Geothermal Development Facility
Latin America

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Geothermal Energy – Key features

What are the benefits?

- A proven technology
- A stable source of base-load power
- Very low CO₂ emissions
- Relatively low levelized cost of electricity EUR 0.05-0.10/kWh

What are the challenges?

- Plant size limited by available resource
- Relatively high investment cost of EUR 3-4 Mio./MW
- Considerable Exploratory Risk acts as a serious impediment
Geothermal Risk Mitigation Facility East Africa

Grants for Surface Studies & Exploration Drillings
Continuation Premium
Regional Information

Private/Public Investor
## Geothermal Risk Mitigation Facility East Africa – Status Quo

**Successful first application round in 2012/2013**

### Expression of Interest

- 11 expressions of interest
- More than 50 % of applications for drilling projects
- Public, private & public private partnerships
- Institutions and companies from East Africa & int. companies

### Application

- Out of 8 shortlisted projects 7 applications were submitted
- 6 drilling projects and 1 surface study
- 5 projects are invited to sign a Grant Agreement

### Outlook

- Extension to 11 countries: Burundi, Comoros, Djibouti, DRC, Eritrea & Zambia
- Additional funds required for rounds 2 – 4
- Other donors interested to join

→ This shows, that GRMF is the right instrument at the right time!
If we have a successful approach - why not replicate it?
Latin America might be the right place at the right time...

- Strong interest from governments, utilities and project developers
- Considerable Geothermal Potential
  - Central America: *Considerable amount of geothermal capacity installed and considerable pipeline of projects*, however sector stalled due to lack of risk mitigation mechanisms and suitable financing.
  - Andean Region: *Considerable pipeline of projects in advanced stages of development*, however due to lack of risk mitigation mechanism and financing not a single commercial plant under operation so far.
- Political Window of Opportunity
Geothermal Development Facility (GDF) – Potential Design

- **Risk Mitigation Fund**: Project Preparation, Subregional Windows
  - Grants for Exploratory Drilling
  - Project Developers (Public/Private/PPP)

- **TA Facility**: Policy Dialogue, Capacity Building & TA
  - Enabling Regulatory and Legal Framework
  - Development of the Geothermal Field

- **Investment Financing Windows**: Concessional and Non-concessional Financing
  - Project Developers (Public/Private/PPP)
Geothermal Development Facility (GDF) – Potential Design

**Risk Mitigation Fund**
- Project Preparation
- Subregional Windows

**Estimated Closure (Phase I):**
- EUR 45 Mio.
- Grants for Exploratory Drilling

**Project Developers (Public/Private/PPP)**

**Approx. 7 Geothermal Fields 350 MW Capacity**

**TA Facility**
- Policy Dialogue
- Capacity Building & TA

**Investment Financing Windows**
- Subregional
- Windows

**EUR 700 Mio. Concessional or Non-concessional Financing**

**EUR 300 Mio. Equity from Project Developers (30%)**

**EUR 1000 Mio. total investment volume**

Third Donors / Financiers

**Risk Mitigation Fund**

**TA Facility**

**Investment Financing Windows**
Geothermal Development Facility (GDF) - Summary

› Generate considerable CO2 emission savings

› Improve access to electricity

› Provide a coordinated approach for market development

› Develop a clean, cheap, proven and base-load capable technology

› Leverage substantial investment flows
Thank you for your attention!

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