



Request for proposals (RFP): Biomedical or industrial gas engineering consultancy services for medical oxygen infrastructure projects in Sub-Saharan Africa

Reference	RFP/CHAI/GEMENG/TC-001
Posting Date	18 April 2025
Proposal Submission Deadline	02 May 2025
Anticipated Start Date	26 May 2025

BACKGROUND

The Clinton Health Access Initiative, Inc. (CHAI) is a global health organization committed to our mission of saving lives and reducing the burden of disease in low-and middle-income countries. We work at the invitation of governments to support them and the private sector to create and sustain high-quality health systems. CHAI was founded in 2002 in response to the HIV/AIDS epidemic, with the goal of dramatically reducing the price of life-saving drugs and increasing access to these medicines in the countries with the highest burden of the disease. Over the following two decades, CHAI has expanded its focus. Today, along with HIV, we work in conjunction with our partners to prevent and treat infectious diseases such as COVID-19, malaria, tuberculosis, and hepatitis. Our work has also expanded into cancer, diabetes, hypertension, and other non-communicable diseases, and we work to accelerate the rollout of lifesaving vaccines, reduce maternal and child mortality, combat chronic malnutrition, and increase access to assistive technology. We are investing in horizontal approaches to strengthen health systems through programs in human resources for health, digital health, and health financing. With each new and innovative program, our strategy is grounded in maximizing sustainable impact at scale, ensuring that governments lead the solutions, that programs are designed to scale nationally, and learnings are shared globally. Learn more about our exciting work: <http://www.clintonhealthaccess.org>

JOB SUMMARY

*The Clinton Health Access Initiative (CHAI) is a sub-grantee of FHI360 on the *Meeting Targets and Maintaining Epidemic Control (EpiC)*, a global project funded by the U.S. Agency for International Development (USAID), provides strategic technical assistance and direct service delivery to achieve HIV epidemic control among at-risk and vulnerable populations and strengthen global health security, including COVID-19 response. EpiC is led by FHI 360 with core partners Right to Care (RTC), Palladium, and Population Services International (PSI). Starting in early 2020, EpiC responded to the global COVID-19 pandemic by supporting partner governments to prevent, prepare for, and respond to COVID-19 and bolster health systems including improving access to liquid oxygen (LOX). The funding presents an opportunity to implement infrastructure and market-shaping interventions that secure the supply of LOX at more affordable prices and foster a more robust and sustainable oxygen market. This includes negotiating favorable supply agreements, increasing supply-side competition by engaging additional oxygen producers, establishing cost-effective transportation arrangements from large air separation units (ASUs), and strengthening ancillary infrastructure, including bulk storage tanks and cylinder filling stations.*



PROJECT OBJECTIVE

The objective of the Liquid Oxygen Infrastructure Project's scope of work includes the provision of technical guidance, expert advice, implementation oversight and innovative solutions to CHAI focus countries on various medical liquid oxygen projects with a specific focus on delivering timely and industry compliant deployment of Vacuum Insulated Cryogenic Equipment installations, testing and commissioning, cylinder filling, storage and transport operations, installation of Medical Gas Piping Systems and other associated technology management services.

TECHNICAL ENGINEERING ADVISORY SUPPORT

The Essential Medicines team at CHAI is seeking a Technical Consultant to serve as a subject matter expert and technical lead supporting the design, procurement, implementation, and evaluation of complex cryogenic and gaseous oxygen systems across CHAI's focus countries. These countries are at varying stages of program rollout and execution of high-impact oxygen delivery strategies. The Technical Consultant will work closely with CHAI's technical teams, government partners (Inclusive of the Ministry of Health), and key stakeholders—including private sector actors (vendors, sub-contractors, design teams, inspection agencies), donors, and NGOs—to support the end-to-end project lifecycle: from equipment selection and installation to operational management and post-installation evaluation. This includes overseeing the planning, deployment, and performance of oxygen generation and delivery systems, as well as managing associated infrastructure and supply chains. The consultant will ensure projects are delivered on time, within budget, and aligned with sector-specific technical, regulatory, and safety standards. This role demands strong project management capabilities, deep technical expertise in biomedical and oxygen systems, and experience managing construction and installation in healthcare settings. The ideal candidate is a self-starter with a demonstrated ability to lead complex initiatives, communicate effectively across teams and stakeholders, and deliver high-quality results in dynamic environments. CHAI values personal attributes such as adaptability, entrepreneurial drive, humility, strong work ethic, and a deep passion for delivering life-saving impact.

