

GIA-IGA Workshop
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Session II. Geothermal Resource Potential:
categories and definitions

Chris Bromley
Chair IEA-GIA

Session II. Geothermal Resource

Potential: categories and definitions

■ A. Geothermal Resource Types and Categories

- Near-surface/deep, conventional /advanced
- Advanced: EGS, Super-critical/magma, Geopressured-deep sedimentary, Offshore, Co-produced hot-water/hydrocarbons
- High/low temperature: direct use / electricity / combined

B. Categories of Deployment Potential

- Theoretical (+ land access or extraction constraints)
- Technical (+ advances in technology)
- Economic (+ financial incentives, carbon credits, research benefits, economies of scale)

Recent Key References

***Bertani (2007)* World Geothermal Generation in 2007. Proceedings European Geothermal Congress.**

***Fridleifsson et al (2008)* The possible role and contribution of geothermal energy to the mitigation of climate change. IPCC Scoping Meeting Luebeck, Germany Jan. 2008.**

***Bertani (2009)* Long term projections of geothermal electric development in the world. GeoTHERM conference, Offenberg, Germany April 2009.**

***Sanyal (2009)* Future of geothermal energy. Presentation at CANGEA Vancouver workshop April 24th 2009**

Goal

- Reach agreement on definitions
- Agree on ways to address future deployment projections for each category of geothermal resource, for each region, and for key dates: 2020, 2030, 2050, and 2100.
- Resolve issues related to resource assessment, such as: capacity factors (GWh/MW), quantifying proven or inferred reserves, stored heat recovery factors, maximum depth, production sustainability, recharge recovery rates, optimum utilization strategies (cyclic/continuous), assumed resource/borehole/surface plant life-times for levelized costing, use of statistical probability distributions, etc...