

Interview 4 - Dr. Nicolas Picou, France

Profile

Name: Nicolas Picou

Age: 41

Education: Agronomist Engineer

Activity: Energy expert for Parc Naturel Régional du Massif des Bauges and other French institutions
Lives in France

Experience in this sector: 15 years

Geographical working area: Southern France

Thermogeology in medium and high mountain environment and in remote areas

Mr. Picou deals with energy issues in the Parc du Massif des Bauges, a French Regional Natural Park with a mountainous territory with summits reaching 2200 m.a.s.l. The park has 75.000 inhabitants, and is composed of 63 municipalities (communes). One of its missions is the sustainable development of its territory.

Give us some insights of the development of renewables and thermogeology in your territory

We have very precise data about solar installations, since they are directly nationally financed, while about thermogeology, which is financed only indirectly, we don't have an official census. Anyway we have a rather good knowledge of our territory so that we can estimate, sometimes also on the basis of a declaration made by the owner, that there are about 50 existing geothermal installations in the Parc des Bauges. Most of them are closed loops for permanent residential houses.

Is Parc des Bauges active in fostering renewables and thermogeology?

Since 2009 the Parc undertakes several initiatives in the domain of public transports, building construction, and energy, all aimed to develop renewables. Our long-term target is to reach a status of local renewable energy exceeding the consumptions within the year 2050. We are engaged in a "Positive Energy territory" with Annecy and Chambéry metropolises. Particularly, concerning thermal renewables we have a specific administrative tool ("dispositif d'aide pour la mise en place des installations géothermiques") with which we can partly finance the geothermal installations for the collective buildings. Within the three next years, our goal is to help 2 or 3 new collective installations of thermogeology plants.

Are there constraints inside the Parc, which could affect the development of thermogeology?

There is no local regulation in the Parc concerning the underground and the subsoil. We must consider also that it is a regional (not national) park. Anyway I think that the national regulation, valid in the whole French territory, is a satisfactory environmental precaution. For instance, even without specific local constraints we never had any problem in the Parc for groundwater, exploited from spring but also from wells (there is an alluvial groundwater in the external part of the territory). The only real constraint existing inside the Parc is a limitation for quarries activities.

What are the main obstacles faced by thermogeology in Parc des Bauges?

The territory is medium mountainous with just some summits exceeding 2.000 m.a.s.l., thus altitude (i.e. the risk of ice formation inside the boreholes) should not represent a problem for geothermal plants; so far no installation at high altitude, such as huts or resort for skiers, have been built here, but it could probably be possible. However, the most potential negative factor to be considered here is that a significant part of the territory is a karst environment where, as it is well known, several problems can arise in the drilling phase. As far as I know, in the Parc there have never been failures of installations due to drawbacks of that kind. In my opinion, it is just because local professionals precautionary avoid in advance the most potentially dangerous, or geologically unknown, areas. In this regard, we would need more detailed local maps of the geothermal potential to be used, instead of the not so precise national maps. This could represent a very useful tool to increase the number of geothermal installations and this is what we expect most from the GRETA project.