

Qualifications of GeothermEx

GeothermEx is a U.S. corporation, in business since 1973, specializing exclusively in providing consulting, operational and training services in the exploration, development, assessment and valuation of geothermal energy. We are the largest and longest-established such organization in the Western Hemisphere. The staff consists of specialists in geosciences (geology, geochemistry, geophysics, hydrology), engineering (drilling, well testing, reservoir, production, power plant, chemical), computer science and economic analysis. All technical staff members have advanced degrees and lengthy geothermal experience (average 20 years), with several members having more than 25 years in the geothermal industry.

GeothermEx's clients include:

- petroleum, mining and independent power companies requiring assistance in exploration, drilling and field development;
- electrical utilities requiring independent evaluation of geothermal projects;
- financial organizations requiring advice on loan, acquisition and grant programs;
- agencies of governments requiring advice on regulations, policy issues or resource inventory; and
- land owners, legal counselors, and engineering companies requiring specialized technical assistance.

GeothermEx has been associated with hundreds of projects in 53 countries. The company has been involved in the development of all the producing geothermal fields in the United States, with a total installed power capacity of nearly 3,000 megawatts. GeothermEx has carried out detailed geothermal exploration, drilling, field development and/or assessment projects for government agencies or private companies in more than 20 countries; for example: Argentina, Canada, China, Costa Rica, El Salvador, Guatemala, Honduras, Indonesia, Iran, Italy, Japan, Macedonia, Mexico, New Zealand, Nicaragua, Papua New Guinea, Peru, Philippines, Portugal (the Azores), and Taiwan. GeothermEx has also carried out geothermal reconnaissance and evaluation projects for both U.S. and foreign governments and international agencies (such as United Nations, World Bank and Interamerican Development Bank) in nearly 20 countries; for example, Bolivia, Bulgaria, Djibouti, Ethiopia, Fiji, Hungary, India, Jordan, Kenya, Madagascar, Mozambique, Panama, Samoa, St. Lucia, Thailand, Turkey, Uganda, Vietnam, and Yemen. GeothermEx has also conducted technology transfer or training projects in many countries, including Bolivia, Brazil, China, Costa Rica, Greece, Japan, Nicaragua, New Zealand and Philippines.

GeothermEx's experience includes the development of both conventional geothermal resources and Enhanced Geothermal Systems. GeothermEx's specialties include:

- Design and implementation of exploration programs.
- Design and management of drilling projects.
- Design, execution and interpretation of well logging and testing.
- Conceptual modeling based on integration of geologic, geochemical, geophysical, drilling and well-test data.
- Reservoir engineering and numerical simulation of reservoirs.
- Wellbore simulation and well design.
- Optimization of resource use.
- Design of power plants and gathering systems.
- Economic evaluation, risk appraisal and project financing support.
- Monitoring and maintenance of producing fields.
- Project feasibility studies.
- Assistance in contract negotiations, legal proceedings and arbitrations.
- Assistance to government agencies in formulating regulations and policies related to geothermal energy.

GeothermEx has conducted due diligence and verified resource adequacy for financial institutions in nearly all geothermal projects in the United States and abroad financed by bank loans or bonds. This has enabled the development of more than 7,000 MW of geothermal power, the total financed to date exceeding US \$11,000,000,000.

More information about GeothermEx is included on our website (www.geothermex.com).

GeothermEx's Clients

International Lenders and Donors

Agence Française de Développement
Asian Development Bank
Banco Centroamerica de Integración Económica
Commonwealth Capital
European Bank of Reconstruction and Development
InterAmerican Development Bank
International Finance Corporation
The OPEC Fund
United Nations Development Programme
United Nations Revolving Fund

United Nations Special Fund
United States Agency for International Development
World Bank

