

Grantee	DOE Grant Amount	Project Location (City)	Project Location (State)	Description
1) Innovative Exploration and Drilling Projects				
El Paso County	\$5,000,000	El Paso County	TX	El Paso County will utilize new portable drilling technology and geological analysis techniques in Ft. Bliss, TX.
Flint Geothermal LLC	\$4,778,234	(5 sites)	CO	Flint Geothermal LLC will utilize a combination of geological mapping tools to identify resources in Colorado.
GeoGlobal Energy LLC	\$4,040,375	Gabbs	NV	GeoGlobal Energy LLC will combine geological with geochemical analysis to discover hidden resources in the Basin and Range region of Nevada.
Geothermal Technical Partners, Inc.	\$1,609,275	McGee Mountain	NV	Geothermal Technical Partners will measure subsurface temperatures and analyze fluids at McGee Mountain, NV using a low cost surveying technique.
Magma Energy Corp.	\$5,000,000	Soda Lake	NV	Magma Energy Corp. will use oil and gas technology to discover geothermal resources in Soda Lake, NV.
Magma Energy Corp.	\$5,000,000	McCoy	NV	Magma Energy Corp. will validate a combination of exploration technologies in McCoy, NV.
Nevada Geothermal Power Company	\$1,764,272	Crump Geyser	OR	Nevada Geothermal Power Co. will test a new low (environmental) impact drilling technique and create a method to model the movement of fluid in the reservoir.
Nevada Geothermal Power Company	\$1,597,847	Black Warrior	NV	Nevada Geothermal Power Co. will test a simple and cost-effective geological technique to locate hidden geothermal reservoirs.
Newberry Geothermal Holdings, LLC	\$5,000,000	Newberry	OR	Newberry Geothermal Holdings, LLC will use advanced geological techniques to locate geothermal reservoirs in Oregon's Cascade range.
ORMAT Nevada, Inc.	\$4,475,015	Wister	CA	ORMAT Nevada will utilize advanced geological techniques to find fractures in geothermal reservoirs in Wister, CA.

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ORMAT Nevada, Inc.	\$4,911,330	Maui	HI	ORMAT Nevada will use a combination of technologies to locate fault zones within geothermal reservoirs, with initial tests in Maui, HI.
ORMAT Nevada, Inc.	\$4,377,000	Glass Buttes	OR	ORMAT Nevada will use a combination of advanced geological techniques to identify faults in geothermal reservoirs, with initial tests in Glass Buttes, OR.
OSKI Energy LLC	\$4,214,086	Hot Pot	NV	OSKI Energy will work to create new and improved methods for imaging and understanding geothermal reservoirs, testing their methods in Hot Pot, NV.
Presco Energy, Inc.	\$2,277,081	Rye Patch	NV	Presco Energy, Inc. will improve technologies used to image geothermal reservoirs, and will test the technology in the Rye Patch Geothermal Area of Nevada.
Pueblo of Jemez	\$4,995,844	Jemez Pueblo	NM	The Pueblo of Jemez tribe will utilize different technologies to image and locate geothermal reservoirs at Jemez Pueblo, NM.
Pyramid Lake Paiute Tribe	\$4,845,534	Pyramid Lake	NV	The Pyramid Lake Paiute Tribe will use a combination of exploration technologies to assess the geothermal resource on their reservation in Nevada.
Ram Power, Inc.	\$5,000,000	Imperial Valley	CA	Ram Power, Inc. will use geological techniques to better understand the regional geology in the Imperial Valley, CA.
Sierra Geothermal Power, Inc.	\$5,000,000	Alum	NV	Sierra Geothermal Power will test a combination of geological techniques for effectively locating geothermal resources in and around Alum, NV.
Sierra Geothermal Power, Inc.	\$5,000,000	Silver Peak	NV	Sierra Geothermal Power will develop a combination of tools to help reduce costs and time in identifying geothermal reservoirs.
University of Alaska Fairbanks	\$4,616,879	Pilgrim Hot Springs	AK	The University of Alaska, Fairbanks will test a combination of exploration techniques to assess the geothermal resource at Pilgrim Hot Springs, AK.
University of Kansas Center for Research Inc.	\$2,400,509	Fish Lake Valley	NV	The University of Kansas Center for Research will use advanced geological techniques to model a potential geothermal reservoir in Fish Lake Valley, NV.

