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Geothermal Power Economics 101



Geothermal Resources, Technologies & Economics: A 1-day introduction for non-engineers.

3 August 2011, London, UK

Course objectives

This one-day training course is designed to introduce the basics of geothermal power – the resource and the methods of harnessing it – along with its competitive positioning within the power and energy markets. In addressing the latter, the course will also briefly cover the fundamental concepts governing the supply and demand of power/energy, including the basics of power grids and the factors which determine popular economic measures such as levelised electricity cost (all with particular reference to geothermal as compared with other power sources, both fossil and renewable).

Level & Style

The course is run in an informal and highly interactive manner which recognises that there are no simple answers to many of the questions surrounding the economics of geothermal - rather a series of interconnected issues, many of which remain open to debate and change. No background level of either financial or technical knowledge is assumed and all concepts are clearly explained, making the course suitable for a wide variety of attendees.

About your trainer

Dr John Massey is Green Power Academy's founder, Training Director, in-house renewables expert and lead trainer. Combining a strong academic science background with over fifteen years commercial experience of industry research, analysis and training across a variety of "new technology" industries (including conventional and renewable energy, telecoms and IT), Dr Massey is expert in demystifying the terminology and workings of new technologies, and presenting their commercial and business context.



He delivers training globally, to senior executives from a range of organisations from project development to finance and has also developed educational material for both live and distance learning courses. He holds a 1st Class Honours degree in Natural Sciences from the University of Cambridge, a PhD in Earth Sciences and a Diploma in Economics, Innovation and Sustainability.

"Excellent Tutor" ◆ "Comprehensive overview in a short period of time"

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Agenda Details

Geothermal Energy Resources & Applications

- Different types of geothermal resource: locations, depths, temperatures, resource characteristics and sustainability issues.
- The fundamentals of power/energy markets and the role of geothermal within them, including: measurements and scales, power demand/supply and pricing, power plant types and competing energy sources.
- The Geothermal market: differing direct-use (heat) and power applications, including a review of current market sizes, characteristics and case studies.

Capturing and Exploiting Geothermal Energy

- Comparing geothermal power plant designs, including flash steam, dry steam, binary and combined cycle: how they work, why they differ and where/when they are suitable.
- Emerging technologies, including EGS Enhanced geothermal ("hot dry rock"), mixed fluid and supercritical fluid cycles.
- Case Studies of the different types of commercial plants and pilot projects.
- Understanding limits on the sustainability of geothermal power generation.
- Geothermal CHP, plus smaller-scale and distributed heat and/or power applications.

GeoPower Economics

- The key cost and investment issues surrounding geothermal power plants, including exploration, land requirements, plant development and ongoing operations.
- What are the key risks and unknowns in GeoPower investments?
- Levelised costs of GeoPower: identifying the most significant input variables and illustrating how each influences the economics of the project.
- Geothermal power economics in comparison with both fossil fuel and renewable power sources: how each may fit into the future power mix.
- The role of external factors in GeoPower economics, including regulatory policies and incentives.

Book online, or call Daniel von Burg on +44 (0)20 7099 0600

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Course Price: GBP 749.00 + VAT @ 20%

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10 reasons to choose Green Power Academy for your training needs:

- 1. We are independent, with no preferred technologies or solutions to promote.
- 2. We research and develop training materials ourselves, specifically to fit our needs.
- 3. We regularly update and improve our materials to reflect fast-changing market reality.
- 4. We take a global market view, training all around the world to mixed international audiences.
- 5. We focus on the business of green power, explaining technologies within their economic context.
- 6. We draw on the audience reach and market information available through our Green Power Conferences parent company.
- 7. We don't lecture our audiences, we interact with them.
- 8. Our audiences are kept small, because that way they learn more and can ask more questions.
- 9. We can deliver both open (public) and in-house (private) courses.
- 10. We offer additional benefits that last beyond the course itself, including hard and soft-copy documentation, reading lists, access to recent conference content, future discounts and more.

What attendees say about us:

- "It was fascinating and inspiring"
- "Very solid introduction from a very knowledgeable instructor"
- "Rich in discussion"
- "Good balance between theoretical and interactive"
- "Comprehensive overview in a short period of time"
- "Just enough technical background to understand important differences between technologies"
- "The trainer was very good at getting people involved"
- "Simple presentation of complex issues"
- "Good visuals. Down-to-earth perspective"

Our in-house courses provide an excellent alternative for companies with a team of several people to train, or even as time-effective one-to-one sessions for CEOs or other top-level executives. Among key points to consider are:

- Potential savings in time and cost: we come to your premises, rather than you send several staff to an open course, with their associated travel and accommodation requirements.
- Although a standard course can be selected, you can also pick and mix content from a variety of our open courses, customising a course which covers just those topics you need and to a level that suits your particular staff.
- In a private environment, attendees may feel more comfortable asking specific, companyfocused questions or discussing particular issues, opportunities or challenges.
- We are happy to discuss any requirements you may have and will always seek to create the most appropriate, deliverable solution for you in terms of content, time and cost.