

**Donnerstag, 20. Februar 2025, 13.40 Uhr**  
Ortenauhalle Kongress 1  
Tiefe Geothermie

**Thursday, 20 February 2025, 1.40 pm**  
Ortenauhalle Congress 1  
Deep geothermal energy



## **A new guideline for the geological and economic valuation of deep geothermal projects**

*Ein neuer Leitfaden für die geologische und wirtschaftliche Bewertung von Tiefengeothermieprojekten*

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DGMK[1] and BVEG[2] have jointly published a new guideline aimed at all institutions and individuals involved in the planning and development of deep geothermal energy. The presented approach provides a standardised method for the geological and economic assessment of hydrothermal projects. It aims at optimal project designs, prudent investment decisions and thus supports a strong ramp-up of deep geothermal energy utilisation.

*Base Concept:* The guideline offers a three-step approach for the pre-drill assessment of geothermal projects: quantification of the geological probability of success, probabilistic prediction of possible geological scenarios and a combination of both in an economic project assessment.

*The geological probability of success POS:* quantitatively defines the chance of finding a working geothermal system. The POS is dependent on neighbouring analogues, regional knowledge and the quality and quantity of the available geological data. The POS can be low, where most of the above is lacking and can be close to 100% within a proven geothermal fairway.

*Geological Scenarios:* Instead of a single best guess case, the approach uses geological parameter distributions to identify three scenarios which statistically represent best the possible geological variability at the selected location: low case (P90), **base** case (P50) and high case (P10).

*Probability-weighted economics:* The offered approach integrates POS and the results of three scenario economics in an expected monetary value (EMV) analysis as shown in Figure 1.

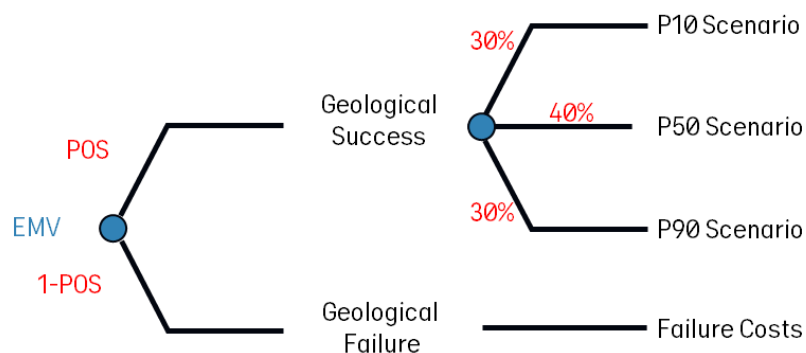


Figure 1: Expected monetary value (EMV) analysis for a probability-weighted economic assessment of geothermal projects

## References

Leitfaden "Geologische Risikobewertung tiefegeothermischer Projekte", „Graudruck“-Entwurf (2024), BVEG, Link: Graudruck: [Geologische Risikobewertung tiefegeothermischer Projekte - BVEG](#)

[1] DGMK Deutsche Wissenschaftliche Gesellschaft für nachhaltige Energieträger, Mobilität und Kohlenstoffkreisläufe e.V.

[2] BVEG Bundesverband Erdgas, Erdöl und Geoenergie e.V.