

# Request for Proposals

## Stainless Steel Welding Training

5th March 2026

### Introduction

The Modern Energy Cooking Services (MECS) program, funded by the UK Government through the Foreign Commonwealth and Development Office (FCDO), works closely with partners in 16 countries to accelerate the transition from biomass to electric cooking.

By 2030, MECS aims to improve clean cooking access to 10 million people, leverage £1 billion in investments, publish 650 research products, and influence policy adoption in 12 countries. The program is expected to have reach across 17 countries in Africa, Asia-Pacific, and South and Southeast Asia, where clean energy transitions are urgently needed.

[CLASP](#) is a core partner of the MECS program alongside Loughborough University and ESMAP, where we lead on venture building—supporting innovative e-cooking businesses to scale their impact across sub-Saharan Africa and South Asia, and market shaping—working with governments, regulators, and funders to strengthen the policies, standards, and financing that enable wider adoption.

### Background

Electric cooking scale-up depends on appliance quality, durability, and local technical capacity.

Electric cooking (eCooking) presents one of the most significant near-term opportunities to accelerate clean cooking transitions in Kenya. Nearly 80% of Kenyan households still rely primarily on biomass fuels for cooking<sup>1</sup> contributing to household air pollution, forest degradation, and disproportionate time burdens on women and girls<sup>2</sup>. The opportunity extends beyond households: approximately 90% of schools, 85% of healthcare facilities, and 95% of correctional facilities continue to depend on firewood or charcoal, representing a substantial and aggregated demand for modern, clean cooking solutions at institutional scale.<sup>3</sup>

---

<sup>1</sup> Government of Kenya. Kenya National Clean Cooking Strategy 2024–2028. Nairobi: Ministry of Energy, 2024.

<sup>2</sup> World Health Organization. *Household Air Pollution and Health*. Geneva: WHO, 2023.

<sup>3</sup> Institutional Clean Cooking Investment Sector Pack, Invest Kenya, 2026

The Kenya National eCooking Strategy (KNeCS 2024–2028) leverages rapid progress in electrification (20% to >75% in 10 years) to drive forward the clean cooking sector. KNeCS explicitly identifies electric cooking as a priority pathway to universal access to modern cooking by 2028 and calls for strengthening local manufacturing and service ecosystems to support scale<sup>4</sup>.

Since 2018, the MECS Programme has generated a strong body of evidence demonstrating that modern energy cooking—particularly efficient electric cooking—is technically feasible, cost-effective, and increasingly preferred by users across household, institutional, and commercial contexts. MECS research shows that the remaining barriers to scale are no longer primarily about energy supply, but about appliance affordability, quality, longevity, and the supporting ecosystem required to sustain high-quality products over time.

Within this evidence base, CLASP, has consistently highlighted the importance of appliance lifetime, repairability, and standards. Poor build quality and short appliance lifespans undermine consumer trust, increase lifecycle costs, and slow adoption, even where electricity access and tariffs are favourable. Our work on appliance lifetime, quality standards, and repair ecosystems shows that technical failures are rooted in upstream design and fabrication choices, not only in downstream use or maintenance. CLASP’s 2024 *Closing the Loop* report further demonstrates that appliance repairability and durability are critical to both environmental sustainability and the creation of local green jobs.<sup>5</sup> The report highlights that poor material choices and fabrication practices increase failure rates and reduce the economic viability of repair, underscoring the importance of strengthening upstream manufacturing quality and technical skills.

Early efforts to support the repair and maintenance ecosystem of eCooking appliances include TVET-led<sup>6</sup> training on the repair and servicing of electric cooking appliances, reinforcing the programme’s finding that local technical capacity is essential for sustained eCooking uptake. While this work focuses primarily on diagnostics, electrical components, and maintenance procedures, it also highlights a deeper structural constraint: many failures and repair challenges originate upstream in the fabrication of metal components, including casings, inner pots, frames, and food-contact surfaces.

Feedback from users—particularly institutions and commercial kitchens—consistently shows that food safety, durability, corrosion resistance, and ease of cleaning are top priorities. These requirements strongly favour stainless steel components and place significantly higher

---

<sup>4</sup> Government of Kenya. Kenya National eCooking Strategy (KNeCS) 2024–2028. Nairobi, 2024.

