

Consultation Response Geothermie Nederland: EU Taxonomy – Climate and Environmental Delegated Acts

Subject

Ensuring Proportionate and Equitable Criteria for Geothermal Activities

Proposal

Geothermie Nederland welcomes the opportunity to provide feedback on the review of the EU Taxonomy Climate and Environmental Delegated Acts. **We urge the European Commission to remove the lifecycle emissions threshold the mandatory lifecycle assessment (LCA) requirement for geothermal activities** as set out in Commission Delegated Regulation (EU) 2021/2139, specifically for activities 4.18¹ and 4.22².

Context

Geothermal heating and cooling projects are currently recognized as sustainable investments under the Taxonomy. However, unlike other renewable energy sources, geothermal projects must comply with a lifecycle emissions threshold of less than 100 g CO₂e/kWh, verified by an independent third party.

Rationale

Uneven regulatory landscape: The Taxonomy creates an uneven regulatory landscape, subjecting geothermal energy to more complex and costly verification procedures despite its inherently low lifecycle emissions.

Far below threshold: Lifecycle analyses demonstrate that geothermal projects in the Netherlands consistently meet the 100 g CO₂e/kWh threshold. For example, Dutch geothermal heat plants typically achieve emissions well below this limit (e.g., Koekoekspolder: 9–25 g CO₂e/kWh³; Geological Survey of the Netherlands: 14–38 g CO₂e/kWh⁴). Internationally, representative plants also consistently fall well below this limit. UNECE reports average lifecycle emissions of around 38 g CO₂-eq/kWh for geothermal electricity generation.⁵ These findings confirm that geothermal projects systematically fulfil the Taxonomy's climate objectives without the need for mandatory project-by-project assessments.

Administrative and financial burdens: The requirement for an independently verified LCA imposes substantial administrative and financial burdens on project developers. Reliable lifecycle data can only be obtained once a plant is operational, whereas LCAs requested during the planning phase rely on uncertain estimates. Given the long lifespan of geothermal plants, the predictive value of early-stage LCAs is limited. This requirement not only extends permitting procedures and increases transaction costs, but also delays financial close and undermines project bankability, while offering minimal additional environmental benefit compared to other renewables exempt from such obligations.

Recommendation

Geothermie Nederland respectfully requests that the European Commission:

- **Remove the lifecycle emissions threshold and mandatory LCA requirement for geothermal activities from the Delegated Regulation**

This adjustment will promote a fair and effective regulatory environment, reduce unnecessary administrative burdens, and support the accelerated deployment of sustainable geothermal energy across Europe.

¹ Cogeneration of heat/cool and power from geothermal energy.

² Production of heat/cool from geothermal energy.

³ [Geothermal Power | Dispersed](#)

⁴ <https://www.tno.nl/publish/pages/2137/tno-2021-duurzaamheid.pdf>

⁵ https://unece.org/sites/default/files/2021-07/20210714_UNECE_workshop.pdf.

