

Support for Development of Standard and Labelling Program for Heat Pump Based Water Heaters for Sanitary Purpose

CLASP seeks to hire a consultant/organization to conduct a comprehensive market analysis and technical assessment study for development of new labelling program for heat pump-based water heaters in India.

DUE: 26 April 2026 at 23:59 ET

QUESTIONS: YSharma@clasp.ngo

About CLASP

[CLASP](#) is the leading global authority on efficient appliances' role in fighting climate change and improving people's lives. With 25 years of expertise, CLASP collaborates with policymakers, industry leaders, and other experts to deliver clear pathways to a more sustainable world for people and the planet.

CLASP is a global non-profit with offices in Europe, India, Indonesia, Kenya, and the United States. We have worked in over 90 countries since our inception in 1999. We are mission-driven and committed to a culture of inclusion, transparency, collaboration, and impactful work. Find out more [about CLASP](#).

In India, CLASP provides the Bureau of Energy Efficiency (BEE) with technical assistance and capacity building support on appliance energy efficiency as required by BEE and in line with their priorities. CLASP's technical assistance has enabled BEE to expand appliance energy efficiency policy framework to cover a wide range of residential, commercial, and industrial energy intensive products. This has resulted in reduced energy use, lowered peak electricity demand, reduced consumer energy costs, expanded access to high quality appliances, and resulted in avoided greenhouse gas emissions.

Background

BEE introduced the Standards and Labelling (S&L) programme in 2006 to improve the energy efficiency of residential, commercial, and industrial appliances/equipment in the country under the Energy conservation Act, 2001.

The primary intent of the S&L program of BEE is to minimize the energy consumption of appliances while ensuring the equipment performance. The scheme aims to provide information on the energy consumption characteristics of appliances based on the star rating. The star rating ranges from 1 to 5 in the increasing order of energy efficiency. As on date, 41 appliances / equipment are covered under the S&L program, out of which 18 appliances are under the mandatory regime while the remaining are under the voluntary regime (please refer to www.beestarlabel.com).

A heat pump-based water heater (HPWH) currently represents one of the most energy-efficient and promising type of decarbonisation technology to fulfil the water heating needs for sanitary purpose in India. Unlike conventional fossil fuel boilers that generate heat through combustion, heat pumps use input energy to transfer heat from a low temperature source (air, ground, and water) to a high temperature sink. Heat pumps can provide upto 3-4 times more heat per unit of electricity and thus, deliver energy-savings of 60–80%. Additionally, due to their high energy efficiency, they demonstrate the potential to rapidly replace traditional boilers and heaters. Air to water heat pumps can be mostly installed and used across residential and commercial applications.

Heat pump-based water heater (also referred to as air to water heat pumps) market in India generated a revenue of 21.8 million USD in 2025 which is expected to grow by more than two-fold (CAGR of 13%) by 2033. While various heat pump technologies (air source, water source, geothermal, and thermodynamic) exist in India, air to water heat pumps generated the largest revenue in 2025. It is also seen that although 90% of the heat pumps in India are imported from China but 50-55% of importers are Indian companies.

In 2025, CLASP conducted an initial market assessment study to understand the potential of heat pump applications (covering each type of technology) across the residential, commercial, and industrial sectors in India used for both space-heating and water-heating needs. Analysis revealed that air to water heat pumps used in the residential and commercial sectors will dominate the market through 2030. The residential sector is projected to represent approximately 85% of the overall market potential (In terms of heat pump capacity), reflecting the significant demand growth in building applications.

Now, as a part of the second phase of this market assessment study, CLASP plans to bring out a detailed assessment of the future market potential of specifically, air to water heat pumps used for sanitary applications (i.e., for the residential and commercial sectors) in India.

Indian standards are in the process of getting developed for HPWH and will be out in the next six months. The draft standard is developed by BIS and issued in wide circulation for public comments. For this purpose, CLASP is seeking a consultant to carry out this detailed market study and eventually provide recommendations to BEE to develop a star-labelling program for the same in India.

Timeline

Contract Timeframe: May 2026 – January 2027

Deadline for Application: 26 April 2026 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: 10 April 2026 at 23:59 ET

All questions must be addressed in English to Yatharth Kumar Sharma at ysharma@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.

Task 1: Comprehensive Market Assessment

- 1.1 Assess the size of the India's market for heat pump-based water heaters used for sanitary purpose (sales number, types, capacity/rating, type of manufacturers such as organized and unorganized SME sectors and their market share, efficiency of the existing model) including units manufactured and sold, import vs domestic manufacturing, market segment of major manufacturers, component level supply chain for domestic manufacturing. Also, capture global landscape for HPWH.
- 1.2 Develop questionnaire in consultation with CLASP, for collection of data to analyse the current market scenario, energy performance status etc.
- 1.3 Identify the challenges and barriers affecting market penetration. This may include barriers related to manufacturing, technology, consumer issues (service, price, quality, etc.), and policy implementation.
- 1.4 Review and compare national and international test standards such as ISO/IEC as well as labelling program used by countries and regions such as China, Korea, Japan, EU, US, Australia etc. Analysis must include the comparison of testing conditions, testing methods and calculation methods for efficiencies.
- 1.5 Identify and provide assessment of existing test facilities in India including the national accreditation status and provide recommendations to address the gaps.
- 1.6 Cost benefit analysis to consumers for purchasing heat pump based water heater.
- 1.7 Estimate the future market growth in next 10 years. The forecast should be accompanied by an analysis of key drivers of market penetration.

Task 2: Development of Energy Efficiency Metric and Labelling Scheme

- 2.1 Design and develop an energy efficiency metric for HPWH. The scheme should be developed in a template of schedule and address all the parameters in the respective clauses of the schedule template.

Task 3: National Impact Assessment and Technical Committee Meetings

- 3.1 Based on the final recommendations of labelling thresholds, quantify annual electricity consumptions, projected energy savings and associated cost savings, avoided generation capacity, GHG emission reductions and economic benefits. The impact assessment should be done based on logical assumptions of market transformation for short term (2040) and long term (by 2050).
- 3.2 Assess the implications of S&L policies on manufacturers, consumers ownerships, and requirements of subsidies/ incentives to promote the policy adoption, if needed.

- 3.3 Assist CLASP and BEE in planning and deliberating at the technical committee meetings for developing EE policy of HPWH. Prepare necessary documents (e.g., presentation, meeting agenda and minutes, labelling schedule, and gazette notification) as required.
- 3.4 Support in planning and developing the agenda for 2 - 3 stakeholder discussions or workshops.

Key Milestones and Deliverables

1. Final comprehensive market and technical assessment report with key findings and recommendations.
2. Propose energy performance metric for HPWH.
3. Draft schedule and gazette notification as applicable.
4. Preparation of necessary materials for launching of the labelling program by 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 2026-04-03
[CONTRACTOR_NAME] _Financial Proposal_ RFP 2026-04-03

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 especially on heating products.
- 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) 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**
- **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. The detailed evaluation criteria can be found in Annex A.

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 (heat pump projects) (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.

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.