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US Geothermal, Inc.	\$3,772,560	San Emidio	NV	US Geothermal, Inc. plans to develop an exploration strategy to identify faults within geothermal reservoirs.
Utah State University	\$4,640,110	Snake River Plain	ID	Utah State University will test new combinations of geologic techniques to characterize geothermal reservoirs in the Snake River Plain, ID.
Vulcan Power Company	\$3,825,973	Colado	NV	Vulcan Power Company plans to use multiple exploration technologies to locate hidden resources in the area surrounding Colorado, NV

2) Coproduced, Geopressed, and Low Temperature Projects

Universal GeoPower LLC	\$1,499,288	Liberty County	TX	Universal GeoPower LLC will utilize a modular low temperature binary unit to produce power from oil and gas wells in Liberty County, Texas.
University of North Dakota	\$1,733,864	Williston Basin, (Bowman County)	ND	The University of North Dakota will utilize a low temperature binary unit to produce power from oil and gas wells in Bowman County, North Dakota.
Louisiana Tank, Inc.	\$5,000,000	Cameron Parish	LA	Louisiana Tank, Inc. will demonstrate the feasibility of a geopressed power plant in Cameron Parish, Louisiana.
Beowawe Power, LLC	\$2,000,000	Beowawe	NV	Beowawe Power, LLC will install a new low temperature binary unit that will be attached to an existing plant to provide 10% additional power.
City of Klamath Falls	\$816,100	Klamath Falls	OR	This funding will facilitate construction of a low temperature power plant combined with a district heating system to help power the city of Klamath Falls, OR.
Johnson Controls, Inc.	\$1,047,714	Oregon Institute of Technology Campus (Klamath Falls)	OR	Johnson Controls, Inc. will install a low temperature unit on the Oregon Institute of Technology Campus.
New Mexico Institute of Mining and Technology	\$1,999,990	NMIMT Campus, (Socorro)	NM	New Mexico Institute of Mining and Technology will construct a district heating system at the NM Tech Campus.
Oasys Water	\$910,997	The Geysers, Cobb	CA	Oasys Water plans to develop a new method for utilizing low temperature geothermal fluids to produce power.

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Surprise Valley Electrification Corporation	\$2,000,000	Paisley	OR	Surprise Valley Electrification Corporation will build a binary power plant utilizing low temperature fluids and enable the construction of a local aquaculture facility.
Terra-Gen Sierra Holdings, LLC	\$2,000,000	Dixie Valley	NV	Funding for Terra-Gen Sierra Holdings will facilitate the installation of a low temperature binary unit that will add to power generation from the existing 60 MW Dixie Valley power plant.
University of North Dakota	\$1,733,864	Williston Basin, (Bowman County)	ND	The University of North Dakota will construct a low temperature power plant in Bowman County, ND.

3) Enhanced Geothermal Systems (EGS) Demonstration Projects

AltaRock Energy, Inc.	\$24,999,430	Newberry Volcanic Monument, Bend,	OR	AltaRock Energy, Inc. will demonstrate EGS technology to generate power from the Newberry Known Geothermal Resource Area.
Naknek Electric Association	\$12,376,568	Naknek	AK	Naknek Electric Association will generate up to 25 MW of geothermal power from the Naknek EGS reservoir to supply the electricity needs of the three local communities.
TGP Development Company, LLC	\$14,006,000	New York Canyon	NV	TGP plans to demonstrate the commercial application of EGS techniques at the New York Canyon site in a way that minimizes cost and maximizes opportunities for repeat applications in Nevada.

