

NATIONWIDE ASSESSMENT OF GEOTHERMAL RESOURCES IN JAPAN - PROGRESS AND PROBLEMS

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ABSTRACT

Nationwide assessment of geothermal resources including geographical distribution of the resources is inevitable in policy-making for the developments of geothermal resources. Geological Survey of Japan, AIST has been creating various kinds of nationwide geothermal resource maps, and has been making studies of geothermal resource assessment. One of the examples of the recent progress is the publication of “Geothermal Potential Map in Japan” (Muraoka et al., 2009). Chemical composition data of about 7200 hot springs and temperature data of about 3070 boreholes were collected, and the amount and distribution of the geothermal resources were calculated using volume method. This map revealed the presence of more than 92% of the high-temperature geothermal resource in the restricted areas of national parks and other nature parks. In this study, we made further resource calculations including generation costs in subdivided categories of the special areas of nature parks. In spite of the limitation of the accuracy in volume method, these data are expected to contribute to promoting geothermal development. In addition, assessment methods for HDR/EGS-type resources and hot spring binary-cycle resources should be advanced.