

Internship in Geothermal Energy

Summary

- **Length:** 6 months
- **Location:** 232 Avenue Napoléon Bonaparte, Rueil-Malmaison, 92500, France
- **Reference:** RP-2022-02
- **Starting Date:** March-December 2022
- **Internship paid and compliant with school conventions**

Title

Market analysis of Geothermal Energy market and review of related screening and analytical tools.

Intern profile

Final year student enrolled in a master's degree program with a geoscience or energy option. A taste for geosciences is preferred along with a good understanding and intuition to represent physical phenomena associated to geothermal energy.

Objectives

As a leading consulting firm in geoscience-related problems, supported by research and development performed at IFPEN Group, Beicip-Franlab is investing more and more resources in creating workflows and solutions to tackle the Energy Transition challenge.

As such, Beicip-Franlab offers an internship dedicated to the technico-economic evaluation of Geothermal Energy applied to power generation on the one hand, and to decarbonization of oil and gas fields operations on the other hand:

- Technical and economic market analysis of geothermal energy worldwide including, but not limited to:
 - o Identification of local incentives from governmental subsidies and tax system
 - o Global and local strategy of big players in power generation
- Identification of relevant analytical tools, and development of internal tool when relevant, dedicated to:
 - o Feasibility screening of geothermal potential of underground systems for various applications: power generation, heating and cooling systems, decarbonization of oil and gas fields operations
 - o Comparison of analytical computations and numerical simulation work for geothermal energetical systems
 - o Computation of carbon balance and consideration of carbon taxes and credits in economic evaluation of oil and gas development plans

Main tasks undertaken during the internship

- Literature review with regards to Geothermal Energy, including the use of geothermal energy to decarbonize oil and gas fields operations
- Market analysis, with a focus on high-energy geothermal systems for power generation
- Comparison (and possible development) of analytical tools related to the geothermal systems
- Participation to consulting studies related to Geothermal Energy, if any and if deemed relevant

The internship will be supervised by a Senior Reservoir Engineer and the Business Unit related Manager to Energy Transition activities.

Software used

PumaFlow (IFPEN simulator) with possibility to test other simulators
Excel

Contacts: erwan.perfetti@beicip.com / sebastien.charonnat@beicip.com

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