4) Enhanced Geothermal Systems (EGS) Components Research & Development/Analysis

United Technologies Research Center	\$1,199,928	East Hartford	CT	Optimization of hybrid-water/air-cooled condenser to reduce water consumption and to improve cooling of binary power plants in an enhanced turbine geothermal binary system.
ADI Analytics, LLC	\$1,335,727	Houston	TX	ADI Analytics will perform research and analysis of the financial environment affecting EGS development.
Arthur Mansure	\$50,000	Albuquerque	NM	Art Mansure is a life cycle expert who will determine and document sustainability of geothermal development.
Bob Lawrence & Associates,	\$1,499,783	Alexandria	VA	This analysis will measure the costs and economic, social & environmental benefits of nationwide geothermal heat pump deployment, employment

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Inc.				potential, energy & environmental impacts.
Gas Equipment Engineering Corporation	\$1,243,624	Milford	CT	This project will create an across-the-board analysis of the costs of building and operating a 50 MW EGS powerplant. This model will be used to predict future development costs, as well as guide research and financial incentive development.
Massachusetts Institute of Technology	\$549,148	Cambridge	MA	This project will develop a decision analysis tool to help reduce EGS costs.
University of Utah	\$603,230	Salt Lake City	UT	The project will perform economic impact analysis for EGS.
West Virginia University Research Corporation	\$1,269,595	Morgantown	WV	This project will analyze the use of low temperature geothermal resources.
Baker Hughes Oilfield Operations Incorporated	\$5,000,000	The Woodlands	TX	The awardee will develop a directional drilling system that can withstand temperatures up to 300 degrees C including the drill bit, downhole motor with directional control capabilities, and a designed-for-purpose drilling fluid.
Impact Technologies, LLC	\$2,399,999	Tulsa	OK	The applicant proposes to develop and test a faster, cheaper drilling technology.
Novatek, Inc	\$4,500,000	Casper (RMOTC)	WY	Development of drilling bits for faster drilling in hard rock environments.
Potter Drilling, Inc.	\$5,000,000	Raymond	CA	This project will develop Hydrothermal Spallation Drilling System for faster, cheaper well drilling.
University of Southern California	\$1,483,189	Los Angeles Berkeley Middletown	CA CA CA	This project will test an approach to better identify fractures in a geothermal field to improve fluid flow.
AltaRock Energy, Inc.	\$1,450,120	Dixie Valley	NV	AltaRock Energy will develop, test, and calibrate an exploration methodology that integrates geology, geophysics, and geochemistry into a conceptual model to identify potential drilling targets.
Board of Regents, NSHE, on behalf of UNR	\$935,505	Reno	NV	This project will develop comprehensive structural analysis of the Great Basin and adjacent regions.
The University of Texas at	\$1,397,170	Austin	TX	Combination of multicomponent seismic technology with rock physics modeling that will be used to better understand and image deep formations.

