



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE (TOR) FOR CONTRACTS FOR SERVICES AND WORKS

*ONLY JAPANESE SERVICE PROVIDERS ARE ELIGIBLE
TO SUBMIT PROPOSALS*

Scope of service: Conduct research and analysis towards establishing work program on geothermal power utilization for sustainable climate resilient development in Africa
Duration: Nov 2021 – October 2022
Budget: Up to USD 500,000

1. BACKGROUND INFORMATION

UNIDO is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability with the mission of, as described in the Lima Declaration adopted at the fifteenth session of the UNIDO General Conference in 2013, promoting and accelerating inclusive and sustainable industrial development (ISID). In line with UNIDO's mandate of ISID and in cooperation with the Ministry of Economy, Trade and Industry (METI) of Japan implements a collaborative programme of "Generating energy capacity from geothermal power generation and its related technologies for sustainable development". The main objective of the programme is to promote geothermal power generation and its related technologies in African countries through technology demonstration, removal of existing barriers in access to information and technical knowledge, capacity building to better absorb and domestically replicate such technologies, knowledge management activities, identification of viable, sustainable and suitable business models while strengthening market conditions for investment in Africa.

In response to the above challenges and opportunities, as well as leveraging on its technical capacity in sustainable energy development, UNIDO is working on establishing a work program for capacity building and outreach activities for facilitating uptake of geothermal power generation and its relevant technologies in the African countries. The work program will include a series of capacity building and outreach activities, partnership building, knowledge management, identification of suitable business models and strengthening market conditions while taking into account of each country's specific needs and conditions.

Upon this backdrop, UNIDO is searching for a contractor to conduct an expert research and consultation to establish the work program identifying specific interventions which can effectively and efficiently address the challenges faced in the countries.

2. OBJECTIVE OF THE CONTRACTED SERVICES

The contractor will conduct research and analysis as well as undertake consultations with stakeholders for identifying technology and capacity building and outreach needs for uptake geothermal power generation and its relevant technologies for effectively addressing challenges of climate change, energy

poverty and sustainable industrialization especially targeting around six (6) countries in Africa. The targeted African countries will include Kenya, Ethiopia, Rwanda, Uganda, Djibouti and Tanzania, considering the existence of strong political ownership to utilize geothermal energy development, favourable policy environment and UNIDO's past experience in the countries as well as the replicability of the good practices and upscaling dissemination of geothermal power generation and its relevant technologies. A specific concept note will be prepared based on the research and consultations to realize recommended work program for operationalization of capacity building and outreach activities to address the needs of the targeted countries towards further uptake of geothermal power generation and its relevant technologies.

3. DELIVERABLES AND GENERAL TIME SCHEDULE

The activities will take place over a period of approximately twelve (12) months. The contractor will ensure that sufficient key personnel are made available for the successful completion of the following duties:

Activity 1.1: Conduct baseline analysis and review of geothermal power generation and its relevant technologies in the targeted countries

Elaborate and prepare criteria to identify best practices for implementing projects using geothermal power generation and its relevant technologies based upon lessons learned and experiences gained from the existing relevant activities as identified through the study.

Specific focus will also be given to climate impact, replicability and self-sustainability of the interventions with a view to horizontal replication of technologies and practices considering the following:

- Baseline review;
- National and regional climate, energy and industry related policies review such as those by the East African Community (EAC) as well as those given by international and bilateral donors;
- Impact and co-benefit assessment on structural change in local natural resources, society and economy including possible immediate and long term impacts on meeting electricity demands by the households;
- Geothermal technology deployment and dissemination potential;
- Risks and possible risk mitigation measures for developing a geothermal power project;
- Common challenges and lessons-learned in geothermal technology transfer;
- Cost structure and volatility risk (e.g. electricity prices) as well as social, environmental and economic impacts such as contribution for GHG emission reductions, increase of electrification rates and diversification of livelihoods with quantitative methods etc.;
- Prospects for technical development after initial support;

Also conduct assessment and identification of potential forms of innovative business/finance options including climate finances in the wake of transition towards addressing climate change, energy poverty and sustainable industrialization through utilization of geothermal energy. Considerations should be given on prospects for financial accessibility for implementing geothermal and related projects including availability of both domestic and multilateral financial public and private financial resources. It will also include cross-cutting policy review for comparison of the country in the African region.

Activity 1.2: Conduct stakeholder consultation and engagement towards addressing climate change, energy poverty and sustainable industrialization in Africa through geothermal energy utilization

Stakeholder consultations will be conducted to engage with the relevant stakeholders in the identified countries including public and private sectors as well as academia. For this purpose, in-country stakeholder meetings will be held at least 2 (two) times during the period of activities. UNIDO will provide support and guidance on coordination, outreach and communication with regional stakeholders. The vendor is expected to participate in dialogue with the stakeholders.

In addition, consultations will be conducted with various technology suppliers and service providers as well as academia from Japan in the field of geothermal power generation and its related technologies. Further, consultations will be conducted to identify the possible collaboration with policy based financial institutions and donor organizations (e.g. AfDB, JBIC, JICA etc.).

Activity 1.3: Prepare a work program on geothermal power utilization for sustainable climate resilient development in Africa

Based on the above activities, a comprehensive report will be prepared for further uptake of geothermal technologies in the targeted countries towards addressing climate change, energy poverty and sustainable industrialization in Africa. The report will include a concept note on the work program which sets out, among others: overall description of the work program including objective statement; proposed main target groups, expected counterparts; total budget size; and background design analysis for the implementation of the program such as baseline scenario, institutional arrangements and coordination mechanism and funding strategy. Considerations are given on opportunities for knowledge sharing and horizontal learning among the countries involved taking into account the size of economy, political and economic stability, general business environment, average costs of utility, interests and focus of international and domestic financial institutions and donors, etc. as well as climate change related information such as through NDCs, National Communication, Biennial Updated Report, National Adaptation Plan etc. The concept note also sets out a roadmap for geothermal technology dissemination by specifically identifying needs to be addressed in each country.