<sup>5</sup> CLASP. *Closing the Loop: Advancing Solar Appliance Repairability*. Washington, DC: Efficiency for Access Coalition, October 2024. [https://efficiencyforaccess.org/wp-content/uploads/Closing-the-Loop\\_EforA\\_Solar-Appliance-Repairability-Report\\_Oct-2024.pdf](https://efficiencyforaccess.org/wp-content/uploads/Closing-the-Loop_EforA_Solar-Appliance-Repairability-Report_Oct-2024.pdf).

<sup>6</sup> Ramogi Institute of Advanced Technology (RIAT), the Kisumu eCooking Hub, is one of five hubs established under the MECS Programme with partners ACTS, CCAK, Kenya Power, and Gamos East Africa.

demands on welding quality, joint integrity, surface finishing, and precision than general mild-steel fabrication.

National and regional assembly and manufacturing of eCooking appliances is critical to reduce reliance on imports and strengthen local supply chains. Kenyan manufacturers are already assembling or producing eCooking devices like electric pressure cookers, induction cookers, and institutional electric boilers locally, creating emerging demand for fabrication, welding, and finishing skills. Many national governments express strong support for local production as is aligned with goals for jobs and youth employment.

### Wider evidence confirms stainless steel fabrication as a bottleneck in clean energy manufacturing

Across clean energy sectors (solar appliances, e-mobility, efficient appliances), skills gaps at the mid-skill manufacturing level are repeatedly identified as a binding constraint to local value addition and product quality.<sup>7</sup> Evidence from CLASP's *Green Jobs for Rural Youth* report finds that clean energy transitions can generate substantial mid-skill technical employment opportunities, but that realizing this potential depends on access to appropriate tools, industry-relevant training, and stronger linkages between training institutions and manufacturers.<sup>8</sup> Without targeted investments in practical training and equipment, local youth are unable to capture emerging value-added roles within clean energy supply chains.

### Solution: Building a Stainless Steel Welding Workforce for Kenya's Electric Cooking Transition

Kenya's institutional cooking market alone represents large, aggregated demand for durable, food-safe cooking systems, with over 48,000 schools, nearly 15,000 healthcare facilities, and 136 correctional facilities nationwide. Approximately 90% of schools and 85% of healthcare facilities continue to rely on firewood, creating both environmental pressure and a clear transition opportunity. Kenyan manufacturers such as BURN Manufacturing, Ecobora, and Feion Green Ventures are already deploying electric pressure cookers, institutional electric systems, and hybrid models into this growing market. As production scales, demand for high-quality stainless steel fabrication - particularly for food-contact vessels, casings, frames, and institutional kitchen infrastructure, will increase.

---

<sup>7</sup> UNIDO. *Industrial Skills for Inclusive and Sustainable Growth*. Vienna, 2019.

<sup>8</sup> CLASP. *Green Jobs for Rural Youth: The Potential of Solar Appliances to Create Employment Opportunities in Sub-Saharan Africa*. Washington, DC: Efficiency for Access Coalition, 2023. <https://efficiencyforaccess.org/wp-content/uploads/Green-Jobs-for-rural-youth-1-1.pdf>.

To unlock this bottleneck, this initiative aims to establish a modular, industry-aligned stainless steel welding unit within a selected TVET institution, coupled with structured industry partnerships and paid internships.

### 1. Curriculum Co-Development with Industry

The participating TVET institution will integrate a three-month stainless steel welding module into existing welding programs. The module will:

- Focus on TIG and stainless-compatible MIG welding
- Cover food-grade fabrication standards, joint integrity, finishing, and corrosion resistance
- Use real production cases (e.g., institutional pots, frames, stainless steel tables) aligned with private-sector demand

Curriculum development will be undertaken in consultation with private sector partners to ensure alignment with real manufacturing specifications and certification standards. This ensures that the module enhances—not duplicates—existing welding training, while increasing graduate employability in a growth sector.

### 2. Provision of Materials and Targeted Equipment Support

To address key constraints identified in TVET systems—particularly limited access to stainless steel materials and specialised welding equipment—the programme will support the supply of stainless-steel sheets and consumables required for practical training. Where equipment gaps are identified (e.g., TIG welding machines, gas infrastructure, stainless-compatible tools), the programme may provide targeted capital support based on a structured needs assessment and demonstrated institutional commitment.

