



The Second Geothermal Dialogue: Effective financing of geothermal development - what have we learned?

2nd March 2015

Munich Re, Königinstraße 107, 80802 Munich

A meeting organized by **Climate Policy Initiative** in partnership with the **Climate Investment Funds**, kindly hosted by **Munich Re**

Agenda

This meeting is the second of a **series of Geothermal Dialogues** that **bring together major actors involved in the financing of geothermal development to enable a global sharing of experiences and to explore emerging lessons in the quest to scale up effective geothermal finance**. Building upon the [First Geothermal Dialogue](#), held in Copenhagen on October 24th 2014, the meeting will assemble countries receiving support from the CIF for geothermal projects and host countries involved in other ('non-CIF') geothermal projects, donor countries, project developers & financiers, multilateral development banks, representatives of the CIF Administrative Unit and a few selected additional participants.

8:30 – 9:00 *Registration and Light Breakfast*

9:00 - 9:30 **Welcome to the Geothermal Dialogue**

- **Mafalda Duarte**, Program Manager, Climate Investment Funds
- **Barbara K. Buchner**, Senior Director, Climate Policy Initiative
- **Dr. Thomas Blunck**, Member of the Board of Management, Munich Re

This session revisits the purpose and objectives of the Geothermal Dialogues and introduces focal themes and questions to guide our discussions. A tour de table will first introduce all participants and identify priority areas of interest of the Group.

9:30 - 11:00 **The roles of the public and private sector in the Sarulla Geothermal Power Plant Project (Indonesia)**

This session discusses a case study on the **Sarulla Geothermal Power Plant Project** in Indonesia. The 3 x 110 MW project, once completed, will be largest geothermal project in the world. The long history, scale and complexity of the project would provide valuable lessons to stakeholders in accelerating geothermal development in Indonesia and globally. The project is sponsored by a consortium of Medco, Itochu, Kyushu and Ormat, and managed to secure \$1.1 billion debt financing in May 2014. The first unit is expected to come on stream in September 2016.

Based on this concrete example, financiers and experts from the host country will comment on the roles of the public sector and the private sector (e.g., national policies, financing structure and risk allocation).

Chair: **Jane Wilkinson**, Director, Climate Policy Initiative

Overview Presentation on the Role of Geothermal in Indonesia:

- **Randy Rakhmadi**, Analyst, Climate Policy Initiative

Opening Comments:

- **Nachman Isaac**, VP for Project Finance, Ormat Technologies
- **Lazeena Rahman**, Investment Specialist, Asian Development Bank

Roundtable Discussion

11:00 - 11:30 *Coffee Break*

11:30 - 13:00 **The roles of the public and private sector in the Olkaria III Geothermal Power Plant Project (Kenya)**

This session discusses a case study on the **Olkaria III Geothermal Power Project** in Kenya. The 110 MW project is the first privately funded and developed geothermal project in Africa and the first operated by a private independent power producer in Kenya. The project is characterized by initial exploration drilling carried out by the State electricity generating company KenGen, and subsequent exploration drilling and plant development by Ormat Technologies Inc. Ormat is the private entity that, through its wholly owned subsidiary Orpower 4, was awarded the 'build, own and operate (BOO)' tender for the geothermal facility. DEG and OPIC are among the major actors involved in the financing of the Olkaria III power plant. DEG arranged the provision of USD 105 million of debt capital, by leading a financing vehicle of 13 Development Finance Institutions to refinance the equity invested by Ormat for the development of the initial 48 MW. OPIC has contributed USD 310 million to refinance the earlier debt and finance two subsequent phases of the project.

Based on this concrete example, financiers and experts involved in the project will comment on the roles of the public sector and the private sector (e.g., national policies, financing structure, project development approach, risk allocation).

Chair: **Mafalda Duarte**, Program Manager, Climate Investment Funds

Introductory Comment on the Role of Geothermal in Kenya

- **Albert Mugo**, Managing Director & CEO Executive Director, KenGen
- **Paul Ngugi**, Chief Manager, Geothermal Development Corporation (GDC), Kenya

Overview Presentation on Olkaria III:

- **Valerio Micale**, Analyst, Climate Policy Initiative

Opening Comments:

- **Nachman Isaac**, VP for Project Finance, Ormat Technologies
- **Stephen Morel**, Investment Analyst, Overseas Private Investment Corporation (OPIC)

Roundtable Discussion

13:00 - 14:15 *Lunch*

14:15 - 15:45 Financing Geothermal Development: Perspectives from project developers and financiers

This roundtable discussion focuses on recent developments from the financing perspective, with insights from projects developers, technology providers, and both public and private investors. Panelists will share experiences and explore how existing geothermal projects can identify viable financing and policy options to mitigate explorations risks, achieve economies of scale, reduce costs, and close the competitiveness gaps.

Chair: **Barbara K. Buchner**, Senior Director, Climate Policy Initiative

Panelists:

- **Claudio Alatorre**, Senior Climate Change Specialist, Inter-American Development Bank
- **Thierno Bah**, Principal Energy Specialist, African Development Bank
- **Christian Grossmann**, Director, Climate Change, International Finance Cooperation
- **Adonai Herrera-Martinez**, Principal Manager, European Bank for Reconstruction and Development
- **Matthias Tönnis**, Underwriter, Munich Re
- **Jens Wirth**, Senior Project Manager, KfW Development Bank

Roundtable Discussion

15:45 - 16:15 *Coffee Break*

16:15 - 17:00 Stocktaking Session: What have we learned?

Moderation & wrap up: **Barbara Buchner**, Senior Director, Climate Policy Initiative

The concluding session invites a broad discussion amongst participants to highlight priorities for the going forward. Based on the previous sessions, the aim is to draw preliminary lessons and highlight key issues that require further attention to render geothermal financing effective.

17:00 - 17:15 Conclusions and Next Steps

- **Mafalda Duarte**, Program Manager, Climate Investment Funds
- **Barbara K. Buchner**, Senior Director, Climate Policy Initiative

Closing of the meeting

19:30 *Social Dinner – Restaurant Spaten an der Oper, in the “kleinen Opersaal”*