

# **Sustainable Geothermal Power: The Life Cycle of a Geothermal Field**

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## **ABSTRACT**

Some proponents of geothermal energy have described this energy source as renewable, but many geothermal fields show declines in output as exploitation proceeds. On the other hand, those who would call geothermal a depletable energy source have to explain how some mature fields are able to produce with negligible declines and no apparent limit to the amount of recoverable energy.

The confusion arises out of the attempt to describe geothermal resources using inappropriate conceptual models of how resources behave. This paper presents a conceptual model that is better suited to describe the expected performance of a geothermal field over its entire life cycle. The paper also describes a set of terms that can be used to quantify geothermal resources and to guide plans for development.

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