

# Analyzing Geothermal Power in Costa Rica

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## Abstracts

Geothermal energy is one of the biggest resources utilized in Costa Rica for its power generation. Costa Rica is a country rich with renewable energy. In fact, it gets about 99% of all its electrical energy from clean sources and it's aiming to be the first country to become carbon neutral. Although geothermal resources make up for only a small percentage of total electricity production in the country, it is of strategic economic importance because of the country's strong dependence on imported oil for its thermal power plants.

Due to the presence of such important geothermal resources, it is possible to operate fossil fired plants as reserve units. The total potential of geothermal power in Costa Rica is estimated to be as high as 900 MW. A large number of prospective geothermal fields are located in national parks in the north of the country. Although a law to allow the operation of geothermal installation in national parks is already established, it has not shown any successful results till date.

Geothermal power uses underground steam from volcanic regions. The energy is harnessed by extracting the heat from within the earth's crust, in the form of a fluid that is used to move the turbines. Two holes are drilled in each case: one is used to draw hot water, and the flow of water is then cooled and re-injected into the other. In Costa Rica's case, high temperature wells (150 to 400 degrees Celsius) are used, but there are also medium and low temperature wells. One of the goals of the ICE is to increase the percentage of geothermal energy that is channeled to the country's power grid.

Instituto Costarricense de Electricidad is the biggest player in the industry.

Aruvians Rsearch analyzes the Geothermal Power in Costa Rica in its latest research offering Analyzing Geothermal Power in Costa Rica.

The report is a comprehensive coverage of the geothermal industry in the region as well as in Costa Rica.

The report begins with an introduction to geothermal power. We analyze the utilization of geothermal energy, the grading of geothermal resources, technologies used in geothermal power generation, emerging technologies, amongst others.

We analyze the global geothermal power market before the analysis of the geothermal market in Costa Rica and in North & South America. We first analyze the global geothermal power industry through power generated from geothermal resources worldwide and global geothermal power installed capacity. We further look at the factors impacting the global geothermal power industry such as growth drivers and challenges facing the global geothermal industry.

Geothermal power in North & South America is analyzed through power generated from geothermal resources, installed capacity of geothermal power, regional segmentation of the industry and the major industry deals that have taken place in recent years.

For the geothermal industry in Costa Rica, we analyze the power generated from geothermal resources, geothermal power installed capacity, industry segmentation by renewable energy technologies, regulatory frameworks governing the market in Costa Rica, and major industry projects, both existing and upcoming.

Major global industry players are analyzed through a corporate profile, an analysis of their major business segments, the presence of these companies in the geothermal market, and a SWOT analysis.

Aruvians Rsearch's report Analyzing Geothermal Power in Costa Rica is a complete guide to this rapidly growing industry.

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