Please note that the location for this position is flexible and should be based in any CHAI Program Country depending on Country Leadership approval and on residency/work permit status of applicant.

PROPOSED SCOPE OF WORK AND JOB RESPONSIBILITIES

1. Technical Oversight & Project Execution

- Lead the technical review and validation of proposals, drawings (DWGs), civil briefs, medical piping layouts, telemetry systems, electrical and mechanical requirements for the design, installation, and commissioning of medical oxygen systems.
- Coordinate and supervise equipment procurement, installation, commissioning, and performance validation to ensure full compliance with regulatory standards and manufacturer guidelines.
- Support country teams in supervising day-to-day deliverables of all field engineers, vendors, and subcontractors during pre-construction, deployment, and start-up phases (remotely and on-site).
- Contribute to the development of new approaches, tools, and optimizations that strengthen CHAI's LOX project models and sustainability efforts.



- Participate in field visits for site inspections, vendor meetings, workshops, and final close-out documentation.

2. Planning, Design & Guidance Development

- Collaborate with country teams to assess oxygen equipment needs, specifications, and deployment feasibility across diverse health facility settings.
- Guide stakeholders through the full equipment lifecycle, including planning, selection, safety and risk assessments, procurement, installation, maintenance, and asset management.
- Lead the development of technical guidance documents, specifications, and system design materials to support country oxygen supply planning efforts.
- Support the creation of training modules, SOPs, toolkits, FAQs, and knowledge products to enable effective cross-country learning and dissemination.

3. Quality Assurance & Risk Management

- Review project safety protocols, contractor reports, and identify technical risks and mitigation actions.
- Evaluate all third-party inspection reports prior to vendor payment disbursements to ensure compliance with contract deliverables.
- Support the development and implementation of systems for vendor monitoring, performance tracking, and contract compliance.

4. Stakeholder Engagement & Coordination Support

- Serve as a technical focal point, responding to internal and external inquiries, troubleshooting field challenges, and providing expert thought partnership.
- Support MOH and partners to align on the technical design, specification, and implementation of oxygen-related infrastructure and technologies.

5. General Duties

- Support the compilation of technical manuals, handover documentation, and training materials for government clients.
- Perform other responsibilities as assigned.

DURATION AND LEVEL OF EFFORT

- Short-term “Technical Bridge Support” June to November 2025- with potential extension, if the project requires
- Maximum of 50 to 60% of a complete CHAI FTE per week (20-24 Hrs)
- Hybrid work model (60% Remote + 40% Field Visits)

PROPOSED GEOGRAPHICAL SCOPE



- Eswatini, Mozambique, Democratic Republic of Congo, Tanzania (Core Project Implementation and Technical Advisory Support)
- Other CHAI focus countries: Lesotho and Zambia (Operational project oversight, Knowledge Management, Evaluation and Learning Support)

KEY EXPERIENCES AND COMPETENCY REQUIREMENTS FOR THIS ROLE

1. Experience and Educational Background

- Bachelor's degree in biomedical, Industrial, or Mechanical Engineering (master's degree preferred)
- At least 8–10 years of experience in project engineering, particularly in medical gas infrastructure and equipment. This includes procurement, installation, operations, long-term maintenance, contract management, and supply chain operations.
- Proven track record in managing complex, multi-country infrastructure portfolios in low- and middle-income countries (LMICs).

2. Technical Expertise

- Deep domain knowledge in cryogenics and medical gas systems, with an understanding of system design, deployment, and operations across varied healthcare contexts.
- In-depth understanding of regional and international standards related to medical oxygen (e.g., NFPA 99, HTM, ISO, WHO, SANs, EIGA).
- Proficiency in interpreting architectural, structural, and MEP drawings; capable of generating technical documentation and site assessments.

