

# Development of Standards and Labelling (S&L) program for refrigerant compressors used in Cold Chain

CLASP is seeking a consulting organization to conduct a comprehensive market and technical assessment study for the development of labelling program for refrigerant compressors in India.

**DUE: 02 November 2022 at 23:59 ET**      **QUESTIONS: [ppandey@clasp.ngo](mailto:ppandey@clasp.ngo)**

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## About CLASP

CLASP serves at the epicenter of collaborative, ambitious efforts to mitigate climate change and in the global movement for clean energy access, through appliance efficiency. Our mission is to improve the energy and environmental performance of the appliances & equipment we use every day, accelerating our transition to a more sustainable world. We work hand-in-hand with governments, experts, industry, consumers, donor organizations and others to propel policies and markets toward the highest quality, lowest resource-intensive appliances possible.

CLASP has worked in more than 100 countries since inception in 1999. CLASP is headquartered in Washington, DC, with teams in China, Europe and the United Kingdom, India, Indonesia, and Kenya. We are [mission-driven](#) and committed to a culture of diversity, transparency, collaboration, and impactful work. See our [Team Page](#) to learn more about us.

In India, CLASP works closely with Bureau of Energy Efficiency, and has supported the expansion of its appliance policy framework to cover a wide range of residential, commercial, and industrial energy intensive products. This has resulted in reduced greenhouse gas emissions and peak electricity demand, reduced consumer energy costs, and expanded access to high quality appliances. In partnership with key national stakeholders, we advance policy compliance, education and outreach initiatives to foster an ecosystem for resource-efficient appliances and equipment.

## Background

The Government of India (GoI) has prioritized development of an integrated cold chain for the agricultural value chain, for reducing post-harvest losses, wastages and enhancing farmer's income. In the recent past, it has launched multiple policies, programs, and initiative to enhance cold chain capacity. Along with capacity addition efforts, the government of India has also prioritized development of a sustainable cold chain infrastructure to address associated energy demand, refrigerant use, and emissions. The India Cooling Action Plan (ICAP) launched in 2019, is the central tenet of India's sustainable cooling roadmap - it lays out a broad strategy to reduce cooling energy requirements by 25% - 40% by 2037-38. Specifically for the cold chain sector, it aims to obviate 12% of refrigerant usage and around 8-12% of associated energy consumption. To achieve these goals, key activities in ICAP are centered around the deployment of efficient compressors, improved insulation, optimized operations and through retrofitting and retro-commissioning practices and others.

The Bureau of Energy Efficiency (BEE), India's nodal agency on appliance efficiency, constituted by Ministry of Power (MoP), works towards the development of efficiency policies for cooling and

refrigeration appliances. It has already launched Standards and Labelling (S&L) program for several cooling and refrigeration appliances namely frost free and direct cool refrigerators, room air conditioners, RACs, ceiling fans, chillers, light commercial ACs and freezers. BEE is now looking to explore the next set of policy opportunities for driving energy efficiency in the overall cold chain sector and support ICAP implementation.

In the context of broader strategic developments, CLASP is seeking a consultant to conduct a comprehensive market and technical assessment study for the development of labelling program for refrigerant compressors used in cold chain applications.

## Timeline

**Contract Timeframe:** November 2022 – June 2023

**Deadline for Application:** 02 November 2022 at 23:59 ET

Application includes registering as a Consulting Partner and submitting the technical and financial proposals per the instructions below.

**Deadline for Questions:** 26 October 2022 at 23:59 ET

All questions must be addressed in English to Prasun Pandey at [ppandey@clasp.ngo](mailto:ppandey@clasp.ngo). We request all inquiries be made to this e-mail address and not by phone.

## Scope of Work

The Consultant will be responsible for successfully executing the following activities and tasks as part of the study. Execution of all activities and tasks must be conducted in close consultation with BEE and CLASP.

