

Key Messages - Socio-economic Analysis of Well Reuse (TRANSCEO Deliverable 1.2.1. Industrial use)



A. Target Groups

The main industrial users of heat from repurposed abandoned wells are:

1. Food, Beverages & Tobacco
2. Pulp & Paper
3. Chemical & Petrochemical
4. Machinery & Transport
5. Non-Ferrous Metals



B. Energy Potential

Applicable well-reuse technologies include:

1. Closed-loop systems; DBHE/BTES → suitable for small-scale local, industrial facilities with moderate heat demand
2. Open-loop systems; ATES/HE/EGS → suitable for larger plants, high heat demand, and long-distance energy distribution



C. Economic Findings

1. Significantly lower investment than drilling new geothermal wells.
2. Typical reuse investments range for DBHE/BTES/ATES, 0.23-0.63 million €
3. Typical reuse investments range for HE/EGS, 0.59-1.72 million €
4. Drilling a new geothermal well typically costs EUR 2.25-8.34 million €



D. Socio-economic Benefits

1. Increased local energy independence
2. Reduced heating costs in agriculture
3. Lower CO₂ emissions and fossil fuel replacement
4. Reuse of existing infrastructure with limited environmental footprint
5. Job creation and increased competitiveness of industrial regions



E. Key Challenges


1. Well integrity and availability of historical data
2. Legal, ownership and permitting procedures
3. Fluid chemistry, scaling, and reinjection issues
4. Public perception and regulatory complexity (especially for EGS)
5. Distance between well and industrial facility (short vs. long-distance distribution)



F. Drivers for Implementation

1. Clear and targeted communication with industrial stakeholders
2. Public access to abandoned well data and technical feasibility studies
3. Transparent legal frameworks for well ownership transfer and reuse
4. Possibility to test wells before final investment decisions
5. EU and national financial incentives to reduce economic risk

 <https://www.linkedin.com/company/transgeoproject>

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