

2nd World Congress on Petrochemistry and Chemical Engineering

October 27-29, 2014 Embassy Suites Las Vegas, USA

Geothermal energy progress in Mexico

Aleman-Nava G.S., Meneses-Jacome A., Bremer-Bremer M.H., Romero-Ogawa M.A., Parra-Saldivar R
Monterrey Institute of Technology and Higher Education, México

Geothermal power capacity (958 MW) makes Mexico to be ranked 4th in the use of this energy worldwide. A literature review on the status and progress of research in geothermal energy worldwide and in Mexico during the last 30 years (1982-2012) using Scopus database was performed. It is noted that 4.5% of the research publications are due to geothermal energy research and it did not show any reported document until 1985. Geothermal energy has been studied mainly by USA (26.7%), Germany (7.2%) and China (7.1%). Mexico occupies the 9th place with a contribution of 3.0% on this research. The institutions that have the highest number of research publications were Instituto de Investigaciones Electricas (40.10%), followed by Universidad Nacional Autonoma de Mexico (12.38%) and Comision Federal de Electricidad (7.43%). The state of Baja California has the largest share in this technology. Present installed geothermal-electric capacity in Mexico is 958 MW, although the effective or running capacity is 883 MW because two old 37.5-MW power units in Cerro Prieto were decommissioned in 2011. The Cerro Prieto plant accounts for close to the three quarters of total installed capacity in Mexico. Due to the high investment needed for geothermal exploration, the potential of this RES in Mexico has not been fully evaluated. Considering recent estimates of the geothermal electric potential in Mexico, it is possible to conclude that it can be defined as 2310 MW from high- and intermediate-temperature hydrothermal resources and at least 5250 MW from high- and intermediate-temperature.

Biography

Parra-Saldivar is the Director of Environmental Bioprocess Chair at Centro del Agua, Tecnológico de Monterrey, Mexico. He has over 15 years of experience on environmental bioprocess and conducts research on the nexus water energy and food. He has more than 40 papers in scientific journals; 276 research references; 9 patents. He is senior consultant for professionals in the Wastewater Treatment sector in GEF Caribbean Regional Fund projects for Wastewater Management UNEP-CAR/RCU and he train professionals in wastewater treatment programs from 17 Central American and Caribbean.

ibqrps@gmail.com