The Geothermal Risk Mitigation Facility (GRMF) is managed by the Regional Geothermal Coordination Unit (RGCU) within the Department of Infrastructure and Energy of the African Union Commission (AUC-DIE).

East Africa has an estimated geothermal resource potential of over 15,000 MW. Development of this resource has potential to:

- Improve the regional power generation
- Constitute further advantages of geothermal energy projects like direct-use
- Reduce CO2 emissions
- Reduce the frequency and severity of energy price fluctuations and black outs
- Improve security of energy supply
- Adding low-cost power generating capacity in East Africa

### Implementing Agencies & Donors:

![African Union](image)
![European Union](image)
![German Cooperation](image)
![KFW](image)

### Implementing Consultants:

Rödl & Partner

MANNVIT
In order to mitigate the high risk of exploration and reservoir confirmation drilling, the Geothermal Risk Mitigation Facility (GRMF) for East Africa was established in 2012.

Mandate was given to the AUC by the Ministers of Energy from 11 countries of the EARS to establish the Regional Geothermal Programme.

In 2020 Somalia was added to the list of eligible countries.

GRMF POWER provides funding for power production project

GRMF HEAT provides funding for geothermal direct use (NEW)
## Objectives:

- Fund, facilitate, and accelerate geothermal development in Eastern Africa.
- Encourage public and private sector investment into geothermal power generation.
- Act as a catalyst in establishing geothermal energy as a strategic option for power generation capacity expansion in eleven partner countries in the Eastern African Rift region.

## GRMF offers:

- **Information** (pre-bidding workshops, geothermal database)
- **Capacity building** (constructive feedback during the application process, structured approach for coherent planning)
- **Funding for Surface Studies** to determine the optimal sites for exploration wells at geothermal prospects once they have been studied.
- **Funding for Drilling Programmes** once the optimal locations for exploration wells as well as targets at depth have been determined.
2. Funding

Eligible Countries:

Ethiopia, Kenya, Rwanda, Tanzania, Uganda, Burundi, Comoros, Djibouti, DRC, Eritrea, Zambia, Somalia

Eligible Entities:

- Public or private as well as public private partnerships
- Limitation is set to provide GRMF grants to a maximum of three drilling programmes per eligible entity

Donors:

EU–ITF, BMZO

Financial Support:

- **Infrastructure grants**: up to 20% of the costs for infrastructure required for surface studies and drilling programmes (access roads, water, supply).
- **Surface study grants**: up to 80% of eligible costs for surface studies (excluding infrastructure costs).
- **Drilling grants**: up to 40% of the cost of exploration drilling and testing programmes for reservoir confirmation wells (excluding infrastructure costs).
- **Continuation Premium**: up to 30% of the approved costs of continuation activities or up to 30% of the developer’s share of the eligible costs incurred during the initial drilling – whatever is lower
Competitive, transparent, rigorous two-stage evaluation process

Express of Interest (EoI)

Request for Application (RfA)

Grant Contract

Monitoring & Disbursements

3. Application Process
4. Organizational Structure
Projects from:

- Djibouti
- Ethiopia
- Kenya
- Tanzania
- Comoros
- Uganda

21 Drilling Programmes
19 Surface Studies
5. GRMF POWER Application Rounds 1 - 7
Direct utilization = immediate/non-electric use of geothermal energy

- Medium-low temperature systems are sometimes found in less depth
- Target temperature depends on planned application & offtake
- Seismic measurements are often useful to assess location of targeted aquifers

Lindal diagram (modified) on geothermal directs uses applicable to the East African Rift region (based on (Lindal, Industrial and other application of geothermal energy, 1973)) taken from (IRENA, 2020).
6. GRMF HEAT

- GRMF HEAT is a new funding programme by the Geothermal Risk Mitigation Facility
- It was launched on 1\textsuperscript{st} December 2023
- Deadline for EoI: 16\textsuperscript{th} March
- 17 EoI were received.
- 12 Projects pre-qualified for full application
- The programme provides grants for Surface Studies and Infrastructure upgrades aiming for direct use of geothermal resources.
- In contradiction to GRMF POWER, a feasibility study will be mandatory as part of the Surface Study!
- Facility might be extended to drilling.
6. GRMF HEAT

- Funding levels remain the same as or GRMF POWER
  - 20% of eligible cost for Infrastructure Upgrades
  - 80% of eligible cost for Surface Studies

- For public entities, **external** costs for preparation of EoI and full application are now eligible.

- Two-stage application process
  - Express of Interest (EoI)
  - Request for Application (RfA)
  - Grant Contract
  - Monitoring & Disbursements
Thank you
Merci
شكرا
Obrigado
Asante