3. Project Management & Strategy

- Demonstrated ability to lead large-scale healthcare infrastructure projects, including milestone tracking, stakeholder management, and budget alignment.
- Skilled in guiding clients through cost-effective, fit-for-purpose engineering strategies.
- Familiarity with health technology-related contracts and vendor performance oversight.

4. Problem Solving & Quality Assurance

- Strong analytical and decision-making skills; adept at identifying project risks and implementing actionable solutions.
- Experience in ensuring contract and regulatory compliance, quality assurance, and performance tracking.
- Commitment to health, safety, and environmental protocols in engineering contexts.

5. Collaboration & Capacity Building

- Strong interpersonal and negotiation skills, particularly with senior stakeholders and ministries of health.
- Proven experience working within matrixed teams and multi-disciplinary environments, including engineers, contractors, donors, and government partners.
- Dedicated to technical mentorship and building local institutional capacity through training, SOP development, and knowledge transfer.

6. Personal Attributes and Languages



- Entrepreneurial mindset with high energy, initiative, and the ability to work independently in fast-paced and ambiguous environments.
- Humility, diplomacy, and a collaborative approach in engaging with partners and field teams.
- Fluency in English is required; proficiency in French and/or Portuguese is strongly preferred.
- Willingness and flexibility to travel to CHAI project countries across Sub-Saharan Africa, adhering to health and safety protocols.

7. Preferred/Advantageous Qualifications

- Experience managing the full deployment cycle of medical oxygen systems (including production, storage, distribution, and delivery).
- PMP certification or equivalent project management credentials.
- Internationally recognized certifications and affiliations
- Professional Engineer (PE) license and/or other internationally recognized certifications.

COMPLIANCE TO CODE OF CONDUCT

- The CHAI code of conduct for suppliers is a minimum set of requirements that suppliers must meet to qualify to do business with CHAI and remain in good standing with the organization. Please read the document via this link [Code of Conduct](#) and apply for this solicitation only if you can comply with these requirements. All firms and contractors are expected to adhere to the [CHAI EM Code of Conduct](#) for suppliers.

HOW TO APPLY

CHAI invites proposals from qualified individual consultants or firms with relevant technical expertise.

- Interested candidates/firms must submit their resumes/company profile, educational certificates and a detailed proposal explaining the candidate/firm's understanding of the objectives of the solicitation, the technical approach to offering the services, detailed methodology for carrying out the activities and obtaining the expected project output.
- Provide information on at least 3 previous engineering consulting projects similar in nature to the scope of work of this solicitation for which your consulting firm/organization were engaged either individually as distinct corporate entities or jointly as members of a consortium of corporate entities.
- Provide a work schedule/workplan, inclusive of proposed activities, deliverables, and timelines.
- Submit a detailed summary of deliverable based costs or daily consultancy rates for the entire project duration. The total costs should be inclusive of taxes, duties, fees, and other impositions paid by the consultant /firm. Indicate the preferred schedule of payment and currency of remuneration.
- For submission of proposals or applications, please send your completed application via email to gempurchase@clintonhealthaccess.org
- The deadline for the submission is May 2nd, 2025, 11:59 pm CAT.



EVALUATION PROCESS

We will screen applications on a rolling basis - selected candidates/firms will be invited for our interview process to evaluate:

- Depth of technical expertise and knowledge,
- Previous experience with similar industry-based projects,
- Track record of successful project delivery and client feedback,
- Availability to commit to the project timelines and
- Proposed costs relative to project budget.

ADDITIONAL NOTES

- Any official clarifications required related to this RFP should be submitted via the email gempurchasement@clintonhealthaccess.org quoting **RFP/CHAI/GEMENG/TC-001** in the subject line **by midnight Central Africa Time (CAT), April 25th 2025**. All responses will be shared via email.
- All quotations must be submitted on or before **12 midnight CAT, May 2nd 2025** via the email: gempurchasement@clintonhealthaccess.org quoting **RFP/CHAI/GEMENG/TC-001** in the subject line.
- Should your submission exceed 2 MB and cannot be sent by email, please send an email to request an upload link with the subject 'Requesting upload link for **RFP/CHAI/GEMENG/TC-001**' to gempurchasement@clintonhealthaccess.org