



Alternative finance for geothermal projects

Karsten Wenzlaff, CrowdfundingHub

Crowdthermal Conference, Berlin 20 Oktober 2022

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857830.



Alternative finance and community finance

Alternative finance

Financial products and services that are developed outside the traditional, regulated banking and capital market sectors, using innovative and predominately online channels, instruments, and systems.

Community funding (or finance)

A way to involve stakeholders, especially individuals, around a geothermal project financially in the project by using alternative finance methods.

Alternative finance is a tool to realize community funding

Why would a project developer want to use community finance?

- To create real involvement/commitment
- To activate the community
- So the community can share in the benefits
- To raise funding for the project
- To create more transparency for the involved community
- To Increase outreach to a larger community

What does this mean for a community?

- Be more directly involved in the decision making around the project;
- Be actively involved in the realization of the project and its sustainability goals;
- Be better informed about the project;
- Receive some of the financial or other benefits (cleaner or cheaper energy) of the project.

Suitable alternative finance methods

Depending on the specific characteristics of an individual project the following methods can be suitable:

- Crowdfunding; equity, loans, reward based
- Leasing (through non banks, governments)
- Direct lending
- Social and green bonds
- Revenue or output based funding
- Match funding, donations

All can be combined with risk mitigation methods for the right mix of return and risk for investors.

Examples of community funding used in the sustainable energy sector

Koekoekspolder
the Netherlands
Geothermal
energy for
greenhouses

Schonau
Germany
local grid
bought by
cooperative

United downs UK
Drilling of a
geothermal
project

Champs sur
Magne France
Drilling of a
geothermal heat
plant

Lessons learned

1. Focus on impact not finance
2. Build your community first
3. Start with a small involved community
4. Cooperatives work
5. Involve potential users in development of the project, they will remain committed
6. Equity and reward-based funding increases commitment
7. Check the relevant regulation.

See Crowdthermal deliverable 2.1

<https://www.crowdthermalproject.eu/wp-content/uploads/2021/02/CROWDITHERMAL-D2.1-new-version.pdf>

Which alternative finance method works best?

Suitability (risks and advantages) of an alternative finance method depend on the characteristics of a specific geothermal project.

General financial characteristics:

- Type of capital required. Four types of investment capital : (1) risk-absorbing, (2) risk-sharing, (3) debt and (4) reserves.
- The financial risk in a certain phase, the chance that the investment will be lost in this phase.
- The relative amount of capital. The six geothermal project phases used require different amounts of capital.

General guide lines

| Project Phase | Type of Capital | Financial Risk | Capital required | Suitable (Alternative) Finance Methods |
|-----------------------------------|---|-----------------|------------------|---|
| 1. Project Definition | Risk-absorbing, Risk-sharing | High | Low | Subsidies/grants/donations, crowdfunding (E//R*), direct lending combined with governmental guarantee, governmental lease |
| 2. Exploration | Risk-absorbing, Risk-sharing | High | Medium | Subsidies/grants/donations, crowdfunding (E//R*), direct lending combined with governmental guarantee, governmental lease |
| 3. Drilling A) First Well | Risk-absorbing, Risk-sharing | High | High | Subsidies/grants, crowdfunding (E//R*), governmental lease, direct lending combined with governmental guarantee, green bond, regular loan, regular bond, equity |
| B) Resource Development | Debt | High/ Medium | High | Crowdfunding ((E)/L/R*), governmental lease, direct lending, green bond, regular loan, regular bond, equity |
| 4. Construction | Debt | Low | High | Crowdfunding (L/R*), direct lending, leasing |
| 5. Operation | Debt | Low | Medium | Crowdfunding (L/R*), direct lending, leasing |
| 6. Decommissioning & Post-Closure | Reserves, Risk-absorbing (Government) | Medium | Low | Retained profits, governmental funds |



Thank you for your attention!

karsten@crowdfundinghub.eu

georgie@crowdfundinghub.eu