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Austin				
University of Utah	\$559,485	Salt Lake City	UT	The project will develop a fracture network and fluid flow imaging tool for mapping subsurface Enhanced Geothermal Systems.
Trabits Group, LLC	\$2,154,238	Wasilla Fairbanks Arbuckle Reno Fairbanks	AK AK CA NV AK	This project will develop an improved cement for high temperature geothermal wells.
Composite Technology Development, Inc.	\$557,150	Lafayette	CO	The applicant will develop and demonstrate a new class of circuit boards that can withstand high temperatures and operate reliably in EGS wells.
DRAKA CABLETEQ USA, INC.	\$3,222,398	North Dighton	MA	The awardee will develop a high-tech cable that can measure temperature and pressure in high temperature and pressure environments.
General Electric Company	\$2,085,090	Niskayuna	NY	The applicant will develop an EGS-specific cable capable of accurate, real-time temperature, pressure, strain, and vibration sensing in high temperature EGS environments.
Schlumberger Technology Corp	\$4,731,449	Rosharon	TX	This project will develop drilling tools that can perform at temperatures up to 300 degrees C
The Regents of the University of California	\$1,824,281	Berkeley	CA	The applicant will develop novel pressure and temperature sensors for permanent well sensing at high temperatures.
Honeywell International Inc.	\$3,960,000	Redmond Plymouth Mountain View	WA MN CA	This project will develop new technologies to control directional drilling that withstand high temperatures and pressures in hostile well drilling environments.
GE Global Research	\$2,399,990	Niskayuna	NY	The project will develop high temperature components of a pumping system used in geothermal wells.
Array Information Technology	\$1,381,611	Emeryville	CA	Array Information Technology will develop a technical system to monitor seismic activity and its causes near EGS sites, and will use this information to better understand and predict the occurrence or levels of induced seismicity.
Texas Engineering Experiment Station	\$1,061,245	College Station	TX	The applicant will develop a geological and geomechanical framework for the analysis of micro seismic activity in EGS field demonstrations.

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William Lettis & Associates, Inc.	\$708,000	Blacksburg Denver	VA CO	The applicant will use seismic data to image the physical properties of geothermal reservoirs.
Board of Regents, NSHE, on behalf of UNR	\$1,278,070	Reno	NV	The awardee will be developing an in depth model of EGS systems that will allow researchers to more accurately predict how new fluid technologies would work in a reservoir.
Colorado School of Mines	\$1,191,893	Golden Berkeley	CO CA	This project will create a large scale simulation model that can tie together all the various physical properties of an EGS system. The resulting model will be more robust and accurate than those of a smaller scale.
Pennsylvania State University	\$1,113,024	University Park	PA	This project will develop an integrated reservoir model to assist in EGS reservoir research.
Simbol Mining Corp.	\$3,000,000	Pleasanton Albuquerque Sacramento Calipatria	CA NM CA CA	This project will develop technologies that extract valuable metals and compounds from geothermal fluids.
Colorado School of Mines	\$860,597	Golden	CO	This project will create and validate an EGS simulation model that can tie together the fluid flow properties of an EGS system. The resulting model will be more robust and accurate than current, smaller scale models.
Science Applications International Corporation	\$1,025,953	San Diego	CA	This project will design a model to analyze reservoir volumes.
Regents of the University of Minnesota	\$1,550,018	Minneapolis	MN	The applicant will develop a model to evaluate the potential of CO2 as a heat transfer fluid.
Symyx Technologies, Inc.	\$3,000,000	Sunnyvale	CA	This project will develop a model of the chemical interactions between geothermal rocks, supercritical carbon dioxide and water.
University of Utah	\$944,707	Salt Lake City	UT	The project will develop a chemical model to predict the interactions between supercritical carbon dioxide and rock in EGS reservoirs.
CSI Technologies, LLC	\$766,598	Salt Lake City	UT	CSI Technologies will develop materials that can temporarily seal targeted fracture areas of an EGS system, and then decompose to reopen the area, to assist in reservoir design and development.

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California State University, Long Beach Foundation	\$380,156	Long Beach	CA	This project will use radar technology to track "tracer" fluids as they move through fractured rock in an EGS system. They will track the pathways and heat exchange properties of the reservoir and create a model to accurately predict these properties in future projects.
Power Environmental and Energy Research Institute	\$1,840,000	Nathrop	CO	The applicant will develop a model to compare tracer fluids used to help visualize EGS reservoirs.
University of Utah	\$768,059	Salt Lake City Los Alamos	UT NM	This project will develop new "tracers" that can help map EGS reservoirs.
GE Global Research	\$3,000,000	Niskayuna	NY	GE Global Research will develop new fluids for binary system power plants that will increase the plants' efficiency and maximize their output.
United Technologies Research Center	\$1,823,969	East Hartford	CT	This project will identify and test more efficient heat transfer fluids for binary power plants.
Composite Technology Development, Inc.	\$954,546	Lafayette	CO	The awardee will shape memory polymer composites and foams to be used to isolate particular sections of a drilled well, as part of an EGS stimulation technique.
GE Global Research	\$3,439,991	Niskayuna	NY	The awardee will develop a high-tech sensor that can measure temperatures and pressures during the drilling process.

