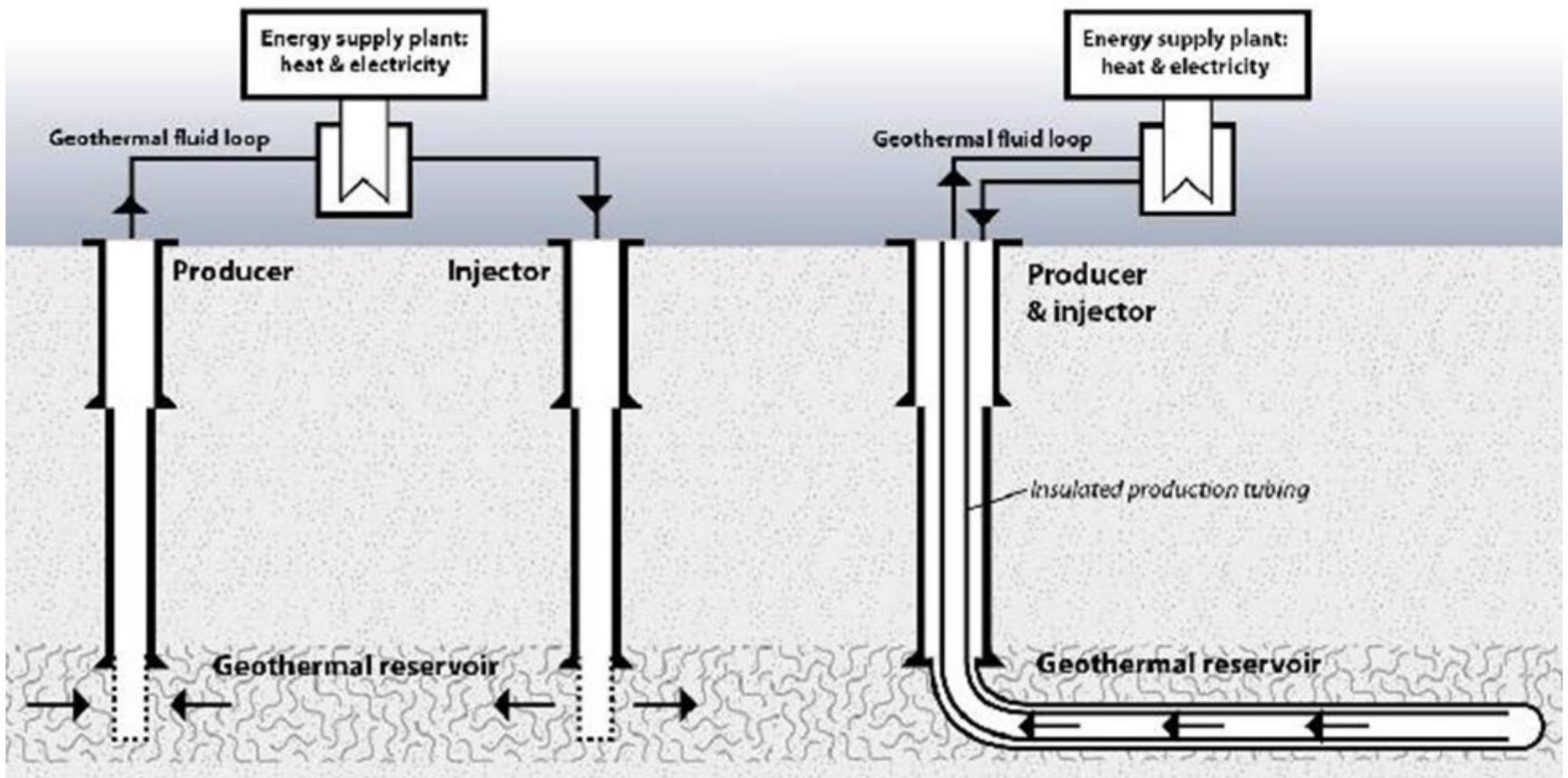


Deep-well geothermal energy – great potential as a clean renewable energy source



The conventional technology is mainly based on heat extraction from hot permeable aquifers. Such aquifers are hard to find, limit the applications and imply high cost and risks.

The idea in HOCLOOP is to use an innovative horizontal closed loop solution for the extraction of heat from deep or shallow formation rocks.

Benefits

- The solution is based on new drilling technology and solves the challenges of conventional construction of geothermal wells.
- The solution will improve the power production due to extended reach horizontal drilling with a large hole size.
- Further improvement is expected by use of alternative circulation fluids to water, such as CO₂ based fluids. It is expected that the solution can reduce the LCOE compared to the conventional solution and meet the SET plan targets.

Step towards a full scale test operation

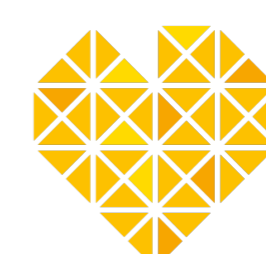
- HOCLOOP develops the tools to enable the proposed geothermal solution and demonstrates the technology in a full-scale test operation to TRL5.
- The work covers the development and validation of models for the heat flow and investigates the possibility for improving the electricity production by using alternative fluids to water.
- HOCLOOP also covers the investigation of potential EU pilot sites, environmental assessment, and the social acceptance.

How to foster social acceptance of deep-well geothermal solutions?

- HOCLOOP engages in action research where real problems are evaluated in a participatory, collaborative manner, to bring about knowledge and change. The analysis of social acceptance will be conducted on community acceptance and market acceptance level.
- The studies of social acceptance will utilize data from HOCLOOP pilot sites for in-depth case studies.



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