomass boiler or transform/adapt their boilers to fuel them with biomass residues/low-carbon fuels while ensuring satisfactory boiler efficiency and performance. This task should contain the following activities:
  - Solutions for switching to biomass residues/low-carbon fuel possibly include modifying or adapting the boiler (with estimated costs), advantages and drawbacks, maintenance costs, challenges encountered, and solutions found.



- Possible ways to convert existing (coal-fueled) boilers into biomass boilers and necessary adaptations or consequences on boiler operation, steam production, efficiency, and longevity.
- Analysis of business case for switching coal that includes fuel(s) cost, boiler(s) investment/improvement cost, steam production cost, O&M cost as well as payback time, IRR, NPV, etc.
- Facilitate biomass/boiler supply chain, including ongoing operation and maintenance, that connects/adapts to the factory demands on switching fuel/boiler.

The period of consultancy work is from December 2, 2022 to February 28, 2023.

#### **D. Qualifications**

The Consultant/Company must have:

- Demonstrated knowledge of and a track record in a boiler feasibility study of commercial and factory buildings
- Experiences in providing similar services
- Local presence in Vietnam with the ability to work and travel to the project site
- Fluency in spoken and written English and Vietnamese are required

#### **E. Submission Requirements**

Interested Consultant/Company must provide information indicating that they are qualified to perform the services, along with cost information separately for each factory, by submitting the proposal (in English) as described above via email to [msma@sustain.org](mailto:msma@sustain.org), with RFP – Boiler Feasibility Study–factory in [Location] in the subject line by **November 30, 2022, midnight ICT.**

Proposals should include the following information (max. total of 10 pages).

- Name and contact details
- A narrative outlining the vision for the work along with the suggested methodology, work plan, and/or other technical inputs for the assignment. Also, include the geography and sector focus.
- Description of qualifications
- Three references who can speak to the consultant's successful completion of similar work, with contact details (email and telephone)
- Budget information. The consultant should submit a detailed cost proposal in USD.