***The projects below represent Selected Projects for award negotiations, for an award up to the Selection Statement amount.**

Selected Project	City	State	Project Description	Proposed DOE Share (up to amount listed)
Southern Research Institute	Birmingham	AL	Southern Research Institute will be working to develop an innovative Geothermal Thermoelectric Generation (G-TEG) system specially designed to both generate electricity and extract high-value lithium from low-temperature geothermal brines. The proposed system will provide both large quantities of previously inaccessible baseload renewable electricity to the grid, with a lithium recovery system that could decrease costs 20%-50% versus the current state of the art.	$499,945
SRI International	Menlo Park	CA	SRI International will prepare new advanced ion-exchange resins chemically designed to selectively bind lithium and manganese ions. The objective of this project is to develop a new generation of highly selective, low-cost, ion-exchange resins that will separate metals from geothermal fluids more efficiently than current processes.	$449,883
Lawrence Berkeley National Laboratory	Berkeley	CA	Lawrence Berkeley National Laboratory will innovate a new technology that will use microorganisms to selectively bind valuable metals in geothermal brines. If the technical goals of this proposal are achieved, this technology could extract critical materials from operating fields and help remediate contaminated sites.	$500,000
University of California - Davis	Davis	CA	University of California seeks to provide high quality data characterizing the contents of brines from a range of U.S. geothermal fields. The research focuses on sampling sites across a range of geothermal systems to identify the factors influencing concentration of valuable rare earth elements (REE) in geothermal fluids. This could allow industry to better target geothermal systems for pilot plant development and stimulate investment by reducing risk and quantifying reward.	$500,000

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Pacific Northwest National Laboratory	Richland	WA	Pacific Northwest National Laboratory is developing a new class of nanofluid called metal-organic heat carriers to improve efficiency of low-temperature geothermal power systems. This project will demonstrate a new nanofluid application that is a simple and cost-effective method for extracting rare earth metals from geothermal brines.	$495,000
Pacific Northwest National Laboratory	Richland	WA	Pacific Northwest National Laboratory (PNNL) will evaluate and demonstrate novel materials to collect rare earths, precious metals and other critical materials from geothermal brines. PNNL will perform an engineering economic feasibility analysis to analyze the viability of this technology as value-added extraction processes for geothermal energy systems.	$375,000
Carnegie Mellon University	Pittsburgh	PA	Carnegie Mellon University will develop and test low-cost reusable resins for highly selective separation and recovery of rare earth elements from low-temperature geothermal resources. The project aims to design and synthesize chemical binding agents for separation and recovery of critical materials from complex fluids. The lab testing will set the stage for potential follow-on, larger-scale testing with the highest performing resins.	$495,000
Simbol Materials	Pleasanton	CA	Simbol Materials will develop a database of rare earth element concentrations in U.S. geothermal waters and conduct research on extraction methods. A preliminary economic model of rare earth element production will also be completed.	$250,000
Tusaar Corporation	Lafayette	CO	Tusaar Corp. will use existing surveys and studies to identify suitable geothermal brines that contain viable concentrations of target metals and minerals, and will develop similar synthetic fluids in the laboratory. Tusaar's proprietary recovery agent will be tested to evaluate its metal sequestration capability. A detailed economic analysis will also be conducted to justify the use of this technology to support geothermal power generation.	$499,800