Activity 1.4: Organize one inception event to showcase work program for implementing capacity building activities for uptake of geothermal power generation and its relevant technologies (approx. 50 attendees including those from targeted countries)

Organize one inception event in Tokyo, where up to around 50 participants in total from both national and international stakeholders of the countries involved will participate. The service provider will closely work with UNIDO for organizing the event and advice the participants of the event. The service provider will make inputs as necessary based on the outputs and findings through this study.

The above activities are to be completed within a period of twelve (12) months from the date of the contract. The following deliverables and timeline should be adhered to (see also Annex 1):

- i. Inception Report: Within first three (3) weeks after signing the contract
- ii. Monthly Progress Report: Every month after signing the contract
- iii. Mid-term Progress Report: Within three (6) months after signing the contract
- iv. Final Report & Presentation materials: Within three (3) weeks of receipt of UNIDO-reviewed draft report which is submitted within five months of signing of the contract
- v. Organizing one promotional event: Within the period of the activity and event report within three (3) weeks of organized event

4. REPORTING

The service provider shall submit to UNIDO the following reports:

- **Inception Report** detailing the methodology and organizational framework to be used for the research, technical consultations and development of concept note as well as a detailed work plan identifying targeted countries and activities to be completed by the service provider for the whole period of the contract. This report shall be reviewed and cleared by UNIDO before the start of the work.
- **Monthly Progress Report** concisely providing updates on the progress of the work by the service provider as per each activity in this ToR as well as the work plan as reviewed and cleared by UNIDO
- **Mid-term Progress Report**, consisting of a draft project concept note as well as the report consolidating information on the activities taken and preliminary findings and potential ways forward as applicable at the time of submission.
- **Final report & presentation materials**, consisting of a detailed project concept note, as well as the report & presentation materials that are ready to be published and shared with the donors and possible financial institutions. The final report includes the report of promotional event such as minute of the meeting, list of participants and photos.

Each report should be sent to UNIDO for review and recommendations for any appropriate action that may need to be taken, before that the contractor continues with the work, as stated in the time schedule.

Written reports on achieved progress shall be provided by the contractor as outlined under section 3. and Annex 1.

All documents will be provided to UNIDO with one electronic copy consisting of the following electronic files: PDF file; Original work files (WORD, POWER POINT, EXCEL, etc.) as well as photographs and video recordings (if available).

The electronic copy can be provided via e-mail, if the nature and size of the files make it possible. Otherwise, the electronic copy will be provided in a CD or DVD copy. All deliverables and related documents should be provided in English.

5. COUNTERPART RESPONSIBILITY

The contractor will be responsible for arranging visas and logistics for participants (i.e. experts, government officials, stakeholders, etc.) of the promotional event if required. UNIDO may be requested to provide supporting document as well as necessary travel cost for the participants except the service provider, if necessary.

6. LANGUAGE REQUIREMENTS

All communication, reports and documents must be submitted in English.

7. QUALIFICATION AND EVALUATION CRITERIA

The contractor is expected to have following profile:

- Immediate and full availability to carry out this assignment;

- Proven track record of at least 5 years in providing similar or relevant successful services experience in the relevant fields e.g. geothermal project development, business management, consulting on organizational change management, low carbon and sustainable energy and industry development;
- Experience in working with public agencies, private sector stakeholders and multilateral/regional institutions are plus;
- Knowledge on the regional geothermal stakeholders, development history, and policy environment in Africa is plus;
- Completed reports of similar services and details of the impact of these reports (i.e. what was the result of completed reports);
- Evidence of organizing events;
- Compliance with Terms of Reference;
- Competency to describe the approach and methodology for the tasks to be executed and outputs to be delivered in detail;
- CVs of the assigned personal and relevant professional references. The key Team members shall be advanced degrees in relevant field of study e.g. Finance, Business Administration, Project Management, Geology, Geochemistry, Geoscience, Geophysics;
- Excellent command of the English language.

8. APPLICATION PROCEDURE

- A well-described detailed Technical Proposal including proposed approach and methodology to carry out the research, work plan, detailed CVs of experts (incl. proposed team composition with task allocation), as well as proven track record of implemented assignments;
- Financial proposal in USD, including all costs and taxes in a detailed work-time-expert-diagram indicating daily rates for individual team members (enclosed UNIDO Budget Allocation Template to be completed);
- Copies of certificate of incorporation (or other legal document), certified financial statement, UNIDO Proposer Financial Statement form and other certificates/licenses.
- To ensure consideration, your complete proposal must be submitted via the UNIDO e-Procurement Portal (<https://procurement.unido.org>) by 3 December 2021, 17:00 pm, Austria time zone.

Annex 1: Activity Timeline

Activities	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Contracts signed and work started												
Submit inception report												
Submit monthly progress report												
Activity 1.1: Conduct baseline analysis and review of geothermal power generation and its relevant technologies in the targeted countries												
Submit mid-term progress report												
Activity 1.2: Conduct stakeholder consultation and engagement towards addressing climate change, energy poverty and sustainable industrialization in Africa through geothermal power generation and its relevant technologies												
Activity 1.3: Prepare a work program for operationalizing geothermal capacity building activities												
Activity 1.4: Organize one inception event to showcase work program for implementing capacity building activities for uptake of geothermal power generation and its relevant technologies (approx. 50 attendees including those from targeted countries)												
Submit final report & presentation materials:												