INTRODUCTION TO THE GEOTHERMAL ENERGY POTENTIAL IN TAIWAN

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ABSTRACT

Located on the Pacific Rim of Fire, Taiwan possesses rich geothermal resources due to volcanic activities and plate collision. Based on available data prior to 1980, Taiwan may have about 1 GWe of potential shallow geothermal energy, which is less than 3% of the national gross power generation. Recently, one of the National Science & Technology Program projects has been conducting research and re-evaluating the island-wide deep geothermal energy. Four hot potential sites have been recognized. They are: (1) Tatun Volcano Group of northern Taiwan; (2) I-Lan Plain of NE Taiwan; (3) Lu-Shan area of Central Taiwan; and (4) Hua-Tung area of eastern Taiwan (Figure 1). We found that the geothermal resource in Taiwan may be as high as 160 GWe, with 33.6 GWe of exploitable geothermal energy. The potential is great and should not be underestimated. Therefore, NSC of Taiwan has launched a national program of geothermal energy to conduct more detail geothermal energy survey on some proposed hot sites and to construct a pilot geothermal plant in few years.

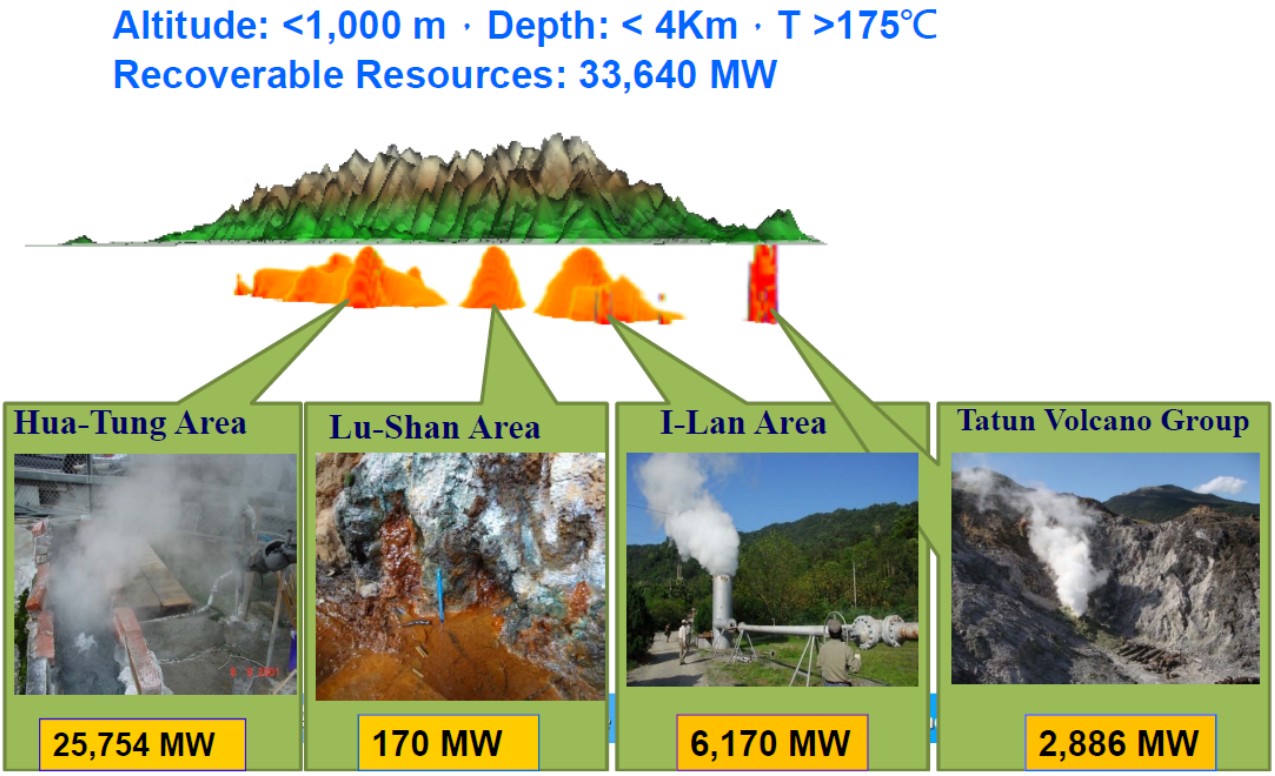

Figure 1. Estimated geothermal energy potentials in Taiwan