Electric Power Utilities & Independent Power Producers

AES Corporation
Arizona Public Service (APS)
Beowawe Geothermal Power Company
Bonneville Power Administration
Bountiful Gas & Electric Department
California Department of Water Resources
Calpine Corporation
Central California Power Agency
East Bay Municipal Utilities District
Electric Power Development Corporation (Japan)
Enron International
Enron Renewable Energy Company
Eugene Water & Electric Board
Florida Power & Light
Geothermal Energy Partners Ltd.
Idaho Power Company
Imperial Irrigation District
Los Angeles Department of Water & Power
Mercury Energy (New Zealand)
MidAmerican Energy Holdings Company
Modesto Irrigation District
Mosbacher Power Group
MSR Public Power Agency
Mt. Wheeler Power Company
Naknek Electric Association
Nevada Power Company
Northern California Power Agency
National Power Company of the Philippines
Ogden Power
Oxbow Power Corporation
Pacifcorp
Pacific Energy
Pacific Gas & Electric Company (PG&E)
Pacific Lighting Energy Systems & Pacific Energy Corporation
Pacific Power & Light Company

Portland General Electric Company
PPC Renewables (Greece)
Sacramento Municipal Utility District (SMUD)
Salt River Project (SRP)
San Diego Gas & Electric Company (SDG&E)
City of Santa Clara, Electrical Department
Sierra Pacific Power Company
Snohomish Public Utilities District
SOGEO, SA (Portugal)
Southern California Edison Company
Southern California Gas Company
Southern California Public Power Agency (SCPPA)
Tohoku Electric Power Company (Japan)
Tractebel (Belgium)
Trigen (France)
Tucson Electric Power (TEP)
The City of Unalaska
Utah Power & Light Company

Exploration Companies / Resource Developers

AGIP S.p.A. (Italy)
Agua Caliente LLC
Akita Geothermal Company (Japan)
Al Aquitaine Exploration, Ltd.
Amax Exploration, Inc.
American Overseas Petroleum, Ltd.
Aminoil USA, Inc.
Amoseas
Anadarko Production Company
AsiaPower Company (New Zealand)
Atlantic Richfield Company
Bali Energy Ltd.
Barnwell Industries, Inc.
Bear Creek Mining Company
BHP Minerals
Brady Power Partners
Brinco, Ltd. (Canada)
British Petroleum Company (U.K.)
Buttes Gas and Oil Company
Caithness Corporation

California Energy Company
CalEnergy International, Ltd.
Calpine Corporation
Caltex Petroleum Corporation
Canadian Crew (Canada)
Cayley Geothermal (Canada)
CHAR (Catalyst Hannon Armstrong Renewables)
Chevron Resources Company
Chevron Texaco
Constellation Holding
Cypress Mining
Design Power (New Zealand)
Dominion Energy Co.
Dowa Mining Company (Japan)
Earth Power Corporation
Elgin Energy Company
Enervest
Ensearch Development Corporation
Entex, Inc.
ESI Energy
Far West Capital
Freeport Mineral Co.
Fujita Research (Japan)
General Crude Oil Company
Geodynamics Ltd. (Australia)
Geotec (Guatemala)
Geotherm Group Ltd. (New Zealand)
Geothermal Energy Partners
Geothermal Kinetics, Inc.
Geothermal Power Corporation
Geothermal Resources International, Inc.
Grace Geothermal Company, Inc.
Green Rock Energy (Australia)
Grupo E.P.N. (Mexico)
Gulf Oil Company
Heber Geothermal Company
Himpurna California Energy (Indonesia)
Hot Springs Power Co.
Hunt Energy Corporation
Hunt Oil Company

Idemitsu Geothermal Co., Ltd. (Japan)
Industries Unidade, S.A. (Mexico)
Kennecott
Kerr McGee Corporation
KU Capital
Layman Energy Associates
Leucadia Corporation
LCRW
Lihir Management (Papua New Guinea)
Magma Power Company
Magma Energy Corporation
Marathon Oil Company
MCR Geothermal Corporation
Mighty River Power (New Zealand)
Mission Energy Company
Mission Power Engineering Company
Mitsui Mining & Smelting Company (Japan)
Monterey Energy Company
Natural Gas Partners
Nevada Geothermal Power, Inc.
Nevada Geothermal Specialists
Nexen (Canada)
Northern Natural Resources Company
Northgate Exploration, Ltd.
Occidental Petroleum Company
OESI Power Corporation
Oski Energy LLC
Ogden Pacific
Ormat International (Israel)
Ormat Nevada, Inc.
Oxbow Geothermal Corporation
Pacific Energy Corporation
Panax Geothermal Ltd. (Australia)
Patuha Power Ltd. (Indonesia)
Petro Lewis Corporation
Phillips Petroleum Company
P.T. Himpurna Ltd. (Indonesia)
P.T. Latoka Trimas Bina Energi (Indonesia)
P.T. Mandala Nusantara (Indonesia)
P.T. Prasarana Nusantara Jaya (Indonesia)

