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US – Iceland Bilateral Workshop on Reservoir Stimulation and Exploration Technology

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Geothermal Energy in Iceland

Current areas of research

Challenges ahead

Priorities

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Strength

- High temperature geothermal sources with with water and permeable rock
- Favorable cooling conditions
- Scientific basis, skill, experience, know how
- Economically competitive
- Legal and regulatory framework
- Central management of research and data
- International cooperation

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Weakness

- Distance from larger electricity markets
- Impact on landscape and scenic values
- Small market with varying volume and discontinuities
- Project risk
- Sustainability
- Low energy/exergy efficiency

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Opportunities

- International market and cooperation
- Sustainability metrics and certificates
- New technologies for survey and exploration
- Identification of new sites
- Offshore sources
- Deep drilling and high temperatures
- Low enthalpy generation
- Multiple revenue streams
- Offshore sources
- Carbon fixation in basalt rock
- Investment in energy intensive industries
- Electrical cars
- Synthetic fuels

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Threats

- Long term financing
- Overexploitation
- Lack of political consensus
- Pollution, Hydrogen sulfide H_2S

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Ongoing projects

- The Framework Program
- Sustainable utilisation of geothermal reservoirs
- The deep drilling project - IDDP
- Large scale synthetic fuel production – feasibility study

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Priorities

- New government – new policy

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Thank you for your attention