

A ANALYSIS ON POTENTIAL UTILIZATION OF GEOTHERMAL ENERGY IN SRI LANKA

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Renewable energy generation is becoming rapidly popular due to fossil fuel depletion and its adverse environmental impact. Governments focus their attention on renewable alternative energy sources to secure fossil fuels, to conserve the natural environment & to fulfill the need of electricity power. Geothermal energy is a renewable energy since the heat continuously produced inside the earth. The major objective of this study is to identify economic value & analyze the potential utilization of geothermal energy in Sri Lanka. The importance of this study was to identify the importance of the utilization of geothermal energy as a sustainable green energy. This study was based on literatures relevant to the objectives. Organizing relevant literatures, concentrating the data, generating themes, interpreting, alternative understandings and writing were the steps used by author in the analysis. The findings reveal that the utilization of geothermal energy can be divided into three categories; direct use, geothermal heat pump and indirect use or electrical power generation. Geothermal energy, finds its way to the earth's surface in 3 ways as volcanoes, hot springs, geysers. Geothermal energy in Sri Lanka only exists as a form of hot spring located in along the narrow strip running parallel to the Highland and Vijayan Complex. There are seven major hot springs in Sri Lanka and four of them are considered as suitable for electricity generation. Recent studies reveal that hot springs of Nelumwewa, Mahapellassa, Kanniya and Kapurella are situated at depths which are suitable for drilling and can be used to locate geothermal power plants. Geothermal energy has a great economic value since it can use for various purposes such as heating, cooking, recreation, drying or dehydration, timber seasoning, & tourism. By utilizing it properly, it will be a great help to the economic development & it is possible to utilized geothermal energy as a sustainable green energy source in Sri Lanka.

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