

Campi Flegrei Deep Drilling Project and geothermal activities in Campania Region (Southern Italy)

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Recent studies of Campanian volcanic geothermal systems have shown a large geothermal potential (Carlino et al., 2012), similar to the Larderello-Radicondoli-Amiata region, in Tuscany (Central Italy), which has been the first site in the World exploited for electric production. Recently, the Campi Flegrei Deep Drilling Project (CFDDP), sponsored by ICDP and devoted to understand and mitigate the extreme volcanic risk in the area, has also raised new interest for geothermal exploration in several areas of Italy. Following the new Italian regulations which favor and incentivize innovative pilot power plants with zero emission, several geothermal projects have started in the Campania Region, characterized by strict cooperation among large to small industries, Universities and public Research Centers. INGV department of Naples (Osservatorio Vesuviano) has the technical/scientific leadership of such initiatives. We intend to show the present state of art of the researches, new insights and ongoing geothermal projects in Campanian region. Among the most important results of geothermal interest, determined by recent research projects, we also show here new computations of in-situ permeability at Campi Flegrei caldera, obtained during the drilling of CFDDP pilot hole.