5) Geothermal Data Development, Collection and Maintenance

Arizona State Geological Survey	\$17,799,947	** see below for all 40 states	** see below for all 40 states	The Arizona State Geologic Survey in collaboration with 40 other State Geologic surveys will participate in populating the National Geothermal Data System (NGDS) with relevant state specific geothermal data.
Boise State University	\$1,550,000	Boise	ID	Digitize, organize and upload USGS, DOE demonstration project, and CoreWall data into the NGDS.
Southern Methodist University	\$5,250,000	Dallas	TX	Southern Methodist University will help populate the NGDS with geothermal related data from various sources.

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6) Ground Source Heat Pump Demonstration Projects				
ClimateMaster	\$233,819	Oklahoma City	OK	ClimateMaster will build models to allow potential GHP system customers to analyze cost and performance of GHP systems.
Colorado School of Mines	\$245,797	Golden	CO	Colorado School of Mines will create a "Geothermal Academy," a data and analysis clearinghouse for GHP projects.
Energy Center of Wisconsin	\$190,395	Madison	WI	The Energy Center of Wisconsin will gather and analyze data and develop enhanced design tools for hybrid GHP systems.
Environ International Corporation	\$109,999	Princeton	NJ	Environ International Corporation will develop a least-cost design tool aimed at improving GHP efficiency in varying climate zones and building types.
Florida International University Board of Trustees	\$250,000	Miami	FL	Florida International University will gather and analyze data to improve GHP loop design and efficiency in systems intended for use in hot and humid regions of the country.
Oklahoma State University	\$250,000	Stillwater	OK	Oklahoma State University will design optimized sizing tools for surface water and standing column well (SCW) systems.
The University of Texas at Austin	\$250,000	Austin	TX	The University of Texas at Austin will design supplementary heat rejection systems that will enable GHPs to work more effectively in hot, arid climates.
University of Hartford	\$146,973	West Hartford	CT	The University of Hartford will develop an integrated system simulation and design model for hybrid GHP systems designed to effectively balance ground thermal loads.
Wright State University	\$232,596	Dayton	OH	Wright State University will create a modeling decision tool that provides more detailed loop sizing, performance, and cost information than currently available.

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Ball State University	\$5,000,000	Muncie	IN	Ball State University will replace coal-fired boiler systems across the campus with GHP systems.
Blaine County School District #61	\$4,000,000	Hailey Carey Bellevue	ID ID ID	Blaine County will retrofit a number of schools with a combination of direct-use geothermal heating and GHP systems to provide cooling.
Cedarville School District 44	\$1,628,515	Cedarville	AR	Cedarville School District will retrofit heat and cooling systems at a number of schools in order to reduce utility costs and provide regional economic growth.
City of Eagan	\$1,338,000	Eagan	MN	The City of Eagan will use produced cold water for ice rink maintenance and hot water for facilities' heating and hot water needs.
City of Raleigh	\$1,298,625	Wake	NC	The City of Raleigh will retrofit a Waste Processing Center with a GHP hot water loop as well as heating/cooling system.
Colorado Department of Personnel and Administration	\$4,600,000	Denver	CO	The Colorado Department of Personnel and Administration and its partners will collect and analyze data to assess the performance of GHP systems.
Colorado Northwestern Community College	\$430,000	Rangely	CO	Colorado Northwestern Community College will retrofit a number of campus buildings to provide heating and cooling capacity as well as a strong educational opportunity.
Denver Museum of Nature & Science	\$2,611,832	Denver	CO	The Denver Museum of Nature and Science is demonstrating the use of municipal waste water as the heat exchange medium for a heating/cooling system.
Department of Military Affairs	\$1,200,000	Bloomington	IL	The Illinois Department of Military Affairs will install a GHP heating/cooling system at the National Guard Headquarters Building and will use water contained in abandoned subsurface mines as the heat exchange medium.
Flathead Electric Cooperative	\$155,270	Kalispell	MT	Flathead Electric Cooperative will convert their HVAC system to a GHP heating/cooling system.