This co-investment model reduces financial risk for TVET institutions while ensuring institutional ownership, long-term sustainability, and alignment with industry demand.

### 3. Structured Private Sector Partnerships

Private-sector companies will be formal partners in the programme. Their role will include:

- Providing technical input to curriculum design
- Participating in student evaluation
- Hosting internships
- Signalling workforce demand

Given the expansion of institutional electric cooking models—including energy-as-a-service and PAYG approaches—manufacturers require reliable fabrication talent to maintain quality, reduce warranty risk, and support scaling.

#### 4. Paid Industry Internships

Top-performing students will be placed in three-month paid internships with participating companies. A modest internship subsidy will be provided to de-risk private-sector participation while ensuring students are compensated. Internships are aimed at providing:

- Clear employment pathway
- Industry-recognised specialisation
- Practical experience in manufacturing environments

The internship model also strengthens institutional linkages with local industry, positioning TVETs as active contributors to Kenya's clean energy manufacturing ecosystem.

#### 5. Monitoring, Evaluation, and Learning

The programme will include structured monitoring and evaluation to generate transferable learning, including:

- Baseline mapping of welding curriculum content across participating institutions
- Documentation of skills acquisition and production outputs
- Tracking of internship placements and employment outcomes
- Feedback from manufacturers on skill readiness

Findings will inform recommendations for integrating stainless steel welding into national TVET frameworks and strengthening industry–training collaboration at scale.

#### Expected Outcomes

This initiative will:

- Improve fabrication quality and appliance durability
- Increase graduate employability in an expanding clean energy manufacturing sector
- Strengthen local value addition and reduce reliance on imports
- Support Kenya's National eCooking Strategy implementation
- Generate actionable learning on workforce development for clean energy transitions

#### Scope of Work

CLASP intends to issue two separate contracts under this RFP:

- One contract for Part A – M&E Expert/Firm
- One contract for Part B – Training Institution

Bidders may apply for Part A, Part B, or both. Joint ventures or consortium applications are permitted, provided roles and responsibilities are clearly defined.

CLASP reserves the right to award only one component, both components, or none.

- **PART A: M&E Expert/Firm** - Conduct a market study and monitoring and evaluation (M&E) exercise to understand the current landscape of welding training, monitor implementation of the three-month training and internships, evaluate the effectiveness of the pilot training program, and provide practical recommendations for replication and scale.
- **PART B: Training Institution** - Develop and deliver a three-month stainless steel welding unit for second or third year TVET students who are already enrolled in metalwork/welding courses, followed by a three-month paid internship placement for selected students with private sector e cooking manufacturers.

### Part A – Monitoring & Evaluation / Market Study

- **Conduct a targeted baseline assessment** of selected TVET institutions offering welding and metalwork courses. This will include structured site visits to up to four institutions (including the pilot site), complemented by a limited number of virtual interviews and a short survey to capture broader, self-reported data on course content, duration, certification pathways, equipment availability, instructor capacity, and exposure to stainless-steel welding.
- **Assess bottlenecks and opportunities** to strengthen stainless steel welding capacity within the sampled institutions. The assessment will identify material constraints, equipment gaps, electrical and workshop readiness, instructor skills, industry linkages, and institutional willingness to co-develop curriculum and co-invest in long-term delivery.
- **Monitor implementation** of the three-month training programme and subsequent internship placements. This will include tracking student enrolment, attendance, completion, skills assessment outcomes, fabrication outputs, placement of up to eight paid internships, and structured feedback from students and host companies.
- **Produce a final synthesis report with actionable recommendations.** The report will integrate baseline findings and pilot outcomes to assess the viability of the stainless-steel welding module, identify conditions for replication in similar county-level TVETs, and provide practical recommendations for scaling within budget and policy constraints.

