Market Assessment Study and Technical Analysis in Support of India's Efficiency Policy Development for Refrigerated Display Cabinets and Commercial Beverage Coolers (Visi Coolers)

Introduction

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 long supported the development and implementation of appliance efficiency policies through standards and labelling (S&L) in India. CLASP's primary focus has been providing technical support to the Bureau of Energy Efficiency (BEE), a nodal agency for the S&L program, including product-specific market studies, benchmarking of minimum energy performance standards, label design and implementation, test lab capacity development, and general program support.

Background

The Government of India enacted the Energy Conservation Act 2001 (EC Act) in August 2001 and established BEE in 2002, a statutory body under Ministry of Power, Government of India to implement the EC Act 2001. The Act identifies S&L as one of the major areas for improving energy efficiency in the residential, commercial, and industrial sector. BEE launched the S&L program in May 2006 and currently covers 30 product categories, of which 10 are mandatory products.

Refrigerated display cabinets are commercial refrigeration equipment, which is cooled by a refrigerating system that stores chilled and frozen foodstuffs within prescribed temperature limits. Refrigerated display cabinets are meant to sell and/or display foodstuff such as beverages, cakes, pastries, other non-perishable beverage products etc. Products are loaded into the display cabinets at an ambient temperature and designed to freeze and chill products at a defined storage temperature class across a specified time, for which the customer is allowed direct access to the products.

Refrigerated display cabinets do not however include refrigerated vending machines or cabinets intended for use in catering or similar non-retail applications and commercial beverage coolers.

Commercial beverage coolers also known as Visi Coolers are the machines that cool down / chill products and can maintain the temperature range between 1°C to 10°C. Usually, these cooling machines are used for commercial purposes such as storing cold beverages, juices, milk, milk-based products, or any other such edibles that should be kept at lower temperatures.

The key requirement for the operation of modern retail outlets is to provide a broad assortment of products, offering fresh foods daily and creating sophisticated shopping environments contributing to a high energy demand. It is estimated that the potential for energy efficiency improvement in these products can be raised to ~30% in comparison with the current market

scenario. Realizing the need to reduce rising electricity demand and improve the efficiency in the commercial refrigeration segment across the country under the India Cooling Action Plan, BEE contemplates including these products under the ambit of the Standards and Labelling program.

CLASP seeks to hire a consultant to conduct a comprehensive market and technical assessment study for the development of a new labelling program for refrigerated display cabinets and commercial beverage coolers (Visi Coolers).

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.

Task 1: Comprehensive Market Assessment

1.1 Assess the size of the Indian market for refrigerated display cabinets and commercial beverage coolers (Visi Coolers) (number, types, sizes and capacity, manufacturers, type of manufacturers such as organized and unorganized in SME sectors and their market share) including units manufactured and sold, import vs domestic manufacturing, market segment of major manufacturers, component level supply chain for domestic manufacturing. Capture the global landscape for refrigerated display cabinets and commercial beverage cooler (Visi Cooler).
1.2 Develop a questionnaire in consultation with CLASP for collection of data to analyse the current market scenario, energy performance status etc.
1.3 Supply and distribution channels of finished product both by organized and unorganized sectors.
1.4 Identify the challenges and barriers that affect market penetration. This may include barriers related to manufacturing, technology, consumer issues (service, price, quality, etc.), and policy implementation.
1.5 Estimate future market growth in next 10 years. The forecast should be accompanied by an analysis of key drivers of market penetration (rural and urban).
1.6 Analysis of the industry in the organized and unorganized sectors covering large and MSME sectors, and distributers.
1.7 Reach out to four community-based organizations to understand the issues relevant to underprivileged vulnerable populations in rural areas for purchase and use of efficient refrigeration equipment. Provide recommendations to meet the needs of such communities and increase the access to refrigeration to improve quality of life.

Task 2: Development of test procedure

2.1 Identify and analyse relevant Indian/ISO/IEC other global test standard and standards.
2.2 Review labelling program of few developing countries and regions namely China, Korea, Japan, EU, US, Australia etc and United4Efficiency model regulations. Analysis must include the comparison of testing conditions, testing methods and energy efficiency requirements.
2.3 Identify and provide an assessment of existing test facilities in India including their national accreditation status and provide recommendations to address the gaps.
2.4 Facilitate lab testing, if required, and conduct detailed analysis of the lab test data to generate performance metric.

Task 3: Development of Energy Efficiency Metric and Labelling Scheme

3.1 Conduct a comparison of international labelling programs and energy efficiency metrics.
3.2 Design and develop an energy efficiency metric for refrigerated display cabinet and commercial beverage coolers (Visi Coolers).
3.3 Prepare product schedule on the prescribed BEE template addressing all the components required for BEE product schedule in consultation with CLASP.

Task 4: National Impact Assessment and Technical Committee Meetings

4.1 Based on the final recommendations of labelling thresholds, quantify annual electricity consumption, projected energy savings and associated cost savings, avoided generation capacity and GHG emission reductions. The impact assessment should be done based on logical assumptions of market transformation for short term (2030) and long term (by 2050).
4.2 Assess the implications of S&L policies on manufacturers, consumers ownership, and requirements of subsidies / incentives to promote the policy adoption, if needed.
4.3 Assist CLASP and BEE in planning and deliberating at technical committee meetings for refrigerated display cabinets and commercial beverage coolers (Visi Coolers). Prepare necessary documents (e.g., presentation, meeting agenda and minutes, labelling schedule, and gazette notification) as required.

Key milestones and deliverables of the study include:

- **Final comprehensive market and technical assessment report with key findings and recommendations.**
- **Propose energy performance metric for refrigerated display cabinets and commercial beverage coolers (Visi Cooler).**
- **Draft product schedule for refrigerated display cabinets and commercial beverage coolers (Visi Coolers).**
- **Preparation of necessary material for launching of the program by BEE.**

Timeline

The project is expected to commence in March 2022 and conclude by December 2022.

Evaluation Procedure

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

- **Technical evaluation factors**
- **Cost 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.

Submittal

Register as a Consulting Partner

Interested parties must register as a CLASP Consulting Partner.

Fill Out Pre-Qualification Questionnaire (PQQ)

All candidates must fill out the PQQ. The PQQ is a thorough due diligence screening aimed at gathering legal and financial information on prospective partners/vendors. If questions are not applicable, please type “N/A” and go to the next question. While the form can be saved, we recommend completing it in one sitting to avoid potential complications. We will be notified once you submit the PQQ.

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) to determine next steps.

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 _07_03_2022_Commercial Refrigeration**
- **[CONTRACTOR_NAME] _Financial Proposal_ RFP_07_03_2022_Commercial Refrigeration**

The deadline for applications is **March 07**, **2022**. Proposals must be submitted via the form link above. Proposals must be submitted online via the CLASP website, filling out all the requested information and attaching both technical and financial proposals. The length of the proposal should not exceed 20 pages

The technical proposal 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 especially on commercial refrigeration products.**
- **A summary of qualifications and experience of key personnel that will execute 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.

The financial proposal (in USD) should include a detailed budget that includes 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.

Consultants are requested to submit their technical and financial proposal separately for i) Refrigerated Display Cabinet, ii) Visi Cooler and iii) For both Products.

All questions may be addressed to Ms. Moumita Chandra, at mchandra@clasp.ngo . The last date for submission of questions related to this RFP is **February 25, 2022**. We request all inquiries be made by e-mail and not by phone.

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.