- 1. Comprehensive Market Assessment –** Assess refrigerant compressor market size including but not limited to:
  - a. Total market size (i.e., existing stock, production, sales etc.), market segmentation by technology, refrigerant type (i.e., HFC, HCFC, ammonia, CO2 etc.), capacity, type, efficiency, use cases (i.e., cold storages, pack houses, ripening chambers and reefer transport) etc.
  - b. Market trend during last five years and growth projections for 2030 and 2040 timelines
  - c. Market structure (i.e., organized vs unorganized), import/domestic manufacturing trends and key manufacturers/assemblers along with an overview of manufacturing supply chain and raw materials / components used
  - d. Current national and state regulatory/policy environment
  - e. Qualitative aspects: market challenges and barriers related to manufacturing, technology, policy implementation etc., along with stakeholder perspective (i.e., service providers, contractors, equipment suppliers, farmers etc.)
- 2. Estimate energy saving potential -** This will involve:
  - a. Assessment of product specifications of prevailing products/models in the market,

- b. Understanding operating characteristics
- c. Modelling annual energy consumption and savings potential

### **3. Develop Recommendations for Improving Equipment Standards and Testing Procedures**

- a. Identify and analyze relevant global (ISO/IEC) and Indian test standard
- b. Review existing labelling program in other countries (China, Korea, Japan, EU, US, Australia, and other relevant countries), if any; to compare test conditions, test methods
- c. Identify and provide an assessment of existing test facilities in India including their national accreditation status.
- d. Based on tasks 3a, 3b and 3c, provide recommendations to address the gaps

### **4. Develop Energy Efficiency Metric and Labelling Scheme**

- a. Conduct a comparison of international labelling programs and energy efficiency metrics.
- b. Facilitate samples testing at laboratories, develop detailed testing plan, coordination with laboratories for testing and conduct detailed analysis of the lab test data to generate energy performance metric. Also engage/hire laboratories for testing as per mutually agreed sampling plan (testing cost would be reimbursed based on actuals)
- c. Based on models' performance and testing data, design and develop energy efficiency metric
- d. Develop product schedule on the prescribed BEE template, in close coordination with BEE and CLASP

### **5. National Impact Assessment and Technical Committee Meetings**

- a. Based on task#4 (i.e., S&L program for compressors), quantify Business as Usual (BAU) annual electricity consumption, potential energy, and cost savings, avoided generation capacity and GHG emission reductions in 2030 and 2040 timelines. Emission reduction estimation methodology should also consider potential impact of reduced food wastage and emission reduction thereof, if any, as well as socio-economic impacts on farmers, consumers due to improved cold chain systems as a result of S&L enforcement
- b. Assess the implications of S&L policies on manufacturers, consumers, cold chain facility owners/operators, farmers/FPOs, and requirement of policy support (i.e., financial incentives) if any for policy adoption
- c. Assist CLASP and BEE in organizing technical committee meetings. This will involve organizing meetings, preparing notes, presentations etc., as required

### **6. Stakeholder Engagement:** Towards completion of Task 1 - 5, the consultant is expected to conduct extensive stakeholder engagement and data collection. All engagement and data collection methods should be finalized in close consultation with BEE and CLASP

## **Key Milestones and Deliverables**

- Submission of final comprehensive market and technical assessment report with key findings and recommendations for refrigerant compressor units
- Propose energy performance metric refrigerant compressor units
- Draft product schedule using BEE template

- Preparation of necessary material such as communications related articles and news media for CLASP and BEE

## Submittal

### Register as a Consulting Partner

Interested parties must [register as a CLASP Consulting Partner](#).

### Submit Technical and Financial Proposals

Interested parties should submit separate technical and financial proposals electronically, in English, via this [form link](#) (preferably in PDF format). The files should be named as per the following example:

[CONTRACTOR\_NAME] \_Technical Proposal\_ RFP\_2022-11-02

[CONTRACTOR\_NAME] \_Financial Proposal\_ RFP\_2022-11-02

The length of the technical proposal should not exceed 20 pages and should include:

- Detailed approach and methodology for the design, implementation, and management of the project
- Detailed timeline for all project activities, tasks, milestones, and deliverables for the project within the time frame indicated above
- Background and experience of conducting similar activities
- A summary of qualifications and experience of key personnel that will execute the project

The financial proposal (in USD) should include a detailed budget with all direct and indirect cost estimates for executing the project, including a breakdown (in days) of the level of effort and costs associated with each team member that will be engaged in the project.