P.T. Yala Tekno Geothermal (Indonesia)
PowerBridge, Inc.
Raser Technologies
Recurrent Resources
San Emidio Resources
Santa Fe Minerals, Inc.
Scopenergy Ltd. (Australia)
Shell Oil Company
Shell International (Netherlands)
Sierra Geothermal Power Company
Standard Steam Trust
Suncor (Canada)
Sunoco Energy Development Company
Terra Caliente LLC
Terra-Gen Power LLC
Thermal Power Company
Thermogenics, Inc.
Torrens Energy (Australia)
TransCanada Pipeline Company
Transpacific Geothermal Corporation
Trend Exploration Company
US Energy Corporation
US Energy Systems
US Geothermal, Inc.
US West
Unocal Corporation
Utah International, Inc.
WalAm Geopower
Western Geopower

Direct Heat Consumers

Anderson Group
Basic Vegetable Products, Inc.
Carson Development Company
City of Boise, Idaho
City of Klamath Falls, Oregon
City of Susanville, California
City of Ukiah, California
Dow Chemical USA.
GeoProducts Corporation

Geothermal Development Associates
Geothermal Food Processors, Inc.
Hewlett Packard Corporation
Klamath Wood Products, Inc.
Las Vegas Hilton
Moapa Band of Paiutes
Modoc Lumber Company
Ore Ida Foods, Inc.
Sierra County, California

Research Organizations and Governmental Agencies in the United States

Alaska Energy Authority
California Energy Commission
Department of Business, Economic Development & Tourism (Hawaii)
Electric Power Research Institute
Idaho National Engineering Laboratory
Lawrence Livermore National Laboratory
Los Alamos Scientific Laboratories
Princeton Economic Research Institute
Stanford Research Institute
Stanford University Petroleum Research Institute
U.S. Agency for International Development
U.S. Bureau of Reclamation
U.S. Department of Energy
U.S. Department of Justice
U.S. Fish and Wildlife Service
University of Alaska
University of California, Berkeley
University of Utah Research Institute

Agencies of Other Governments

Bureau of Energy and Electric Power of Tibet Autonomous Region (China)
Comisión Ejecutiva Hidroeléctrica del Río Lempa (El Salvador)
Comisión Federal de Electricidad (Mexico)
Comisión Nacional de Energía (Nicaragua)
Commune of Kocani, Macedonian Republic (Yugoslavia)
Electricité de Djibouti (Djibouti)
Empresa de Electricidade dos Açores (Portugal)
Empresa Nacional de Electricidad (Bolivia)
Empresa Nacional de Energía Eléctrica (Honduras)
Empresa Nacional de Luz y Fuerza (Nicaragua)

Electric Power Development Corporation (Japan)
Geosciences Institute of The Azores (Portugal)
Instituto Costarricense de Electricidad (Costa Rica)
Instituto Nacional de Electrificación (Guatemala)
Instituto Nicaraguense de Energia (Nicaragua)
Instituto de Recursos Hidráulicos y Electrificación (Panama)
KenGen / Kenya Power & Lighting Co., Ltd. (Kenya)
Ministry of Energy (Iran)
Ministry of Energy (New Zealand)
Ministry of Energy (Uganda)
National Power Corporation (The Philippines)
National Science Council (Taiwan)
New Energy Development Organization (Japan)
Petrobras (Brazil)
Philippine National Oil Company (The Philippines)
Provincial Government of Mendoza (Argentina)
Provincial Government of San Juan (Argentina)
Public Petroleum Corporation (Greece)
Sociedade Geotérmica dos Açores (Portugal)
Yacimientos Petroliferos Fiscales Bolivianos (Bolivia)
Yemen Oil and Mineral Resources Corporation (Yemen Arab Republic)