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Forrest County	\$1,571,027	Hattiesburg	MS	Forrest County will install a GHP heating/cooling system at a prison facility.
Furman University	\$2,457,741	Greenville	SC	Furman University will incorporate GHP heating/cooling systems into a campus housing facility.
Indiana Institute of Technology	\$1,339,591	Fort Wayne	IN	The Indiana Institute of Technology will be installing a GHP system that will use CO2 as the cooling medium.
Indie Energy Systems Company, LLC	\$2,459,971	Countryside	IL	Indie Energy Systems will retrofit the Local 150 International Union of Operating Engineers' campus with a GHP heating/cooling system.
Johnson Controls, Inc.	\$311,324	Glendale	WI	Johnson Controls will install GHP heating/cooling systems in a LEED Platinum Certified building.
Metropolitan Development and Housing Agency	\$1,800,000	Nashville	TN	The Metropolitan Development and Housing Agency will retrofit a low-income multi-family housing facility.
Montana Tech of The University of Montana	\$1,072,744	Butte	MT	Montana Tech will demonstrate low-cost heating of a modern building with a GHP using water from a nearby mine as a heat exchange medium.
Newport School District	\$1,627,796	Newport	AR	Newport School District will retrofit their high school with a GHP heating/cooling system.
Oakland University	\$2,752,163	Rochester	MI	Oakland University will incorporate a GHP system with a roof-mounted solar thermal hot water array to provide summer dehumidification and cooling as well as winter space heating.
RiverHeath LLC	\$978,168	Appleton	WI	Riverheath LLC will demonstrate river-based heat exchange plates that use flowing water to provide high heat transfer.

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Tennessee Department of Education	\$3,000,000	Lawrenceburg Cookeville Chattanooga Manchester	TN	The Tennessee Department of Education will install GHP systems in schools in order to validate the current hybrid GHP system design model developed by ASHRAE. Oak Ridge National lab will analyze performance and savings.
The Curators of the University of Missouri	\$2,476,400	Holliday Bunceton	MO	The University of Missouri will retrofit two poultry farms with solar-assisted GHP systems, making use of an innovative concentrated solar collector and financing approach.
University at Albany	\$2,786,250	Albany	NY	The University at Albany will install a large GHP system serving 200,000 sq. ft. of dorm and apartment housing, and will leverage additional incentives from the State of NY.
Geothermal Heat Pump Consortium	\$1,077,500	Washington	DC	The Geothermal Heat Pump Consortium will create a national certification standard for GHP installation technicians.
1001 South 15th Street Associates LLC	\$1,682,920	Philadelphia	PA	1001 South 15th Street Associates will retrofit a historic train depot with a hybrid GHP system to reduce heating and cooling costs and improve cycle efficiency.
District Energy Corporation	\$5,000,000	Lincoln	NE	District Energy Corporation will incorporate a GHP heating/cooling system at an adult detention facility.
Oak Ridge City Center, LLC	\$5,000,000	Oak Ridge	TN	The Oak Ridge City Center is a 660,000 sq. ft. shopping mall which will be fitted with an innovative hybrid GHP heating/cooling system.
SKYCHASER ENERGY, INC.	\$325,124	Twin Lakes	WI	Skychaser Energy, Inc. will demonstrate the viability of an innovative GHP business and financing model.