



Freitag, 3. März 2023, 12.15 Uhr  
Panorama Saal EDEKA-Arena Kongress 1 - Tiefe Geothermie

*Friday, 3 March 2023, 12.15 pm*  
*Panorama Hall EDEKA-Arena congress 1 - Deep Geothermal Energy*

## **Why do Big Oil and Gas go Geothermal?**



*Warum setzen große Öl- und Gasunternehmen auf Geothermie?*

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The oil and gas industry has been and still is very profitable. According to recent analyses, the industry has given \$ 2.8 billion a day in profit for the past 50 years.<sup>1</sup> Moreover, one of the biggest crude oil producer in the world, Saudi Aramco made a net income of \$ 48.4 billion in the second quarter of 2022 which was a 90% year-to-year increase in net income.<sup>2</sup> Despite those facts, more and more oil and gas companies decide to invest in the still largely untapped geothermal energy:

A good example is the company Innargi from Denmark with its hydrothermal geothermal heating project in Aarhus, Denmark, with 110 MW capacity under development without subsidies on a contracting base.

A more recent example is Eavor Technologies from Canada, which received \$ 400 million in funding from diverse sources, including funds from BP and Chevron for licensing the establishment of big geothermal plants in hard rock or sedimentary formations.<sup>3</sup>

This presentation identifies some of the advantages which geothermal energy gives to the oil and gas and possibly the coal industry as well as points out the challenges facing companies entering the new market. It argues that the transition from fossil to renewable geoenergetic energy production is a win-win situation for the whole drilling industry, for the state, for the citizens and for the climate and may be the last chance to save the 1,5 degree goal of Paris in 2015.

Investing in renewable sources of energy is advantageous from a financial and ecological point of view. New climate policies introduced by an increasing number of countries mean that oil and gas companies will have to pay more and more for their CO<sub>2</sub> emissions, driving their profits down. Therefore, in the long-term it is reasonable to diversify their portfolios, coming closer to the target of net carbon zero and thus can provide partly the strongly needed private capital to geothermal investments. And among the RES, geothermal energy seems to be the most suitable one for Big Oil and Gas, since they can use their capital, existing geological knowledge and experiences of exploration and drilling in a new promising geothermal industry.

There are also potential challenges facing Big Oil and Gas in the geothermal industry. Despite the similarities between the two industries, geothermal drilling poses a greater financial risk than crude oil or gas drilling, since the profitability in the regulated geothermal market for consumers

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<sup>1</sup> <https://internationalfinance.com/oil-gas-what-makes-industry-profitable/>, access: 26.10.2022,

<sup>2</sup> <https://www.aramco.com/en/news-media/news/2022/aramco-announces-half-year-2022-results#>, access: 26.10.2022,

<sup>3</sup> <https://www.thinkgeoenergy.com/big-oil-waking-up-to-geothermal-invests-in-closed-loop-firm-eavor-technologies/>, access: 26.10.2022.



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is normally lower than in oil and gas market, where the product is more sold to the industry and thus one mistake in drilling might make a geothermal project unprofitable.

Moreover, since geothermal boreholes are usually drilled in densely populated areas, where the offtakers are, big companies must be more careful, when it comes to public acceptance and seismic risks. Nevertheless, some of those risks can be mitigated by new technologies. As a result, the geothermal industry can be a very interesting investment target for the big oil and gas and possibly coal companies.