Architectural and Engineering Firms

Bechtel Corporation
Ben Holt Co.
Black & Veatch
Burns & Roe
CH2M Hill, Inc.
Commonwealth Construction Company (Canada)
Cooper & Clark
Fluor Corporation
Gibbs and Hill, Inc.
Golder Associates
Hagler Bailly
International Engineering Company, Inc.
Luminate LLC
Ormat Turbines, Ltd. (Israel)
Mission Power Engineering Co.
Morrison Knudsen Environmental
Power Engineers

R. W. Beck & Associates
Rogers Engineering Co., Inc.
SAI Engineers, Inc.
Shaw Group
Sigma Energy Solutions
Stone & Webster Engineers
West Japan Engineering Consultants (Japan)

Organizations With Large Land Holdings

Andrus Trust
Burlington Northern
Campbell Estate
International Paper Company
The Irvine Company
Kimberly Clark Corporation
L W Land & Cattle Co., Inc.
Simmons Estate
Weyerhaeuser Company

Banks / Investment Groups / Leasing Companies / Insurance Companies

AIG Financial Products Corp.
AT&T Capital Corp.
Banca Serfin (Mexico)
Banco Industrial (Guatemala)
Bank of California
Bank of New England
Bankers Trust Company
Barclays Bank
Bear Stearns
Bonneville Pacific Investment Company
Capstar Partners Capital
Century Capital Associates
Chase Manhattan Bank
Chrysler Corporation
CIT Group
Citibank N.A.
Citicorp USA
Credit Suisse
Credit Suisse Leasing
Credit Suisse First Boston
Dean, Witter, Reynolds, Inc.

Denham Capital
Deutsche Bank
Fieldstone Capital
Fuji Bank
G. E. Capital Corporation
Glitnir Bank (Iceland)
Goldman Sachs
Hartford Steam Boiler Inspection and Insurance Co.
Heller Financial, Inc.
Kidder Peabody & Co.
Lehman Brothers
Merrill Lynch, Pierce, Fenner & Smith
Morgan Guaranty Trust Company
Nations Financial
Newcourt Capital
Prudential Capital Corporation
Prudential Power Funding Associates
Rhode Island Hospital Trust National Bank
Salomon Brothers
Standard Chartered Bank (Singapore)
Sumitomo Bank
Swiss Bank Corporation
Union Bank of California
US Renewables Group
Verizon
Wachovia
Wells Fargo Bank and Trust Company
West LB
Westpac Bank Corporation
Westinghouse Credit Corporation

Legal and Accounting Firms

Allison, MacKenzie, Harman, Soumbeniotis & Russel, Ltd.
Babin, Seeger & Hardcastle
Babin, Seeger, Crow & Manwell
Baker & McKenzie
Boies, Schiller & Flexner
Coopers & Lybrand
Demetriou, Del Guercio & Lovejoy
Ernst & Young

Holmes & Starr
Keesal, Young & Logan
Kronick, Moskowitz, Tiedemann & Girard
Latham & Watkins
Leventritt, Lewittes & Bender
Lionel, Sawyer & Collins
Morgenstein & Jubelirer
Morrison & Foerster
Murchison & Cumming
Paul, Hastings, Janofsky & Walker
Pillsbury, Madison & Sutro
PricewaterhouseCoopers
Rodi, Pollock, Pettker, Galbraith & Cahill
Wood, Spendlove & Quinn

Others

AECOM
Alcoa Canada
Alcoa Primary Metals
Ansaldo (Italy)
Atorka Group (Iceland)
Carter Holt Harvey (New Zealand)
Creston Financial Corporation
Criterion Planners and Engineers
Ecology & Environment
Ecoview
Elek, Moreno Valle y Asociados (Mexico)
ESA Environmental
Exergy
Fairchild Semiconductor
Fujita Corporation (Japan)
Geonomics, Inc.
Geothermal Energy Research & Development (Japan)
IBM Corporation
Jones & Stokes Associates
Lahontan, Inc.
National Geothermal Association
Northwest Biological Consulting
Rockwell International
SCA Hygiene Australasia

Science Applications, Inc.

Sequa Corporation

Southern Company

Teledyne Isotope

Westec Services