CVs and related summaries of experience and qualifications of proposed project team staff should be included in an Annex and should not exceed 10 pages.

### Optional At This Stage – Fill Out Pre-Qualification Questionnaire (PQQ)

All contractors must [fill out the PQQ](#) before working with CLASP. This can be voluntarily completed at the RFP stage but will be mandatory if a contract is awarded.

The PQQ is a thorough due diligence screening aimed at gathering legal and financial information on prospective partners/vendors. Contract awards are conditional upon passing the due diligence screening. Organizations that have already completed the PQQ do not need to complete it again unless the structure of the business has changed. If you are unsure, please email Andrea Testa ([atesta@clasp.ngo](mailto:atesta@clasp.ngo)) to determine next steps.

## Evaluation Procedure

A committee appointed by CLASP will evaluate proposals received. Selection of qualified companies or organizations will be based upon the following criteria:

- **Technical Evaluation Factors**
  - Bidders with prior experience of cold chain efficiency projects or policy formulation will be preferred
  - Bidders with team/personnel with relevant cold chain experience would be given more preference
  - Bidders are encouraged to partner with cold chain experts / consulting firms and submit bids as consortium
- **Financial Evaluation Factors**

All bids will be evaluated and ranked using Quality and Cost Based Selection (QCBS), with 80 percent of the score accorded to the technical proposal, and 20 percent to the financial proposal. Please see Annex A for more details.

## Pre-Bid Engagement

CLASP will be conducting a pre-bid meeting on 19 October 2022 at 1600 hrs. (IST) to clarify any question or query regarding the RFP. All interested bidding firms are requested to join the meeting at the link provided below. In case of any issues in joining the meeting please reach out to [ppandey@clasp.ngo](mailto:ppandey@clasp.ngo). Also, a line of confirmation for the meeting is well appreciated.

Time of pre bid meeting: 19 October 2022 at 1600 hrs. (IST)

Link: <https://clasp.zoom.us/j/92302556487?from=addon>

## ANNEX A: EVALUATION CRITERIA

**Technical Approach (35 points):** The technical approach described in the proposals will be evaluated on:

- The demonstrated understanding of the overall project context (15).
- The detailed work plan and approach clearly defining the target objectives and the strategy to achieve the objectives as outlined in the scope of work (20).

**Management Structure and Staff Qualification (25 points):** The proposed management structure and staff will be evaluated on:

- The professional qualifications and the extent to which the requisite expertise and experience of the key personnel will directly contribute to the completion of the tasks (25).

**Past Performance and Corporate Experience (20 points):** The experience and capacities of the contractor will be evaluated based on:

- The past performance, familiarity, and experience in understanding policies and program related to standards and labelling (10).
- Extent of local expertise including experience, qualifications, and track record in implementation of similar programs (10).

**Cost Evaluation Factors (20 points):** While the overall Technical Evaluation is the key factor in reviewing the proposal, the cost evaluation will be an essential factor in determining the final contract award and ability to remain in the competitive range and will be evaluated for feasibility, completeness, and practicality.

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CLASP looks forward to reviewing your responses and would like to thank you in advance for your participation in this Request for Proposals. CLASP will notify all respondents who submit proposals when a decision has been made.

*CLASP is an equal opportunity employer that celebrates diversity and are committed to creating an inclusive environment for all employees. CLASP's goal is to be a diverse workforce that is representative, at all job levels, of the citizens we serve. CLASP complies with all federal, state and local employment law in the countries we operate and is committed to providing equal opportunity for all employees and applicants without regard to race, color, religion, national origin, sex, age, marital status, sexual orientation, gender identity or expression, pregnancy, disability, political affiliation, personal appearance, family responsibilities, matriculation, genetic information, military or protected veteran status, credit information or any other characteristic protected under federal, state or local law.*

*Each person is evaluated based on personal skill and merit. CLASP's policy regarding equal employment opportunity applies to all aspects of employment, including recruitment, hiring, job assignments, promotions, working conditions, scheduling, benefits, wage and salary administration, disciplinary action, termination, and social, educational and recreational programs.*