



British
Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

Gateway to the Earth

A horizontal banner at the top of the slide is composed of five distinct images. From left to right: a close-up of a rocky surface with some green moss; a vibrant, glowing red and orange lava flow; a deep, colorful mountain valley with autumn foliage; a close-up of a dark, textured rock face; and a panoramic view of a city skyline with numerous skyscrapers under a blue sky.

The IEA-GIA; What can it do for you

Jon Busby
British Geological Survey

What is the International Energy Agency Geothermal Implementing Agreement (IEA-GIA)?

The IEA-GIA comprises contracting parties (governments and sponsors) who engage in wide-ranging international cooperation on geothermal research and technology under the auspices of the IEA



Who are the members

Countries

Australia	France
Germany	Iceland
Italy	Japan
Mexico	New Zealand
Norway	Republic of Korea
Spain	Switzerland
United Kingdom	United States
European Commission	

Sponsors

Canadian Geothermal Energy Association (CanGea)
Ormat Technologies
Spanish Renewable Energy Association (APPA)

What does the IEA-GIA do?



IEA GEOTHERMAL

Mission statement

To promote the sustainable utilization of geothermal energy throughout the world by: improving existing and developing new technologies to render exploitable the vast and widespread global geothermal resources, facilitating the transfer of know-how, providing high quality information and widely communicating geothermal energy's strategic, economic and environmental benefits, and thereby contribute to the mitigation of climate change.

Objectives

- Actively promote effective cooperation on geothermal RD&D through collaborative work programmes, workshops and seminars
- Collect, improve, develop and disseminate geothermal energy RD&D policy information for IEA Member and non-Member countries
- Identify geothermal RD&D issues and opportunities, and improve/develop geothermal energy technologies and methods to deal with them
- Increase membership in the GIA
- Encourage collaboration with other international organizations and appropriate implementing agreements
- Broaden and increase the dissemination of information on geothermal energy and the GIA's activities and outputs to decision makers, financiers, researchers and the general public



Some history

- The IEA-GIA was formed in March 1997 and the UK was a founder member, but left in 2003. The UK re-joined in September 2011. Roy Baria has been involved continuously since 1997 either as country or sponsor representative

UK representation

- The contracting agent for the UK is the Department of Energy and Climate Change (DECC)
- The Executive Committee member is Oliver Sutton (DECC)
The Alternate Member is Jon Busby (BGS)
- The Executive Committee meets every six months

Research & Development

R&D is pursued in research topic areas through Annexes to the implementing agreement. These currently comprise

<u>Annex I</u>	Environmental Impacts of Geothermal Development
<u>Annex III</u> *	Enhanced Geothermal Systems (EGS)
<u>Annex VII</u>	Advanced Geothermal Drilling and Logging Technologies
<u>Annex VIII</u> *	Direct Use of Geothermal Energy
<u>Annex X</u> *	Data Collection and Information
<u>Annex XI</u>	Induced Seismicity
<u>Annex XII</u>	Deep Roots of Volcanic Geothermal Systems

*** UK signed up to contribute to these Annexes**

Annex meetings also take place every six months (at the same time as the ExCo meetings)

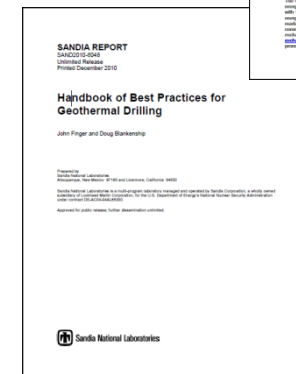
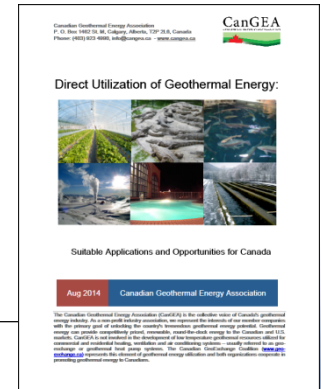
What does the IEA-GIA produce?

Every year (with UK contributions)

- A statistical analysis of installed and new geothermal and heat pump capacity (the Trend report).
- An annual report with a written account of the current state of geothermal development in each member country.

Some examples from the Annexes

- Direct Use Report: Geothermal direct use applications and opportunities in Canada
- Protocol for Induced Seismicity: General guide to address induced seismicity associated with EGS
- Handbook of Best Practices for Geothermal Drilling



Can we get more out of the IEA-GIA?

So far we have contributed to annual reports, but due to lack of resources we have had little active involvement in the Annexes.

With more resources, we could

- Play a more active role in the current activities?
- Launch a new task within an existing Annex?
- Propose and lead a new Annex?

Feedback from the two questions asked

(i) How the UK can better engage with the activities of the GIA?

UK based industry/academic body representation

(ii) What projects you would like to propose?

- Learning event for local authorities/stakeholders with a focus on
 - 1) Risk financing – UK and international finance sector
 - 2) Drilling risk workshop
- More heat demand mapping to identify direct use demand and proximity to geothermal resources
- Funding pot to enable local authority collaboration and knowledge exchange between UK and EU countries with developed geothermal resources

If you have any thoughts and would like to discuss further, please contact:

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**More information
IEA-GIA website**

<http://iea-gia.org/>