



# ***Geothermal Risk Mitigation Facility for Eastern Africa***

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**East Africa Donors' Coordination meeting**

**CONCEPT NOTE**

## 1. Background

The geothermal resources of the East Africa Rift System (EARS) have a potential to generate over 15,000 MWe (megawatts of electricity). However, this resource is currently only used to a limited extent in the EARS countries. Geothermal energy is a clean, renewable, environment-friendly and indigenous resource that can improve the energy-generation mix, but its' development is facing many challenges.

The main challenges for development of geothermal resources in EARS are, among others: (i) Inadequate policy and regulatory framework to attract investment; (ii) Large upfront cost of geothermal resource exploration and development; and (iii) Risks in resource "exploration" and "power development".

***The African Union Commission has been requested to play a role in harmonisation and coordination of geothermal energy exploration and development in the EARS, by the Ministers responsible for energy of Ethiopia, Kenya, Rwanda, Tanzania, Uganda, Burundi, Comoros, Eritrea, Democratic Republic of Congo, Djibouti, and Zambia by signing the Addis Ababa Declaration on Geothermal Energy in June 2009.***

In 2012, The African Union Commission (AUC); the German Federal Ministry for Economic Cooperation and Development (BMZ) and the EU-Africa Infrastructure Trust Fund (the EU Africa ITF) via KfW Entwicklungsbank (KfW) established the Geothermal Risk Mitigation Facility (GRMF), as a financial tool for supporting the geothermal energy development in Eastern Africa. The GRMF is hosted and managed by the AUC. Capitalized with an initial amount of 50 Million Euro. In addition to the initial funds, DFID contributed with 47 Million Pound in 2014.

The objective of the Facility is to encourage public and private investors as well as public private partnerships to develop geothermal prospects for power generation in Eastern Africa by providing grants for two types of activities: 1) Surface studies to determine the optimal location of exploration wells; AND 2) Drilling exploration wells and testing of reservoir. The programme provides grants for siting, drilling and testing of wells to assist developers secure financing for subsequent wells and for Field Development Well

This encourages further geothermal investments and improve access to equity or other funding sources and thus play a catalytic role in establishing geothermal energy as a strategic option in power expansion planning of Eastern Africa.

The GRMF programme, which for the first application round (2012) targeted the following 5 countries as pilot countries (Ethiopia, Kenya, Rwanda, Tanzania and Uganda), was from the second application round onwards (from 2013) expanded to further include Burundi, Comoros, Djibouti, DRC, Eritrea and Zambia.

### Outcomes of the three Application Rounds of GRMF:

Grants Awarded in the 1 <sup>st</sup> application round launched in 2012				
Project	Applicant/ Developer	Type of Project	Grant Amount in USD	Grant Signing
Dofan (Ethiopia)	Geological Survey of Ethiopia (GSE)	Surface Study	976,872	3 <sup>rd</sup> March 2014
Corbetti (Ethiopia)	Reykjavik Geothermal	Drilling	5,594,821	26 May 2014
Bogoria-Silali (Kenya)	Geothermal Development Company (GDC)	Drilling	4,251,652	3 <sup>rd</sup> March 2014
Longonot (Kenya)	Africa Geothermal International Ltd. (Agil)	Drilling	6,098,941	27 November 2013
Grants Awarded in the 2 <sup>nd</sup> application round launched in 2013				
Karthala (Comoros)	Bureau géologique des Comores	Surface Study	844,680	14 May 2015
Fantale (Ethiopia)	Cluff Geothermal – Private	Surface Study	862,131	21 January 2016
Tulu Moye (Ethiopia)	Reykjavik Geothermal – Private	Surface Study	1,314,000	30 November 2015
Akiira One (Kenya)	Akiira One Ltd – Private	Drilling	1,373,877	2 March 2016
Suswa (Kenya)	Geothermal Development Company (GDC)	Drilling	4,845,202	Not confirmed yet

Grants Awarded in the 3 <sup>rd</sup> application round launched in 2014				
Barrier (Kenya)	Olsuswa energy ltd Private	Surface Study	980,568	The first Grants will be signed will be in 1 <sup>st</sup> half of 2016
Butajira (Ethiopia)	Cluff Geothermal – Private	Surface Study	609,200	
Arta (Djibouti)	Djibouti Office for Development of Geothermal Energy	Surface Study	928,007	
Karthala (Comoros)	Bureau géologique des Comores	Drilling	8,328,856	
Fantale (Ethiopia)	Cluff Geothermal – Private	Drilling	3,811,102	
Korosi (Kenya)	Geothermal Development Company Ltd	Drilling	4,565,259	
Paka (Kenya)	Geothermal Development Company Ltd	Drilling	5,162,910	
Kinigi (Rwanda)	Energy Development Corporation Ltd	Drilling	4,439,444	

## 2. Specific Objectives of the Donor’s Coordination Meeting

The “East Africa Donor’s Coordination Meeting” is the first meeting of this kind organized since the mandate was given to AUC by ministers responsible for energy in eleven East African countries. The specific objectives of this meeting are to:

1. Inform and report on:
  - I. GRMF implementation status, success, challenges and way forward;
  - II. New Initiative to establish the “African Geothermal Centre of Excellence ” and its’ feasibility study;
  - III. “The African Union Code of Practice for Geothermal Drilling” developed by AUC in collaboration with the New Zealand Government and The Federal Institute for Geosciences and Natural Resources (BGR).

2. Inform the participants on the existing geothermal support programmes developed in coordination with the AUC Department of Infrastructure and Energy and other initiatives, specifically :
  - I. BGR Regional Geothermal Programme for East Africa
  - II. East Africa Geothermal Energy facility (EAGER) managed by Department for International Development (DFID)
  - III. “Global Geothermal Alliance” managed by the International Renewable Energy Agency (IRENA)
3. Launching of the GRMF 4<sup>th</sup> application round.

#### **4. Expected Outcomes of the Meeting**

Based on the specific objectives mentioned above, the expected outcomes of the meeting are as follows:

- EARS countries’ Decision Makers and development partners are well aware of the progress made since the Addis Ababa Declaration of June 2009 in Regional Geothermal Development Programme and provide their guidance on the way forward;
- Commitment and support from the EARS Decision Makers and development partners in adopting and disseminating the “African Union Code of Practice for Geothermal Drilling” and for the establishment and operationalisation of the “African Geothermal Centre of Excellence”;
- Information and experience exchanged between EARS countries’ Decision Makers and experts, development partners, donors and public- and private project developers on the status of geothermal programmes in the Eastern African Region to enhance cooperation and coordination and identify synergies;
- The 4<sup>th</sup> Application Round of GRMF is launched, providing the initiation for more projects to be submitted from public- and private geothermal developers for attaining GRMF funding.

#### **5. Participants:**

Participants will be the Ministers responsible for energy and Ambassadors of the EARS Countries, representatives of donors, representatives of development

partners, experts of GRMF beneficiaries' countries and public- and private geothermal project developers.

## **6. Date , venue and language**

Location: Addis Ababa, 13<sup>th</sup> – 14<sup>th</sup> June 2016,  
Venue: AUC New Conference Complex  
Language: The meeting will be in English and French.

## **7. Logistic**

The African Union Commission is not in the position to cover any participation cost. Therefore, participants will have to cover the cost of their participation (air ticket and accommodation). However, AUC will provide lunch and coffee break to the participants.

## **8. Contact persons**

Same as in the invitation letter to Ministers.

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