DEVELOPMENT AND UTILIZATION OF OILFIELD GEOTHERMAL RESOURCES 
IN PAKISTAN

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Abstract
Geothermal energy is a clean, independent from meteorological conditions, environment friendly and economical source of energy. Geothermal energy has remarkable prospective for the utilization of space heating, cooling and power generation and can make a considerable contribution to global energy supplies. Current study discusses the growth status of geothermal energy, possible resources, exploitation and consumption modes, advantages and drawbacks of oil-field geothermal resource in Pakistan. Due to high heat requirement in oil and gas fields, geothermal energy development and utilization can be effectively replace fossil fuels, and has intensive prospects. The idea of utilization of abandoned oil and gas wells for low cost development of electricity generation by using binary power plant is also discussed. This study presents a pathway of power generation system for feasible electricity generation at two different basis temperatures (i.e.142°C, 157°C).Furthermore, this study suggest that a 12- inch borehole heat exchanger at depth of 3000 m, can extract satisfactory heat energy to run a 3 MW turbine. The key issues limiting oil-field geothermal energy development and consumption are also demonstrated in this study along with economic assessment, lack of planning, lack of principles in resource assessment, and absence of incentive policies. From the outcome of our study it can be concluded that purposed concept will not only overcome the energy demands of progressing countries like Pakistan, but also reduce the investment of petroleum industry.