### Deliverables

- Inception report (2–3 weeks after contract signing)
- Survey instrument and data collection tools
- Baseline report (prior to training completion)
- Internship monitoring brief
- Final synthesis report and stakeholder presentation

## Part B – Curriculum Development and Training

- Collaborate with CLASP and private sector partners to design a 3-month stainless steel welding unit that integrates into existing TVET metalwork curricula. The unit should cover theory and hands on practice, including TIG/MIG/arc welding of stainless steel, metallurgy, blueprint reading, safety and quality control.
- Provide practical training on stainless steel welding to students based on the developed curricula. Guide students to fabricate stainless steel tables and pots (inner vessels similar to those used in electric pressure cookers) using the provided materials. Products should meet food safety standards.
- Provide any necessary capacity building for instructors to deliver the unit effectively.
- Maintain accurate records of student attendance, assessment results and products produced. Submit a mid course progress report to CLASP.
- At the end of the course, prepare an end of course report summarising student performance, lessons learned, challenges and recommendations for integrating the unit into the permanent curriculum.
- Work with CLASP and private sector partners to select top students (based on performance and interest) for paid internships. Facilitate placement and support monitoring during the internship period.
- Indicate how the stainless steel unit will be credit-bearing and aligned with national TVET accreditation frameworks (e.g., Kenya National Qualifications Authority (KNQA) or other relevant regulatory bodies), and outline the steps required for formal institutional integration and sustainability.
- Provide the long-term institutionalisation plan, detailing the steps required to integrate the stainless steel welding unit into the permanent curriculum, including accreditation processes, budget implications, and sustainability measures beyond the pilot period.

### Deliverables

- Curriculum and detailed training plan for the 3-month unit, including learning objectives, lesson plans and assessment methods.
- Training schedule and list of instructors.

- Inventory of materials and equipment required (excluding stainless steel materials provided by CLASP).
- List of students enrolled attendance records and assessment results.
- Inventory of stainless steel tables and pots fabricated, including their distribution to partner companies or institutions.
- End of course report with lessons learned and recommendations.
- Clear accreditation and/or certification pathway for students, long-term course institutionalisation plan.

### **Timelines**

- RFP release date: 5 March 2026.
- Proposal submission deadline: 20 March 2026.
- Evaluation of proposals and selection of partners: by 25 March 2026.
- Contract award and inception meeting: by 31 March 2026.
- Training period: 3 months
- Internship placements: 3 months
- Final reports due: 30 Nov 2026.

## **Budget**

CLASP will procure all stainless steel materials required for the practical training and provide a stipend to private sector companies hosting interns. Bidders should include all other costs in their financial proposals, including instructor remuneration, consumables, facility use, student allowances (if any), and M&E activities. Budgets should be inclusive of all taxes.

## **Eligibility & Qualifications**

Training Institutions:

- Registered TVET institution in Kenya with at least two years of experience delivering welding or metalwork courses.
- Adequate workshop space, safe electrical infrastructure, and qualified welding instructors. Existing TIG/MIG capability is preferred but not mandatory; institutions must demonstrate readiness to co-invest and accommodate targeted equipment upgrades where required.
- Capacity to integrate the stainless steel unit into existing schedules and mobilise second- or third-year students.
- Experience managing student records and reporting to donors or partners.

## **M&E Expert/Firm**

- Demonstrated experience in education or workforce development research. Familiarity with the welding/metal fabrication sector is an added bonus.
- Expertise in monitoring and evaluation, data collection and analysis.
- Ability to conduct field research across multiple counties in Kenya.
- Strong analytical, writing and presentation skills.

## **Proposal Requirements**

- Technical proposal (max. 5 pages) describing understanding of the assignment, proposed methodology and work plan, team composition and roles, risk register and mitigation measures.
- Financial proposal (in a separate file) detailing costs for each activity and line item. Indicate the validity period of the quotation.
- For training institutions - Completed Eligibility Checklist
- Organisational profile and relevant experience.

- CVs of key staff.

### **Evaluation Criteria**

Proposals will be evaluated using the following criteria:

- Technical approach and alignment with RFP objectives – 40%
- Qualifications and experience of the team/institution – 25%
- Cost effectiveness and value for money – 20%
- Consideration of gender and social inclusion – 10%
- Completeness and clarity of proposal submission – 5%

### **Submission Instructions**

Proposals must be submitted electronically by 20 March 2026 to [ventures@clasp.ngo](mailto:ventures@clasp.ngo) with the subject line “RFP – Stainless Steel Welding Training” and will be evaluated on a rolling basis. All questions or requests for clarification should be submitted to the same email address no later than 13 March 2026. Responses to questions will be shared with all interested bidders.

