

Geothermal resources around the world: play types, socioeconomic factors, and some takeaways for Canada

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Canada is thought to have significant geothermal energy potential, but no geothermal power plants or district heating systems are operational at the present time. Consequently, there is a limited amount of geothermal expertise in Canada and little opportunity to gain exposure to the industry. Supported by a Hugh C. Morris Fellowship, I travelled to regions with active geothermal development – Alaska, Iceland, Nevada, Utah, California, Germany, and New Zealand – to gain first-hand exposure to ongoing research around the world. In this talk, I will share some of the major insights I gained and discuss some takeaways for Canada’s nascent geothermal industry. I will provide a summary of the various geothermal play-types in terms of their thermal properties, fluid dynamics, and geologic settings, and discuss where Canada belongs in these categorizations. Socio-economic factors also play a large role in the adoption of geothermal energy so I will briefly discuss the differences I observed in this regard, which may help to explain why Canada’s geothermal industry lags behind.

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