## Equipment & Facilities Readiness Checklist

Participation in this programme does not require institutions to already possess all stainless-steel welding equipment. The programme recognises that public TVET institutions may face capital constraints, particularly regarding specialised equipment such as TIG welding machines and gas infrastructure.

The readiness assessment is designed to identify baseline safety and operational conditions, assess institutional commitment and instructor capacity, determine targeted equipment and material needs, and enable structured co-investment between the programme and the institution

The programme may support the purchase of selected equipment where justified through the needs assessment and where the institution demonstrates co-investment (financial or in-kind) and commitment to long-term integration of the course.

### Needs Assessment Checklist

#### A. Welding Equipment (Core)

##### TIG (GTAW) welding machine

- AC/DC capability preferred
- Foot pedal or current control available

##### MIG welding machine (with stainless-compatible setup)

- Capable of stainless wire feeding
- Separate liner for stainless steel

##### Arc (SMAW) welding machine

- For foundational comparison and joint preparation (acceptable if already available)

##### Shielding gas system

- Argon (minimum requirement)
- Regulators, hoses, and secure cylinders

##### Dedicated stainless steel welding consumables

- Tungsten electrodes
- Stainless filler rods / wire (304 / 316)

## B. Fabrication & Metalworking Tools

- Metal cutting tools suitable for stainless steel
  - Chop saw / band saw / plasma cutter
  - Stainless-only blades or discs
- Grinding and finishing tools
  - Angle grinders (dedicated to stainless steel)
  - Flap discs, polishing wheels
- Bending and forming tools
  - Sheet metal brake or bending press
  - Manual rollers (for pot curvature, where applicable)
- Clamps, jigs, and fixtures
  - For repeatable joints and alignment
- Measuring and marking tools
  - Vernier callipers
  - Steel rulers, squares, scribes

## C. Workshop Infrastructure & Facilities

### Mandatory

- Adequate electrical infrastructure
  - StaSafe electrical wiring capable of supporting welding equipment
  - Dedicated circuits for welding machines
  - Minimum 220–240V single-phase supply (three-phase preferred but not mandatory)
  - Basic surge protection or voltage control measures
- Ventilation and fume extraction
  - Natural or mechanical ventilation
  - Local exhaust preferred for TIG/MIG stations
- Fire safety equipment
  - Fire extinguishers (metal fires considered)

- Clear fire exits
- Clean work surfaces
  - Stainless-only or contamination-controlled benches
  - Separation from mild steel work areas where possible
- Secure storage
  - Lockable storage for stainless materials and consumables

#### D. Health, Safety & Quality Control

##### Mandatory

- Personal Protective Equipment (PPE)
  - Welding helmets (auto-darkening preferred)
  - Gloves suitable for TIG welding
  - Aprons, boots, eye protection
- Material handling equipment
  - Trolleys or racks for sheets and tubing
  - Safe storage to prevent damage or contamination
- Basic quality inspection tools
  - Visual inspection standards
  - Simple leak or pressure testing setup (for pots)

#### E. Instructor & Human Capacity (Critical)

##### Mandatory or conditionally mandatory

- At least one instructor with experience in stainless steel welding
  - TIG welding experience essential
  - Food-grade or appliance fabrication experience preferred
- Instructor availability for course duration
  - Minimum 3 months dedicated instruction time
- Willingness to co-develop curriculum/unit module

- Alignment with industry specifications
- Openness to external input and iteration

## F. Teaching & Learning Infrastructure

Recommended (not all mandatory)

- Classroom space linked to workshop
  - For theory, safety, and quality sessions
- Basic teaching aids
  - Projector or whiteboard
  - Welding symbols charts and fabrication drawings
- Ability to host industry engagement
  - Site visits
  - Guest instructors
  - Student selection for internships

## G. Programme Management & Partnerships

Strongly recommended

- Formal linkages with local manufacturers or workshops
  - Apprenticeships or attachments experience
- Student tracking and assessment systems
  - Attendance
  - Skills assessment
  - Certification or recognition
- Administrative capacity to manage materials provided by CLASP
  - Inventory control
  - Reporting on use and outputs